



PREVENTING VIOLENCE AND INJURIES IN RHODE ISLAND

2011–2016 Rhode Island Strategic Plan



PREVENTING VIOLENCE AND INJURIES A PLAN FOR THE STATE 2011–2016

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Authors

Jennifer Andrade Koziol, MPH, Unintentional Injury Prevention Coordinator, Rhode Island Department of Health

Jeffrey Hill, MS, Suicide Prevention Coordinator, Rhode Island Department of Health

Deborah N. Pearlman, PhD, Evaluator/Epidemiologist, Rhode Island Department of Health; Associate Professor of Public Health, Brown University

Beatriz Perez, MPH, Manager, Violence and Injury Prevention, Rhode Island Department of Health



July 31, 2013

To Our Partners in Injury Prevention:

I am pleased to present the Rhode Island Violence and Injury Prevention Plan, developed by our community partners and the Violence and Injury Prevention Program. Population-based data and findings from the injury research community were used to craft the recommendations in this plan.

Injury is a public health epidemic. It is the leading cause of death and disability for Rhode Islanders ages 1 to 44. It is a problem that no one agency or group can solve alone. We encourage you to use this plan to direct your efforts to prevent injuries, and to collaborate with us in that process. Working together, we can reduce injuries and deaths by educating adults and children about prevention, promoting proven policies, providing safety devices to families in need, and searching for effective solutions to problems.

Thank you for partnering with HEALTH to make Rhode Island a safer and healthier state. Please contact Beatriz Perez at 401-222-7627 if you have any questions or comments regarding the Violence and Injury Prevention Program.

Sincerely,

A handwritten signature in blue ink that reads "Michael Fine".

Michael Fine, MD
Director of Health, Rhode Island Department of Health

HELPFUL DEFINITIONS

Injury: Damage or harm to the body resulting in impairment or destruction of health.

Prevention: A systematic process that promotes safe and healthy environments and behaviors, reducing the likelihood or frequency of an injury occurring.

Injuries are grouped into two categories:

Unintentional injury: An injury that is judged to have occurred without anyone intending that harm be done.

Intentional injury: An injury that is judged to have been purposely inflicted either by the self or another.



INTRODUCTION

Injury is the leading cause of death for people ages 1–44 in Rhode Island and in the United States. Each year, more than 600 injury-related deaths occur in Rhode Island and over 180,000 injury-related deaths occur nationwide.¹ Unintentional motor vehicle crashes, unintentional falls, suicides, and unintentional drug overdoses are some of the tragedies that affect everyone, regardless of gender, race, or economic status. In addition to the toll these tragedies take on both the lives and health of people and their families, there is also a significant economic and societal burden. Nationally, over \$400 billion is spent on medical expenses and lost productivity due to injuries every year.² While many people accept injury-related accidents as “part of life,” most injuries are predictable and preventable.³

The Rhode Island Department of Health (HEALTH) has made violence and injury prevention a statewide priority over the past decade. In 2002, HEALTH received a grant from the US Centers for Disease Control and Prevention (CDC) to assess and plan for injury prevention in the state. This investment supported the establishment of the Rhode Island Violence and Injury Prevention Program (VIPP). The VIPP sits within the Division of Community, Family Health, and Equity at HEALTH. The VIPP uses a health equity approach based on the *Health Equity Pyramid*. This approach was adapted from a framework developed by CDC Director Thomas Frieden, MD, MPH that emphasizes the importance of interventions with the most potential for improving population health.⁴ The VIPP focuses resources on interventions that inform policy and enhance social support systems, systems of care, and environmental change. (See Appendix I for the Equity Pyramid.)

The charge of the VIPP is to identify injury prevention priorities and to support the implementation and evaluation of statewide interventions based on population-based recommendations. In 2005, the program published the first comprehensive Rhode Island Injury Prevention Plan (available at www.health.ri.gov/publications/plans/2005InjuryPrevention.pdf). The 2011-2016 plan is an update of the previous plan and reflects the current scope of violence and injury prevention in the state.



Rhode Island violence and injury prevention activities are guided by the Injury Community Planning Group (ICPG) Steering Committee. (See Appendix II for the ICPG structure.) Michael Mello, MD, MPH, the Director of the Injury Prevention Center at Rhode Island Hospital, chairs this professional-level steering committee. The ICPG members include the chairs of four subcommittees that address violence and injury priority areas selected for program planning and implementation. The subcommittees are the:

- Drug Overdose Prevention and Rescue Subcommittee
- Falls Injury Prevention Subcommittee
- Motor Vehicle Injury Prevention Subcommittee, officially named the Rhode Island Traffic Safety Coalition
- Suicide Prevention Subcommittee

Subcommittees convene regularly and represent diverse stakeholders from government agencies, community-based organizations, private entities, and individuals affected by injury.

The ICPG and its subcommittees used a data-driven, collaborative process to develop the plan content. A consensus decision-making approach was used to determine measurable goals and objectives, identify priority populations, select evidence-based interventions, and develop recommendations. The following criteria informed the selection of the violence and injury priority areas:

- High rates of emergency department visits, hospital discharges, and/or deaths
- Capacity for cooperation and coordination among ongoing injury prevention efforts
- Availability of cost-effective interventions
- Supportive political climate
- Potential for involvement and accountability of multidisciplinary partners
- Capability for measurable progress over a five-year period (2011-2016)

The planning process resulted in a comprehensive strategy for the prevention of death and injury by unintentional drug overdoses, unintentional falls, unintentional motor vehicle crashes, and suicides/attempts in Rhode Island.

The goals, objectives, and recommendations listed in this plan provide a framework to guide injury prevention programming for the VIPP and for partner organizations working to reduce the burden of injury in Rhode Island. For example, local businesses, community organizations, advocacy groups, planners, decision makers, and researchers can consult the plan to make decisions regarding collaboration, policy, program planning, and research. The plan also provides a clear vision for future direction and growth of the VIPP and ICPG partners.

Nationally, over \$400 billion is spent on medical expenses and lost productivity due to injuries every year. While many people accept injury-related accidents as “part of life,” most injuries are predictable and preventable.

THE BURDEN OF INJURY IN RHODE ISLAND

Reliable estimates of the burden of injuries are essential for statewide program planning. Rhode Island’s population-based injury surveillance system is built around three core data sets: 1) Rhode Island Vital Records Death Certificate Data, 2) Rhode Island Hospital Discharge Data, and 3) Rhode Island Emergency Department Data. These three databases were used to select the violence and injury priority areas and the priority populations discussed in this plan. All rates presented in this plan are average rates per 100,000 Rhode Islanders, based on the 2010 US Census. (See Appendix III for a description of the data sets used in this report.)

From 2008-2010, unintentional injuries were the fourth-leading cause of death for Rhode Islanders of all ages and the leading cause of death for Rhode Islanders ages 1 through 44 (Figure 1). On average, 600 Rhode Islanders died each year due to intentional and unintentional injury-related causes.¹ Only heart disease, cancer (malignant neoplasms), and chronic lower respiratory diseases killed more Rhode Islanders than injury-related causes (Figure 1).

FIGURE 1

10 Leading Causes of Death by Age Group, Rhode Island, 2008-2010

Rank	Age Groups										All Ages
	<1	1-4	5-9	10-14	15-24	25-34	35-44	45-54	55-64	65+	
1	Short Gestation 47	Unintentional Injury ---	Unintentional Injury ---	Unintentional Injury ---	Unintentional Injury 106	Unintentional Injury 126	Unintentional Injury 179	Malignant Neoplasms 557	Malignant Neoplasms 1,150	Heart Disease 6,369	Heart Disease 7,390
2	Congenital Anomalies 32	Congenital Anomalies ---	Homicide ---	Malignant Neoplasms ---	Suicide 33	Suicide 47	Malignant Neoplasms 113	Heart Disease 303	Heart Disease 599	Malignant Neoplasms 4,840	Malignant Neoplasms 6,713
3	Placenta Cord Membranes 25	Heart Disease ---	Congenital Anomalies ---	Suicide ---	Homicide 29	Malignant Neoplasms 30	Heart Disease 88	Unintentional Injury 253	Unintentional Injury 134	Chronic Low Respiratory Disease 1,353	Chronic Low Respiratory Disease 1,496
4	SIDS 23	Malignant Neoplasms ---	Aortic Aneurism ---	Benign Neoplasm ---	Malignant Neoplasms 15	Homicide 25	Suicide 87	Liver Disease 101	Chronic Low Respiratory Disease 105	Cerebrovascular 1,156	Unintentional Injury 1,383
5	Bacterial Sepsis 11	Chronic Low Respiratory Disease ---	Benign Neoplasm ---	Influenza + Pneumonia ---	Heart Disease 10	Heart Disease 11	Cerebrovascular 21	Suicide 100	Liver Disease 105	Alzheimer's Disease 1,001	Cerebrovascular 1,322
6	Maternal Pregnancy Comp ---	Homicide ---	Chronic Low Respiratory Disease ---	Chronic Low Respiratory Disease ---	Congenital Anomalies ---	Congenital Anomalies ---	HIV 18	Cerebrovascular 53	Diabetes Mellitus 90	Influenza + Pneumonia 612	Alzheimer's Disease 1,018
7	Neonatal Hemorrhage ---		Liver Disease ---	Septicemia ---	Cerebrovascular ---	Diabetes Mellitus ---	Liver Disease 14	HIV 40	Cerebrovascular 85	Unintentional Injury 565	Influenza + Pneumonia 676
8	Septicemia ---		Malignant Neoplasms ---		Influenza + Pneumonia ---	Complicated Pregnancy ---	Influenza + Pneumonia 11	Diabetes Mellitus 37	Suicide 57	Nephritis 498	Diabetes Mellitus 619
9	Circulatory System Disease ---				Four Tied ---	Five Tied ---	Homicide 10	Chronic Low Respiratory Disease 28	Septicemia 50	Diabetes Mellitus 480	Nephritis 552
10	Other Maternal Conditions ---				Four Tied ---	Five Tied ---	Diabetes Mellitus ---	Septicemia 25	Viral Hepatitis 37	Septicemia 357	Septicemia 441

The “...” symbol means that counts of less than 10 have been suppressed.

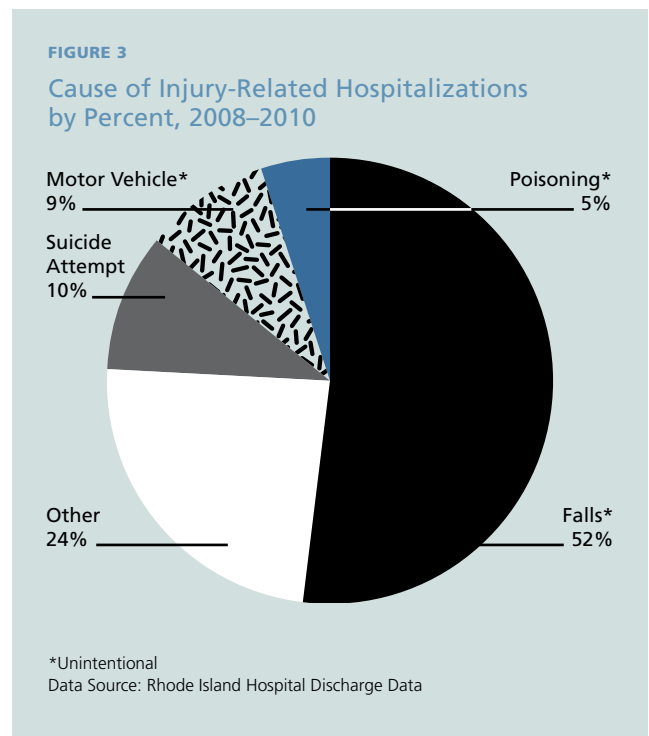
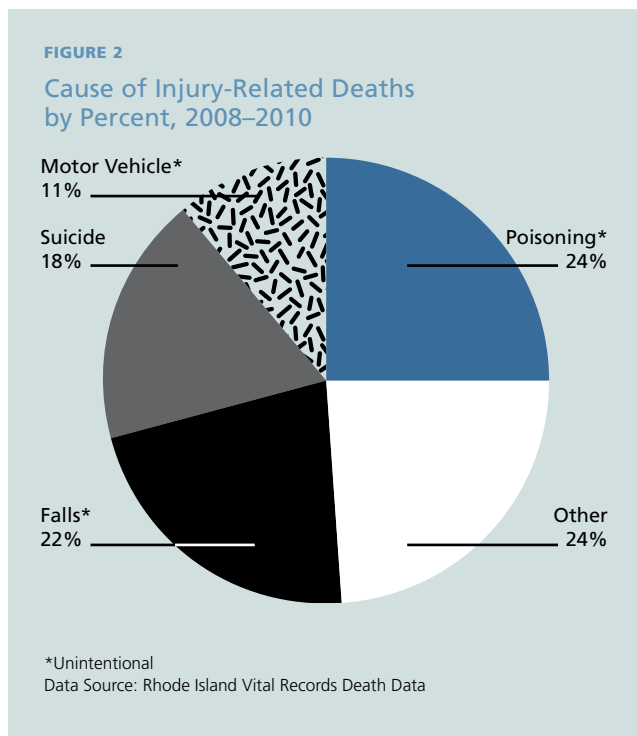
Shaded areas represent an injury- or violence-related cause of death.

Data Source: Centers for Disease Control and Prevention, WISQARS™ (Web-based Injury Statistics Query and Reporting System)

The financial cost of injury-related fatalities in Rhode Island has had a significant economic impact. Each year, deaths due to unintentional poisoning,* unintentional falls, unintentional motor vehicle crashes, and suicides cost over seven million dollars in the state.⁵ This estimate is based on medical costs and does not include costs of loss of productivity, the emotional burden resulting from the loss of a loved one, or the personal and economic impact of severe disability.

In addition to injury-related deaths, non-fatal injuries also contribute a significant economic burden. Non-fatal injuries are consistently among the leading causes of hospital admissions in Rhode Island.⁶ These injuries can result in a range of outcomes, including temporary pain and inconvenience, chronic pain, or permanent disability. Each year, about 6,000 Rhode Islanders are hospitalized due to injury-related causes.⁶ In Rhode Island, the average annual cost of hospitalizations due to unintentional drug overdoses, unintentional falls, unintentional motor vehicle crashes, and suicides attempts† is estimated at \$110 million.⁵

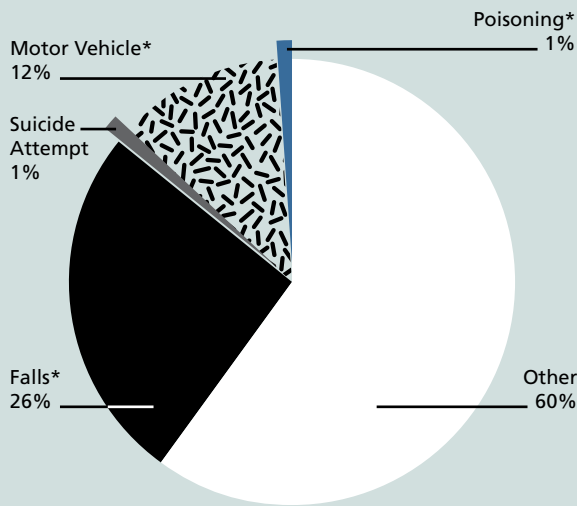
The Violence and Injury Prevention Program (VIPP), in collaboration with the Injury Community Planning Group (ICPG), identified the four violence and injury priority areas based on 2006-2010 state-level injury data. From 2008-2010, the following four types of injury accounted for the greatest proportion of injury-related deaths in the state: unintentional poisoning (24%), unintentional falls (22%), suicide (18%), and unintentional motor vehicle crashes (11%) (Figure 2). Hospital discharge data signify cases of injury that are severe enough to require the patient’s admittance to the hospital. From 2008-2010, unintentional falls accounted for 52 percent of injury-related hospitalizations, with suicide attempts and motor vehicle injuries at 10 percent and 9 percent, respectively (Figure 3).



*The VIPP uses a death record, hospital discharge, or emergency department visit due to unintentional poisoning as a marker for an unintentional drug overdose.

† The VIPP uses a hospital discharge or emergency department visit due to self harm as a marker for a suicide attempt.

FIGURE 4
Cause of Injury-Related Emergency Department Visits, 2008–2010



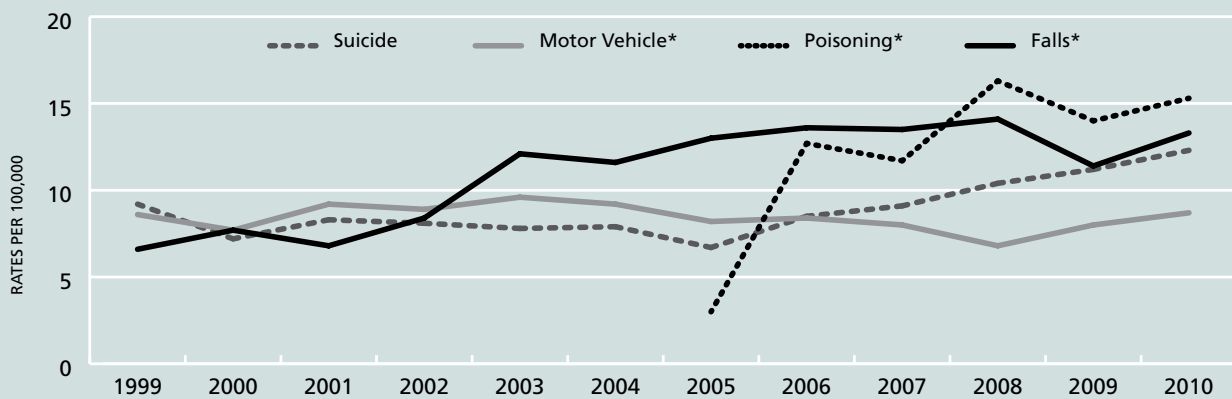
*Unintentional
Data Source: Rhode Island Emergency Department Data

Figure 4 displays 2008-2010 injury-related emergency department visits where the patient was treated and discharged.[‡] These cases of injury are typically much less severe than injuries that result in a hospital admission. Although unintentional falls and unintentional motor vehicle crashes made up 26 percent and 12 percent of injury-related emergency department visits respectively, the remaining 60 percent of injuries fell into the ‘other’ injury category. The most common injury-related emergency department visits in the ‘other’ category resulted from being struck by an object, overexertion, a cut or pierce, a fire or burn, environmental factors, and unspecified causes.

Over the past decade, the burden of death from unintentional falls, unintentional motor vehicle crashes, and suicides in Rhode Island has remained relatively stable (Figure 5). The annual death rate has ranged from 7 to 14 deaths per 100,000 population for unintentional falls, 7 to 10 deaths per 100,000 population for unintentional motor vehicle crashes, and 7 to 12 deaths per 100,000 population for suicides.

In 2008, unintentional poisoning became the leading cause of injury-related death in Rhode Island. Unintentional poisoning is a new public health epidemic that has grown at an unprecedented rate. Rhode Island jumped from less than 1 unintentional poisoning death per 100,000 population in 1999 to over 15 unintentional poisoning deaths per 100,000 population in 2010 (Figure 5). The majority of unintentional poisoning deaths involve prescription opioid painkillers. Rhode Island data reflect a national phenomenon of an increase in unintentional drug overdose death rates driven largely by prescription opioid painkillers.⁷

FIGURE 5
Trends in Injury-Related Death Rates, Rhode Island, 1999–2010



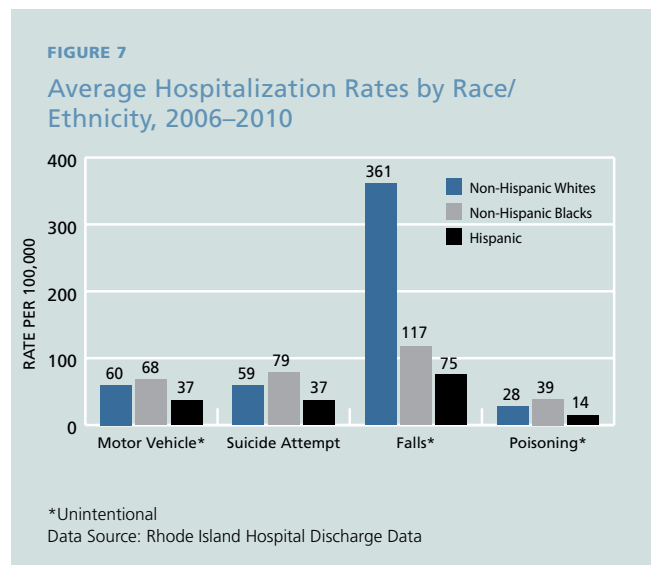
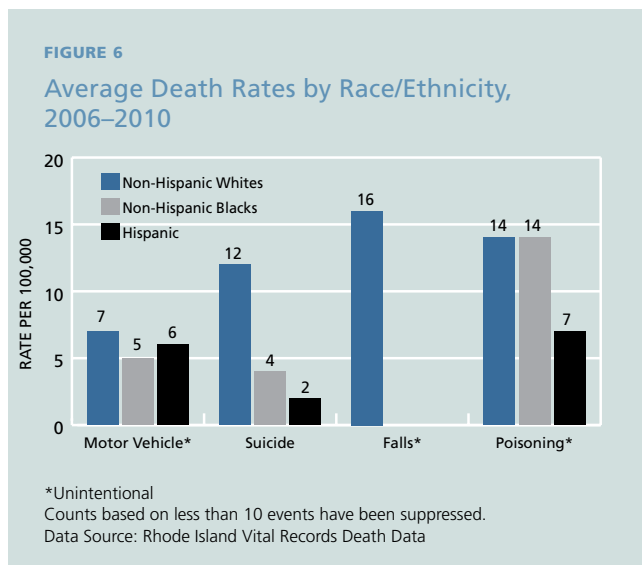
*Unintentional
Data Source: Centers for Disease Control and Prevention. WISQARS™ (Web-based Injury Statistics Query and Reporting System).

[‡] Emergency department visits do not include cases where the patient was seen in the emergency room and then admitted to the hospital. Emergency department data and hospital discharge data are mutually exclusive databases.

Race/Ethnicity:

Figures 6 and 7 show the burden of injuries by race/ethnicity in Rhode Island. Non-Hispanic whites, non-Hispanic blacks, and Hispanics had equal rates of motor vehicle-related fatalities during 2006-2010 (Figure 6). The rate for death due to unintentional poisoning was similar for non-Hispanic whites and non-Hispanic blacks, while the Hispanic rate was lower (Figure 6). Non-Hispanic whites were more likely to die from a suicide or an unintentional fall than both non-Hispanic blacks and Hispanics (Figure 6).

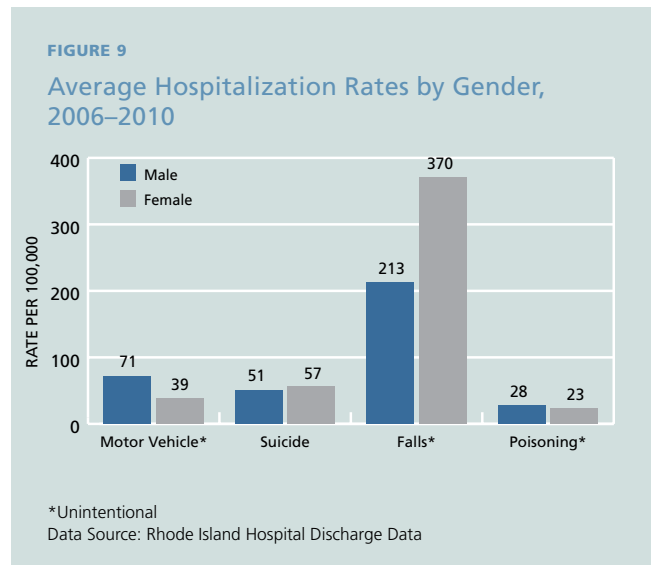
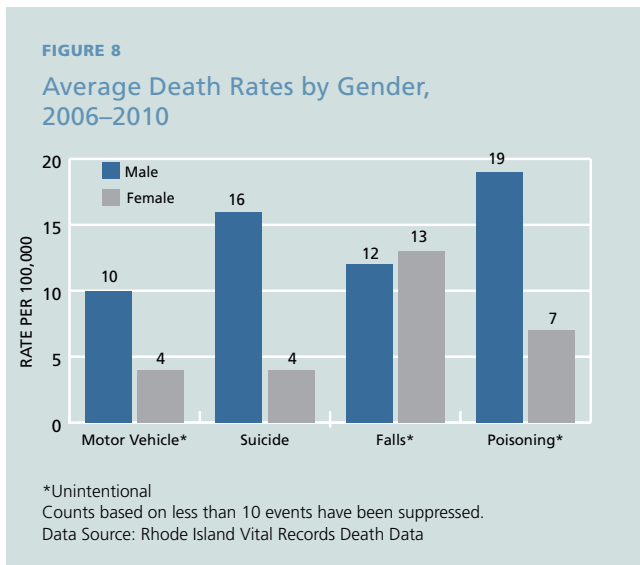
From 2006-2010, the hospitalization rates for unintentional poisoning, unintentional motor vehicle injuries, and suicide attempts were similar for non-Hispanic blacks and non-Hispanic whites, and lower for Hispanics (Figure 7). Non-Hispanic whites were much more likely to be hospitalized for an unintentional fall than non-Hispanic blacks and Hispanics (Figure 7).



Gender:

Figures 8 and 9 demonstrate the burden of injuries by gender in Rhode Island. During 2006-2010, males were more likely to die from an unintentional motor vehicle crash, a suicide, and an unintentional poisoning than females; however, the death rate for unintentional falls was relatively similar for the two genders (Figure 8).

From 2006-2010, females were more likely to be hospitalized for an unintentional fall-related injury than males. Males were more likely to be hospitalized for an unintentional motor vehicle-related injury. There were no differences in the hospitalization rates for suicide attempts and unintentional poisoning between the two genders (Figure 9).

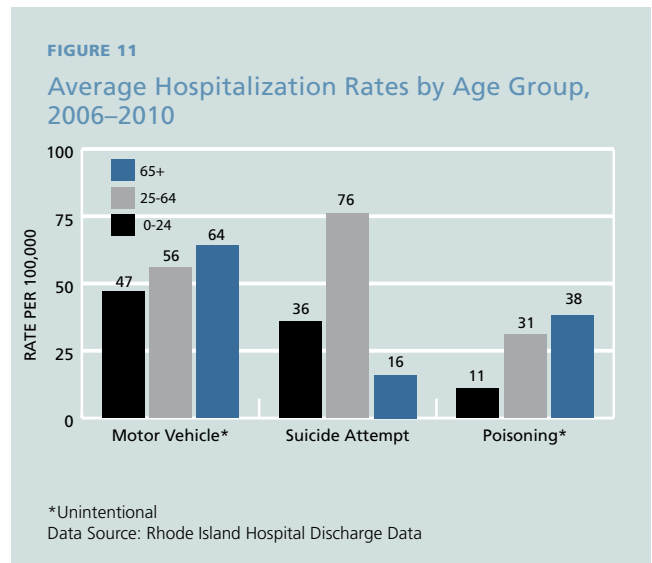
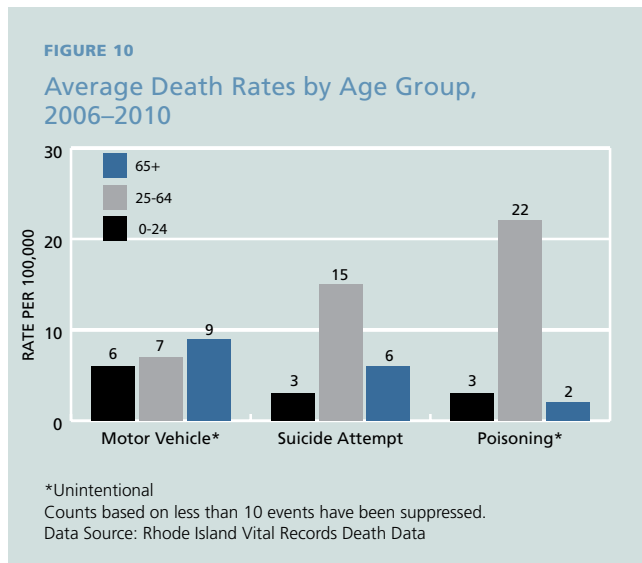


Age:

Figures 10 and 11 show the burden of injuries by age group in Rhode Island. The death and hospitalization rates for unintentional falls are not included because the target age group (at national and state level) for falls prevention is adults age 65 and older.

During 2006-2010, adults age 25 through 64 were more likely to die by suicide or poisoning, in comparison to both younger and older age groups (Figures 10). Adults age 25 through 64 were also most likely to be hospitalized for a suicide attempt (Figure 11). Risk of a hospitalization due to an unintentional poisoning increased with age (Figure 11).

According to Figures 10 and 11, risk of a death or hospitalization by motor vehicle crash increased with age; however, the broad age group distribution shown here does not demonstrate the injury-related burden of deaths and hospitalizations for smaller age groups. For example, from 2006-2010, youth age 15 through 24 were most at risk for motor vehicle-related death and hospitalizations. The burden of injury by age group is more detailed in the specific priority area chapters.



The objective of the burden of injury section of this report is to provide timely and relevant information on unintentional poisoning, unintentional falls, unintentional motor vehicle crashes, and suicide attempts/suicides. The following sections discuss each priority area in greater depth.



DRUG OVERDOSE PREVENTION AND RESCUE

Unintentional Drug Overdose:

A drug overdose is considered a poisoning. This type of poisoning can occur by eating, drinking, breathing, injecting, or absorbing a substance(s), such as a prescription medication or a street drug that is harmful to the body.

Burden of Injury from Unintentional Drug Overdose:

Rhode Island ranks seventh in the nation for its drug overdose death rate.⁸ Rhode Island data reflect a national epidemic of drug overdose death rates driven largely by prescription opioid painkillers.⁷ Drug-related deaths claimed the lives of 193 Rhode Islanders in 2008; this equals almost four people each week. The most common drugs involved in the deaths were prescription opioids, such as oxycodone.⁷

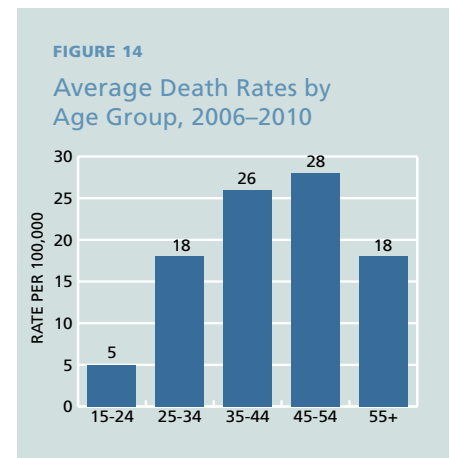
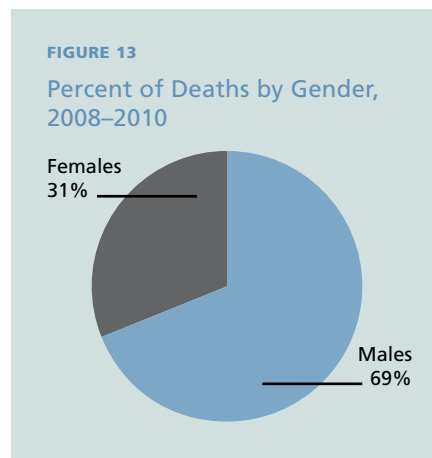
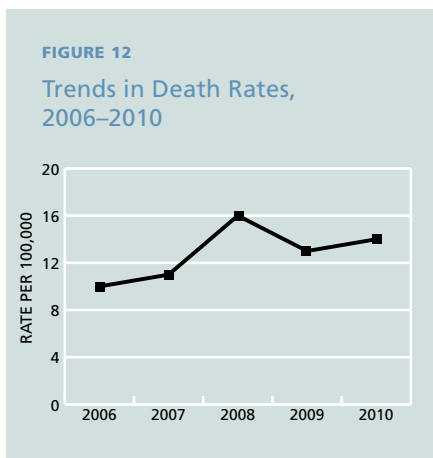
The Violence and Injury Prevention Program (VIIPP) uses a death record, an inpatient hospital admission, or an emergency department visit coded as an unintentional poisoning as a marker for an unintentional drug overdose (Figures 12-17). Unintentional poisoning death rates increased from 10 to 14 per 100,000 population between 2006 and 2010 (Figure 12). Unintentional poisoning is now the leading cause of unintentional injury-related death in Rhode Island.¹

During 2008-2010, men were more likely to die from an unintentional poisoning than women: 69% versus 31%, respectively (Figure 13). Unintentional poisoning affects a broad age range, with adults age 35 through 54 at the highest risk (Figure 14).

Males and females were equally likely to be hospitalized for a non-fatal, unintentional poisoning: 51% versus 49%, respectively (Figure 15). The risk of being hospitalized for an unintentional poisoning-related injury increased with age through age 54 and then dropped slightly for adults age 55 and older (Figure 16). Over a three-year period (2008 to 2010), there were 879 hospitalizations and 4,418 emergency department (ED) visits due to unintentional poisoning-related injuries in Rhode Island (Figure 17).

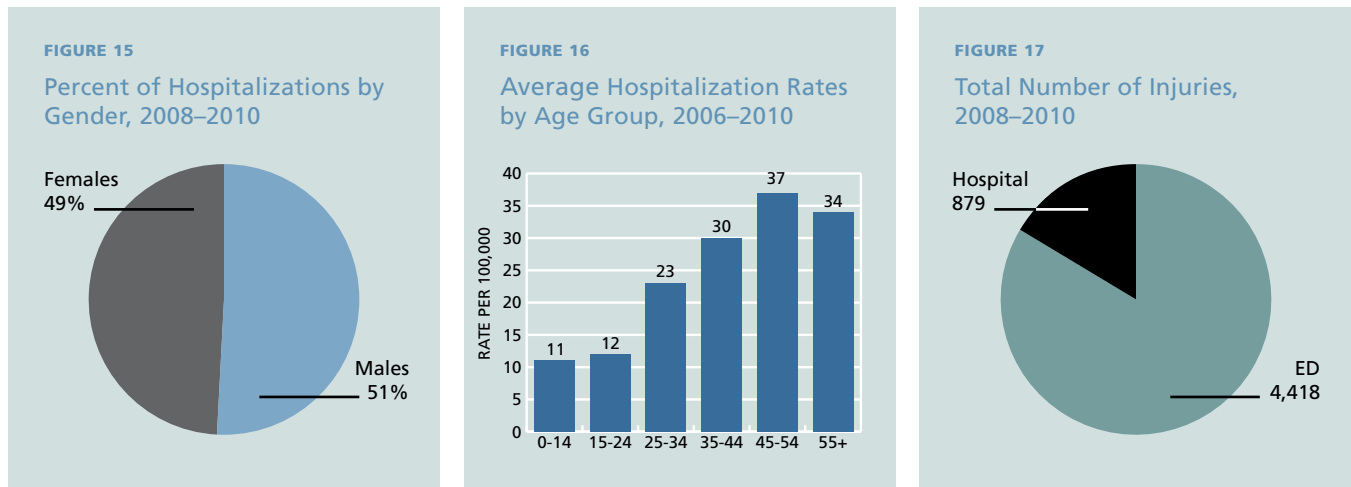
From 2006-2010, death and hospitalization rates for unintentional poisoning were similar for non-Hispanic whites and non-Hispanic blacks, while rates were lower for Hispanics (data not shown in this chapter).

Rhode Island Fatal Unintentional Poisonings*



*Rates based on less than 10 events have been suppressed.
Data Source: Rhode Island Vital Records Death Data

Rhode Island Non-fatal Unintentional Poisonings



Data Sources: Rhode Island Hospital Discharge Data, Rhode Island Emergency Department Data

Goal: Prevent death from unintentional drug overdose.

Objectives:

1. Decrease or maintain the 2009 rate of deaths due to unintentional poisonings in Rhode Island at 13 per 100,000 or less through 2016.

Priority Populations: The general population
 Individuals age 15-54 who are using opioids non-medically
 Any individual prescribed opioids

Risk Factors:

- Enrolled in Medicaid⁹
- Prescribed high daily doses of opioids^{10,11}
- Living in a rural area¹²
- Misuse of multiple drugs and/or alcohol^{13,14,15,16}
- Mental illness and a history of substance abuse¹⁷

Evidence-based strategies:

To date, interventions to prevent prescription opioid overdose deaths have not been systematically evaluated. The Centers for Disease Control and Prevention (CDC) recently released several promising recommendations for prevention, including the establishment and use of Prescription Monitoring Programs (PMPs).¹⁸ A PMP is a state database that tracks the prescribing and dispensing of controlled substances to patients. The VIPP works to increase appropriate usage and access to the Rhode Island PMP by physicians, pharmacists, and other prescribers.

Another promising initiative in Rhode Island is a pilot drug overdose prevention research study, Preventing Overdose and Naloxone Intervention (PONI). Naloxone is an opioid antagonist effective in reversing an opioid drug overdose. It can be



administered by a layperson either intravenously or nasally. PONI educates high-risk populations on drug overdose risk and prevention, trains them to administer naloxone, and distributes naloxone following training. Of the 120 participants in the 2011 study, 10 returned for a follow-up with the PONI staff, and 5 of these participants reported successfully administering intramuscular naloxone to reverse an opioid overdose.¹⁹ Preliminary results demonstrate a potential to greatly reduce overdose-associated deaths in Rhode Island if the PONI program is expanded.¹⁹

The CDC also recommends the following promising strategies for prevention: patient review and restriction programs, increasing of healthcare provider accountability, laws to prevent prescription drug abuse and diversion, and better access to substance abuse treatment.¹⁸ The VIPP will support statewide partners in implementing and evaluating promising CDC-endorsed strategies. The Drug Overdose Prevention and Rescue Subcommittee of the Injury Community Planning Group also recommends the following strategies for statewide implementation. (See Appendix IV for the subcommittee membership list.)

Recommendation 1: Establish statewide overdose surveillance mechanisms.

- 1.1: Create a system for interdisciplinary review of overdose cases for surveillance and prevention planning in partnership with the Office of State Medical Examiners.
- 1.2: Develop a core data set with overdose-relevant data and a standardized report.
- 1.3: Determine evidence-based working definitions of “doctor shopping,” “questionable medication-use behavior,” and “questionable prescribing practices.”
- 1.4: Create a state database that captures the amount of opiates prescribed (number and per capita) and the demographics they are prescribed to.
- 1.5: Develop a state database that tracks the number of people that enter medication-assisted treatment (methadone, buprenorphine, depot-naltrexone) and the length of treatment.
- 1.6: Develop a data collection system that tracks heroin use in Rhode Island.

Recommendation 2: Increase usage and effectiveness of the Prescription Monitoring Program (PMP).

- 2.1: Increase the number of providers registered for the PMP.
- 2.2: Increase the number of providers who use the PMP.

- 2.3: Link the PMP to electronic health records systems.
- 2.4: Develop educational materials to train providers on addiction resources and overdose prevention strategies to address information discovered in the PMP.
- 2.5: Require mandatory patient history checks in the PMP before prescribing a controlled medication for all new patients, when a patient rotates from one opioid to another, and/or when a patient is prescribed a higher dose (> 50 milligrams morphine unit per day).
- 2.6: Expand the PMP to capture prescribing information from other states.
- 2.7: Expand the PMP to capture benzodiazepine (“benzo”) prescribing information.

Recommendation 3: Increase access to naloxone training and distribution programs.

- 3.1: Implement naloxone training for the Emergency Medical Services (EMS) workforce statewide.
- 3.2: Expand intranasal naloxone use by EMS.
- 3.3: Implement naloxone training for the law enforcement workforce statewide and outfit police officers with naloxone.
- 3.4: Expand the Collaborative Practice Agreement pilot project with Walgreens pharmacy and other pharmacies to increase access to naloxone.
- 3.5: Implement naloxone training and distribution programs for inmates upon release.
- 3.6: Implement naloxone training and distribution programs at substance abuse treatment programs upon participant release.
- 3.7: Increase coverage of naloxone by RiTe Care (public insurance) and other insurance providers.
- 3.8: Implement naloxone training and distribution programs through Employee Assistance Programs and the Rhode Island Interlocal Trust.
- 3.9: Implement naloxone training and distribution programs through community-based organizations and at recovery community centers.

Recommendation 4: Increase licensed healthcare worker and institutional responsibility.

- 4.1: Encourage conversations among patients, parents/guardians, providers, and pharmacists about prescription drug risks and safety, drug treatment options, and naloxone prescription.
- 4.2: Notify prescribers and dispensers when their patients die from a prescription drug overdose, in partnership with the Office of State Medical Examiners.
- 4.3: Increase opportunities for and implement mandatory continuing education for licensed healthcare workers.
- 4.4: Require prescribers to provide risk information, drug overdose prevention resources, and/or naloxone prescriptions to patients when writing opioid prescriptions.
- 4.5: Require pharmacies to provide written information on overdose risk and naloxone education when filling opioid prescriptions.
- 4.6: Support efforts to implement limits on the opioid day supply to patients at emergency department and urgent care clinics (e.g. three-day supply limits).

Recommendation 5: Implement and expand disposal units throughout the state.

- 5.1: Pilot and evaluate prescription drug disposal programs in partnership with police stations, pharmacies, schools, churches, and other organizations.

Recommendation 6: Support prevention policies that work.

- 6.1: Increase awareness of the Good Samaritan Law[§] among the general public, law enforcement officers, healthcare workers, prison system employees, and Emergency Medical Services staff, and support its reimplementaion in 2015.
- 6.2: Support policies that include Schedule IV and Schedule V drugs in the Prescription Monitoring Program coverage.
- 6.3: Review pharmacy dispensing laws and/or regulations and propose an exception to permit naloxone prescribing and dispensing (for example, by granting permission to certified sites, such as treatment centers, prisons, and community-based organizations).

Recommendation 7: Increase general public awareness of drug overdose as a preventable public health problem.

- 7.1: Educate the public on overdose risks, especially changes in tolerance and the dangers of mixing multiple drugs and/or alcohol.
- 7.2: Educate the public on the signs and symptoms of a drug overdose.
- 7.3: Educate the public on the importance of protecting/locking up their prescription drugs and disposing of unused opiates and benzodiazepines ("benzos").
- 7.4: Educate the public on the effectiveness of treatment.
- 7.5: Educate parents and students on recommendations 7.1-7.4 above.
- 7.6: Develop a comprehensive education and outreach strategy, including school programming and television, print, radio, and social media campaigns.

Recommendation 8: Support and affirm people at risk for drug overdose.

- 8.1: Normalize conversations between a provider and patient about prescription drug risk.
- 8.2: Normalize naloxone availability in the home.
- 8.3: Normalize calling 911 in the case of a drug overdose without fear of consequences.
- 8.4: Decrease stigma associated with drug addiction.
- 8.5: Increase the number of participants in Stanford University's Chronic Pain Self-Management Program or comparable chronic pain self-management programs.

Recommendation 9: Increase access to substance abuse treatment.

- 9.1: Identify, support, and promote substance abuse programs.
- 9.2: Support recovery efforts, including the expansion of recovery support service providers.
- 9.3: Increase the number of physicians that prescribe buprenorphine by increasing access to the eight-hour training and encouraging medical schools to require buprenorphine prescribing training of all graduates.

Recommendation 10: Build state capacity to implement drug overdose prevention and rescue programs.

- 10.1: Secure funding to hire a drug overdose and rescue project coordinator.
- 10.2: Secure funding to implement plan recommendations.
- 10.3: Establish partnerships with agencies and individuals whose work is relevant to drug overdose prevention and rescue to leverage resources.

[§]The Good Samaritan Law gives legal protection to people (lay people and healthcare providers) who give reasonable assistance or call 911 to help those who are injured in an emergency situation.



FALL-RELATED INJURY PREVENTION

Unintentional Fall:

A fall is an event that results in a person coming to rest inadvertently on the ground, floor, or other lower level.

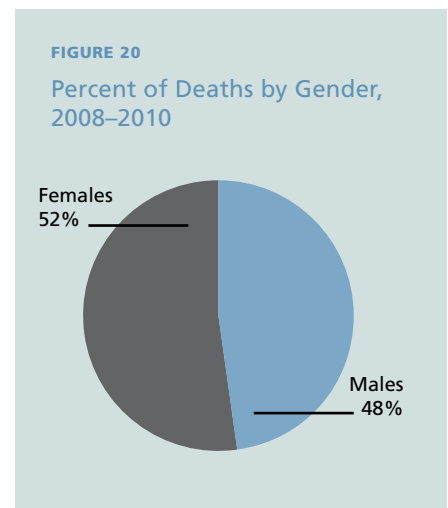
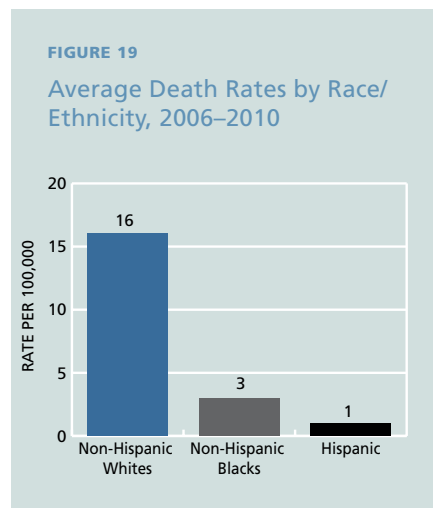
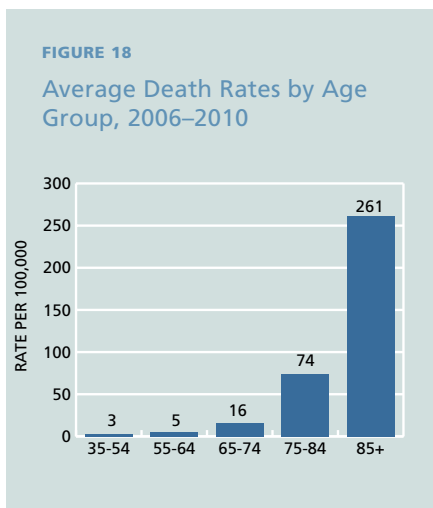
Burden of Injury from Falls:

Unintentional falls are the leading cause of injury-related deaths, hospitalizations, and emergency department visits among Rhode Islanders age 65 and older.²⁰ From 2008-2010, unintentional falls made up over 60% of injury-related deaths for this age group.¹ The risk of dying from an unintentional fall dramatically increases with age: the death rate for adults age 85 years and older was 16 times higher than that for adults ages 65 through 74 and 3.5 times higher than that for adults age 75 through 84 (Figure 18).

Currently, 140,000 Rhode Islanders (14%) are 65 years of age or older. By 2020, 195,000 Rhode Islanders (17.9%) will be age 65 and older.²¹ As the population ages, the impact and cost of fall-related deaths and injuries will increase considerably unless this serious public health issue is addressed.

During 2006-2010, the risk of dying from an unintentional fall was higher for non-Hispanic whites than among non-Hispanic blacks and Hispanics (Figure 19). Of those who died from an unintentional fall, slightly more were women than were men (Figure 20).

Rhode Island Fatal Unintentional Falls*

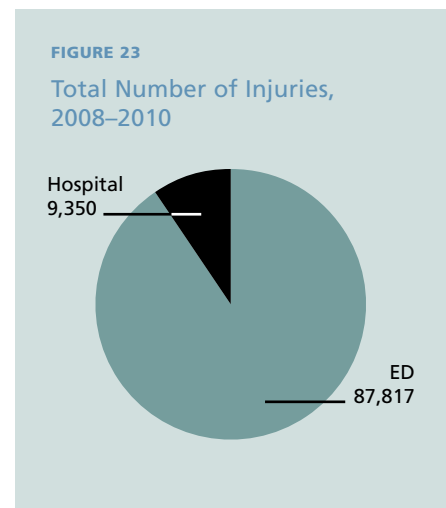
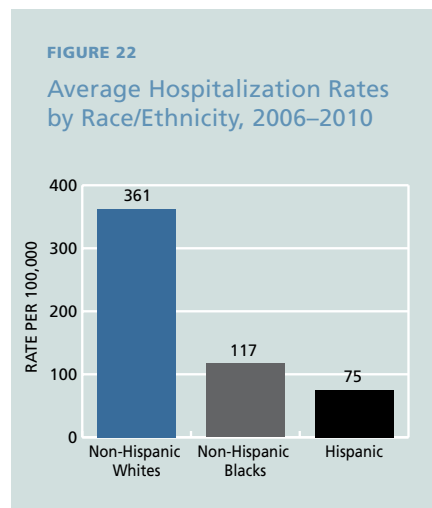
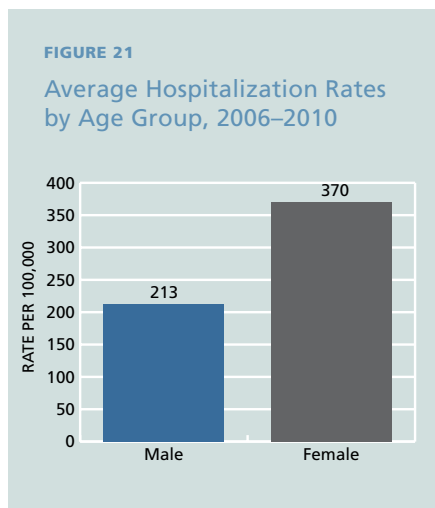


*Rates based on less than 10 events have been suppressed
Data Source: Rhode Island Vital Records Death Data



Unintentional falls are the leading cause of nonfatal injuries in Rhode Island. From 2008-2010, unintentional falls made up over half of injury-related hospitalizations (52%) and 26% of injury-related emergency department visits.²⁰ Women were more likely to be hospitalized for an unintentional fall-related injury than men (Figure 21). Non-Hispanic whites were more likely than non-Hispanic blacks and Hispanics to be hospitalized for an unintentional fall (Figure 22). From 2008-2010, there were 9,350 hospitalizations and 87,817 emergency department visits for unintentional fall-related injuries in Rhode Island (Figure 23).

Rhode Island Nonfatal Unintentional Falls



Data Sources: Rhode Island Hospital Discharge Data, Rhode Island Emergency Department Data

Goal 1: Prevent deaths of older adults caused by falls.*

Goal 2: Prevent injuries to older adults caused by falls.

Objectives:

1. Decrease or maintain the 2009 rate of deaths due to unintentional falls among older adults (65+) in Rhode Island at 71 per 100,000 or less through 2016.
2. Decrease or maintain the 2009 rate of hospitalizations due to unintentional falls among older adults (65+) in Rhode Island at 1,461 per 100,000 or less through 2016.

Priority Populations: Older adults (60+) living in the community
Non-Hispanic white females 65+

Risk Factors:

- Lack of physical activity^{22,23}
- The use of multiple medications (four or more)^{24,25}
- Impaired vision^{22,25}
- Environmental factors (hazardous stairs, poor lighting, uneven surfaces, lack of hand rails, clutter)^{22,24}
- Chronic condition, such as arthritis, Parkinson's disease, or osteoporosis²⁴
- Dementia²⁵
- Postural hypotension (sudden drop in blood pressure when standing up or stretching)²⁴
- Consuming excessive amounts of alcohol²⁷
- Living alone^{28,29}
- History of previous fall^{28,29}
- Fear of falling^{28,29}
- Multiple of the risk factors listed above³⁰

Evidence-based strategies:

The Centers for Disease Control and Prevention (CDC) recommends three categories of interventions for falls prevention: exercise-based, home modification for hazard reduction, and multifaceted (including medical screening for visual impairment and medication review).³¹

Regular exercise is one of the CDC recommendations to reduce the risk of falls.²² Exercise interventions should focus on strength, balance, flexibility, and endurance. Exercising in supervised groups, participating in Tai Chi, and carrying out individually prescribed exercise programs at home are all effective in reducing falls.²² The National Council on Aging has identified several evidence-based exercise programs that have supporting research demonstrating their effectiveness.³² For example, the evidence-based program *A Matter of Balance* is proven to reduce fear of falling and increase physical activity levels in older adults.

*The target population is older adults living independently in their homes (not in nursing homes, independent living facilities, etc.).



Multifaceted interventions that identify a person's risk of falling, and then refer the person for comprehensive treatment to reduce his or her risk, are another recommended strategy.^{33,34} The CDC developed a comprehensive toolkit, *Stopping Elderly Accidents, Deaths, and Injuries* (STEADI), to offer healthcare providers tools and resources to help prevent falls in their older adult patients. The model helps providers identify a patient's risk for falls, assess the scope of a patient's risk, introduce tailored interventions, and offer effective referrals.³⁵

The Violence and Injury Prevention Program (VIPP) supports community partners in the implementation of *A Matter of Balance* and the STEADI toolkit. The Falls Injury Prevention Subcommittee of the Injury Community Planning Group also recommends the following strategies for statewide implementation. (See Appendix V for the subcommittee membership list.)

Recommendation 1: Increase the percent of older adults who exercise on most days of the week.

- 1.1: Promote and provide community-based programs that incorporate falls prevention activities and exercises into programming.
- 1.2: Promote the adoption of home exercise programs.
- 1.3: Increase the number of community health workers trained to implement evidence-based programs such as *A Matter of Balance*, *Tai Chi: Moving for Better Balance*, and Arthritis Foundation programs.
- 1.4: Increase the number of evidence-based programs, such as *A Matter of Balance*, *Tai Chi: Moving for Better Balance*, and Arthritis Foundation programs, offered to older adults.

Recommendation 2: Improve the safety of the physical environment in homes.

- 2.1: Promote home falls risk assessments based on CDC recommendations.
- 2.2: Increase knowledge of existing resources for home modifications and assistive devices.
- 2.3: Increase resources for home modification and assistive devices.
- 2.4: Implement the Rhode Island Department of Health Emergency Medical Services Home Assessment pilot project.
- 2.5: Educate older adults and their caregivers on the importance of home modifications to prevent falls.

Recommendation 3: Improve the safety of the built environment.

- 3.1: Inform state and local planning agencies about the value of incorporating older adult-friendly sidewalks, public transportation, and public spaces into their comprehensive plans.
- 3.2: Develop an assessment tool for businesses to ensure that their spaces are safe and accessible for older adults, and disseminate the tool throughout the business community.

Recommendation 4: Improve the management of health conditions.

- 4.1: Promote CDC-recommended education on screening for and management of health conditions that put older adults at risk of falls and resulting injuries.
- 4.2: Provide CDC-recommended falls risk assessment screenings and train healthcare providers to refer patients to appropriate preventive services, such as community-based exercise programs, based on assessment results.
- 4.3: Promote and provide regular medication reviews.
- 4.4: Promote and provide regular vision check-ups.
- 4.5: Promote and provide regular hearing check-ups.

Recommendation 5: Increase education, awareness, and knowledge around falls risk and falls prevention strategies.

- 5.1: Enhance awareness of falls as a public health epidemic among the public, older adults, caregivers, and providers.
- 5.2: Educate the public, older adults, caregivers, and providers on strategies for falls prevention.
- 5.3: Disseminate previously developed and tested messages for older adults.
- 5.4: Develop and test additional clear, audience-specific messages for older adults, caregivers, healthcare providers, pharmacists, and community partners.
- 5.5: Develop and test messages targeting the 50- to 60-year-old population for the primary prevention of falls.
- 5.6: Identify and use appropriate communication channels to reach target populations.

Recommendation 6: Minimize injuries resulting from falls.

- 6.1: Increase knowledge of the benefits of having an Emergency Care Plan.
- 6.2: Increase knowledge of existing resources for personal emergency response systems.
- 6.3: Promote tools and falls prevention language to older adults to help them develop strategies to minimize injuries resulting from falls.



MOTOR VEHICLE INJURY PREVENTION

Unintentional Motor Vehicle Injury:

A motor vehicle injury is a result of a motor vehicle collision, which occurs when a vehicle collides with another vehicle, pedestrian, animal, road debris, or other stationary obstruction. Motor vehicle injuries can affect drivers, passengers, pedestrians, motorcyclists, and bicyclists.

Burden of Motor Vehicle Injury:

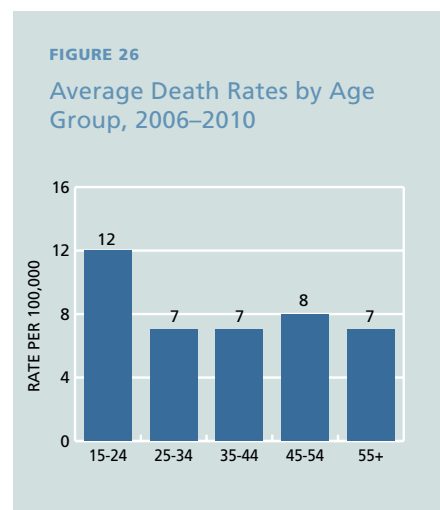
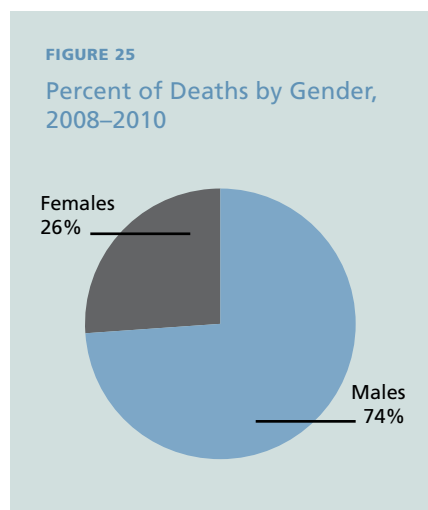
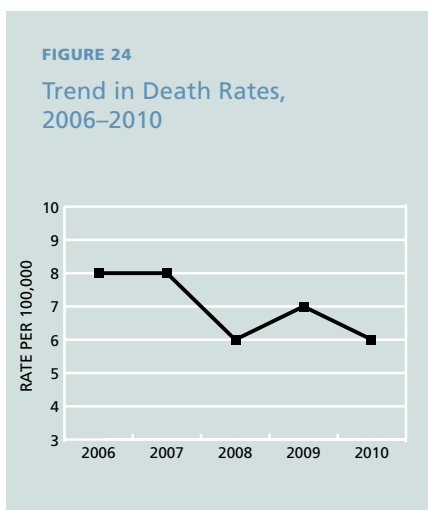
Unintentional motor vehicle injuries are the leading cause of death for young people age 5 through 24 in Rhode Island.¹ Injuries due to motor vehicle crashes make up 11 percent of injury-related deaths, 9 percent of injury-related hospitalizations, and 12 percent of injury-related emergency department visits in Rhode Island for all age groups.²⁰ From 2006-2010, the unintentional motor vehicle death rate remained relatively stable, varying from six to eight per 100,000 population (Figure 24).

The risk of an unintentional motor vehicle crash fatality was higher among males than females (Figure 25). Young drivers were also disproportionately affected by unintentional motor vehicle crashes. The unintentional motor vehicle death rate for drivers age 15 through 24 was nearly twice the rate of the rest of the population at 12 per 100,000 population (Figure 26).

Young drivers also had a disproportionately higher unintentional motor vehicle hospitalization rate and emergency department visit rate in relation to the rest of the population (Figures 27 and 28). From 2008-2010, there were 1,675 hospitalizations and 40,637 emergency department (ED) visits for unintentional motor vehicle-related injuries in Rhode Island (Figure 29).

During 2006-2010, non-Hispanic whites and non-Hispanic blacks had similar hospitalization rates for unintentional motor vehicle injuries, while the hospitalization rate was lower for Hispanics. All three groups had similar unintentional motor vehicle injury-related death rates (data not shown in this chapter).

Rhode Island Fatal Unintentional Motor Vehicle Injuries*



*Rates based on less than 10 events have been suppressed.
Data Source: Rhode Island Vital Records Death Data



Rhode Island Nonfatal Unintentional Motor Vehicle Injuries

FIGURE 27

Average Hospitalization Rates by Age Group, 2006–2010

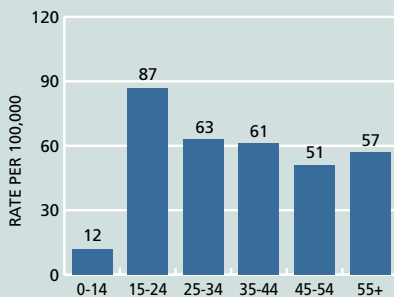


FIGURE 28

Average Emergency Department Visit Rates by Age Group, 2006–2010

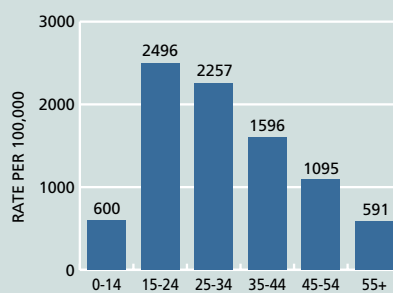
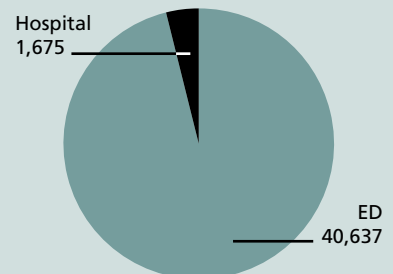


FIGURE 29

Total Number of Injuries, 2008–2010



Data Sources: Rhode Island Hospital Discharge Data, Rhode Island Emergency Department Data



Goal 1: Prevent deaths caused by unintentional motor vehicle crashes in Rhode Island.

Goal 2: Prevent injuries caused by unintentional motor vehicle crashes in Rhode Island.

Objectives:

1. Decrease the rate of deaths due to unintentional motor vehicle crashes in Rhode Island from 7 per 100,000 in 2009 to 5 per 100,000 in 2016.
2. Decrease the rate of hospitalizations due to unintentional motor vehicle injuries in Rhode Island from 58 per 100,000 in 2009 to 54 per 100,000 in 2016.

Priority Populations: The general population
Young people age 15-24

Risk Factors:

- Drinking and driving^{36,37}
- Not wearing a seatbelt^{38,39,40}
- Distracted driving^{41,42}
- Risk-taking behavior (e.g. speeding)^{43,44}
- High job stress⁴⁵
- Prior motor vehicle accident⁴⁵
- Not wearing a motorcycle helmet⁵⁸

Evidence-based strategies:

The Centers for Disease Control and Prevention (CDC) has identified motor vehicle injury as a “winnable battle,” because prevention will have a large-scale public health impact if evidence-based strategies are implemented.⁴⁶ CDC recommends policy and enforcement as effective strategies to prevent motor vehicle-related injuries and deaths, specifically those policies that increase seat belt usage, reduce impaired driving, and increase safety for teen drivers.⁴⁶

Adult seat belt use is the single most effective way to save lives and reduce injuries.⁴⁶ States with a primary seat belt law have higher rates of seat belt use and lower rates of motor vehicle fatalities, in comparison to states with a secondary law or no law.^{47,48,49} Rhode Island passed a temporary primary seat belt law in 2011, and the law became permanent in July 2013. Two goals of the Violence and Injury Prevention Program (VIPP) are to educate decision makers, partners, and the general public on the benefits of seat belt use and to enhance enforcement of the primary seat belt law.

To reduce alcohol-impaired driving, evidence-based strategies include multi-component efforts such as the limiting of access to alcohol and binge drinking (particularly among youth), responsible beverage service training, mass media campaigns, strict ignition interlock policies, and sobriety checkpoints.^{50,51} In Rhode Island, sobriety checkpoints have been deemed unconstitutional, and implementation would require legal changes. The current Rhode Island ignition interlock policy is weak in comparison to other states; it is *recommended* at the third offense of impaired driving. It is a priority of the VIPP to educate decision makers, partners, and the general public on the benefits of a mandatory ignition interlock policy at the first offense of impaired driving.

Graduated driver licensing (GDL) policies limit newly-licensed, young drivers from driving under high-risk conditions, such as driving at night and transporting other teen passengers. These laws are credited with a decline in the number of fatal crashes, injuries, and deaths involving young drivers.^{52,53,54} Although Rhode Island has a comprehensive GDL law in place, strategies to enforce compliance with the law are necessary. For example, the VIPP supports the implementation of a mandatory two-hour parent education class that would result in more effective education about the regulations and safe driving practices for young drivers.

The VIPP will support statewide partners in promoting and implementing evidence-based interventions for motor vehicle death and injury prevention. The Traffic Safety Coalition, which serves as Rhode Island's statewide motor vehicle advisory committee to the VIPP, also recommends the following strategies for statewide implementation. (See Appendix VI for the Traffic Safety Coalition membership list.)

Recommendation 1: Reduce impaired (drugged and drunk) driving fatalities and serious injuries.

- 1.1: Improve access to and credibility of impaired driving data.
- 1.2: Increase public awareness of the dangers of impaired driving.
- 1.3: Strengthen laws on impaired driving.
- 1.4: Improve impaired driving enforcement.
- 1.5: Improve alcohol and drug assessment and treatment.

Recommendation 2: Reduce unbelted fatalities and unbelted serious injuries.

- 2.1: Increase education and outreach efforts about the benefits of safety belt use.
- 2.2: Increase enforcement of occupant protection laws.

Recommendation 3: Reduce young driver-involved fatalities and serious injuries.

- 3.1: Require parents or guardians of young drivers to take two hours of driver's education.
- 3.2: Promote and improve driver's education programs based on what the research indicates is effective.
- 3.3: Increase public outreach and education on the basics of roadway safety, targeting young drivers.
- 3.4: Increase enforcement and publicize enforcement initiatives conducted in the state.

Recommendation 4: Reduce speeding-related fatalities and serious injuries.

- 4.1: Improve the collection of speeding-related, fatal, and serious injury crash data.
- 4.2: Conduct a public education and information campaign to increase awareness of the dangers of speeding.
- 4.3: Enhance enforcement of speeding laws.
- 4.4: Identify engineering countermeasures to mitigate speeding on Rhode Island roadways.

Recommendation 5: Reduce intersection and run-off-the-road fatalities and serious injuries.

- 5.1: Select locations and implement countermeasures with the greatest potential for safety improvement using the predictive methods in the Highway Safety Manual (HSM).
- 5.2: Increase enforcement at locations with the most severe safety needs (e.g., red-light running cameras, automated speed enforcement in work zones and school zones, targeted police enforcement, educational campaigns, etc.).

5.3: Improve safety for vulnerable users (bicyclists, pedestrians, moped users, motorcyclists).

5.4: Continue education and outreach to local jurisdictions to improve safety.

5.5: Develop and implement a safety corridor program.

Recommendation 6: Increase the percentage of motorcycle operators and passengers who always use a motorcycle helmet.

6.1: Increase education and outreach efforts about the benefits of motorcycle helmet use.

6.2: Increase enforcement of current motorcycle helmet laws.

6.3: Strengthen motorcycle helmet laws (e.g. universal motorcycle helmet use law).

Recommendation 7: Reduce distracted driving fatalities and serious injuries.

7.1 Improve access to and credibility of distracted driving data.

7.2 Increase public awareness of the dangers of distracted driving.

7.3 Strengthen laws on distracted driving including bans on the use of hand-held and hands-free devices.

7.4 Improve enforcement of distracted driving laws.



SUICIDE AND SUICIDE ATTEMPT PREVENTION

Suicide:

Self-directed violence that results in death.

Suicide Attempt:

Self-directed, harmful behavior that could result in death in the immediate future.

Burden of Injury from Suicide and Suicide Attempts:

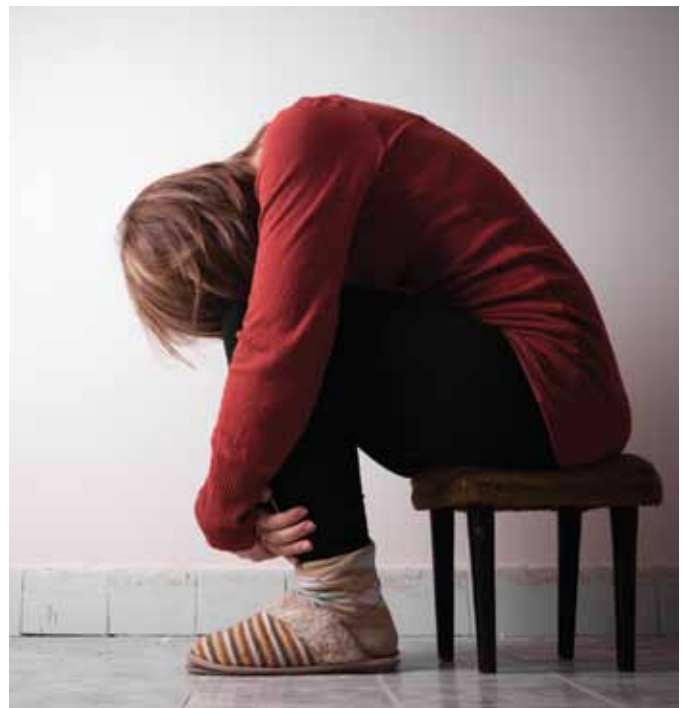
Suicide and suicide attempts are serious and persistent public health problems with devastating effects on victims, families, and communities. Suicidal behavior is a complicated issue that affects all age groups; therefore, a life-course approach has been selected for prevention efforts. In 2008-2010, suicide was among the top four leading causes of death for ages 10 through 44 years in Rhode Island.¹

On average, 119 Rhode Islanders die by suicide each year;¹ however, suicides represent only a fraction of the outcome of suicidal behavior. Non-fatal injuries from suicide attempts are much more common than death by suicide. The Violence and Injury Prevention Program (VIPPP) uses an inpatient hospital admission or an emergency department visit coded as resulting from 'self-harm' injury as a marker for a suicide attempt.

The rate of suicides in Rhode Island increased from 8 per 100,000 population in 2006 to 11 per 100,000 population in 2010 (Figure 30). Among those who died by suicide, the majority (80%) were males (Figure 31). Adults age 35 through 54 were more likely to die by suicide in comparison to all other age groups (Figure 32).

Females had more emergency department visits due to suicide attempts than males (Figure 33). Rhode Islanders age 15 through 34 have the highest rate of emergency department visits for suicide attempts (Figure 34). From 2008-2010, the number of emergency department (ED) visits due to a suicide attempt were over double the number of hospital admissions due to a suicide attempt: 3,980 versus 1,764 respectively (Figure 35). A hospitalization indicates that a more serious suicide attempt was made.

Non-Hispanic whites were more likely to die by suicide than non-Hispanic blacks and Hispanics. Hospitalization rates for attempted suicides were not different for non-Hispanic whites and non-Hispanic blacks, but were lower for Hispanics (data not shown in this chapter).



Rhode Island Suicide Deaths*

FIGURE 30

Trend in Death Rates, 2006–2010

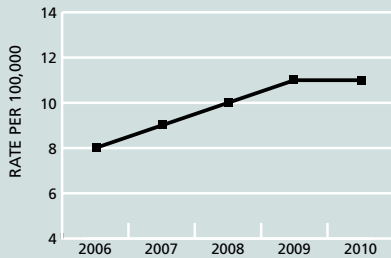


FIGURE 31

Percent of Deaths by Gender, 2008–2010

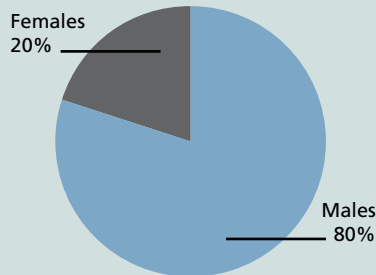
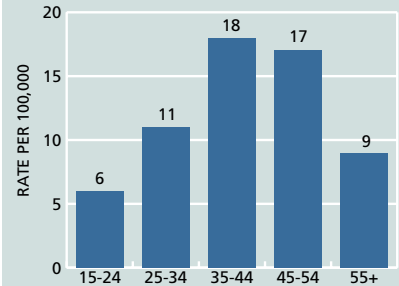


FIGURE 32

Average Death Rates by Age Group, 2006–2010



*Rates based on less than 10 events have been suppressed.
Data Source: Rhode Island Vital Records Death Data

Rhode Island Nonfatal Suicide Attempts

FIGURE 33

Percent of Emergency Department Visits by Gender, 2008–2010

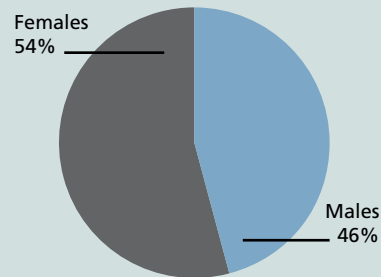


FIGURE 34

Average Emergency Department Visit Rates by Age Group, 2006–2010

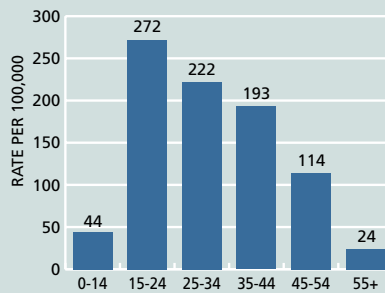
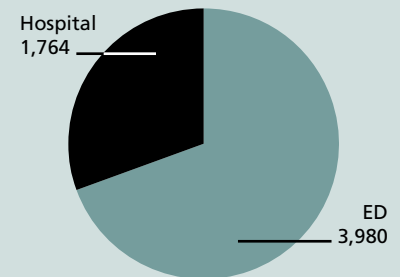


FIGURE 35

Total Number of Injuries, 2008–2010



Data Sources: Rhode Island Hospital Discharge Data, Rhode Island Emergency Department Data



Goal 1: Prevent suicides.

Goal 2: Prevent suicide attempts.

Objectives:

1. Decrease the number of deaths due to suicide for 15-24 year olds in Rhode Island's six high-poverty cities from five in 2009 to four in 2016.^{†‡}
2. Decrease the number of hospitalizations due to suicide attempts for 15-24 year olds in Rhode Island's six high-poverty cities from 52 in 2009 to 48 in 2016.

Priority Populations: All ages (life-course approach)
Youth ages 15 through 24

Risk Factors:

- Active military/veteran status⁵⁵
- Psychiatric illness⁵⁶
- Previous suicide attempt/self-harm⁵⁷
- Substance use disorders⁵⁸
- Easy access to lethal means⁵⁷
- Impulsive/aggressive tendencies^{59,60}
- Family history of suicide⁵⁷
- Lack of social support/isolation⁵⁷
- LGBTQ adolescents⁶¹
- Youth with disabilities⁶²

Evidence-based strategies:

Comprehensive suicide prevention programs reduce risk factors and increase protective factors. The factors that contribute to suicidal behaviors are complex and multi-faceted; therefore, prevention efforts should address all levels of influence including individual, relationship, community, and societal.⁶³ The CDC recommends several evidence-based and promising strategies with a focus on strengthening connectedness within and among individuals, families, and communities, interrupting the development of suicidal behavior, integrating approaches to prevent suicidal behavior with approaches to prevent interpersonal violence, and addressing vulnerable populations.⁶⁴

One approach to suicide prevention is gatekeeper training. *Signs of Suicide* (SOS) is an evidence-based, school-based gatekeeper program. It is designed for middle and high school-age students. The program teaches students how to identify the symptoms of depression and suicidality in themselves or their friends and encourages help-seeking through the use of the ACT technique (Acknowledge, Care, Tell).⁶⁵

[†]Cities where the child poverty level is greater than 15%, based on the 2000 US Census, are designated in this report as high-poverty cities. These are Central Falls, Newport, Pawtucket, Providence, West Warwick, and Woonsocket.

[‡]The five suicide deaths were in four of the six core cities (Providence, Pawtucket, West Warwick and Woonsocket).

Another evidence-based gatekeeper program is *Question, Persuade, and Refer* (QPR). This one- to two-hour educational program is designed to teach adult gatekeepers to recognize the warning signs of a suicide and how to respond.⁶⁶ Adult gatekeepers (e.g., parents, friends, neighbors, teachers, coaches, caseworkers, police officers) are strategically positioned to recognize and refer someone at risk of suicide. QPR has been shown to successfully teach workshop participants suicide-specific skills; however, the program does not evaluate participants' actual use of those skills.⁶⁷

The Violence and Injury Prevention Program (VIPP) uses a life-course approach including evidence-based gatekeeper programs and media campaigns such as *Suicide Proofing Your Home* (www.suicideproof.org) for suicide prevention. Early intervention and education about the signs of suicide provide at-risk youth and their mentors the tools and information to identify suicide risk and to seek and/or refer to appropriate help. The VIPP will support statewide partners in the implementation of SOS and QPR. The Youth Suicide Prevention Subcommittee of the Injury Community Planning Group also recommends the following strategies for statewide implementation. (See Appendix VII for the subcommittee membership list.)

Recommendation 1: Recognize people at risk for death by suicide and support treatment for them.

Recommendation 2: Reduce the stigma associated with having a mental illness and/or seeking services for mental health and substance abuse issues.

- 1.1 (2.1): Provide information to individuals and families that increases the acceptability of seeking services and reduces associated stigma.
- 1.2 (2.2): Teach, encourage, and reinforce social/emotional competency broadly in Rhode Island.
- 1.3 (2.3): Provide support groups that build a sense of community to individuals and families.
- 1.4 (2.4): Encourage a safe and nurturing living environment for individuals and families.
- 1.5 (2.5): Educate and assist family, friends, neighbors, and others to understand who is at risk for suicide and how to respond to at-risk individuals.
- 1.6 (2.6): Increase awareness of community resources for suicide prevention and provide suicide prevention information on the Internet.
- 1.7 (2.7): Raise awareness about the dangers of over-the-counter and prescription medications and other lethal means.
- 1.8 (2.8): Raise awareness of the relationship between substance use and suicide.
- 1.9 (2.9): Raise awareness that suicide is a public health problem and that it is preventable through early seeking of help from resources in community, state, and national programs.
- 1.10 (2.10): Conduct a statewide educational campaign to increase the acceptability of seeking services and reduce associated stigma.
- 1.11 (2.11): Improve referral knowledge, efficiency, and effectiveness by all who refer, starting with primary care providers.
- 1.12 (2.12): Partner with the media to provide guidelines on suicide reporting that decrease the likelihood of suicide contagion.
- 1.13 (2.13): Partner with community, voluntary, and faith-based agencies to increase awareness of services among individuals and families in need and promote suicide prevention.
- 1.14 (2.14): Partner with healthcare providers and insurers to improve access to services.
- 1.15 (2.15): Increase the delivery of evidence-based suicide prevention education programs such as *Question, Persuade,*



and Refer (QPR) and Signs of Suicide (SOS) in organizations and places where individuals and families congregate, such as schools, parent teacher organizations, faith-based communities, and other community groups.

- 1.16 (2.16): Advocate for increased funding to deliver public awareness campaigns.
- 1.17 (2.17): Provide fact sheets on suicide as a public health issue to legislators.
- 1.18 (2.18): Advocate for adequate mental health service coverage.

Recommendation 3: Improve and expand mental health service delivery.

- 3.1: Improve the coordination of care between behavioral health, primary care, and emergency departments.
- 3.2: Provide information to individuals on existing mental health services and how to access them.
- 3.3: Promote and enhance initiatives that build mental health service capacity.
- 3.4: Provide initiatives to strengthen individuals' emotional competency.
- 3.5: Increase cross-training of health and human services providers related to risk assessment, recognition, treatment management, and aftercare of suicidal individuals.
- 3.6: Increase cross-training of employers and human resources professionals related to risk assessment, recognition, treatment management, and aftercare of suicidal individuals.
- 3.7: Educate healthcare providers about utilizing culturally appropriate suicide interventions.
- 3.8: Improve access to services and reimbursements by building coalitions of state, local, and community-based organizations.
- 3.9: Partner with other state agencies to identify common areas of concern related to mental health service needs of people under their care.
- 3.10: Work with community-based agencies to increase awareness of services among individuals and families in need.

- 3.11: Strengthen resources for volunteer training to increase hotline availability.
- 3.12: Advocate for adequate reimbursement and coverage for mental health and substance abuse treatment services.
- 3.13: Encourage suicide prevention education for all social service providers and clinicians seeking licensure.

Recommendation 4: Increase screening and identification of at-risk individuals.

- 4.1: Support and educate individuals to identify emergency situations and at-risk peers using evidence-based programs such as *Signs of Suicide (SOS)* and *Question, Persuade, and Refer (QPR)*.
- 4.2: Support individuals who seek help for their at-risk friends.
- 4.3: Provide educational programs for family members of persons at elevated risk for suicide.
- 4.4: Educate clergy, healthcare providers (e.g., primary care and emergency department doctors and nurses), medical, social work, and psychology students and faculty, educators, juvenile justice professionals, funeral directors, police and fire department personnel, and other gatekeepers to identify at-risk individuals using evidence-based strategies.
- 4.5: Provide referral information and support to healthcare providers to help them make effective referrals for at-risk individuals.
- 4.6: Screen early and often via healthcare providers (e.g., primary care physicians and home care providers), school-based staff, and community-based agencies.
- 4.7: Annually review data on characteristics of completed and attempted suicides to improve screening tools.
- 4.8: Design or choose an instrument (prompts) for use by healthcare providers (e.g., primary care doctors) to increase screening.
- 4.9: Advocate for coverage and reimbursement for routine screening services.
- 4.10: Expand student assistance programs to every Rhode Island high school.

Recommendation 5: Promote efforts to reduce access to lethal means and methods that result in self-harm or a suicide attempt.

- 5.1: Raise awareness during legislative season about gun-control bills.
- 5.2: Raise awareness through public education campaigns about gun-safety measures and gun-related deaths in Rhode Island.
- 5.3: Educate healthcare and social service providers about the relationship between substance use and other high-risk behaviors and suicide.
- 5.4: Educate healthcare providers, social service providers, and health and safety officials on how to assess the potential for lethal means in the home.
- 5.5: Establish interagency collaborations around support for gun control and gun safety.
- 5.6: Improve communication among healthcare providers.
- 5.7: Educate healthcare providers and pharmacists about over-the-counter medications and suicide prevention (e.g., warning labels for prescriptions).

Recommendation 6: Coordinate and expand public health surveillance of suicide and suicide attempts.

- 6.1: Establish objectives of a public health surveillance system for suicide and suicide attempts.
- 6.2: Using CDC criteria, determine the utility and feasibility of using various data sources or data collection mechanisms for the surveillance of suicide and suicide attempts among Rhode Islanders (e.g. Office of State Medical Examiners files, Hospital Discharge data, Emergency Department data, Emergency Medical Services-run reports, Poison Center data, school-based health center data, Child Death Review Team data).
- 6.3: Research data collection instruments and/or develop them, as needed.
- 6.4: Develop field test methods.
- 6.5: Develop and test an analytic approach.
- 6.6: Develop a dissemination mechanism.
- 6.7: Support the use of suicide data analysis by community partners.

Recommendation 7: Promote and support culturally relevant research on suicide and suicide prevention.

- 7.1: Research and evaluate the potential role and effectiveness of conducting psychological autopsies in Rhode Island.
- 7.2: Research the effectiveness of treatments for suicidal risk.
- 7.4: Evaluate the impact of existing primary prevention programs (e.g. social/emotional competency training, character education, and social/emotional education) on suicide and suicide attempts at Rhode Island hospitals.
- 7.5: Evaluate the accuracy of e-coding (categorizing of injuries and intent) of suicide attempts at Rhode Island hospitals.
- 7.6: Evaluate outcomes of students referred to social service and treatment programs by counseling and support services.
- 7.9: Evaluate suicide prevention interventions.
- 7.10: Clarify risk and protective factors specific to different populations (e.g. demographics, socioeconomic status, religion, participation in extracurricular activities, etc.)
- 7.11: Research and develop culturally relevant messages.

Recommendation 8: Promote administrative and legislative strategies that support suicide prevention.

- 8.1: Mandate teacher training in *Question, Persuade, and Refer* (QPR) for secondary and higher education and juvenile justice.

CONCLUSION

The last five to ten years have presented new and ongoing challenges for injury prevention in Rhode Island. Unintentional poisoning due to drug overdose is a public health epidemic that has grown at an unprecedented rate and has been the leading cause of injury-related death in Rhode Island since 2008. Deaths due to unintentional falls have consistently been in the top two causes of injury-related death since 2003. In 2006, the suicide death rate surpassed the unintentional motor vehicle-related death rate in Rhode Island. This trend has persisted over the past four years (2006-2010). Deaths due to unintentional motor vehicle crashes continue to contribute significantly to the burden of injury in Rhode Island.

Despite these challenges, the Violence and Injury Prevention Program (VIPP) and its community partners have made great progress in making Rhode Island a safer state. Each of the Injury Community Planning Group subcommittees has been successful in implementing interventions that will ultimately lead to a reduction in the burden of injury in Rhode Island, including:

- Electronic access to the Prescription Monitoring Program by healthcare providers in 2012.
- Evidence-based falls management programs starting in 2011.
- Strategies to increase seatbelt use (passage of the Primary Seatbelt Law in 2011, which was made permanent in 2013).
- Evidence-based gatekeeper training programs to prevent suicide in 2009.

These successes represent just a few of the injury prevention efforts currently being implemented in Rhode Island. The VIPP encourages partners to use the data and recommendations in this plan to drive injury prevention work. Together, the VIPP and its partners can help save lives and improve the quality of life for Rhode Islanders.



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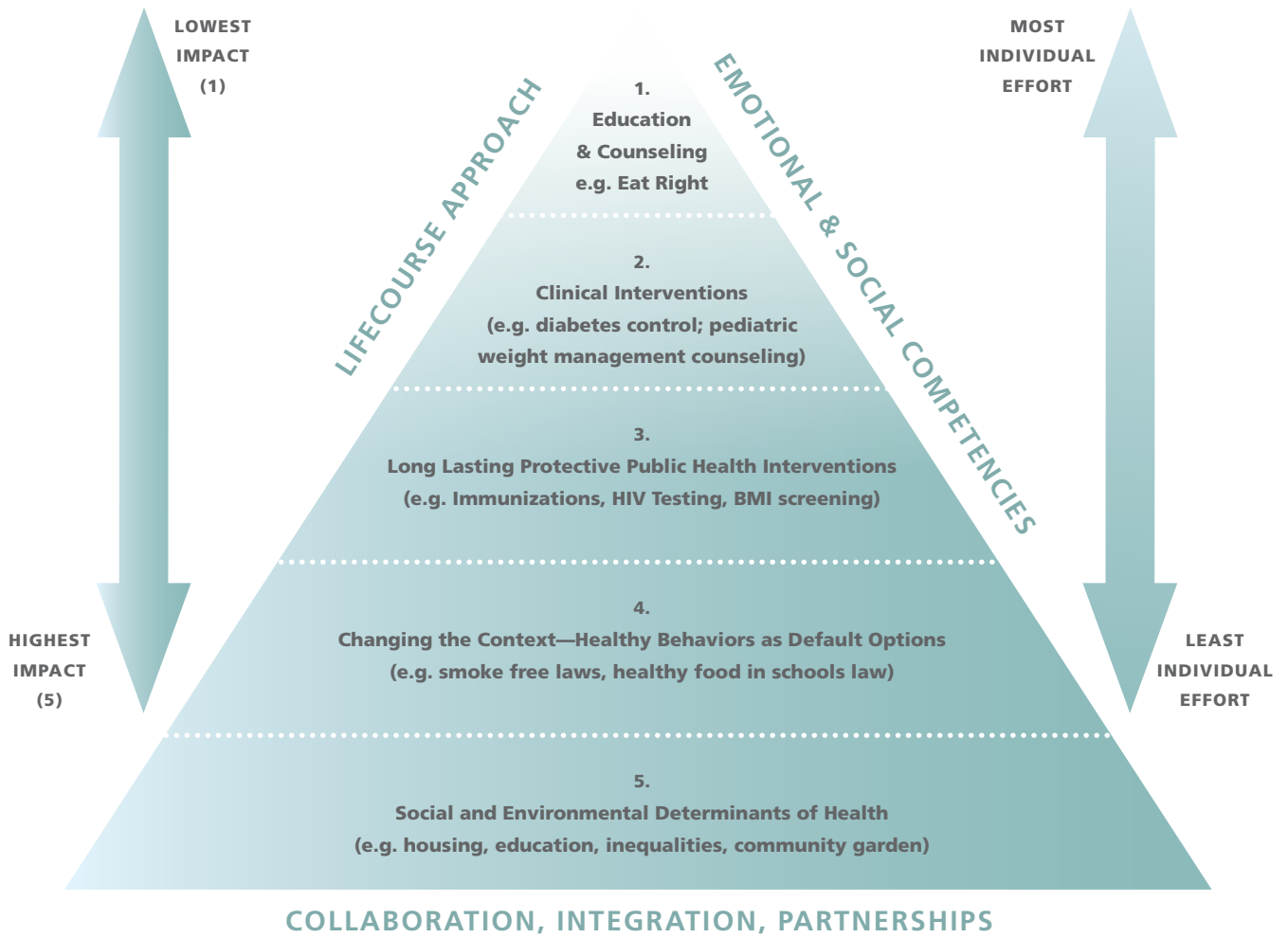
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APPENDICES

Appendix I: Health Equity Pyramid



The Health Impact Pyramid, April 2010, Vol 100, No. 4, American Journal of Public Health. This Pyramid is adapted from Thomas Frieden, MD, MPH, presentation at the Weight of the Nation conference, Washington D.C., July 27, 2009

Appendix II: Injury Community Planning Group Steering Committee Structure

Chair:

Michael Mello
Director of Injury Prevention
Injury Prevention Center
Rhode Island Hospital

Staffed by:

Jennifer Andrade Koziol
Program Coordinator
Violence and Injury Prevention Program
Rhode Island Department of Health

Membership:

Traci Green
Drug Overdose Prevention and Rescue
Subcommittee Chair
Brown University
Rhode Island Hospital

Jeffrey Hill
Program Coordinator
Violence and Injury Prevention Program
Rhode Island Department of Health

Francisco Lovera
Motor Vehicle Injury Prevention
Subcommittee Representative
Rhode Island Department of Transportation

Dina Morrissey
Program Coordinator
Injury Prevention Center
Rhode Island Hospital

Deborah Pearlman
Program Evaluator
Violence and Injury Prevention Program
Rhode Island Department of Health
Brown University

Beatriz Perez
Program Manager
Violence and Injury Prevention Program
Rhode Island Department of Health

Sara Remington
Childhood Maltreatment Prevention Representative
Early Childhood Home Visiting Program
Rhode Island Department of Health

Leigh Reposa
Suicide Prevention Subcommittee Chair
Rhode Island Student Assistance

Rhonda Schwartz
Fall Injury Prevention Subcommittee Chair
Rhode Island Division of Elderly Affairs

Appendix III: Data Sets

Rhode Island Hospital Discharge Data (RI HDD)

Data on inpatient discharges come from Rhode Island's 14 non-federal short-stay hospitals, including five teaching hospitals providing general acute care, six other general acute-care hospitals, two psychiatric teaching hospitals, and one inpatient rehabilitation facility. The data are based on hospital discharges rather than hospital admissions in order to capture length of stay and hospital charges. The Hospital Discharge Data include clinical diagnoses, procedures, and hospital charges. Information also is available on patient demographics (age, sex, race/ethnicity, town and zip code of residence) and source of payment. The data can be used to measure health status and outcomes and healthcare utilization, and for disease and injury surveillance. Patients who die in the hospital are included in the dataset. Hospitals report inpatient discharge data to the RI Department of Health's Center for Health Data and Analysis within 90 days after the end of each calendar quarter. Rhode Island began surveillance for hospital discharges in 1990.

Emergency Department (ED) Visit Data and Observation (OBS) Data

Data on emergency department visits and observation stays are collected from Rhode Island's non-federal short-stay hospitals. The dataset only includes emergency department visits where the patient was discharged home. These events represent cases that are generally less severe than inpatient hospital cases. Information on clinical diagnoses, procedures, and emergency room charges can be used to measure health status and outcomes and emergency department utilization, and for disease and injury surveillance. Information also is available on patient demographics. Hospitals report emergency department visit data to the RI Department of Health's Center for Health Data and Analysis within 90 days after the end of each calendar quarter. Rhode Island began surveillance for emergency department visits in 2005.

Rhode Island Vital Records (Death Records)

Death data are collected from funeral directors who are responsible for obtaining the cause of death from physicians. The definition of a case or record in the Death Records is a person who died in RI or a RI resident who has died out-of-state. Preliminary data on deaths occurring in RI are available within one year after the end of the calendar year. Final data, including out-of-state deaths of RI residents, are available 2 years after the end of the calendar year. Data collection is ongoing.

National Injury Data

The Centers for Disease Control and Prevention support an interactive public use database system known as WISQARS™ (Web-based Injury Statistics Query and Reporting System). The data include fatal and nonfatal injuries, violent deaths, and cost of injuries. Information can be used to assess the public health and economic burden associated with unintentional and violence-related injury in the United States. Users can view the injury data and create reports, charts, and maps based on the following:

- Intent of injury (unintentional injury, violence-related, homicide/assault, legal intervention, suicide/intentional self-harm)
- Mechanism (cause) of injury (e.g., fall, fire, firearm, motor vehicle crash, poisoning, suffocation)
- Body region (e.g., traumatic brain injury, spinal cord, torso, upper and lower extremities)
- Nature (type) of injury (e.g., fracture, dislocation, internal injury, open wound, amputation, burn)
- Geographic location (national, regional, state) where the injury occurred
- Sex, race/ethnicity, and age of the injured person

The query system is available online at: <http://www.cdc.gov/injury/wisqars/index.html>

Appendix IV: The Drug Overdose Prevention and Rescue Subcommittee Membership List*

Chair:

Traci Green
Rhode Island Hospital
Brown University

Staffed by:

Jennifer Andrade Koziol
Violence and Injury Prevention Program
Rhode Island Department of Health

Membership:

Rebecca Boss
Rhode Island Department of Behavioral Healthcare,
Developmental Disabilities and Hospitals

Sarah Bowman
Rhode Island Hospital

Jef Bratberg
University of Rhode Island, College of Pharmacy
Rhode Island Pharmacist Association

Holly Cekala
ANCHOR
Rhode Island College

Joseph Coffey
Warwick Police Department

Leslie Cohen
New England Addiction Technology
Transfer Center (ATTC) Network

Cathy Cordy
Prescription Monitoring Program
Rhode Island Department of Health

Chris Creech
Healthy Communities Office
City of Providence

Lori Dorsey
Rhode Island Department of Behavioral Healthcare,
Developmental Disabilities and Hospitals

Timothy Dutra
Rhode Island resident

Lauranne Howard
Rhode Island Department of Corrections

Patrick Kelly
Board of Pharmacy
Rhode Island Department of Health

Linda Mahoney
Rhode Island Department of Behavioral Healthcare,
Developmental Disabilities and Hospitals

Todd Manni
Emergency Medical Services
Rhode Island Department of Health

Brandon Marshall
Brown University

Michelle McKenzie
Miriam Hospital

Valeri Melekhov
Rhodes Technologies

Obad Papp
Mayor's Substance Abuse and Prevention Council
City of Providence

Beatriz Perez
Violence and Injury Prevention Program
Rhode Island Department of Health

Matthew Raymond
Prescription Monitoring Program
Rhode Island Department of Health

Jason Rhodes
Emergency Medical Services
Rhode Island Department of Health

Michael Rizzi
CODAC Behavioral Healthcare

George Stamatakos
Providence Police Department

*This list includes all partners that participated in the strategic planning process (November 2012 – May 2013).

Appendix V: The Falls Injury Prevention Subcommittee Membership List[†]

Chair:

Rhonda Schwartz
Fall Injury Prevention Subcommittee Chair
Rhode Island Division of Elderly Affairs

Staffed by:

Jennifer Andrade Koziol
Violence and Injury Prevention Program
Rhode Island Department of Health

Membership:

Lisa Aubin
Hallworth House

Jenn Bergeron
Executive Office of Health and Human Services
Xerox State Healthcare, LLC

Greg DeGasper
Dwell at Ease

Shayne Donahue
Tri-town ElderCare

Susan Dugan
VNS of Newport and Bristol Counties

Jane Eskelund
Rebuilding Together

Catherine A. Gergora
Alliance for Better Long Term Care

Cynthia Graves
West Bay Community Action Program
YMCA of Greater Providence

Celeste Harris
Coastal Medical, Inc.

Janice Hulme
University of Rhode Island Physical Therapy Program

Elaine Joyal
Memorial Hospital of Rhode Island

Edna Kurtzman
Bayside YMCA

Jennifer Lee
VNA of Care New England

Kelly Lockwood
Tamarisk Assisted Living Residence

Martha Machnik
YMCA of Greater Providence

Bob McManus
Providence Tai Chi

Amy Mochel
Federal Hill House Association

Beatriz Perez
Violence and Injury Prevention Program
Rhode Island Department of Health

Lisa Piscatelli
YWCA Rhode Island

Gerry Plante
Safely Home

Vinny Quintero
Rhode Island Fire Marshall

Jennifer Reid
Executive Office of Health and Human Services
Xerox State Healthcare, LLC

Tara Treffry
Federal Hill House Association

[†]This list includes all partners that participated in the strategic planning process (December 2012 –April 2013).

Appendix VI: The Traffic Safety Coalition Membership List[†] (Serves as the Motor Vehicle Injury Subcommittee)

Chairs:

Gabrielle M. Abbate
MADD Rhode Island

Lloyd Albert
Dave Raposa
AAA Southern New England

Commissioner Steven Pare
Commissioner of Public Safety for the City of Providence

Richard Sullivan
Police Chief's Association

Staffed by:

Robert P Feltz
Volunteer

Membership:

Cathy Andreozzi Tori Lynn Andreozzi Foundation	Despina Metakos Rhode Island Department of Transportation
Sergeant Ann Assumpico Rhode Island State Police	Albert Milikian Jr. Community Advocate
James Barden Rhode Island Department of Transportation	Dina Morrissey Injury Prevention Center
Trooper Amanda Brezniak Rhode Island State Police	Anthony Napoli Lifespan
Sharon Brinkworth Brain Injury Foundation	Colonel Steven O'Donnell Rhode Island State Police
Gabe Cano National Highway Traffic Safety Association	Beatriz Perez Violence and Injury Prevention Program Rhode Island Department of Health
Colonel Hugh Clements Providence Police	Major Karen Pinch Rhode Island State Police
Nancy Devaney Narragansett Prevention Partnership	Steven Pristawa Rhode Island Department of Transportation
Mike Geraci National Highway Traffic Safety Association	Alison Riese Lifespan
Kyle Girgan Center for Southeast Asians	Bob Rocchio Rhode Island Department of Transportation
Sergeant Matthew Kite Cranston Police Department	Jacinda Russell USDOT - Federal Highway Administration
Jennifer Andrade-Koziol Violence and Injury Prevention Program Rhode Island Department of Health	Anthony Silva Rhode Island Division of Motor Vehicles
Joe Lindbeck Attorney General's Office	Gregory Smolan Amica
Francisco Lovera Rhode Island Department of Transportation	Jay Sullivan Rhode Island Attorney General's Office
Mark Male Independent Insurance Agents of RI	Sergeant Paul Zienowicz Providence Police

[†]This list includes all partners that participated in the strategic planning process (October 2012 – May 2013).

Appendix VII: Suicide Prevention Subcommittee Membership List

Chair:

Leigh Reposa
Rhode Island Student Assistance Services

Membership:

Ralph Apici
The Providence Center

Vernia Carter
Progreso Latino

Danielle Cote
Brown University

Chuck Cudworth
Rhode Island Student Assistance Services

Sarah Dinklage
Rhode Island Student Assistance Services

Christine Emond
Gateway Healthcare

Kimberly Gleason
American Foundation for Suicide Prevention

Karyn Horowitz
Bradley Hospital

Staffed by:

Jeffrey Hill
Violence and Injury Prevention Program
Rhode Island Department of Health

Elizabeth Kretchman
Rhode Island Department of Behavioral Healthcare,
Developmental Disabilities, and Hospitals

Faith LaMunyon
Rhode Island National Guard/Healthnet

Christine Miller
Beacon Hospice

Jean Russell
Johnson & Wales University

Rahila Saeed
Massachusetts and Rhode Island Poison Center

Sidra Scharff
The Samaritans of Rhode Island

Renee Shield
Brown University

Appendix VIII: Acknowledgements

Special thanks to:

Samara Viner-Brown, MS, Chief, Center for Health Data and Analysis, Rhode Island Department of Health

Kathy Taylor, Data Analyst, Center for Health Data and Analysis, Rhode Island Department of Health

Sophie O'Connell, MA, Strategic Communication Specialist, Center for Public Health Communication, Rhode Island Department of Health

Anne Berg, Graphic Designer, Center for Public Health Communication, Rhode Island Department of Health

Jan Shedd, EdM, Team Lead, Health Promotion and Wellness Team, Rhode Island Department of Health

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