

EVALUATION

Two approaches will be used to evaluate the Washington State Injury and Violence Prevention Guide. The first approach will measure the short-term work activities. The second approach will use surveillance systems to monitor long-term progress such as state level morbidity and mortality rates, measures from the Behavior Risk Factor Surveillance System, crime reports, and Healthy Youth Survey results.

First Approach: Short Term

Short-term success will be monitored in two ways. The first will be to assess progress in completing the activities outlined in the Prevention Guide. The implementation plans of the four priority areas outline the Department of Health's injury and violence prevention objectives through 2010. Progress on the implementation plans will be assessed annually.

Another way progress will be assessed is by completing the activities outlined in each of the chapter logic models. The term "logic model" represents the basic elements that communicate rationale behind a plan, initiative, or program. Logic models are useful for all parties involved in a planning or implementation process. Logic models can convey the fundamental purpose of the plan, what will result from the plan, and the actions and resources expected to lead to the desired results. The logic models for each section are in Appendix G.

To see the overall picture for each cause of injury, the one-page logic models in the prevention guide convey relationships among resources, activities, knowledge and capacity needed, and short and long-term outcomes. These logic models are designed to assist in planning, obtaining resources (for example, grant writing), marketing, building partnerships and coalitions, implementing activities, and in evaluation. Each chapter will have an annual progress report on activities that have taken place in the previous year.

The second way of monitoring progress will be by assessing the marketing of the Prevention Guide. Tracking will be kept of how many guides are distributed and how many web hits there are on the website. In addition, there will be an annual survey conducted of our target audience to assess whether they are using the Prevention Guide. Our goals are:

- 60% of our target audience reads at least one chapter in the Prevention Guide.
- 40% shares the Prevention Guide with at least one colleague.
- 30% uses the Prevention Guide for decision making or implementation.

The target audience will be identified through our current partners, at the launch of the Prevention Guide, and through marketing efforts. The survey will focus on measuring whether or not these goals have been met.

Second Approach: Long Term

The second approach will measure progress made in reducing deaths and hospitalizations in each chapter. Injury morbidity and mortality surveillance data will serve as our primary source to measure progress. However, other data sources such as the Healthy Youth Survey, the Behavior Risk Factor Surveillance System, and crime data will be monitored and reviewed for long-term impact of various conditions

Data will be reviewed each November after the data report is completed as a deliverable for a Centers for Disease Control and Prevention grant. The data report includes completed death and hospitalization tables categorized by sex, age group, and external cause for all-injury, traumatic brain injury, drowning, falls, fire, firearm, motor vehicle, poisoning, suicide, and homicide. The data report is available on the DOH, Injury and Violence Prevention website.

Appendix A

Data Sources

Healthy People 2010 Objectives

Healthy People 2010 is a document that provides national health promotion and disease prevention goals and objectives. These objectives were developed by the United States Department of Health and Human Services, incorporating input from federal, state, and local agencies and extensive public comment. Healthy People 2010 objectives are not always consistent with each other because coding and other conventions have changed.

The reader must be careful when assessing Washington State relative to the national goals. In some cases, no comparable data is available. Washington State has the advantage of collecting hospitalization data, which is not uniformly available in all states, and therefore not used as a measure in Healthy People 2010.

Death Certificate System

Description of the Data

The Washington State Death Certificate System gathers information about each death that occurs in Washington State. Similar information is collected for residents of Washington State who die in another state or country. Thus, the Death Certificate System contains records on all deaths occurring in the state and all deaths to residents of the state.

Funeral directors collect information about the decedent from an informant (usually a family member or close personal friend of the decedent). Cause-of-death information is generally provided by a certifying physician, medical examiner, or coroner.

The major purposes of the death system are to:

- Provide a death record for purposes such as establishing inheritance and disposition of human remains.
- Record information about causes of death, injuries, occupation, and age which can be used by data analysts to help prolong the lives of residents of Washington State. For more information about what data are collected on the Washington State Death Certificates, visit www.doh.wa.gov/EHSPHL/CHS/CHS-Data/death/deatmain.htm (Washington State Department of Health death certificates Web page).

Classification and coding of data on Washington death records follow the National Center for Health Statistics (NCHS) guidelines as defined in Vital Statistics

Instruction Manuals parts 1-20 (U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, National Center for Health Statistics, Hyattsville, MD). For more information on the International Classification of Disease (ICD) 10 codes used in the death certificates, visit www.doh.wa.gov/ehspl/chs/chs-data/TechNote/tech_not.pdf (Washington State Department of Health, death certificates/technical notes Web page).

Washington State Comprehensive Hospital Abstract Reporting System (CHARS)

Description of the Data

The CHARS database is used to collect public information such as the age, sex, zip code, and billed charges of the patient, as well as the codes for their diagnosis and procedures, among other items.

The purpose of the CHARS system is to provide public health personnel, consumers, purchasers, payers, providers, and researcher's useful information by which to make informed decisions on health care. For more information, visit the Washington State Department of Health Web site at www.doh.wa.gov/EHSPHL/hospdata/.

Classification and coding of CHARS data also follow the National Center for Health Statistics (NCHS) guidelines as defined in Vital Statistics Instruction Manuals parts 1-20 (U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, National Center for Health Statistics, Hyattsville MD).

Population Data

Description of the Data

The United States Constitution mandates a count of people living in the country every 10 years to determine how many seats each state will have in the House of Representatives. The census is also used for political redistricting, distribution of federal and state funds, and other governmental needs. The Bureau of the Census, located in the Department of Commerce, develops and mails census questionnaires to all known addresses where people might live, including housing units, hospitals, and hotels, in the United States and its territories.

Information is gathered by a short form sent to five out of six housing units and a long form sent to the remaining addresses.

The short form asks basic questions, such as name, age, gender, and race of everyone in the household. The long form includes the questions on the short form, additional demographic questions, such as income and education, and questions about housing. Census takers visit housing units in rural and remote areas to drop off and pick up forms, and visit housing units that do not return census forms. Census workers also stage a one-day operation to obtain information on homeless persons and others who might be missed in the traditional enumeration of housing units and group quarters.

The primary purpose of intercensal interpolations is to provide a count of people in Washington between the decennial censuses. The Office of Financial Management (OFM) develops the intercensal interpolations using information from the decennial censuses, annual data on the number of births and deaths in Washington, and a variety of other data, such as housing starts, to estimate migration into and out of Washington. Both the federal census counts and the Washington intercensal estimates are also used by many other entities for a diversity of purposes, such as the denominator for calculating rates of health events. For more information about population data, visit www.doh.wa.gov/HWS/doc/Census.

Child Death Review (CDR) Data

Description of the Data

Washington's CDR data come from reviews submitted as of June 2003 to a state database by local CDR teams operating across the state. CDR is a process by which local communities establish a multi-disciplinary team representing public health, medical providers, law enforcement, school counselors, and other agencies and professions. Each team identifies circumstances leading to such deaths; collects and reports accurate,

uniform information; improves interagency communication; and develops strategies to improve child health and safety. From 1998 through June 2003, 29 community-based CDR teams covered the entire state of Washington through contracts with 34 local health jurisdictions. Each contractor convened a multidisciplinary team (5-20 members) that reviewed unexpected deaths of children age birth to 18 years residing in that jurisdiction using a standardized data collection tool, and submitted these reviews to the Washington State Department of Health. Unless otherwise noted, CDR data in this report includes unknowns and missing data. More information is available at www.doh.wa.gov/cfh/mch/cahpc/cdr.htm

Healthy Youth Survey (HYS)

Description of the Data

The HYS is a collaborative effort between Washington State's Office of the Superintendent of Public Instruction, the Department of Health, the Department of Social and Health Service's Division of Alcohol and Substance Abuse, and the Office of Community Development. The HYS provides important information about adolescents in Washington. County prevention coordinators, community mobilization coalitions, community public health and safety networks, and others use this information to guide policy and programs that serve youth. The information from the HYS can be used to identify trends in the patterns of behavior over time. The state-level data can be used to compare Washington to other states that do similar surveys and to the nation. In the falls of 2002, 2004, and 2006, students in grades 6, 8, 10, and 12 answered questions about safety and violence, physical activity and diet, alcohol, tobacco and other drug use, and related risk and protective factors. State level data are available at: www3.doh.wa.gov/HYS/.

Behavioral Risk Factor Surveillance System (BRFSS)

Description of the Data

This is a national telephone survey of adults ages 18 and older that monitors modifiable risk factors for chronic diseases and other leading causes of death. For more information on the Washington State BRFSS, go to www.doh.wa.gov/EHSPHL/CHS/CHS-Data/brfss/brfss_homepage.htm. For CDC BRFSS information, go to www.cdc.gov/brfss (CDC Behavioral Risk Factor Surveillance System Web site).

Child Protective Services (CPS)

Description of the Data

CPS is one of sections of the Division of Children and Family Services (DCFS) of the Washington State Department of Social and Health Services (DSHS). CPS is responsible for protecting children from abuse or neglect. CPS staff is required by law to investigate

reports of suspected child abuse or neglect that meet the legal definition of child abuse or neglect. Data included in this report are accepted referral data. "Accepted referral" is a referral to Child Protective Services that passed an initial screening to determine whether investigation is required.

Fatal Accident Reporting System (FARS)

Description of the Data

FARS contains data on an annual census of fatal traffic crashes. To be included in FARS, a crash must involve a motor vehicle traveling on a traffic way customarily open to the public, and must result in the death of an occupant of a vehicle or a non-motorist within 30 days of the crash. Data collected by FARS includes details about the crash, the vehicles involved, and the persons (including drivers) involved. For more information about FARS, go to www.wtsc.wa.gov/fars.html.

Appendix B

E-code Matrices

Classification of Injuries¹ – Recommended framework of ICD-9 E-code groupings for presenting injury death and hospitalization data

Cause	Unintentional	Intentionally Self Inflicted	Assault	Undetermined	Legal Intervention or War
Cut/pierce	E920	E956	E966	E986	E974
Drowning/ Submersion	E830, E832, E910	E954	E964	E984	
Falls	E880-E886, E888	E957	E9979.3	E987	
Fire/burn	E890-E899, E924	E958.1, E958 (.2,.7)	E968.0, E961, E968.3n	E988.1, E988 (.2,.7)	
Fire/flame	E890-E899	E958.1	E968.0, E979.3	E988.1	
Hot Object/ Substance	E924	E958 (.2,.7)	E961, E968.3	E988 (.2,.7)	
Firearms	E922	E955 (.0-.4)	E965 (.0-.4), E979.4	E985 (.0-.4)	E970
Machinery	E919				
Motor Vehicle Traffic	E810-E819	E958 (.5, .6)	E968.5	E988 (.5 .6)	
Occupant	E810-E819 (.0,.1)				
Motorcyclist	E810-E819 (.2,.3)				
Pedal cyclist	E810-E819 (.6)				
Pedestrian	E810-E819 (.7)				
Other	E810-E819 (.4,.5,.8)				
Unspecified	E810-E819 (.9)				
Pedal Cyclist, Other	E800-E807 (.3), E820-E825 (.6), E826 (.1,.9),E827-E829 (.1)				
Pedestrian, Other	E800-E807 (.2), E820-E825 (.7), E826-E829 (.0)				
Transport, Other	E800-E807 (.0,.1,.8,.9), E820- E825(.0-.5,.8,.9), E826 (.2-.8), E827-E829 (.1)	E958.5		E988.5	
Water/Space/Air	E840-E845, E831, E833-E838	E958.6		E988.6	
Natural/ Environment	E900-E909, E928 (.0-.2)	E958.3		E988.3	
Bites/Stings	E905 (.0-.6,.9);E906(.0-.4,.5,.9)				
Overexertion	E927				
Poisoning	E850-E869	E950-E952	E962	E980-E982	E972
Struck By/Against	E916-E917		E960.0, E968.2		E973, E975
Suffocation	E911-E913	E953	E963	E983	
Other Specified, & Classifiable	E846-E848, E914-E915, E918, E921, E922.4, E923, E925-E926, E928.3, E929 (.0-.5)	E955 (.5,.6, .7,.9) E958 (.0,.4)	E960.1, E965 (.5-.9), E967, E968.4,.6,.7	E985.5,.6,.7 E988 (.0,.4), E979 (.0-.2, .5-.9)	E971, E978, E990-E994, E996, E997 (.0-.2)
Other Specified, Not Elsewhere Classifiable	E929.8, E928.8	E958.8, E959	E968.8, E969	E988.8, E989	E977, E995, E997.8, E998, E999
Unspecified	E887, E928.9, E929.9	E958.9	E968.9	E988.9	E976, E997.9

Source: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention

¹ Certain E-code categories are not considered to represent 'true' injuries, and are excluded from analysis. These include injuries due to medical misadventures, postoperative complications, and adverse effects of drugs, medicinal, and biological substances. A

small number of newborns that are coded as injured between birth and discharge from the hospital are also excluded. Hospital patients who die in the hospital are excluded from the hospitalization data, but included in the mortality data.

Classification of Injuries

Classification of Injuries¹ – Recommended framework of ICD-10 E-code groupings for presenting injury death and hospitalization data

Cause	Unintentional	Intentionally Self Inflicted	Assault	Undetermined	Legal Intervention or War
Cut/pierce	W25-W29, W45	X78	X99	Y28	Y35.4
Drowning/ Submersion	W65-W74, V90, V92	X71	X92	Y21	
Falls	W00-W19	X80	Y01	Y30	
Fire/burn	X00-X19	X76-X77	X97-X98, U01.3	Y26-Y27	Y36.3
Fire/flare	X00-X09	X76	X97	Y26	Y36.3
Hot Object/ Substance	X10-X19	X77	X98	Y27	
Firearms	W32-W34	X72-X74	X93-X95, U01.4	Y22-Y24	Y35.0
Machinery	W24, W30-W31				
Motor Vehicle Traffic	Codes from 6 groups below				
Occupant	V30-V39 (.4-.9), V40-V49 (.4-.9), V50-V59 (.4-.9), V60-V69 (.4-.9), V70-V79 (.4-.9), V83-V86 (.0-.3)				
Motorcyclist	V20-V28 (.3-.9), V29 (.4-.9)				
Pedal cyclist	V12-V14 (.3-.9), V19 (.4-.6)				
Pedestrian	V02-V04 (.1,.9), V09.2				
Other	V80 (.3-.5), V81.1, V82.1				
Unspecified	V87 (.0-.8), V89.2				
Pedal Cyclist, Other	V10-V11, V12-V14 (.0-.2), V15- V18, V19 (.0-.3,.8,.9)				
Pedestrian, Other	V01, V02-V04 (.0), V05, V06, V09 (.0,.1,.3,.9)				
Transport, Other	V20-V28 (.0-.2), V29 (.0-.3), V30- V79 (.0-.3), V80 (.0-.2,.6-.9), V81- V82 (.0,.2-.9), V83-V86 (.4-.9), V87.9, V88 (.0-.9), V89 (.0,.1,.3,.9)	X82	Y03	Y32	
Water/Space/Air	V91, V93-V99		U01.1		Y36.1
Natural/ Environment	W42, W43, W53-W64, W92- W99, X20-X39, X51-X57				
Bites/Stings	W53-W59, X20-X29				
Overexertion	X50				
Poisoning	X40-X49	X60-X69	X85-X90, U01 (.6-.7)	Y10-Y19	Y35.2
Struck By/Against	W20-W22, W50-W52	X79	Y00, Y04	Y29	Y35.3
Suffocation	W75-W84	X70	X91	Y20	
Other Specified, & Classifiable	W23, W35-W41, W44, W49, W85-W91, Y85	X75, X81, U03.0	X96, Y02, Y05-Y07, U01	Y25, Y31	Y35 (.1,.5), Y36 (.0,.2,.4-.8)
Other Specified, Not Elsewhere Classifiable	X58, Y86	X83, Y87.0	Y08, Y87.1, U01.8, U02	Y33, Y87.2	Y35.6, Y89 (.0,.1)
Unspecified	X59	X84, U03.9	Y09, U01.9	Y34, Y89.9	Y35.7, Y36.9

Source: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention

Appendix C

Glossary of Terms and Acronyms

Terms

Abuse

A pattern of violence occurring in the course of a domestic (e.g., parent-child, husband-wife, partner-partner), or caregiver-client relationship.

Active Countermeasure

A preventive measure requiring action on the part of the individual being protected.

Administrative Per Se License Suspension

Legislation requiring the immediate surrender of a license by a driver who refuses to submit to a chemical test, or whose test records a blood alcohol concentration (BAC) higher than the state's legal limit.

Age-adjusted Injury Rate

An injury rate calculated to reflect a standard age distribution.

Age-specific injury rate

An injury rate calculated for a group of a defined age range.

Agent

The form of energy that damages body tissues in an injury.

Aggravated Assault

An unlawful attack by one person on another for the purpose of inflicting serious or aggravated bodily injury (FBI).

Aggregation

A process in which data collected from a number of geographic areas are combined to provide a more comprehensive picture.

Air Bag

An inflatable crash protection device concealed in the steering wheel, dashboard, door, ceiling, under steering wheel, door columns, etc., of a car until it is activated by a crash. In a serious frontal crash, the bag fills to create a protective cushion between the person and the steering wheel, dashboard, and windshield. For maximum protection one must also use seatbelts in cars with airbags (NHTSA).

Assault

An act of violence resulting in injury.

Attenuation of Effect

The decreasing impact of an education/behavior change intervention as it is carried out in a population.

Bar Charts with Rates and Confidence Intervals

The following is important to note when reading the bar charts in this report. The top of the bar represents the actual value of the rate, and the numerical value on top of the bar is the rate. The black line marked with two endpoints at the top of each bar represents the 95 percent confidence interval of the rate. We expect the true rate to fall within the confidence interval 95 percent of the time. When comparing two rates with each other and the confidence intervals overlap, the rates are not considered to differ statistically from each other.

Baseline Data

Data collected for a period of time before the implementation of an intervention that are then used for comparison with data collected during or after implementation.

Case

An individual incident or person of the type about which data are collected.

Case Definition

A description used to specify incidents or persons about which data are collected.

Child Abuse

A general term encompassing physical abuse, psychological or emotional abuse, sexual abuse, or sexual exploitation and neglect.

Child Death Review (CDR)

A nationally recognized tool for collecting information from multiple sources on unexpected deaths of children age birth through 17. The information is ultimately used to better understand antecedents to unexpected child death, and to prevent child death and injury.

Child Neglect

The systematic disregard for the physical, psychological, or emotional needs of a child by a caregiver.

Child Sexual Abuse

Any sexual contact between a child and an adult; in certain circumstances, sexual contact between children.

Coalition

An organization of individuals representing a variety of interest groups who come together to share resources, and plan and work together.

Community Diagnosis

A synthesis of injury morbidity and mortality data and information about the community that is used when designing a program.

Confidence Interval

The degree of certainty that can be claimed for the accuracy of a statistical calculation.

Conspicuity-enhancement Devices

Reflective materials and objects (e.g., flashlights vests, headbands, ankle bands, etc.) worn by nighttime pedestrian, bicyclists, motorcycle riders, and joggers to make them more visible to drivers.

Control (or Comparison) Group

A group of individuals as similar as possible to an experimental group who are not exposed to a given intervention.

Corridor Safety Project

A Community process by which a specific stretch of roadway is designated as dangerous, and a multi-faceted approach is taken to improve safety and reduce crashes, injuries and fatalities. Community partners usually include all law enforcement agencies, public works and state highway agencies, appropriate federal agencies, emergency medical services and response, business, schools, civic organizations, private citizens, and local governments.

Countermeasure

A measure/action taken to counter behavior or action that could lead to possible injury or death.

Data Abstraction

The process of translating information presented in narrative form into variables.

Data Linkage

The process of matching data on the same cases from more than one source.

Death Rate

A measure derived by dividing the number of deaths in a population in a given period by the resident population at the middle of that period.

Deterrence

An attempt to prevent crime or breaking safety laws through the threat of punishment.

Direct Cost

The actual dollar expenditures related to illness or injury, including amounts spent for hospital and nursing home care, physician and other medical professional services, drugs and appliances, and rehabilitation.

Disaggregate

The process of separating data for a particular geographic area or population variable from a more comprehensive collection of data.

Domestic Violence

Spouse/partner abuse and woman battering.

Dram Shop Law

Legislation that make civilly liable those who serve alcohol beverages to a minor or to an individual already intoxicated.

E codes

Numerical designations of external cause of injury developed by the World Health Organization (WHO) for the International Classification of Diseases (ICD) system.

Early Death

A death occurring within 2-3 hours of an injury.

Education/Behavior Change Interventions

Preventive measures involving the education of the population at large, targeted groups, or individuals and efforts to alter specific injury-related behaviors.

Elder Abuse

Physical, psychological, emotional, or sexual abuse or financial exploitation of an elderly person by a caregiver.

Elder Neglect Systematic disregard for the physical, psychological, or emotional needs of an elderly person by a caregiver.

Emergency Medical Services System

A system that provides for the arrangement of personnel, facilities, and equipment for the effective and coordinated delivery of health care services in an appropriate geographical area under emergency conditions (occurring as a result of the patient's condition or of natural disaster or similar situation) (EMSS Act of 1973).

Engineering/Technological Interventions

Preventive measures involving changes in the design of products or in the physical environment.

Environment

The physical and psychosocial setting in which injuries occur.

Epidemiology

The study of the occurrence, distribution, and determinants of health-related states and events in populations (disease and injury), and the application of this study to control health problems.

Ergonomics

The study of the interaction between worker and machine.

Evaluation The collection and analysis of data to determine the effectiveness of a given program (see also outcome evaluation and process evaluation).

Fatal Accident Reporting System (FARS)

Data from traffic fatalities that are collected from police reports, hospital, medical examiners and coroners, EMS reports, state registration, driver licensing, highway department files and death certificates. The National Highway Transportation Safety Administration administers FARS. Data are collected on time and location of the "accident", age and sex of each person involved, alcohol involvement and injury severity.

Fire/Burn Injury

Damage to tissue caused by thermal, chemical, electrical, radiation energy, or by inhalation of smoke and toxic fumes caused by fire.

Firearm Injury

Damage to tissues caused by bullets fired from a firearm.

Focus Group

A qualitative marketing research technique that most commonly involves a structured group discussion with 8-12 participants, often lasting one and a half to two hours, facilitated by a professional moderator. This methodology is most appropriate for identifying and clarifying issues and for pretesting messages and materials.

Formative Evaluation

A process conducted (usually while the program is under development) on a program's proposed materials, procedures, and methods.

Goal

A statement of a program's intention to bring about long-term improvement in an injury problem.

High Risk Groups

Groups known to have a higher than average rate of a particular injury, such as suicide, drowning, or head injury. For example, the following are at high risk for suicide: white males, Native Americans, depressed youth/people, high-achieving youth, youth with school problems, substance abusers gay and lesbian youth, and victims of abuse/assault.

Homicide

The killing of one person by another.

Host

The injured individual.

Ignition Interlock

A device for preventing a driver from starting a vehicle unless he/she passes an alcohol-detecting breath test.

Immediate Death

A death occurring within minutes after injury.

Impact Evaluation

A process to determine how well a program is meeting its intermediate goals of changes in people's knowledge, attitudes and beliefs.

Impaired Driving

Drunk and/or drugged driving.

Incidence

The number of instances of illness commencing, or of persons falling ill or sustaining injury, during a given period in a specified population. More generally, the number of new events, e.g., new cases of injury in a defined population.

Indirect Cost

The value of lost output due to the reduced productivity caused by illness, disability or injury. This includes the value of lost workdays and housekeeping days due to illness and disability, and losses due to premature death.

Injury

Unintentional or intentional damage to the body resulting from acute exposure to thermal, mechanical, electrical, or chemical energy or from the absence of such essentials as heat or oxygen. The terms "injury" and "trauma" are used interchangeably.

Injury Rate

A statistical measure describing the number of injuries expected to occur in a defined number of people (usually 100,000) within a defined time period (usually one year). An expression of the relative risk of different injuries or groups.

Institutionalization

The process by which a program achieves ongoing financial support and commitment from the agency and community in which it is based.

Instrument

A questionnaire, survey, test, or other data collection form to gather information about injury incidence and/or knowledge, attitudes or behavior related to injuries.

Intentional Injury

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

Intervention

A specific prevention measure or activity designed to meet a program objective. The three categories of intervention are legislation/enforcement, education/behavior change, and engineering/technology.

Late Death

A death occurring within 2-3 weeks after injury.

Lead Agency

An organization that serves as the focal point for injury prevention expertise on the local or state level. The lead agency offers technical assistance and resources to other groups and serves as a broker of information among groups.

Legislation Enforcement Interventions

Preventive measures involving the enactment or enforcement of laws of regulation.

Life Expectancy

The average number of years of life remaining to a person at a particular age based on a given set of age- and sex-specific death rates.

Maturation

The knowledge, skills, or other attributes that people gain with regard to the goals of an injury prevention program while the program is going on, but which are not due to program activities.

Morbidity

Any deviation from a state of well being, either physiological or psychological; any mental or physical illness or injury.

Morbidity Cost

The value of lost productivity.

Mortality

Death.

N codes

Numerical designations of the nature of injury developed by the World Health Organization for its International Classification of Diseases system.

Near Drowning

Submersion injury resulting in brain damage from oxygen deprivation.

Objective

A statement of changes sought in an injury problem in terms that are measurable, time limited, and specific to a given target population (See also Outcome objective and Process objective).

Outcome Evaluation

A process that seeks to measure a program's progress toward improving injury morbidity and/or mortality, knowledge, attitudes, behavior, physical environments, or public policy and practice.

Outcome Objective

A statement of the desired impact of an intervention on injury morbidity and/or mortality, knowledge, attitudes, behavior, physical environment or public policy or practice.

Passive (or Automatic) Countermeasures

A preventive measure requiring little or no action on the part of the individual being protected.

Pilot Test

A small-scale trial conducted before a full-scale program begins to see if the planned methods, procedures, activities, and materials will work.

Placebo

A service, activity or item that is similar to the intervention service, activity or item but without the intervention characteristic that is being evaluated.

Precede

A diagnostic health promotion model focusing on predisposing, enabling, and reinforcing factors that influence health behavior.

Prevalence

The number of instances of a given disease or disability in a given population at a designated time, regardless of the course of the disease or disability.

Prevention

To anticipate and counter in advance.

Primary Enforcement (of seat belt laws)

A stipulation of a safety belt use law that allows law enforcement to stop a driver solely on the basis of a safety belt violation. (see also Secondary enforcement).

Primary Prevention

Efforts made to prevent a potential injury event from happening at all (no crashes, no drownings, etc.).

Problem Identification

The process of determining the nature of an injury problem, the characteristics of the population, the community's perception of the problem, the resources available to address it, and the political environment.

Process Evaluation

A method of documenting the achievement of proposed program activities, whether and how interventions were conducted, what portion of the target population was reached, total cost of the program, etc.

Process Objective

A statement of the desired level of achievement of program activities.

Program

A coordinated effort organized by a lead agency to reduce an injury problem among a target population.

Program Description A written summary describing the magnitude and characteristics of the injury problem(s) to be addressed; program goals, process and outcome objectives, interventions, program strategy, and evaluation measures; and the rationale for selecting a given approach to address the problem(s).

Program Design

A process in which program goals and outcome and process objectives are established, interventions are selected, and a program strategy is identified.

Program Targeting

The selection of feasible program goals, objectives, and interventions and an appropriate, narrowly defined injury type and target population.

Protective Factors

Factors that serve to decrease the potential for intentional or unintentional injury, including personal and social resources, high self-esteem, sense of personal control, broad range of coping skills, and social support resources, particularly family and school support.

Protocol

The outline or plan of a data collection procedure.

Proxy Measure

An alternative or substitute outcome that has been proven by research or is generally accepted to be associated with reduced injury morbidity or mortality.

Quasi-experimental Design

A type of evaluation design in which individuals are assigned in a nonrandom manner to control and experimental groups.

Rape

All forms of sexual victimization, including forcible rape, attempted rape, and other acts of unwanted sexual aggression.

Rate

A measurement of how frequently an event occurs among people in a certain population as a point in time of during a specified period of time.

Rate per 100,000

Using the Washington State childhood death rate as an example, this is the total number of deaths in a specified time period divided by the total population of children in Washington State in that same time period, and then multiplied by 100,000. The resulting rate is the number of deaths occurring in a group of 100,000 residents in Washington State during the specified time period.

Reach

The number of people or households who receive the program's message or intervention.

Recidivism

The tendency to relapse into a previous undesirable type of behavior.

Regression to the Mean

Statistical tendency for variation to average over time, that is, the tendency of statistic extremes to even out over a long period.

Rehabilitation

Services that seek to return a trauma victim to the fullest physical, psychological, social, vocational, avocational, and educational level of functioning of which he/she is capable, consistent with physiological or anatomical impairments and environmental limitations.

Risk Factor

A characteristic that has been statistically demonstrated to be associated with (although not necessarily the direct cause of) a particular injury. Risk factors can be used for targeting particular preventive efforts at groups who may be particularly in danger of injury.

Secondary Enforcement

(of safety belt use laws) A stipulation of a safety belt use law that allows law enforcement officials to address a safety belt violation only after a driver has been stopped for some other purpose.

Secondary Prevention

Efforts made to reduce the severity of an injury during an injury event (wear a seat belt, wear a helmet, wear a life vest).

Sensitivity The ability of a data collection system to include all cases of a particular injury or event.

Severity Score

A measure of the seriousness of an injury, usually related to probability of survival.

Significant Trend

For the time trend analyses in this report, the "joinpoint" methodology developed by the National Cancer Institute was used. Information on this method is available at srab.cancer.gov/joinpoint. A significant trend indicates that the change in the rate is not random and that the increase or decrease is likely to be occurring in a population. The significance level used for a significant trend is $p < 0.05$.

Specificity

The ability of a data collection system to exclude all injuries or events that do not fit the case definition.

Social Marketing

The use of marketing principles and techniques for influence a target audience to voluntarily accept, reject, modify or abandon a behavior for the benefit of individuals, groups, or society as a whole.

Specific Rates

Age specific rates are rates calculated for a specific age group; the numerator and denominator refer to the same age group.

Gender specific rates are rates calculated for each gender separately; the numerator and denominator refer to the same population.

Region specific rates are rates calculated by region of the state; the numerator and denominator refer to the same population.

Age-adjusted rates are rates that have been adjusted to minimize the effects of differences in age composition when comparing rates for different populations. Age-adjustment rates were used in this report when comparing children who live in urban settings to those in rural settings. This was necessary because there are more young children (ages 0-4) and fewer teens (ages 15-17) in urban settings, and visa versa in rural settings. The age-adjustment corrects for this difference.

Spouse Abuse

Violence within an intimate relationship directed by one partner at the other.

Strategy

An overall plan for meeting a program's goals and objectives that combines a set of interventions with the program's resources, a plan for the evaluation or its process and outcome, and method of securing the necessary community and financial support to stay in operation.

Suicide

Self-directed violence that results in death.

Suicide Attempt

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

Suicide Cluster

A group of suicides or suicide attempts, or both, the occur closer in time and space than would normally be expected in a given community (CDC).

Suicide Ideation

Thoughts or ideas of harming or killing oneself.

Suicide Risk Factors

Factors that are strongly associated with suicidal behavior among youth, including a prior suicide attempt, planned intentions, access to lethal means (especially a gun), and prior exposure to suicide of a family member or friend. Related factors are those that increase suicide potential among youth and include family conflict, social isolation, school failure, and significant losses or other serious stressful life events.

Suicide Threats

Direct or indirect expressions of intent to harm or kill oneself, expressed verbally or through writing, artwork or other means.

Surveillance

The ongoing and systematic collection, analysis and interpretation of health data in the process of describing and monitoring a health event.

Systems Approach

A comprehensive, systematic method to address injury problem through the combined coordinated expertise of individuals and agencies knowledgeable about the magnitude of the problem, the nature of the community, and the resources available for prevention. Also, more generally, a process that incorporates primary, secondary and tertiary prevention.

Target Population

The group of persons (usually those at high risk) that program interventions are designed to reach.

Tertiary Prevention

Acute medical care and rehabilitation directed at the return of a functioning patient to society (ACS).

Trauma

A physical injury or wound caused by an external force that may cause death or permanent disability. Trauma is also used to describe severe emotional or psychological shock or distress.

Trauma Care System

A system of health care provision that integrates and coordinates prehospital emergency medical service resources and hospital resources to optimize the care and therefore the outcome of traumatically injured patients (NHTSA).

Trauma Center

A specialized hospital facility distinguished by the immediate availability of specialized surgeons, physician specialists, anesthesiologists, nurses, and resuscitation and life support equipment on a 24-hour basis (ACS).

Trauma Registry

A collection of data on patients who receive hospital care for certain types of injuries, e.g., blunt or penetrating trauma or burns. Such collections are primarily designed to ensure quality trauma care process and outcomes in individual institutions and trauma systems, but have the secondary purpose of providing useful data for the surveillance of injury morbidity and mortality.

Triage

The classification of patients according to medical need and the matching of those patients with available care resources.

Unexpected Child Death

Are those that do not result from a diagnosed terminal illness or other debilitating or deteriorating illness or condition where death is anticipated (natural death) unless the illness or condition is the result of an injury, whether intentional or not.

Unintentional Injury

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

Variable

An individual aspect of an entity of phenomenon under investigation that can differ among cases, e.g., the variable "gender" can be "male" or "female."

Vector

The mechanism by which potentially injurious energy is transmitted to the host, e.g., a motor vehicle, a gun.

Violence

The use of physical force with the intent to inflict injury or death upon oneself or another or the use of, or threat of, physical force to control another.

Woman Battering

A syndrome characterizing a relationship in which a woman is regularly subjected to violent and controlling behavior by her partner(s).

Years of Potential Life Lost (YPLL)

A statistical measure calculated by subtracting an individual's age at death from a predetermined life expectancy. The CDC generally uses the age of 65 for this purpose.

Acronyms

AAP	American Academy of Pediatrics	NASS	National Accident Sampling System
ACEP	American College of Emergency Physicians	NCHS	National Center for Health Statistics
ACS	American College of Surgeons	NCS	National Crime Survey
ANSI	American National Standards Institute	NCPCA	National Committee for the Prevention of Child Abuse
APHA	American Public Health Association	NEISS	National Electronic Injury Surveillance System
ASTM	American Society of Testing Materials	NFPA	National Fire Protection Association
ATS	American Trauma Society	NHTSA	National Highway Transportation Safety Administration
ATV	All terrain vehicle	NIH	National Institutes of Health
BAC	Blood alcohol concentration	NIMH	National Institutes of Mental Health
CDCP	Centers for Disease Control and Prevention (aka CDC)	NIOSH	National Institute for Occupational Safety and Health
CPR	Cardiopulmonary resuscitation	NSBC	National Safe Boating Council
CPS	Child Passenger Safety	NSC	National Safety Council
CPS	Child Protective Services	OSHA	Occupational Safety and Health Administration
CDR	Child Death Review	OEMTP	Office of Emergency Medical & Trauma Prevention (WA)
CHARS	Comprehensive Hospital Abstract Reporting System (hospital discharge data)	OJJDP	Office of Juvenile Justice & Delinquency Prevention
CPSC	Consumer Products Safety Commission	PFD	Personal Flotation Device
DHHS	Department of Health and Human Services (federal)	PSA	Public Service Announcement
DOT	Department of Transportation (federal)	RUaD	Reduce Underage Drinking
EMS	Emergency Medical Services	TAC	Technical Advisory Committee (WA)
EMS-C	Emergency Medical Services for Children	USCG	United State Coast Guard
EMTCC	Emergency Medical and Trauma Care Council	UCR	Uniform Crime Reports
EMT	Emergency Medical Technician	USDA	U.S. Department of Agriculture
ER/ED	Emergency Room/Department	WISHA	Washington Industrial Safety & Health
FARS	Fatal Accident Reporting System	WPFE	Washington Public Fire Educators
FMCSA	Federal Motor Carrier Safety Administration	WSDOH	Washington State Department of Health (DOH)
GCS	Glasgow Coma Score	WSLCB	Washington State Liquor Control Board
GSW	Gunshot wound	WSP	Washington State Patrol
IPPE	Injury Prevention & Public Education	WSPR	Washington State Parks & Recreation
ISS	Injury Severity Score	WSSRC	Washington State Safety Restraint Coalition
MMWR	Morbidity and Mortality Weekly Report	WTSC	Washington Traffic Safety Commission
		YPLL	Years of Potential Life Lost

Appendix D

Haddon's Matrix

Dr. William Haddon Jr.'s list of 10 general strategies was designed to conceptualize prevention opportunities. Prevent the creation of the hazard (for example, stop producing poisons).

1. Reduce the amount of the hazard (e.g., package toxic drugs in smaller, safer amounts).
2. Prevent the release of a hazard that already exists.
3. Modify the rate or spatial distribution of the hazard (e.g., require automobile air bags).
4. Separate, in time or space, the hazard from that which is to be protected (e.g., use sidewalks to separate pedestrians from automobiles).
5. Separate the hazard from that which is to be protected by a material barrier (e.g., insulate electrical cords).
6. Modify relevant basic qualities of the hazard (e.g., make the space between crib slats too narrow to strangle a child).

7. Make individuals more resistant to the hazard (e.g., use protective devices such as helmets, Personal Floatation Device's, or seatbelts).
8. Counter the damage already done by the hazard (e.g., provide emergency medical care).
9. Stabilize, repair, and rehabilitate the individual damaged (provide acute care and rehabilitation facilities).

Haddon's matrix that classifies injury by phases and factors.

1. **Pre-event** (before the crash or other injury event): What affects the likelihood that it will occur?
2. **Event** (during the crash or other injury event): What affects the likelihood that someone will be injured?
3. **Post-event** (after the crash or other injury event): What affects the outcomes once an injury has occurred?

Appendix E

The Injury Planning Committee

The Injury Community Planning Group developed the following vision and mission statement to guide them in their work.

Vision

Reduce death and disability associated with injury and violence in Washington State.

Mission

To provide leadership, resources, and information to broad-based partners for injury and violence prevention throughout Washington State.

To advance the work, the ICPG will engage in activities that:

- Develop a comprehensive statewide plan for injury and violence and prevention.
- Provide information on research-based best practices and promising interventions.
- Help build sustainable partnerships within Washington State's injury and violence prevention community.
- Increase awareness of injury and violence as a public health problem.
- Enhance the capacity of partners to conduct research, collect and analyze data, and provide services on injury and violence prevention and control in our communities.
- Support public health policies that to advance injury and violence prevention.

Injury Community Planning Group Members

- Elizabeth Bennett, MPH, CHES Children's Hospital & Regional Medical Center
- Luann D'Ambrosio, MS, Northwest Center for Public Health Practice
- Beth Ebel, MD, MSc, MPH, Harborview Injury Prevention and Research Center
- John Erickson, Public Health Emergency Preparedness and Response, Washington State Department of Health
- Katharine Fitzgerald, Children's Hospital & Regional Medical Center
- Malvina "Annie" Goodwin, RD, CD, Benton-Franklin Health District
- Tony Gomez, RS, Public Health: Seattle and King County
- David Grossman, MD, Group Health Cooperative
- Lydia Guy, PhD, Washington Coalition of Sexual Assault Programs
- Margaret Hobart, PhD, Washington State Coalition Against Domestic Violence
- Bill Hurley, MD, Washington Poison Center
- Karin Knopp, RS, Portland Area Indian Health Service
- Angie Ward, Washington Traffic Safety Commission
- Liz Wilhelm, MS, CADP, ICPS, Committee for Children
- Sally York MN, RNC, NorthWest Orthopaedic Institute

Appendix F

Community Building Tools

The Spectrum of Prevention is a systematic tool that promotes a multifaceted range of activities for effective prevention. Originally developed by Larry Cohen while working as Director of Prevention Programs at the Contra Costa County Health Department, the Spectrum is based on the work of Marshall Swift in treating developmental disabilities. It has been used nationally in prevention initiatives targeting traffic safety, violence prevention, injury prevention, nutrition, and fitness.

The Spectrum identifies multiple levels of intervention and helps people move beyond the perception that prevention

is merely education. The Spectrum is a framework for a more comprehensive understanding of prevention that includes six levels for strategy development. These levels, delineated in the table below, are complementary and when used together produce a synergy that results in greater effectiveness than would be possible by implementing any single activity or linear initiative. At each level, the most important activities related to prevention objectives should be identified. As these activities are identified they will lead to interrelated actions at other levels of the Spectrum.

The Spectrum of Prevention	
Spectrum Level	Definition of Level
6. Influencing Policy and Legislation	Developing strategies to change laws and policies to influence outcomes.
5. Changing Organizational Practices	Adopting regulations and shaping norms to improve health and safety.
4. Fostering Coalitions and Networks	Convening groups and individuals for broader goals and greater impact.
3. Educating Providers	Informing providers who will transmit skills and knowledge to others.
2. Promoting Community Education	Reaching groups of people with information and resources to promote health and safety.
1. Strengthening Individual Knowledge and Skills	Enhancing an individual's capability of preventing injury or illness and promoting safety.

Spectrum of Prevention Example

A Lifetime Commitment to Violence Prevention at the County Level

The following checklist is based on the *Spectrum of Prevention*.

Example adopted from www.preventioninstitute.org

Spectrum Level	Business Sector Activities to Advance Violence Prevention Efforts
6. Influencing Policy and Legislation	<ul style="list-style-type: none"> • Support policy through testifying to policymakers and advocating for prevention • Write op ed pieces and letters to the editor in support of violence prevention • Support candidates who are committed to violence prevention • Meet with elected officials to let them know your violence concerns and commitment to violence prevention
5. Changing Organizational Practices	<ul style="list-style-type: none"> • Adopt a neighborhood or school by providing volunteer hours, youth job training, in-kind donations, etc. to that neighborhood • Establish a grant making program to fund violence prevention efforts in your community • Implement family-friendly practices, including providing employees with time off to attend events at their children’s schools (first day of school, parent teacher conferences) • Establish clear safety and violence prevention policies • Donate money to support development and implementation of the Alameda County Blueprint and other violence prevention efforts in the county
4. Fostering Coalitions and Networks	<ul style="list-style-type: none"> • Form networks and coalitions with other businesses to promote violence prevention policies in the workplace and community • Encourage employees to serve on boards of community based organizations • Participate on Alameda County’s Violence Prevention Leadership Council
3. Educating Providers	<ul style="list-style-type: none"> • Train employees how to apply their specific expertise or the expertise of the business to violence prevention (e.g. banks can train young people to balance checking accounts, printers can print informational information, phone companies can provide support lines, bookstores can establish literacy programs, etc).
2. Promoting Community Education	<ul style="list-style-type: none"> • Establish hate-free and violence-free zones in your workplace to build awareness about these issues and to set a tone for employees and customers that violence and hatred will not be tolerated • Hold community education campaigns when violence prevention legislation is introduced • Incorporate violence prevention messages into your advertising, information about your business, and into signs and posters at the workplace • Encourage your employees to speak out against violence and about violence prevention at community events
1. Strengthening Individual Knowledge and Skills	<ul style="list-style-type: none"> • Provide mentoring and career opportunities to at risk youth • Establish internship and apprentice programs for youth as well as adult and youth ex-felons • Provide anti-violence trainings (domestic violence, sexual assault, workplace violence) and diversity trainings to employees • Provide violence prevention resource referrals to employees • Provide coverage that includes access to mental health and substance abuse services

The Eight Steps to Effective Coalition Building

Increasingly, the problems that communities need to resolve are complex, requiring comprehensive solutions. Addressing issues such as health promotion and chronic disease prevention requires the inclusion of people from diverse backgrounds and disciplines. Work in partnerships, collaborations and coalitions can be challenging but a powerful tool for mobilizing individuals to action, bringing community issues to prominence and developing policies. These associations are also an effective means of integrating health services with other human services so that resources are not wasted and efforts are not needlessly duplicated. Coalitions are often best equipped to utilize the resources and findings of participants and apply them more effectively than any single group or organization.

The Eight Steps to Effective Coalition Building is a framework developed by Larry Cohen, et. al., for engaging individuals, organizations and governmental partners invested in addressing community concerns. The complete document (available at www.preventioninstitute.org) offers concrete steps towards building effective partnerships and provides tips for making collaborations and partnerships work. Rather than creating new projects or programs, effective coalitions can harness existing resources to develop a unique community approach and achieve results beyond the scope of one single institution or organization.

Developing Effective Coalitions: The Eight-Step Process

1. Analyze program objectives, determine whether to form a coalition
2. Recruit the right people
3. Devise preliminary objectives and activities
4. Convene the coalition
5. Anticipate necessary resources
6. Develop a successful structure
7. Maintain coalition vitality
8. Improve through evaluation

The full document, *Developing Effective Coalitions: An Eight-Step Guide*, written by Larry Cohen, Nancy Baer and Pam Satterwhite is available at www.preventioninstitute.org.

Additional Coalition Building Resources

CADCA Community Anti Drug Coalitions of America-National Coalition Institute www.coalitioninstitute.org/

The Community Tool Box, a free community organization resource site owned and maintained by the University of Kansas, http://ctb.ku.edu/en/solveproblem/Troubleshooting_Guide_6.htm

"Building Coalitions" fact sheets from Ohio State University <http://ohioline.osu.edu/lines/kids.html#COALI>.

The Good Neighbor's Guide to Community Networking <http://lone-eagles.com/cnguide.htm>

The National Network for Collaboration <http://crs.uvm.edu/ncco/>.

Center for Substance Abuse Prevention's Prevention Platform, <http://preventionplatform.samhsa.gov>. Follow the directions for signing in as a New User if you have not used the site before.

The Prevention Institute
www.PreventionInstitute.org

Together We Can Initiative
www.togetherwecan.org/

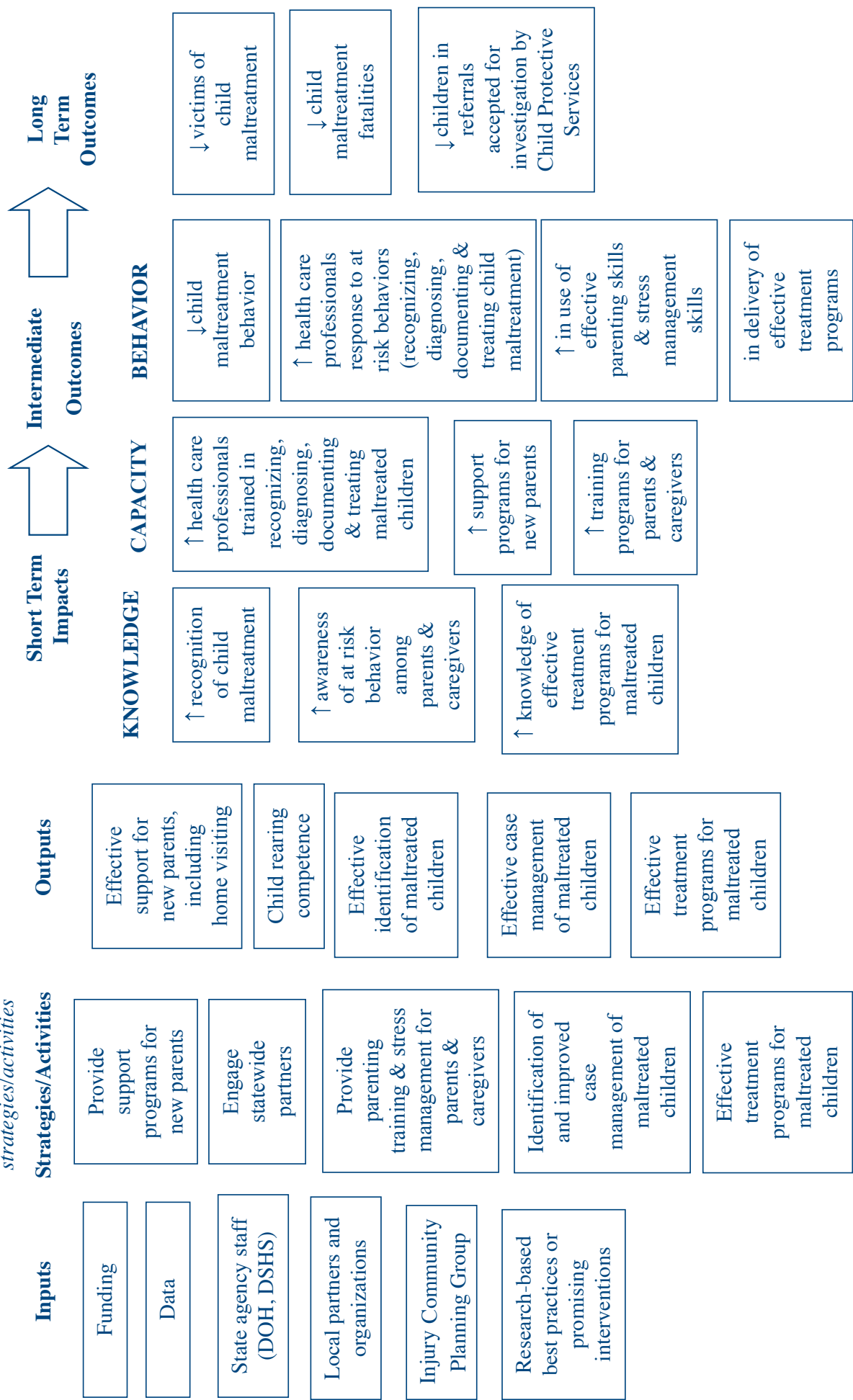
Reducing Child Maltreatment in Washington State

Because we have these resources...

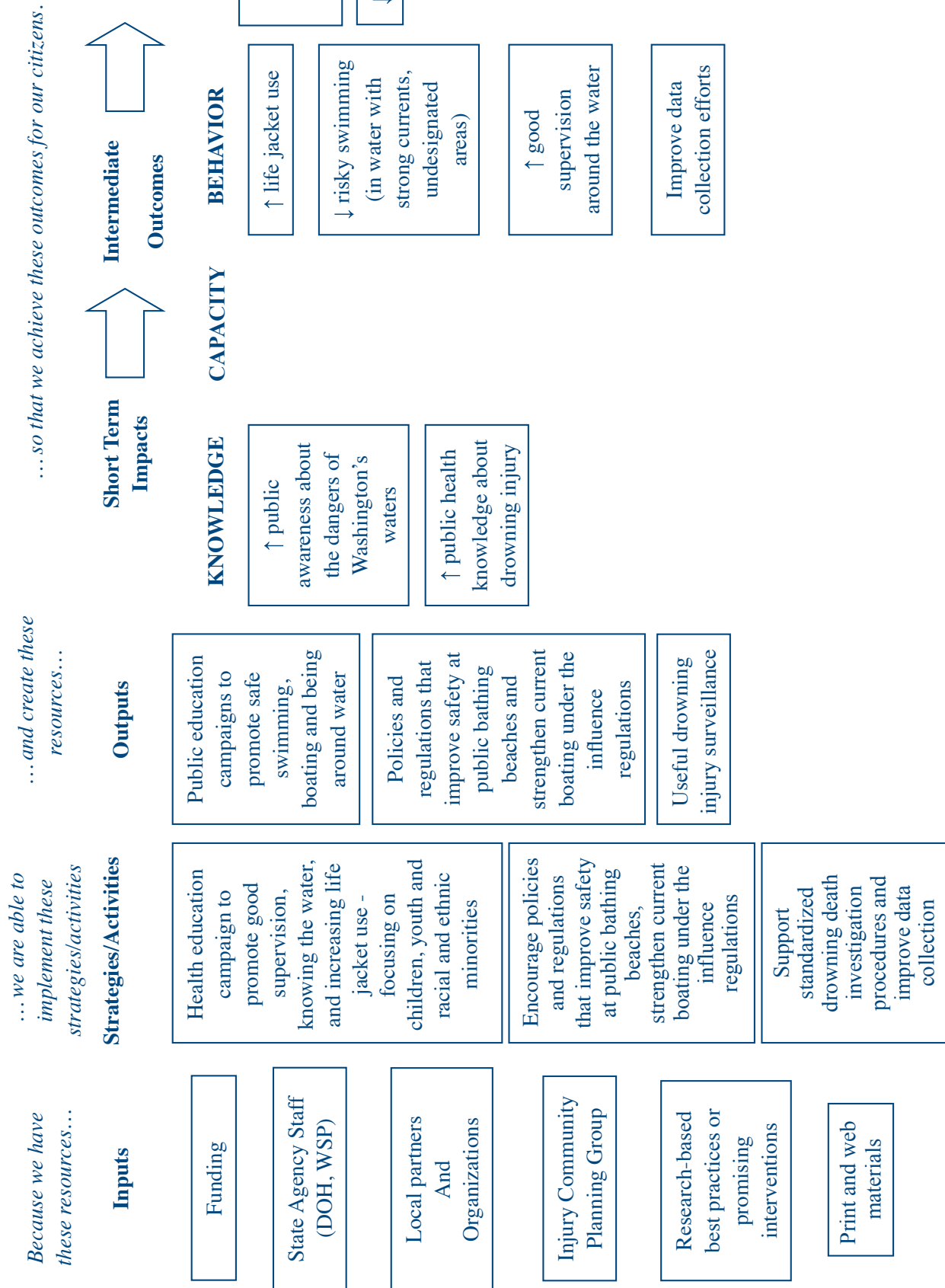
...we are able to implement these strategies/activities

...and create these resources...

...so that we achieve these outcomes for our children.



Reducing Drowning Injury in Washington State



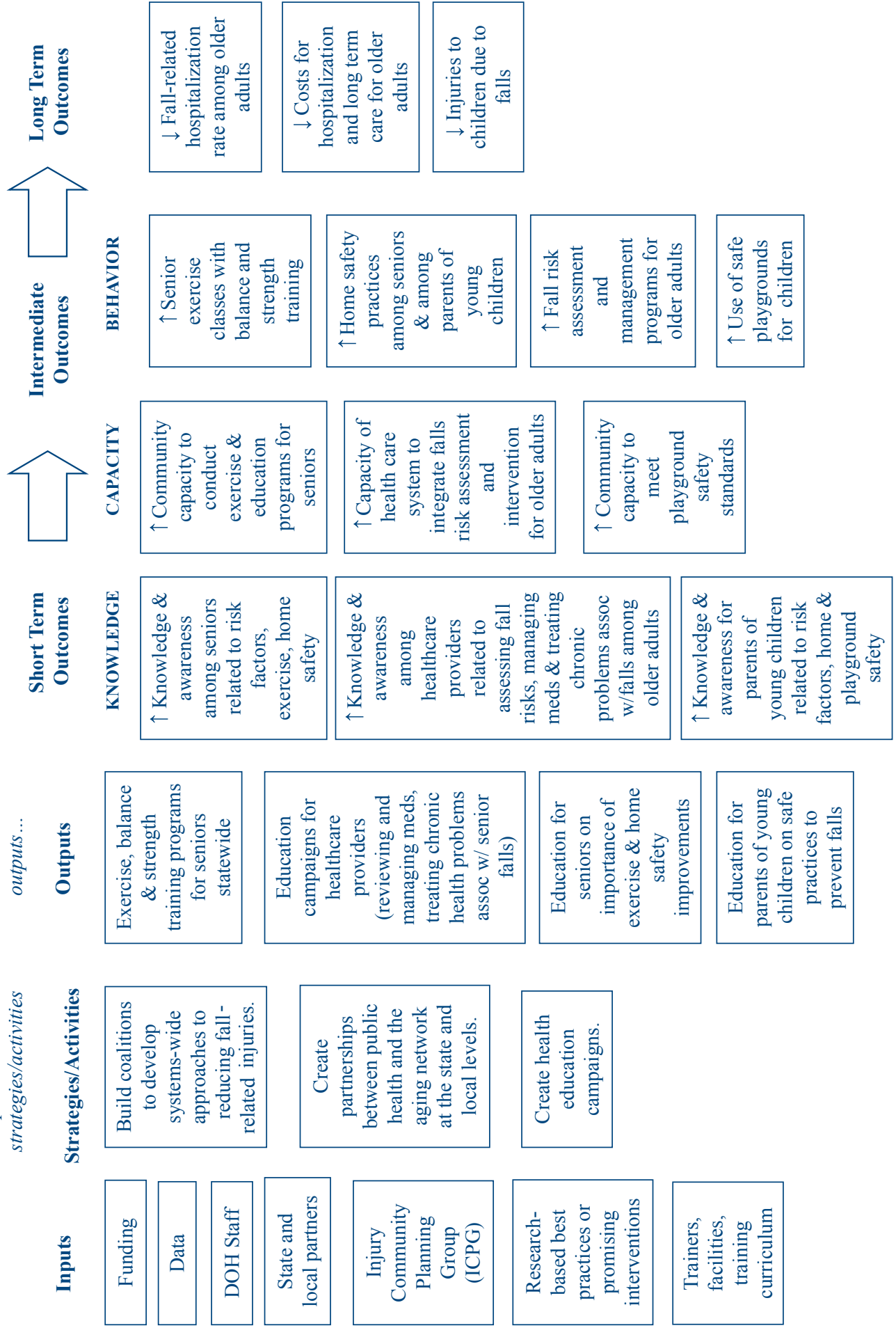
Reducing Fall-Related Injuries in Washington State

With these resources...

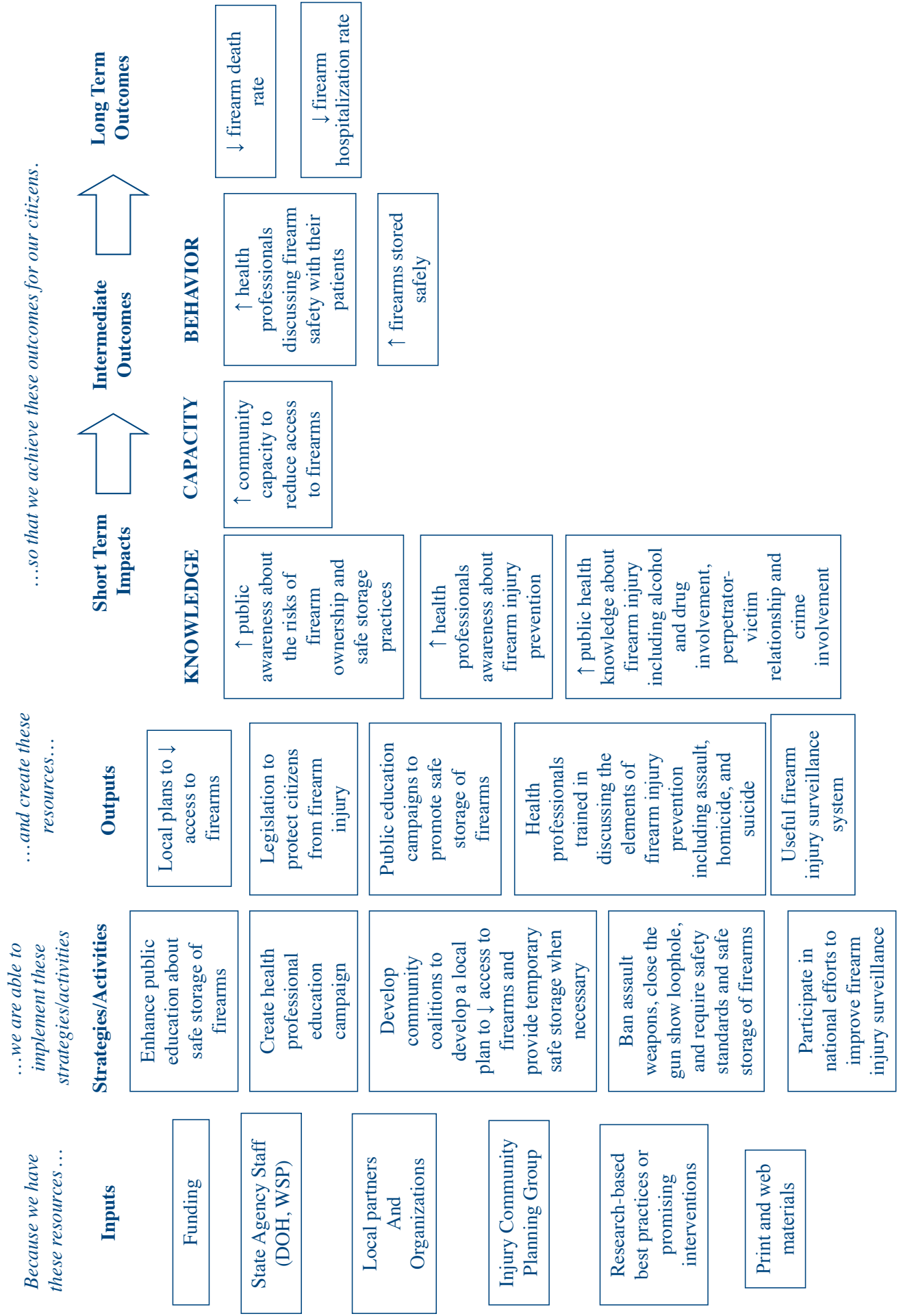
... we are able to implement these strategies/activities

... we are able to have these outputs...

...so that we achieve these outcomes for our citizens.



Reducing Firearm-related Injury in Washington State

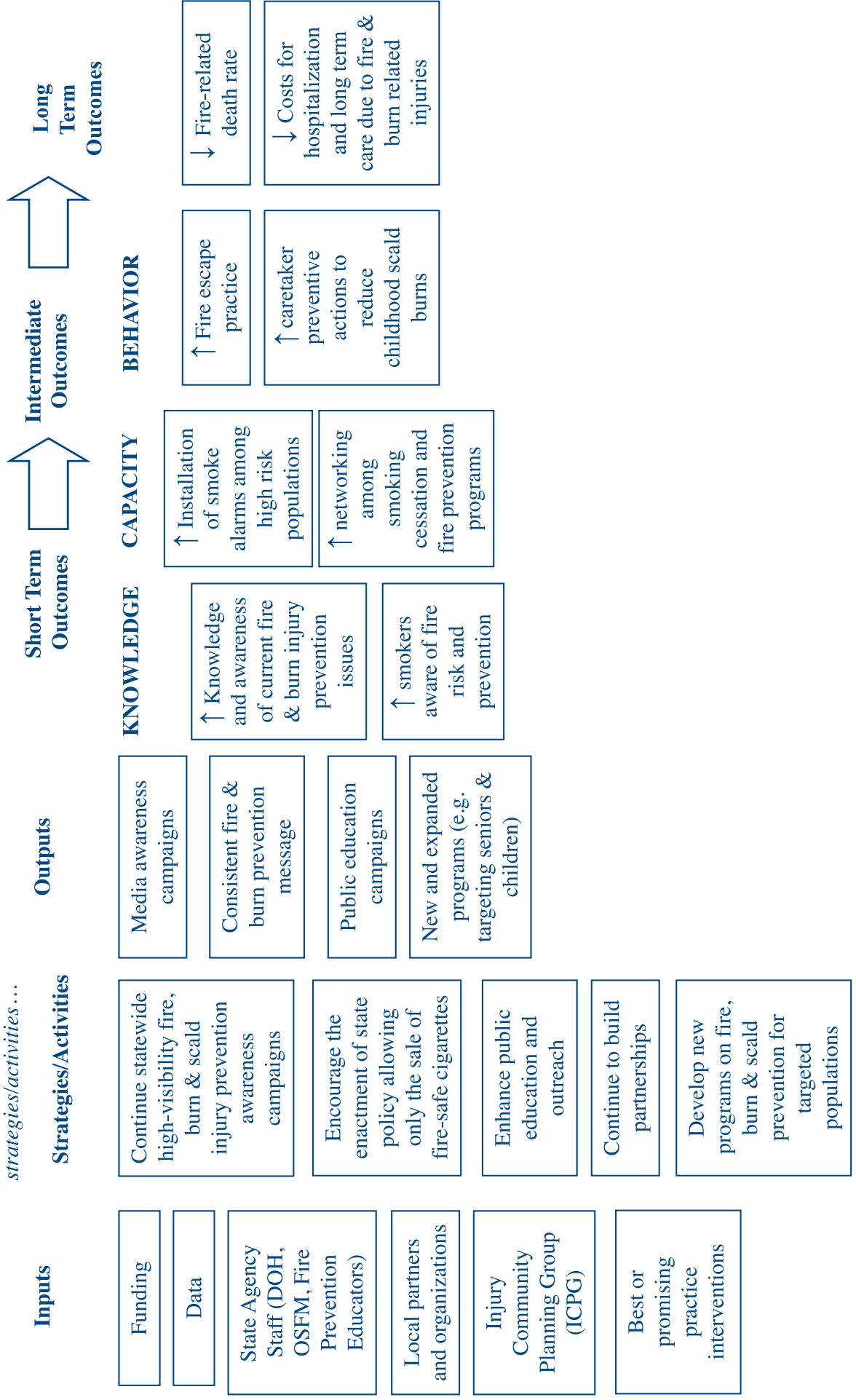


Reducing Fire & Burn Related Injuries in Washington State

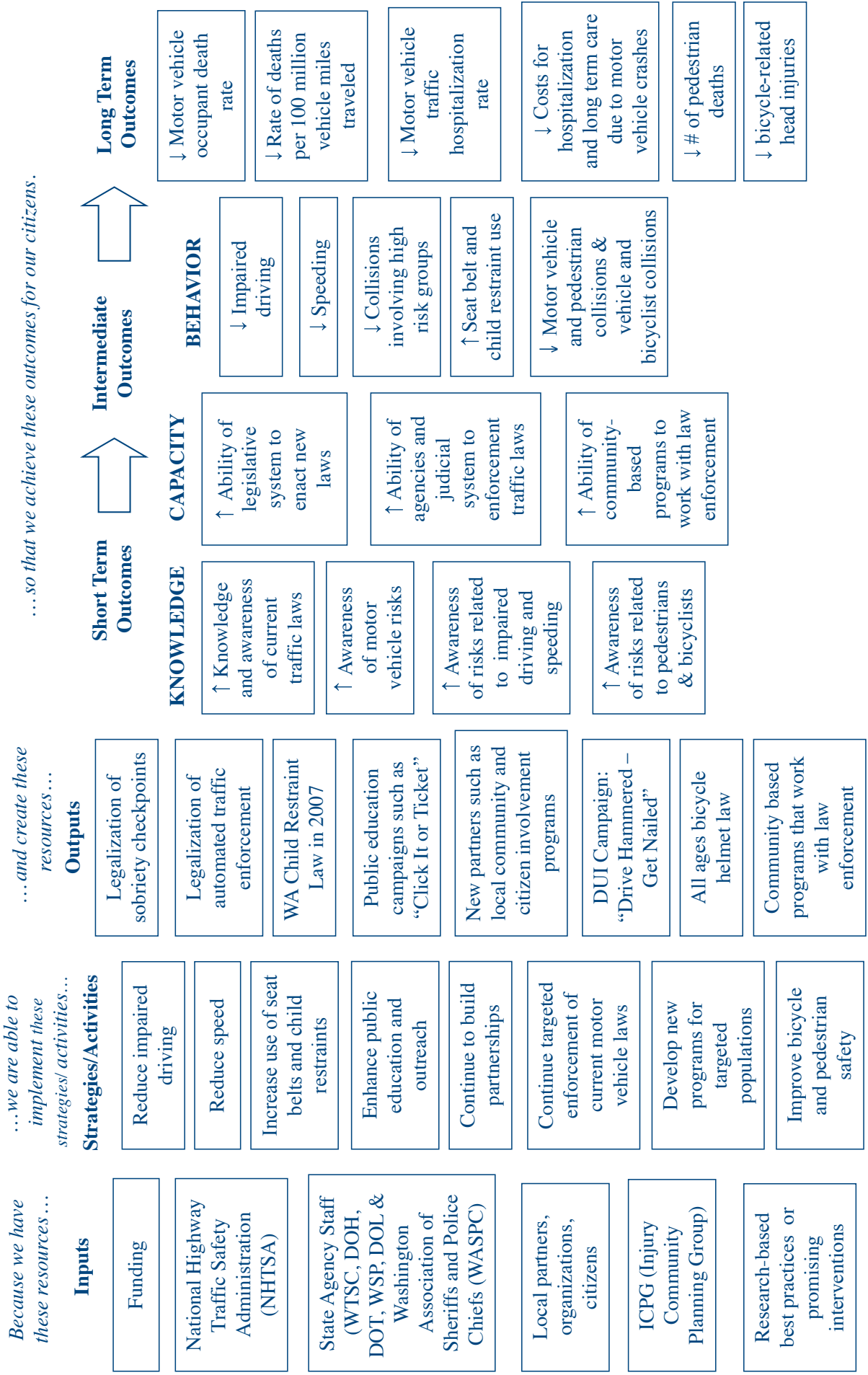
Because we have these resources...

... and create these resources...

... so that we achieve these outcomes for our citizens.



Reducing Motor Vehicle-Related Injuries in Washington State



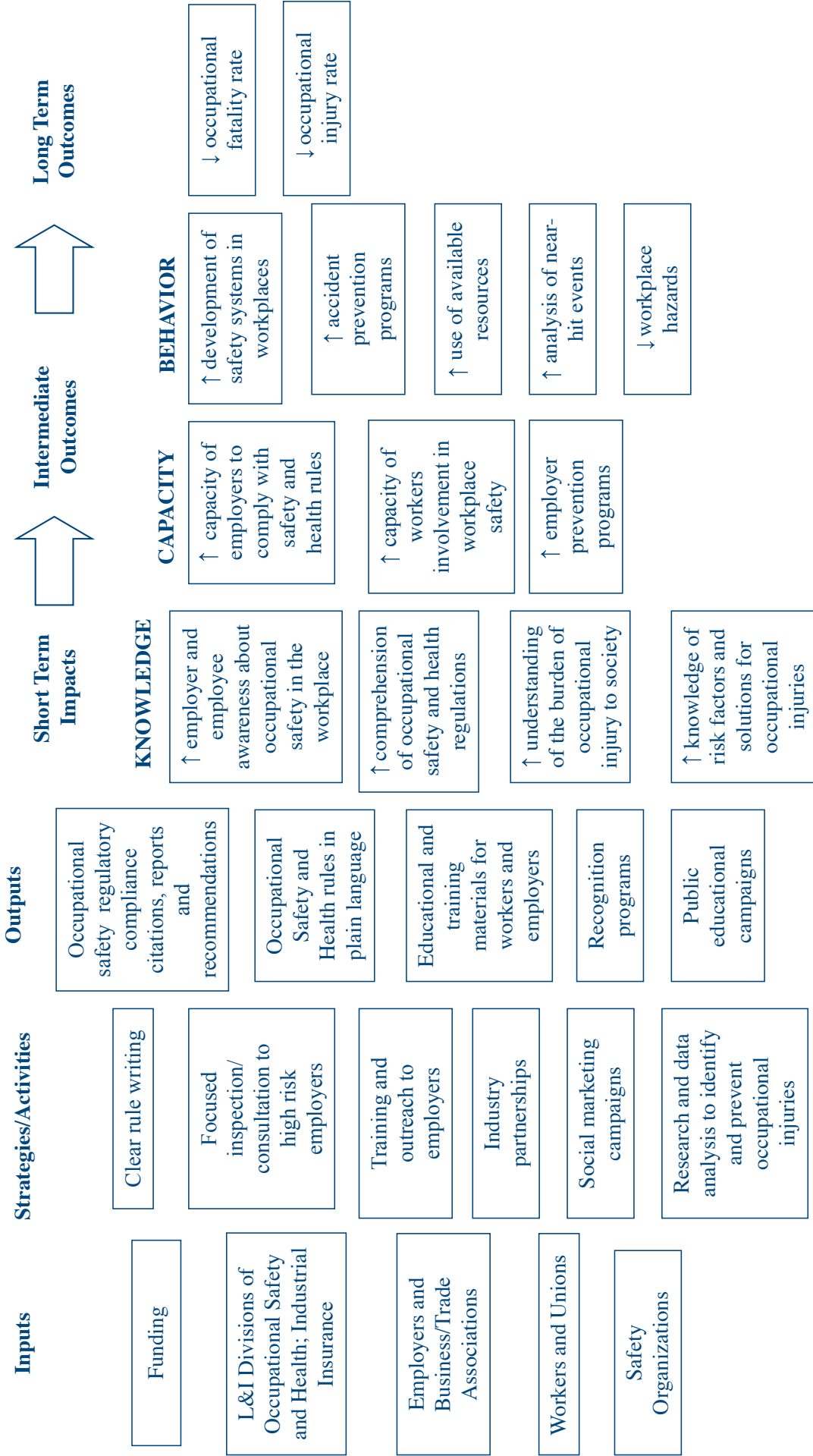
Reducing Occupational Injuries in Washington State

Because we have these resources ...

... we are able to implement these strategies/activities

... and create these resources ...

... so that we achieve these outcomes for our citizens.



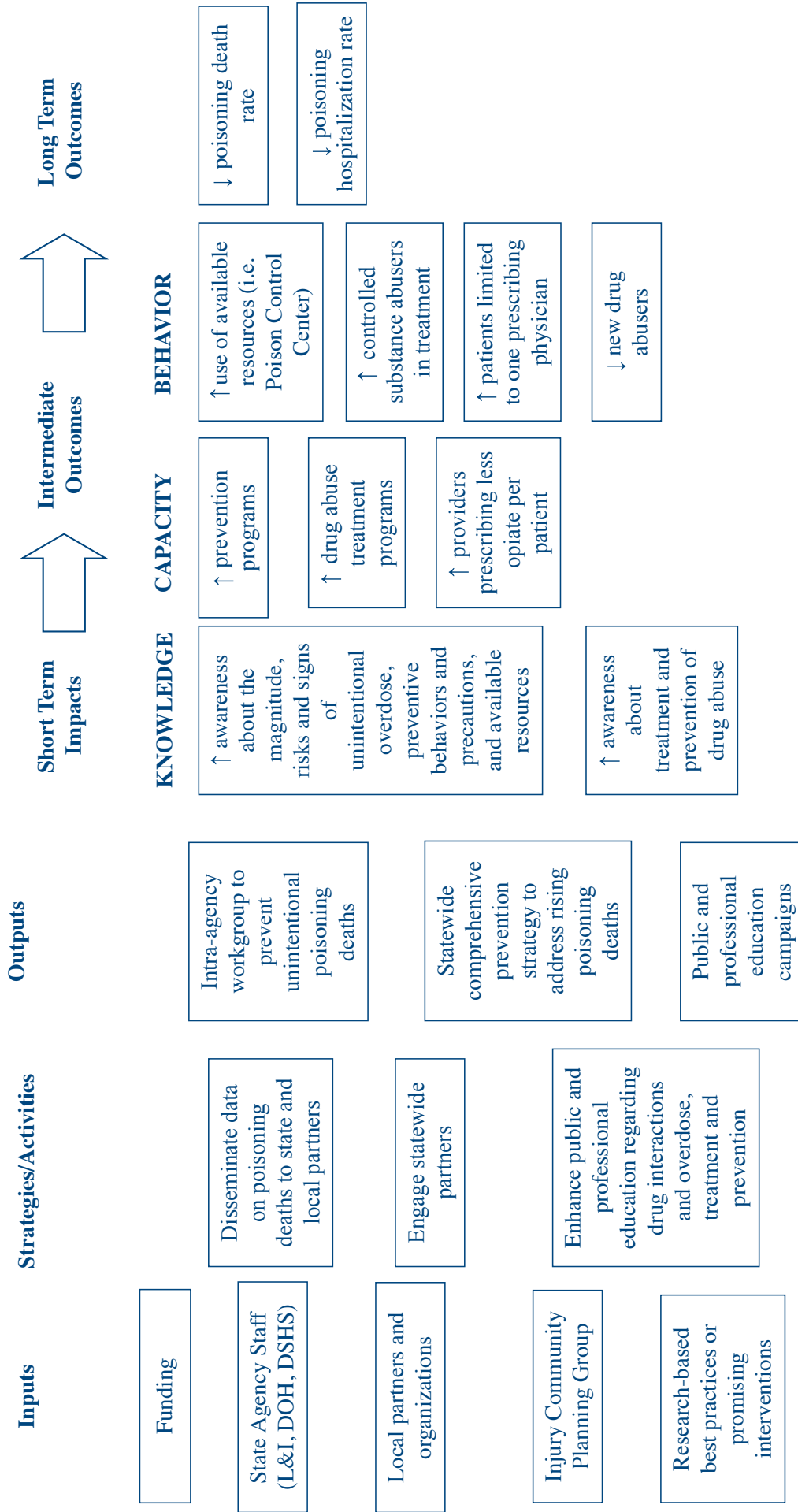
Reducing Poisonings in Washington State

Because we have these resources ...

...we are able to implement these strategies/activities

...and create these resources ...

...so that we achieve these outcomes for our citizens.



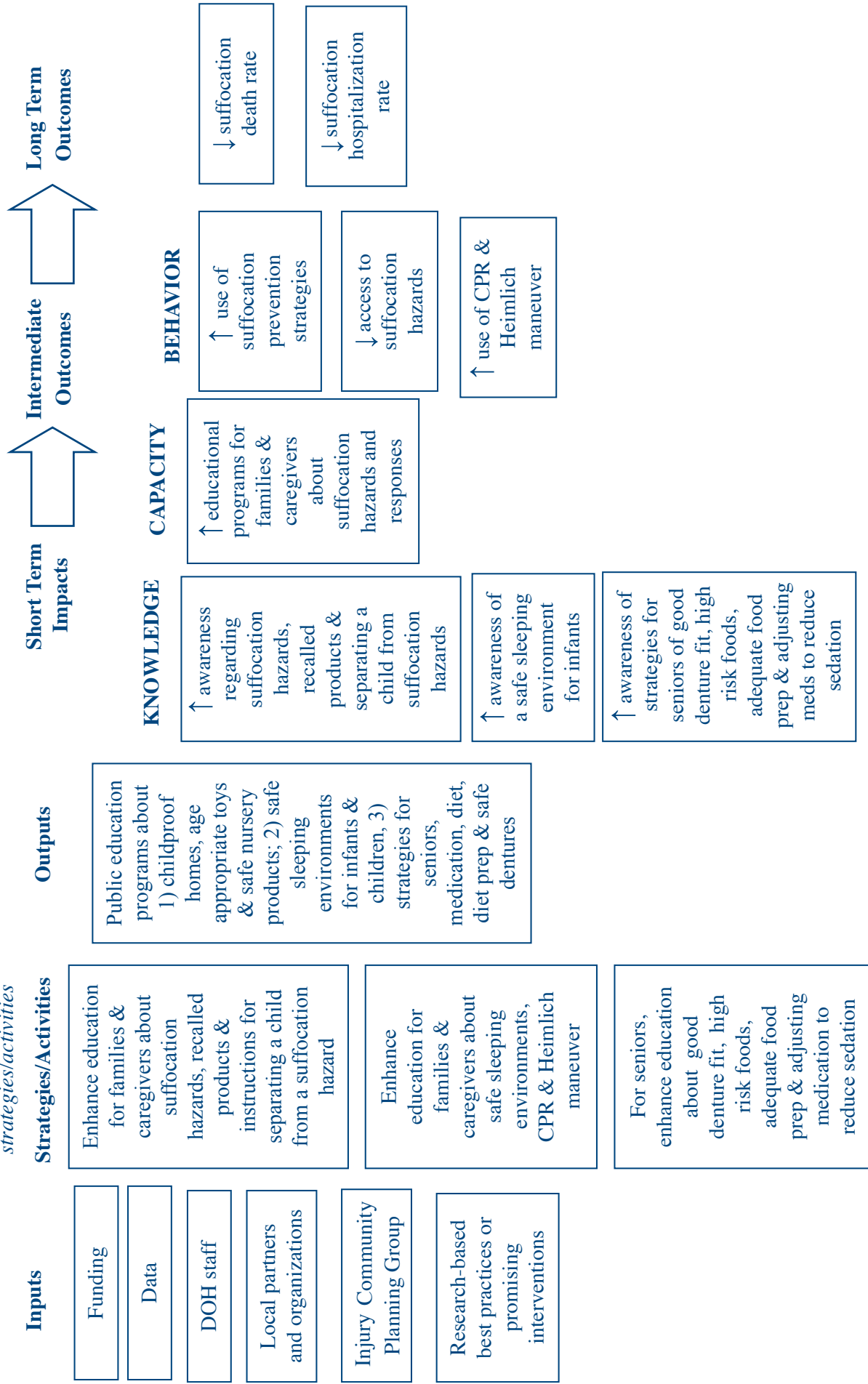
Reducing Suffocation-related Injuries and Deaths in Washington State

Because we have these resources ...

...we are able to implement these strategies/activities

...and create these resources ...

...so that we achieve these outcomes for our citizens.

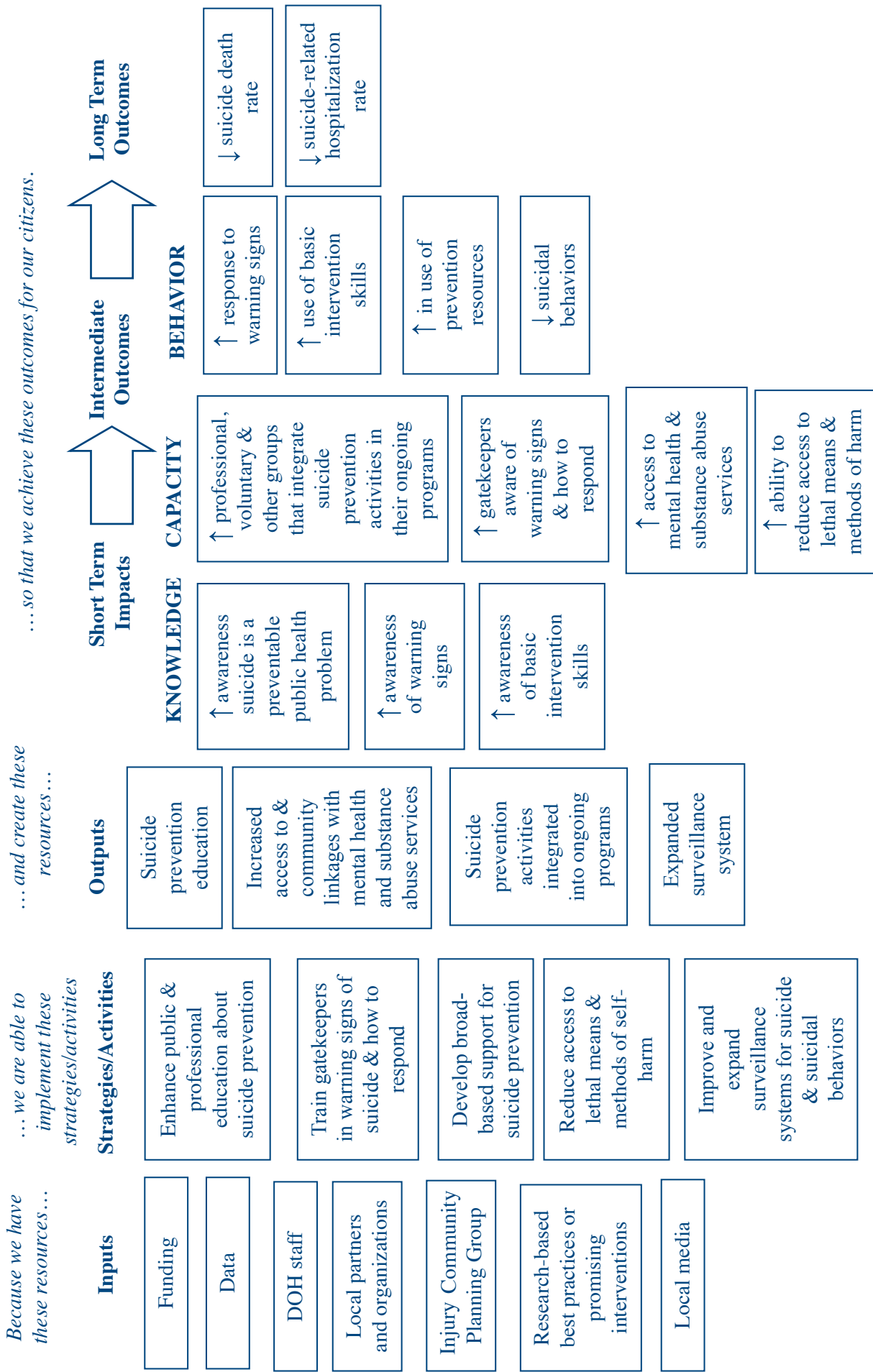


Reducing Suicides in Washington State

Because we have these resources...

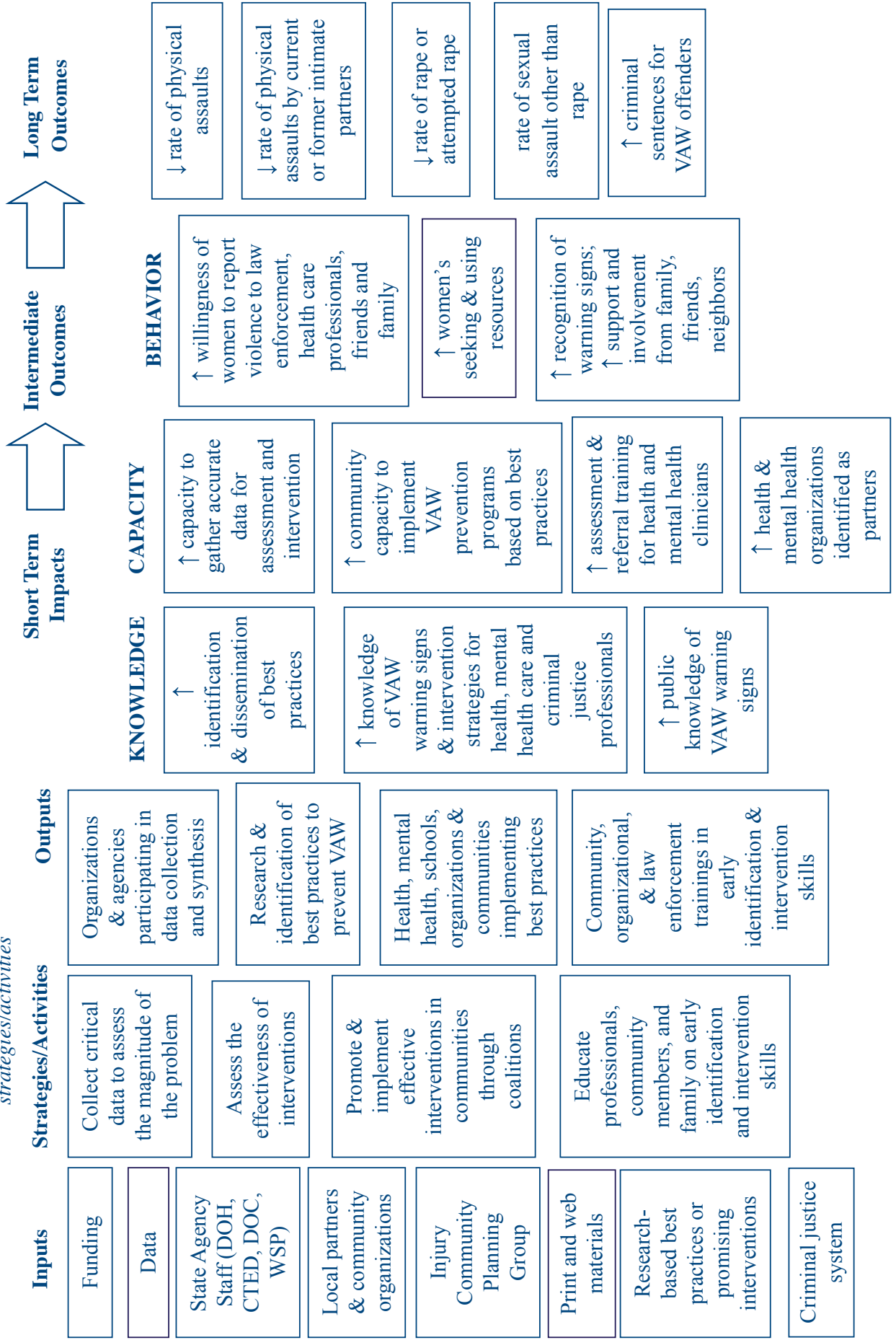
... and create these resources...

... so that we achieve these outcomes for our citizens.



Preventing Violence Against Women (VAW) in Washington State

Because we have these resources... *...we are able to implement these strategies/activities* *...and create these resources...* *...so that we achieve these outcomes for our citizens.*



Reducing Youth Violence in Washington State

