



## **BRIEF OVERVIEW OF INJURY PREVENTION**

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## Brief Overview of Injury Prevention

As emergency nurses, it is our duty to advocate for and protect our patients. We speak up loud and clear when we assess their status as beginning to deteriorate, when we have concerns about a potentially incorrect order, and when we get a feeling that something isn't right. We are adamant that our patients stay safe under our watch. We do this for patient after patient, and not because it is our job, but because it is who we are. It is why we went into emergency nursing, and why we are so passionate about what we do.

But what about *before* people become our patients? How are we advocating for them *before* they become injured or die in our departments? What are we currently doing to promote injury prevention in our communities? How can we strengthen these efforts?

Safe Practice and Safe Care doesn't start at triage and stop at disposition. It begins long before then. It starts when we take our messages—our educator practice and nursing compassion, knowledge, and skills—into the community. It then continues when we do all we can to prevent people from becoming patients in our emergency departments, and it doesn't stop until we can confidently say that we have prevented our neighbors and the communities we serve from being injured.

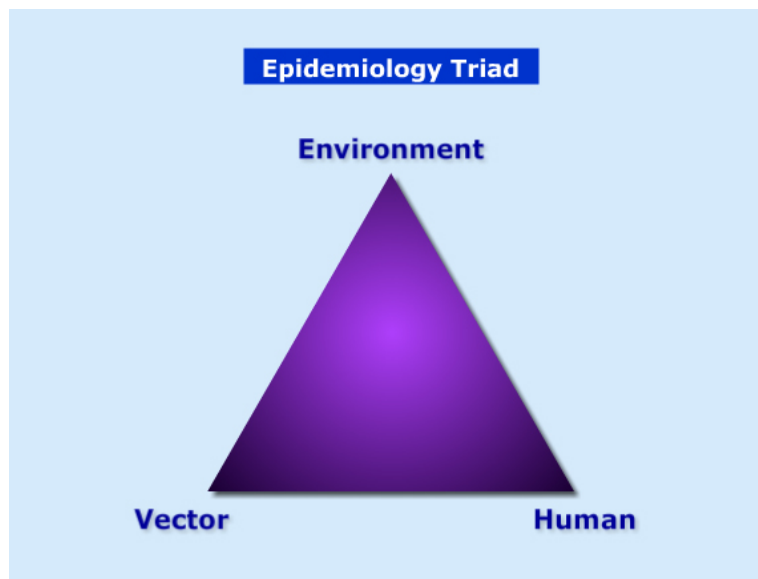
"Injury" is defined by the American College of Surgeons to be "a definable, correctable event, with specific, identifiable risks for occurrence" (ACS, 1999). Through addressing these specific risk factors, injuries can be prevented (Ivers, 2012; CDC, 2013). Emergency nurses, being on the front lines of injury treatment and well versed in community outreach, education, and advocacy, are in a unique position to participate in community injury prevention efforts. These efforts can vary depending on the community being served. The definition of "community" is not limited to a geographical area. A community may consist of a group of people with something in common, such as specific demographics or needs, and can include the group of patients seen in the emergency department.

Before setting out to begin work in injury prevention, it is helpful to understand some standard models and reasoning of the injury prevention field. The first step is to learn the three factors that determine injury, referred to as the Epidemiologic Triangle. From there, we will review the various levels at which interventions can be targeted. Once we know what levels can be targeted, we will move onto the "Five E's" of injury prevention programs. The final part of this section will review a few pertinent theories that explain why injury prevention programs work. This theoretical background is essential to the planning and implementation of successful injury prevention programs. Together, this will create a foundation of knowledge for the remainder of this toolkit.



## Injury Prevention: Epidemiology and Injury Prevention Strategies

**The Epidemiology Triad (or Epidemiology Triangle)** (Sattin & Corso, 2007; ENA, 2010; Kerr et al., 2013) is well known for explaining the spread of infectious disease. This model also extends itself to injury prevention. When applied to injuries, the “host/human” is the person at risk for injury. The “vector” is the agent or energy that is transferred during the injury event. The “environment” is either the physical setting or social setting in which the injury event occurs. For example, regarding child safety seat system usage, a social/environmental cause may be a lack of knowledge or perceived value for the use of child safety seat systems as the community norm. The physical environment would be the lack of a child safety seat system, or improper installation, while the vehicle would be the transfer of energy during a car crash. Once the epidemiology triangle has been applied to injury prevention, the next step is finding the points in the triangle where injury prevention could take place. These points have been identified as primary, secondary and tertiary prevention.



**When do you intervene? Primary, secondary and tertiary prevention** (NPHP, 2006; CDC, 1992; Patel & Sandell, 2013; Zonfrillo et al., 2014)

There are three instances in the process of an injury where an intervention might have prevented the injury, or the extent of harm resulting from the injury. The first point in time is referred to as primary prevention. Primary prevention takes place *prior* to the injury event—for example, screening, and childproofing windows or medicine containers. Secondary prevention takes place *during* the injury event. An example would be limiting the amount of medication that is easily accessible in a container (such as limiting pill numbers or having pills in single pop-out packaging) and seatbelt usage. Tertiary prevention is aimed at preventing the extent of harm from an injury *once it has occurred*, such as an



easily accessible and usable poison control hotline or educating parents on how to/when to use the hotline (Runyan & Freire, 2007; Zonfrillo et al., 2014; Patel & Sandell, 2013). Part of choosing an injury prevention program is deciding at what point in this continuum of prevention it would be most advantageous, cost-effective, acceptable to the target audience, and feasible with the given resources.

The Haddon Matrix, which will be discussed in Step 2 of this toolkit, combines the aforementioned epidemiologic triangle with primary, secondary and tertiary prevention to provide a framework for 1) understanding factors that contribute to injury incidents, and 2) identifying possible points of intervention to potentially prevent injuries or reduce their severity.



**How do you intervene? Types of interventions: The E's of Prevention** (Klassen et al., 2000; ENA, 2010; Patel & Sandell, 2013)

Types of injury prevention intervention methods can be grouped into five categories:

1. Education/Behavior
2. Enactment/Enforcement
3. Engineering
4. Economic
5. Environment

**Education/Behavior** interventions aim to increase awareness, positively change attitudes, and increase knowledge and skills. Examples of educational methods include media campaigns, classroom instruction, written educational material, and modeling correct injury prevention behaviors.



**Enactment/Enforcement** aims to use legislation and advocacy to facilitate behavior change, modify risk factors, and reduce harm and severity. Once a public safety law, such as mandatory helmet laws for motorcycle riders is enacted, full enforcement is required for the enacted law to be successful. Since legislative activities occur on local, state, and national levels, collection of injury data before and after passage of legislation is also important to support ongoing advocacy efforts and widespread enactment of effective injury prevention laws.

**Engineering** strategies, such as child safety seats, child-resistant packaging, and smoke detectors, are highly effective means of injury prevention. However, such engineering strategies still require awareness of the importance of the device and education as to proper use of the device.

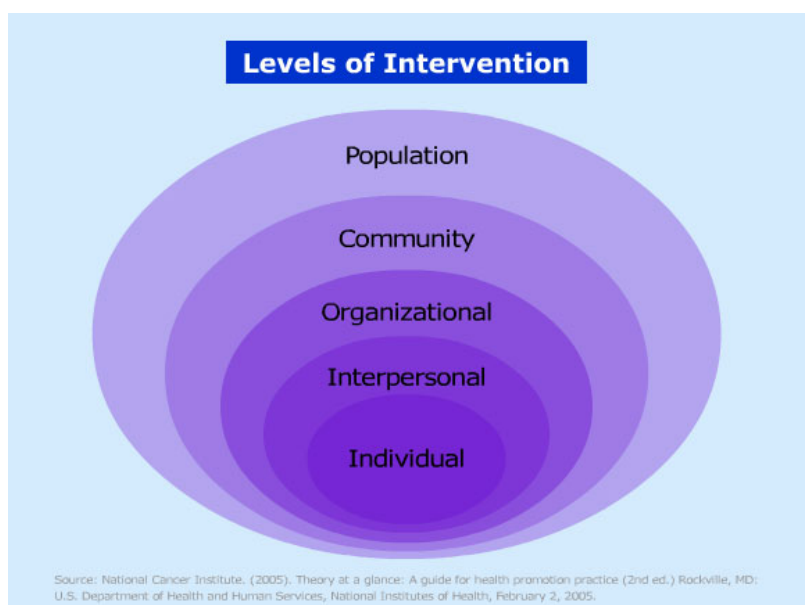
**Economic** interventions use financial penalties or incentives to prevent injuries. Fines for noncompliance with seatbelt laws is an example of a financial penalty, while providing lower-cost car insurance for drivers with safe driving records is a financial incentive.

**Environmental** interventions include those that address both the physical and social aspects of a setting where an injury incident occurs. Examples include safer road markings and child-safety labels on harmful products, as well as intangibles that infiltrate the social environment, such as cultural views that discourage drinking and driving. Environmental changes can be long-lasting and may eventually become the cultural norm. As such, they may be maintained at a relatively low cost.

As will be discussed in “Components of a successful injury prevention program,” multifactorial interventions that utilize more than one “E” have been shown to be more effective than an intervention based on one single intervention factor (Nation, et al., 2003; Klassen, et al., 2000; Thompson, et al., 2003; Patel & Sandell, 2013; Denning et al., 2013; Wright et al., 2013; AAP, 2012).

### Levels of Intervention

Levels of intervention indicate the level of society at which an intervention can be aimed. Often referred to as the ecological perspective, this concept is frequently referenced throughout injury prevention literature. Please note that these levels are occasionally modified and adapted, as in the model at right (National Cancer Institute, 2005; Sleet et al., 2010).





**Individual level** interventions are intended for an individual person and are aimed at heightening an individual's knowledge, skills, and attitudes/beliefs regarding an injury prevention topic. Screening for alcohol and substance abuse in the emergency department to promote early identification of a problem, reduce risky alcohol use, and prevent harmful substance abuse is an example of an individual-level intervention. Visit <http://www.ena.org/practice-research/Practice/Safety/Injury%20Prevention/SBIRT>

**Interpersonal level** interventions describe those aimed at the relationships between people. An example of this would be developing an intervention targeting the relationship between friends, family, and peers. Alcoholics Anonymous meetings are an example of intrapersonal-level intervention.

**Organizational level** interventions are intended for institutions, and their laws and policies on which they stand. An example includes colleges or universities that screen students for alcohol abuse, hold alcohol-free campus events, and promote policies to curb underage drinking. A second example is hospitals that ensure expectant mothers are trained in car seat use and that walk new mothers to their car to ensure that the newborn is placed in a properly fitting child safety seat system.

**Community level** interventions are large in scope; however, the intended audience is abbreviated in range by specified demographic features, such as geography, culture, or socioeconomic factors. As such, the intervention can be tailored to a large group of people and effect change for this specified population. Community assessment plays a large role in tailoring a program to a community. Enforcing compliance with store owners to reduce underage purchasing of alcohol is an example of a community-level intervention.

**Population/Policy/Society level** interventions aim to create change at a larger level such as the national or state level, and in so doing will include a diverse population. These interventions seek to promote changing laws and national policy, and focus on multiple risk factors across a population. These interventions are costly and in being general may lose effectiveness for some of the intended audience. Two examples of population-level interventions are media campaigns against drinking and driving, and media campaigns to increase usage of infant and toddler child safety seat systems.

### **Ecological Model**

The above levels of intervention fit in with the Ecological Model, in which human behavior and the physical and social environments interact in a dynamic function. In considering this interaction, interventions that target multiple levels of society have a greater chance of being effective (Allegrante et al., 2010).





## Theory

Theories drive effective evidence-based practices. There are multiple theories, ranging from those that effect an individual behavior change to those that are directed at changing the environment. It is first important to define the problem and determine toward which level of society (e.g., the individual, interpersonal, or community/population) the intervention will be directed. Once this is determined, it is time to begin finding a program with theoretical groundwork aimed at the desired level of intervention. This section will highlight some of the theories that provide a foundation for designing effective injury prevention programs.

### Theories for changes at the individual level

Theories at the individual level include the Health Belief Model, Integrated Behavioral Model, Stages of Change Model (also referred to as Transtheoretical Model), and Theory of Planned Behavior. Before providing an overview of each theory, it is helpful to understand what they have in common. Underlying each of the individual theories of behavior change for the purpose of injury prevention are the following principles.

Behavior is based on individual knowledge, beliefs, attitudes, thoughts, and priorities (ENA, 2010; Sleet et al., 2010). Education and knowledge are needed, but alone are not enough to produce sustained behavior change (Sleet et al., 2010; ENA, 2010). The social environment and an individual's skills, self-efficacy, perceptions of behavior change benefits, and motivation are central to creating positive and sustained behavior change (Sleet et al., 2010; Allegrante et al., 2010; Champion & Skinner, C.S., 2008).

Uniting all the models for behavior change is a general framework regarding behavior change. One of the following must be present for a person to perform a specified behavior change, and the first three are prerequisites for any behavior change:

1. The person commits to the behavior change.
2. All environmental barriers to the person performing the behavior are removed.
3. The person has the skills required to perform the behavior.
4. The person perceives that the benefits of the change outweigh the risks.
5. The person perceives that the social norm is to perform the behavior change.
6. The person perceives that the behavior change is aligned with his/her belief system and sense of self.
7. The person has more positive emotions for the change than negative ones against it.
8. The person is confident that he/she can perform the behavior under varying scenarios (Sleet et al., 2010).

### Health Belief Model

This model is applied to understanding and predicting health behaviors based on six factors in an individual's own belief system surrounding the specific injury. These factors include



1. A person's perceived susceptibility to the problem
2. The perception of the problem's severity
3. The perception of the relative weight of the benefits
4. The costs/challenges of changing their behavior
5. Cues to action
6. Self-efficacy (the confidence an individual has in his/her ability to successfully perform an activity under certain circumstances) (Sleet et al., 2010; Champion & Skinner, 2008; Sleet & Gielen, 2007).

For example, if a person does not perceive that their texting would impair their ability to drive safely, then he/she most likely will not be ready to change this behavior. If they do not perceive the benefit of increased safety over the benefit of responding immediately to a text message or phone call, then the benefit does not outweigh the cost (or risk). The person must also believe they are capable of choosing not to answer a text while they are driving. An intervention using the Health Belief Model must therefore assess the individual's perceptions, provide education on the topic, and work to help the individual change their perceptions and increase his/her self-efficacy. This may involve direct education, modeling, and skills training, including role playing (Sleet & Gielen, 2007).

### **Stages of Change Model (Transtheoretical Model)** (Prochaska et al., 2008; Sleet et al., 2010)

This model is based on the dynamic and fluid state of a person's readiness to change his/her behavior. "Stages of Change" refer to the different states of readiness to change that a person may be in at any point in time. This model highlights that interventions should be tailored to the individual's present stage of change.

The model focuses on the fluidity of these stages, including that an individual can move through the stages toward positive behavior change. The purpose of intervention is to support the person at their current stage while moving them toward the next stage. It's important to recognize, however, that an individual may move back and forth between stages multiple times, and that the length of time spent in any one stage can vary significantly for different people. In increasing order of readiness to change behaviors, the stages are

1. **Precontemplation:** The person is not thinking of changing his/her behavior in the near future. People in this stage may be uninformed or misinformed, or have made a previous but unsuccessful attempt at change.
2. **Contemplation:** The person plans to change in the near future, usually measured in the next six months. Persons in this phase are usually aware of the positive results of a behavior change; however, they may be focused on the challenges involved in making the behavior change and so therefore are reluctant to proceed.





3. Preparation: A person in this phase plans to change their behavior in the near future, usually measurable in one month. People in this stage typically have an action plan to change their behavior.
4. Action: A person in this stage of the model has recently made a behavioral change and is actively working to change his/her behavior.
5. Maintenance: A person in this phase does not have to actively work as diligently at making a behavior change and is instead working to maintain the change. When successful in this stage, the person has an increasing self-confidence and self-efficacy about continuing the behavior change.
6. Termination: At this stage, maintenance has been sustained, the person has high confidence and self-efficacy, and the likelihood of returning to an earlier stage is unlikely.

### **Theory of Reasoned Action, Theory of Planned Behavior and the Integrated Behavioral Model** (Sleet et al., 2010; Montano & Kasprzuk, 2008)

The Theory of Reasoned Action has had successful application in public health, including in the 1980s in relation to child safety seat system usage (Gielen et al., 1984) and in the 1990s relating to HIV and AIDS prevention behaviors (Fishbein, 1990). In this theory, an individual's intention to perform a certain behavior stem from the person's attitudes, beliefs, and perceived norms of performing a certain behavior (Gielen et al., 1984; Sleet et al., 2010; Montano & Kasprzuk, 2008).

The Theory of Planned Behavior is a modified version of the Theory of Reasoned Action. The modification is the addition of an individual's perceived control over their behavior as contributing to his/her intention to change a behavior (Montano & Kasprzuk, 2008; Ajzen, 1991). The Theory of Planned Behavior explains that a person's behavior is a product of the interplay between their attitudes and perception of norms about a certain topic, as well as their perception that they have the ability to control their behavior and intention to behave a certain way toward that topic (Sleet et al., 2010; Montano & Kasprzuk, 2008; Ajzen, 1991; Ajzen & Driver, 1991). This has then evolved into the Integrated Behavior Model (Sleet et al., 2010; Montano & Kasprzuk, 2008).

The Integrated Behavioral Model is a combination of multiple behavior theories, including the two mentioned above. In essence, it puts forth *intention* to perform a behavior as the primary factor in determining a behavior. Necessary to have this intention are the proper knowledge and skills to perform the behavior, an environment that is conducive to performing the behavior, the behavior being salient to the individual, and the person having performed the behavior before (Montano & Kasprzuk, 2008).



## Theories for Changes at the Community Level

Theories at the community level include Diffusion of Innovation and Community Readiness Theory. When looking at community-level theories, it is important to note that “community” is not only a group of people defined by geographical boundaries, but also can include a group of people united by a common demographic thread, cultural identity, or other commonality. Similar to readiness to change at the individual level, communities must also perceive the injury as a priority (as compared to other community concerns), as well as perceiving the severity, need, feasibility, and benefits of change in order for the intervention to be successful (Edwards et al., 2000; ENA, 2010).

### Diffusion of Innovation Model

The Diffusion of Innovation Model was constructed to help minimize the gap between research and practice (Oldenburg & Glanz, 2008). This model is gaining use in sports injury prevention to aid in the translation of research findings to sports participants (Finch, 2011). As it applies to community-level injury prevention, diffusion theory is the process by which an injury prevention strategy is disseminated and implemented within a community (Sogolow et al., 2007). The Diffusion of Innovation Model explains why some innovations gain rapid and wide adoption while others do not (Oldenburg & Glanz, 2008).

Innovations that are quickly and broadly adopted tend to have the following qualities:

1. They provide the user with a relative advantage over another innovation
2. They are compatible with the target audience’s values, norms, and culture
3. They are easy to use and understand (low complexity)
4. They are able to be tried and tested prior to adoption, and the results can be easily observed and measured

The stages required for a program/innovation to be diffused throughout the community are

1. Awareness of the problem and knowledge/development of a solution (innovation)
2. Dissemination of the innovation through an appropriately chosen communication method
3. The target audience chooses to use the innovation (this is referred to as adoption)
4. The program/innovation is applied to the target audience
5. The innovation/program continues to be used and becomes standardized and maintained through policies, procedures, and social norms (Oldenburg & Glanz, 2008; Sogolow et al., 2007; ENA, 2010).

### Community Readiness (Castaneda et al., 2012; Edwards et al., 2000)

A literature search produces multiple models, surveys, and theories on the topic of Community Readiness. In essence, community readiness is similar to the Transtheoretical model in that they both assess an entity’s current state of readiness (Edwards et al., 2000). Interventions based on the community level should involve community stakeholders and key members so as to best align the intervention with the community culture. Once community stakeholders are involved in the



intervention, it is imperative to determine the community's level of readiness for the particular intervention.

Evidence-based community readiness assessments, models, and theories incorporate the following as essential elements:

- Involve community members early in the process
- Conduct comprehensive community assessments (Castaneda et al., 2012).
- Determine readiness to assess, which develops with these key components:
  - A community and organizational climate that is open to and facilitates positive change
  - Community awareness, attitudes, and efforts (prioritization) of the problem
  - Motivation and self-efficacy for positive change
  - The ability of the community to identify a problem and implement a change (Castaneda et al., 2012).

### **The ecological perspective/model**

The ecological perspective/model demonstrates the various levels of society in which an injury prevention intervention can take place. Choosing the level(s) of the intervention, as described in this model, is preceded by determining the appropriate intervention level from a community needs and injury assessment. There is intentional effort in public health to target an intervention at multiple levels, as these have been shown to be more effective than a single level alone (Doll et al., 2007; Nation et al., 2003).



### **Theory Tool**

This tool may be reviewed for a more thorough understanding of community readiness. However, given the realities of time and budget constraints, it is not required for the successful implementation and completion of every injury prevention program. The theory tool can be used in conducting a community readiness assessment. Ideally, readiness to change would be assessed at each level: Individual, relationship, community, and society. While this is the recommended approach, other considerations such as goals, timeline, and cost should be taken into account when deciding whether to perform a community readiness assessment and deciding what parameters are realistic (Stanley, 2014).

*Tri-Ethnic Center Community Readiness Handbook* (2nd ed.). Tri-Ethnic Center for Prevention Research, Colorado State University. [http://triethniccenter.colostate.edu/docs/CR\\_Handbook\\_2014.pdf](http://triethniccenter.colostate.edu/docs/CR_Handbook_2014.pdf)



## Steps to Implementing an Injury Prevention Program: An Overview

The field of injury prevention is not “one-size-fits-all.” This makes the planning of injury prevention programs slightly more time-intensive, and in so doing provides many opportunities to create connections within the community you are serving. The involvement of the community in an injury prevention program, from the initial stages through the last phase of dissemination of results, is central to creating an effective program (Nation et al., 2003, Thompson et al., 2003; Klassen et al., 2000; Johnson et al., 2012). In keeping with this important focus, community is involved in the first step of the process.

In organizing and implementing an injury prevention program, emergency nurses are reaching outside of the walls of their emergency setting and into the homes, workplaces, schools, and other venues within the community. Further, we are also combining the assessment and educator skills of emergency nursing with public health practice. The method used to establish an injury prevention program from start to finish is through extending the public health model (Sogolow et al., 2007; Jones et al., 2010). This five-step model is similar to the steps of the American Nurses Association (ANA) Nursing Process (Assessment, Diagnosis, Outcomes/Planning, Implementation, and Evaluation). Extending the public health model, as it pertains to this toolkit, is as follows (Sogolow et al., 2007):

Step 1: Define the problem

Step 2: Identify causes/risk and protective factors

Step 3: Choosing the program and developing the operational strategies

Step 4: Implement effective interventions

Step 5: Widespread use and dissemination of efforts

An overview of the steps follows, with a further detailed description. Unlike many program planning guides, this one includes tips for evaluation in each stage, as evaluation is central to the success of any injury prevention program.



## Step 1: Define the Problem

This step can be more or less detailed, depending on the available resources and time provided for a given injury prevention program. Ideally, this involves a thorough community needs assessment and coalition building with multiple community members. Data on trends, rates and frequencies of injuries in the community is collected (Jones et al., 2010). The target population and the overall description of the community in terms of demographics, resources, culture, values, beliefs, and priorities of concerns are identified (University of Kansas, [n.d.]). When embarking on an injury prevention project with fewer available resources, a more streamlined community needs assessment, focusing on injury needs, will suffice. The community injury needs assessment tool provided in the “tool” section for this step will appropriately aid in the determination of the injury problem in your community.

Community leaders and stakeholders are brought into the process beginning with the community injury needs assessment (University of Kansas, [n.d.]). Research is done to determine what types of injury prevention programs already exist in the community. In this step, you will define the type of injury and target population for which the program will be designed.

Community support is essential for a successful injury prevention program, and this begins with the first step: the assessment. Involving the community from the very beginning of the program process is thought to increase community support for the project (Thompson et al., 2003; University of Kansas, [n.d.]). It should be noted that this occurs in an ideal situation, and it is not always feasible to have community involvement in all the detailed planning of a program. Gathering the data on injury statistics is important; however, learning more about the risk and protective factors as well as cultural characteristics and belief/behavior norms does take more hands-on interaction with the community. It is here that the needs assessment goes beyond statistics and provides substance upon which a specific, tailored injury prevention program can be based. Fostering community buy-in often translates into empowerment and increases the likelihood of community investment, attention, and dedication to the program (Thompson et al., 2003).

### Involving the right people

In addition to the logistical qualifications of these individuals, people involved in program planning should be respectful and open-minded of others’ opinions and have the ability to problem-solve and make decisions. Roles, participation guidelines, commitment time/duration, and timelines/deadlines should be clearly presented and mutually agreed upon in the beginning of this planning process. The number and types of people involved and the kind of assets they can supply will vary greatly depending on the resources available for the program and the scope and duration of the program.

Below is a list of possible people to involve with the injury prevention program:

- An evaluation expert (this could be on a contract basis, or someone from a university or research group. See Evaluation section from Step 1 below for more information).
- Representatives from your target population



- Healthcare providers, including other emergency nurses
- Emergency Medical Services (EMS)
- Police Department
- Fire Department
- Human services providers
  - Department of public health
  - Social services, local housing authority
- Government officials
- Community resource leaders/assets
  - Faith leaders and organizations
  - Prominent/relevant business owners
  - Heads of local community-based organizations
  - Local university, especially with public health, social work, or nursing programs
  - Active volunteer organizations
  - Schools and youth organizations
  - Retired residents and program advocates for older adults
  - Insurance companies and other business leaders
  - Key spokespersons from target audience (e.g., sports figures)

Consider resources you might need. Determine if there are members of your community who might be able to supply these resources while also benefiting from this program.

Begin looking at data. (Use the needs assessment tool at the end of this section to help guide you through collecting data from the following source.)

- Determine current existing data—Much of the data you need to gather can be done through use of e-codes. Reporting of injuries in the ICD-9-CM coding for injury morbidity data and the ICD-10 codes for presenting injury mortality data has led to greater surveillance capabilities and therefore a better understanding of specific injuries, their trends, and contributing factors (Kress et al., 2012). The CDC's web-based Injury Statistics Query and Reporting System (WISQARS) is a database that can be accessed to build reports detailing injury type and demographic data for a geographical region (CDC, 2003).
- Other places to look—Contacting the departments, organizations, or persons below may provide direct data or help lead you in the right direction:
  - County Health Rankings & Roadmaps (<http://www.countyhealthrankings.org>)
  - Department of Health and Human Services
  - Studies performed by local academic or research centers
  - Studies performed by other organizations such as





- Hospitals: Marketing department, department for medical coding, regional trauma coordinator, hospital community educator, school nurses
- Human services providers (charity organizations, etc.)
- Chambers of commerce
- Local/state government
- Local health department
- City council offices
- Social services agency
- Housing authority

### **Risk vs. Resilience**

Risk factors, those that increase the chance of injury, should not be the only aspect driving an injury prevention program. Resilience, which is the protective factor that prevents injuries, is also important and should not be overlooked. Both risk and resilience factors can be found among the three epidemiologic components of host/human, environment and vehicle/vector. In deciding on which positive resilient factors to include in your programs, one can be more creative by designing a more robust, comprehensive program for a community that is also complementary to its existing endeavors. A thorough community injury needs assessment will tease out both risk and resilience factors and aid in narrowing the search for an effective injury prevention intervention.

### **Step 1: Evaluation Opportunities**

As early as Step 1, there are points in program planning that can be evaluation opportunities (HHS, 2011; Fowler, 2009; NCCCP, 2010). For example, since stakeholders and community participation in program planning are incorporated from the onset, this allows for early identification of the evaluation design with those individuals who stand to benefit from the program. It is essential to know what the different stakeholders expect to get out of the program, so those components can be incorporated into evaluation measurement goals. It is also important to assign certain members to be part of the evaluation team.

The number of people on this team will vary, depending on the resources available for the injury prevention program. Responsibilities include: being involved in the operational aspects of the program (such as program management, staff, funding, and community partnerships), using the evaluation findings (funding sources, program partners), finding people who will benefit from the program via data collection, data analysis, and writing (for publication, reports, and presentations), and finding advocates interested in sharing results with the community (NCCCP, 2010; HHS, 2011).

The other component to this step is obtaining someone who specializes in evaluation to be part of the team. This could be accomplished through hiring an evaluation expert on a consulting or contract basis, or through utilizing resources at a university or research organization (Fowler, 2009). Program Evaluator/Evaluation Team Comparison table (shown here on page 20) provides a pros vs. cons



comparison of some different levels of evaluator status (NCCCP, 2010). The importance of this is the actual design of the various components of the evaluation. There are many types of evaluations, and the methodology should be aligned with intervention design and goals. Depending on the scope of your injury prevention program, you may need to evaluate the detailed planning/troubleshooting of the program (formative evaluation), determine whether or not the program activities are being carried out as planned (process evaluation), determine the impact the program had on the participants at the time they were exposed to the program (impact evaluation, also called short-term outcomes), and assess the long-term outcome of whether or not this program reduced injury in the community (outcome evaluation) (Fowler, 2009). Impact and outcome evaluations require more resources and time to carry out and therefore, may not be feasible in every situation.

## Step 1 Evaluation Tools

The following tool can be used to identify stakeholders and members of the evaluation team:

- [Identifying stakeholders/members of the evaluation team](#)

The following tool can be used for speaking with graduate schools to help with performing the evaluation:

- [Tips for negotiating evaluation partnerships with graduate schools- communicating benefits](#)

The following tool can be used to help decide what evaluator/evaluation team will be best for your injury prevention program:

- [Program evaluator/evaluation team comparison](#)

## Step 1 Tools

The following resources have material to help walk you through the needs assessment or community assessment step-by-step. Please review these prior to beginning your community needs assessment.

The following tool can be used for a community injury needs assessment:

- [Community Injury needs assessment worksheet](#)

Overall community needs assessment: For more information on a comprehensive overall community needs assessment, visit the Community Tool Box, a project of the University of Kansas' Work Group for Community Health and Development: <http://ctb.ku.edu/en/assessing-community-needs-and-resources>. The tools section within the toolkit has helpful worksheets and printouts to aid you in completing your community needs assessment. Look for the "Tools" tab at the top of the screen for each section.



### Data sources:

Data related to the types of injury in your area may be found in multiple locations. Check with your hospital's medical coding department and community educator for reports already generated. Other sources of this data include

- Web-based Injury Statistics Query and Reporting System (WISQARS), from the CDC's Injury Center: <http://www.cdc.gov/injury/wisqars/index.html>
- National Trauma Data Bank (NTDB), from the American College of Surgeons: <http://www.facs.org/trauma/ntdb>

Your state's public health department and regional trauma coordinator can also supply this information.

The Society for Public Health Education (SOPHE) has some helpful fact sheets for building effective coalitions with community members. This level of coalition may not be within the resources or timeline of each injury prevention effort; however, it provides useful information and insights. Visit

[http://www.sophe.org/healthy\\_communities.cfm](http://www.sophe.org/healthy_communities.cfm)

### Meeting tools:

The process of developing an injury prevention program should utilize a more formal meeting structure for the purpose of recordkeeping, clear communication, and organization. Each meeting should have an agenda and minutes should be recorded and shared with all team members after each meeting. See the meeting agenda and minutes template below to help with this process.

- [Form for taking minutes: Sample Minutes Template](#)
- [Form for making an agenda: Sample Agenda Template](#)



## Identifying stakeholders/members of the evaluation team

**Instructions:** Fill out the tables below to aid in identifying stakeholders/members of the evaluation team.

Category	Stakeholders
<b>1</b>	<b>Who is affected by the program?</b>
	<ol style="list-style-type: none"> <li>1.</li> <li>2.</li> <li>3.</li> <li>4.</li> </ol>
<b>2</b>	<b>Who is involved in program operations?</b>
	<ol style="list-style-type: none"> <li>1.</li> <li>2.</li> <li>3.</li> <li>4.</li> </ol>
<b>3</b>	<b>Who will use evaluation results?</b>
	<ol style="list-style-type: none"> <li>1.</li> <li>2.</li> <li>3.</li> <li>4.</li> </ol>



# COMMUNITY INJURY PREVENTION TOOLKIT

List these key stakeholders in the columns where their efforts are needed			
Increase credibility of our evaluation	Implement the interventions that are central to this evaluation	Advocate for changes to institutionalize the evaluation findings	Fund/authorize the continuation or expansion of the program

Adapted from: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. Office of the Director, Office of Strategy and Innovation. (2011). Introduction to program evaluation for public health programs: A self-study guide. Atlanta, GA: Centers for Disease Control and Prevention.



## Tips for Negotiating Evaluation Partnerships with Graduate Schools— Communicating Benefits

**Instructions:** The table below lists the potential benefits that graduate students can gain from acting as evaluators and participating in the evaluation of a community injury prevention program. Read through the table below for tips to encourage graduate school student involvement.

Potential Evaluation Activities	Benefits to students
<ul style="list-style-type: none"> <li>• Participation in relevant staff and stakeholder meetings</li> <li>• Written evaluation plan</li> <li>• Logic model developed in partnership with key stakeholders</li> <li>• Written protocols and recommendations for collecting existing program data and data sources</li> <li>• Draft of data collection tools, including surveys and interview guides</li> <li>• Qualitative data collection, such as conducting interviews and/or focus groups with local grantees and stakeholders to address evaluation questions</li> <li>• Written evaluation report, including recommendations for program improvement</li> <li>• Presentation of results to stakeholders</li> </ul>	<ul style="list-style-type: none"> <li>• Practice-based experience that will help fulfill graduation requirements</li> <li>• Service that can be noted on a dissertation or practicum committee</li> <li>• Letters of recommendation to support applications for fellowships or jobs</li> <li>• Networking opportunities with stakeholders and the community</li> <li>• Skill development and practice with data collection and presentation of results</li> </ul>

Adapted from: National Comprehensive Cancer Control Program (NCCCP), Centers for Disease Control and Prevention (2010). Comprehensive Cancer Control Branch Program Evaluation Toolkit.





## Program Evaluator/Evaluation Team Comparison

**Instructions:** Use the following table to aid in deciding on the evaluator/evaluation team.

Evaluator Option	Pros	Cons	Costs <sup>a</sup>
External evaluation contractor	<ul style="list-style-type: none"> <li>Minimizes workload burden of program staff and coalition partners</li> <li>Participants in evaluation data collection activities may be more forthcoming with someone they do not know</li> <li>Can provide high levels of evaluation expertise from an objective point of view</li> </ul>	<ul style="list-style-type: none"> <li>May plan evaluations that are not attuned to a program's unique context</li> <li>University-based evaluators may take a more research/ academic approach vs. a practical and utilization-focused approach to evaluation</li> <li>Can be costly</li> </ul>	\$\$\$
Internal evaluation team	<ul style="list-style-type: none"> <li>Can be an efficient option— your program can benefit from adopting or adapting evaluation approaches that have worked well in related federally funded programs</li> <li>Facilitates program integration</li> </ul>	<ul style="list-style-type: none"> <li>Can be a lengthy process depending on the team's workload and priorities</li> <li>Your program may not have staff dedicated specifically to your program evaluation</li> <li>Your program may have to cover a portion of several team members' time</li> </ul>	\$\$
Evaluation advisory group	<ul style="list-style-type: none"> <li>Facilitates ongoing engagement of stakeholders</li> <li>Helps ensure that evaluation findings will be used</li> </ul>	<ul style="list-style-type: none"> <li>May add additional work to possibly overburdened volunteers</li> <li>Some accountability may be lost in the absence of one evaluation lead</li> </ul>	\$
Other public health personnel	<ul style="list-style-type: none"> <li>Can help save limited program resources</li> <li>Facilitates program integration</li> </ul>	<ul style="list-style-type: none"> <li>May focus more heavily on quantitative methods and miss rich qualitative data that is useful for informing program improvement</li> <li>Can be a lengthy process depending on the team's workload and priorities</li> </ul>	\$

<sup>a</sup> \$\$\$= resource intensive: could require 10% or more of funding award; \$\$ = requires a moderate funding investment, such as a portion of an existing staff member's time; \$ = generally requires a minimal funding investment: most evaluation expenses are covered through in-kind contributions (e.g., program staff time, meeting space).



## Community Injury Needs Assessment Worksheet

**Part 1:** Needs assessment checklist for your injury prevention program team

**Instructions:** Fill out the following table to aid in determining the fundamental logistics of how the needs assessment will be performed.

Needs Assessment Questions for the Program Team	Answers
1. Who will perform the needs assessment?	
2. When will the needs assessment be performed? What is our timeline for needs assessment?	
3. When will we discuss our results, and who needs to be present for that discussion? What information do we need to include in that discussion?	
4. What resources are needed to collect the necessary information and how will we secure these resources?	
5. How will we ensure that the data collected will be an accurate representation of the needs and assets of this community?	
6. What role can stakeholders play in the planning, conducting, contributing of information, and results analysis and dissemination of the needs assessment?	

**Part 2:** Needs assessment information

**Instructions:** Complete the following to learn more about the injury needs in the community.

Needs Assessment Questions	Answers
1. Who is the target population?	
2. What is the extent of the injury problem within this target population?	
3. What behaviors or factors might be contributing to these injuries?	
4. What information needs to be collected to best understand this problem?	
5. What are the needs of the group?	
6. Are there any subgroups within this target population that have greater needs?	
7. Geographically, where are these injuries taking place and where is the target population located?	
8. At what time of day/week/month/year are these injuries a problem?	
9. What is being done to address the injury problem? If something is being done, who is doing it, and are their efforts working to reduce the prevalence of injury (what does their outcome evaluation show)?	
10. Have there been any previous attempts at reducing this injury problem? If so, what contributed to the success/failure of this attempt?	
11. What resources might be available in the community to address the injury problem?	

Adapted from: Emergency Nurses Association (ENA). (2010). STOP Injuries. Des Plaines, IL.



## MEETING/CONFERENCE CALL MINUTES

**Injury Prevention Program Team**

Meeting/Call Date: \_\_\_\_\_

Held at: \_\_\_\_\_ Other Location \_\_\_\_\_ \_\_N/A

**Members:** 1.  
2.  
3.  
4.

Not present:

**Guests:**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Program Leader:** \_\_\_\_\_

Agenda Item	Discussion	Assignment(s)/Outcome(s)
1. Welcome /Approve Minutes		Assignment: Due date: Decision:
2. Review Goals		Assignment: Due date: Decision:
3. Agenda Item		Assignment: Due date: Decision:
4. Agenda Item		Assignment: Due date: Decision:
5. Next Meeting Time/ Date		Assignment: Due date: Decision:
6. Questions/Thoughts/ Concerns		Assignment: Due date: Decision:



# COMMUNITY INJURY PREVENTION TOOLKIT

**Injury Prevention Program Team**  
**Meeting Date**  
**Meeting Time**

## AGENDA

---

### **Injury Prevention Team Members**

(List here)

### **Guests**

(List here)

### **Goals**

- 1.
- 2.

- 
- 1. Welcome/Approve Minutes ..... **Project Leader/All**
  - 2. Review Goals ..... **Project Leader**
  - 3. Agenda Item ..... **Insert name**
  - 4. Agenda Item ..... **Insert name**
  - 5. Agenda Item ..... **Insert name**
  - 6. Next Meeting Date/Time ..... **Project Leader**
  - 7. Questions/Concerns/Thoughts ..... **All**
  - 8. Next Steps/Actions Items ..... **All**



## Step 2: Identify causes/risk and protective factors

At this point, the specific injury problem has been determined. In this step, both community risk and protective factors for the particular problem will be identified (Jones et al., 2010). Using the Haddon Matrix can help to identify risk factors leading to the resulting injury. The results from this should help to determine some risk factors leading to the injury events. Remember to use the existing identified protective factors to help with development of the injury prevention intervention.

Tools such as the Haddon Matrix are used in this step to determine why this injury is occurring in the identified population. These causative and correlated factors are referred to as risk factors and opportunities for intervention. Protective factors (also called resiliency) are also explored, as these are already existing assets that can be utilized or highlighted in the injury prevention program design (CDC, 2013). Now that the community has been assessed and the injury identified, it is time to determine community risk factors that lead to the injury and protective factors that can help prevent the injury. A literature review, through the Cochrane database and other databases, can reveal existing evidence-based injury prevention program strategies for the particular injury that has been chosen as the focus of intervention efforts.

### Haddon Matrix

The Haddon Matrix divides the events leading up to the injury into phases and factors. Factors are based on the epidemiological triad (host, vector, and environment, which includes social and physical environment (Sleet et al., 2011; Deljavan et al., 2012; Baranett et al., 2005; ENA 2010). Phases are organized into primary (pre-event), secondary (event) and tertiary (post-event). To complete the Haddon Matrix, use the prompts in the Haddon Matrix Worksheet in the tools section of Step 2. The Haddon Matrix does not prioritize the identified risk factors. It is at this step that reviewing the community assessment, discussions with community leaders, and a review of pre-existing programs can help to prioritize. A tool to prioritize among injury problems is included in the tools section of Step 2.



**Table 1**

The Haddon matrix and pedestrian injury from automobiles.

Phase	Influencing factors			
	Host	Agent/vehicle	Physical environment	Social environment
Preevent	Intoxicated driver	Speeding automobile	Poor street lighting	Unenforced speed limit laws
	Fatigued driver	Worn tires	Slick pavement	Inadequate investment in crosswalks
Event	Pedestrian crossing street	Worn brakes	Potholes Inadequate signage Nighttime	
	Intoxicated pedestrian Elderly pedestrian			
	Pedestrian with osteoporosis	Momentum of automobile		
	Pedestrian wearing headphones		Hospitals nearby with specialty in trauma care	Good samaritan laws
Postevent	Hearing-impaired pedestrian	Impact of automobile with pedestrian	Part of body impacting ground	
	Part of pedestrian's body struck by vehicle	Portion of vehicle impacting pedestrian		
	Ability of victim to recover Postinjury care received	Severity of physical injuries	Rehabilitation facility	Health insurance
		Severity of postevent psychological impact		
	Psychological coping of victim in aftermath of event			Access to rehabilitation services Family and social support

From: Baranett, D.J., Balicer, R.D., Blodgett, D., Fews, A.L., Parker, L. & Minks, J.M.(2005). The application of the Haddon Matrix to public health readiness and response planning. *Environmental Health Perspectives* 113(5): 561-566.

### Setting project goals and objectives

The expected outcomes of the intervention will be based on these goals and objectives. These goals and objectives should be easily understandable and agreed upon by those involved in the project. They help to maintain focus throughout the process of the program, aid in communicating with other people outside of the immediate program planning, and are central to evaluating the program's success and effectiveness (HHS, 2011). The project goals encompass the bigger picture of the program's purpose. These state what your program is supposed to do, and for whom. The program objectives are the goals broken down into achievable milestones, and completing these objectives within a given time frame is required for reaching the overall goal (Fowler, 2009).

The goals and objectives for the program should be Specific, Measurable, Attainable/Achievable, Relevant and Time bound. The whole purpose is to write goals and objectives that can realistically be achieved and are measurable, making the success of the program clear to evaluate (CDC, HHS, NCCDPHP [n.d.]). Please review the *CDC Evaluation Guide: Writing SMART Objectives* in the tools section of this step for help in writing SMART goals and objectives for your injury prevention program.





## Step 2: Evaluation Opportunities

**Part 1:** Check in with the team. This is the time to stop and ensure that your team is working together smoothly as planned. Thus far in the process, you have identified a specific injury problem in your community, used the Haddon Matrix to determine risk factors for the injury, and written SMART goals and objectives to use to move forward with the injury prevention project. Here is an opportunity to double-check the goals and objectives against the needs assessment and available resources. This allows for program managers to clarify that the selected goals and objectives are indeed realistic, and to make modifications as required before too much investment of time and resources (Fowler, 2009). It is also a time to do a team check-in: How is the process going; are there any communication problems; are all team members able to continue fulfilling their commitment to this project with enthusiasm and producing required information (Fowler, 2009)? In the next step, the program is selected and roles/responsibilities are detailed. If a person has any concern about his/her ability to dedicate time to the project, this would be the time to make that determination.

**Part 2:** Evaluation progress. The more clearly the goals and objectives are stated, the better the evaluation and the evaluation process will be (HHS, 2011). The SMART goals and objectives that you have detailed for this project will help with this process (AAP, 2008). This step should clearly identify the need, the target population, and the outcomes of this program (HHS, 2011). It is important at this stage to have clarified exactly who will be creating the evaluation and collecting, analyzing, and disseminating the information (NCCCCP, 2010).

## Step 2: Evaluation Tools:

**Part 1:** One tool for this step is a meeting agenda focusing on the above check-in questions. It is a pause before going onto the next step. Any concerns raised should be addressed prior to moving onto the next step.

**Part 2:** Evaluation progress. The next step of the injury prevention program will involve planning individual action items of the program; therefore, a substantive amount of formative planning will be active, as well as the designing of the process, and short- and long-term evaluations (NCCCCP, 2010; HHS, 2011). It is therefore imperative to stop the program planning at this step, if the evaluator or evaluation team is not already established. Once this is in place, the program is able to move to Step 3. The tool for this section is to actively review the evaluation team and ensure that all roles are assigned.

## Step 2: Tools:

The following tool will aid in analyzing injury problems you identify in your assessment to determine which one could be a priority focus for an injury prevention program:

- Prioritizing Injury Prevention Initiatives

The Haddon Matrix has been used for decades to aid in determining factors that contribute to injuries. While the original one had Environment as a category, the updated version has Environment as both



Social and Physical. Once you have determined the injury problem that you seek to work on, fill out the following Haddon Matrix to assist in teasing out the factors contributing to the injury problem.

- Haddon Matrix Worksheet

The following worksheet will aid in setting SMART goals and objectives for your injury prevention program:

- SMART Goals Worksheet

The following tool is offered by the CDC to aid in developing SMART goals. It is more comprehensive than the SMART Goals Worksheet.

- CDC Evaluation Guide: Writing SMART Objectives

Logic models are a helpful tool that can be used to visualize the steps involved in planning activities and outcomes for any program. Logic models are also great tools for communicating your project to administration, funding partners and members of the community. This is an optional tool, yet one that is highly suggested.

The following link is to a brief and interactive CDC tutorial on making logic models.

<http://www.cdc.gov/healthyyouth/tutorials/logicmodel/page001.htm>

The following worksheet will aid in developing your program's logic model:

- Logic Model Worksheet



## Tool for Prioritizing Injury Prevention Initiatives

**Instructions:** Use the following tool to determine the priority of an injury prevention issue and initiative.

Criterion	Preliminary rating	Final score
<b>A. Consistent with the mission of the agency/organization/working group</b>	<input type="checkbox"/> YES <input type="checkbox"/> NO	If YES—Continue with scoring. If NO—Stop here.
<b>B. Importance of problem to health and readiness (10 points)</b> Considerations:		(10 points; 1=low, 10=high)
1. Magnitude of the problem (e.g., frequency, incidence)	1. <input type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High	
2. Severity of problem (e.g., injury diagnosis, length of stay or recuperation)	2. <input type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High	
3. Cost of the problem (e.g. medical, training, property, and personnel costs such as lost work time)	3. <input type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High	
4. Size of population at risk	4. <input type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High	
5. Degree of concern (e.g., leadership concern, public and Service member concern, visibility of problem)	5. <input type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High	
<b>C. Preventability of problem (10 points)</b> Considerations:		(10 points; 1=low, 10=high)
1. Cause(s) are identifiable	1. <input type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High	
2. Risk factors are modifiable	2. <input type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High	
3. Proven prevention strategies that reduce existing injury rates exist <sup>a</sup>	3. <input type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High	
4. Prevention strategies that reduce existing injury rates can be designed	4. <input type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High	
5. Effect size	5. <input type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High	
<b>D. Feasibility of program or policy (10 points)</b> Considerations:		(10 points; 1=low, 10=high)
1. Existence of infrastructure to support implementation and sustainability of the program or policy (e.g., medical staff and facilities, safety staff and resources)	1. <input type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High	
2. Perceived adequacy of funding to support implementation and sustainability	2. <input type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High	
3. Authority to implement and sustain the program or policy is held or obtainable by the implementing organization(s)	3. <input type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High	
4. Program or policy will not undermine essential missions	4. <input type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High	
5. Political and cultural acceptability of program or policy	5. <input type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High	
6. Accountability and responsibility for implementation and sustainability exists or can be established	6. <input type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High	
<b>E. Timeliness (5 points)</b> Considerations:		(5 points; 1=low, 5=high)
1. Implementation time <sup>b</sup>	1. <input type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High	
2. Results time <sup>b</sup>	2. <input type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High	
<b>F. Evaluation of program or policy (5 points)</b> Considerations:		(5 points; 1=low, 5=high)
1. Ability to evaluate effects of program or policy exists (i.e., if a metric is possible)	1. <input type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High	
2. Benefits of program or policy outweigh the costs of implementation and sustainability	2. <input type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High	
3. Collateral benefits as a result of implementation (e.g., increased readiness, decreased attrition, and decreased other health problems)	3. <input type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High	
	Total score	



<sup>a</sup>If systematic reviews substantiate effectiveness of a prevention strategy, score as 10 points automatically.

<sup>b</sup>Assign higher value to programs and policies with shorter implementation and time to desired results.

Instructions: Complete a scorecard for each injury problem under consideration. First, provide a preliminary rating for each of the *Considerations* listed under each criterion. Then, using the preliminary ratings as a guide, assign a final score for each criterion. For criteria B, C, and D, assign a final score from 1 to 10 (1=lowest score, 10= highest score). For criterion E and F, assign a final score from 1 to 5 (1=lowest score, 5=highest score). Adding the final scores will provide a total score, with a maximum of 40.

From: Canham-Chervak, M., Hooper, T., Brennan, F., Craig, S., Girasek, D., Schaefer, R., ... Jones, B. (2010). A systematic process to prioritize prevention activities: Sustaining progress toward the reduction of military injuries. *American Journal of Preventive Medicine*. 38(1), S11-S18.



## Haddon Matrix Worksheet

**Instructions:** The first worksheet contains prompts to aid in filling out the worksheet, as well as some examples from motor vehicle injury factors fitting these categories. The following worksheet is left blank for you to fill in as you work toward determining factors contributing to the injury problem in your community.

### Haddon Matrix

Phase	Host	Agent/Vehicle	Physical Environment	Social Environment
<b>Pre-event</b>	<p><b>Is host predisposed or overexposed to risk?</b>  <i>Was the driver  Distracted?  Intoxicated?  Fatigued?  Inexperienced?  In a hurry to get somewhere?  What was the injured person's sex?  What was the injured person's age?</i></p>	<p><b>Is there a hazardous vector contributing to the risk?</b>  <i>Were all parts of the vehicle fully functional?  Were the brakes in optimal shape?  Were the headlights both working?  Did the car have an unusual "blind spot" impeding the driver?  Were the car's tires worn?  What was the momentum of the car?</i></p>	<p><b>Look at the physical environment: Is there anything contributing to the injury? Are there hazard-reducing features currently in place, and if so, are they working?</b>  <i>How was the road designed?  Were the speed limits on the road?  Were the street signs adequate?  Did the road have potholes?  Was the road icy or wet?  Was it nighttime?  Was the sun glaring through the windshield?  Was there a distraction on the road?</i></p>	<p><b>Is there anything in the social environment that is contributing to the injury, such as social norms, laws (or lack of laws), education, etc? If there are any protective features in place, are they working?</b>  <i>Was the speed limit enforced?  Are seatbelt laws enforced?  Is public transportation an option to reduce the traffic congestion?  What are social norms regarding attitudes toward impaired driving, graduated driver's licensing for teenage drivers, etc?</i></p>
<b>Event</b>	<p><b>Is the host able to tolerate the transfer of energy? Does the host have protective devices in place to reduce the transfer of energy, and are they working?</b>  <i>Was the injured person wearing a seatbelt, car seat or booster seat? If so, was he/she properly secured according to manufacturer instructions?  Where was the person sitting in the car?</i></p>	<p><b>What about the vector is contributing to the transfer of energy? Does the vector have any protective features, and are these working?</b>  <i>Does the car have airbags?  Did the airbags properly work?  How fast was the car going at the time of impact?  How big was the car?  Were there unsecured objects (e.g., equipment, pets) that contributed to injury through impact with passengers?</i></p>	<p><b>Is there anything in the physical environment to reduce injury at the time of the event?</b>  <i>Were there guard rails on the road?  Were there medians on the road?  Were there trauma hospitals nearby?</i></p>	<p><b>Are there any regulations or laws in place to help reduce the impact of injury during the event?</b>  <i>Are there Good Samaritan laws in place to protect bystanders wanting to help?  Is the environment a safe one for a bystander to help the injured person?</i></p>
<b>Post-event</b>	<p><b>What is the severity of the injury? Does the injured person have any physical or psychological protective factors that can help him/her recover from the injury? Can help be contacted? Do bystanders know how to help?</b>  <i>Did the injured person have any existing medical conditions to complicate the recovery?  Did the person receive care after the injury?</i></p>	<p><b>Does the vector contribute to the trauma?</b>  <i>Did the vehicle catch fire?  Was there a complicated extrication of the injured person?</i></p>	<p><b>Is there anything in the physical environment that contributes to the extent of the trauma? Is there anything in the physical environment that can reduce the extent of the injury?</b>  <i>Can emergency medical services reach the scene of the collision?</i></p>	<p><b>Are there services, laws or support structures in place to reduce the post-event extent of the injury and contribute to recovery?</b>  <i>Does emergency medical services receive adequate funding in this location?  Did the patient have adequate insurance to cover the injury through rehabilitation?  Does the injured person have family and friend support?</i></p>



## Haddon Matrix

Phase	Host	Agent/Vehicle	Physical Environment	Social Environment
Pre-event				
Event				
Post-event				

Emergency Nurses Association (ENA). (2010). STOP Injuries. Des Plaines, IL.

Barnett, D., Balicer, R., Blodgett, D., Fews, A., Parker, C., & Links, J. (2005). The application of the Haddon Matrix to public health readiness and response planning. *Environmental Health Perspectives*, 113, 561-566.

Sleet, D., Dahlberg, L., Basavaraju, S., Mercy, J., McGuire, L., & Greenspan, A. (2011). Injury prevention, violence prevention and trauma care: Building the scientific base. *Morbidity and Mortality Weekly Report*, 60, 78-85.





## SMART Goals Worksheet

**Instructions:** Fill in the following spaces and then write the final goal at the bottom.

**Specific:** State the problem (specific injury and chosen intervention strategy), target population, and setting.

**Measurable:** State the amount of change (e.g., number of educational sessions attended; percentage of times desired behavior was performed) that is expected to occur in a given time frame.

**Attainable/Achievable:** This goal is both agreed upon and deemed to be attainable by the target population and other stakeholders.

**Realistic:** Has this goal been achieved before for this specific injury prevention program and target population? Is it possible to reach this goal with the available resources?

**Timely:** Can this goal be achieved in the stated time frame?

**Final goal decision:**

CDC Division for  
Heart Disease and Stroke Prevention  
State Heart Disease and Stroke Prevention Program

# Evaluation Guide

*Writing SMART  
Objectives*



Department of Health and Human Services  
Centers for Disease Control and Prevention  
National Center for Chronic Disease Prevention  
and Health Promotion



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We encourage readers to adapt and share the tools and resources in the document to meet program evaluation needs. For further information, contact the Division for Heart Disease and Stroke Prevention, Applied Research and Evaluation Branch at [cddinfo@cdc.gov](mailto:cddinfo@cdc.gov) or (990) 488-2424.

# **Heart Disease and Stroke Prevention Program Evaluation Guides**

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## **Introduction**

### **Purpose**

The Heart Disease and Stroke Prevention (HDSP) Program Evaluation Guides are a series of evaluation technical assistance tools developed by the Centers for Disease Control and Prevention (CDC), Division for Heart Disease and Stroke Prevention, to assist in the evaluation of heart disease and stroke prevention activities within states.

The guides are intended to offer guidance, consistent definition of terms, and aid skill building on a wide range of general evaluation topics and selected specific topics. They were developed with the assumption that state health departments have varied experience with program evaluation and a range of resources allocated to program evaluation. In any case, these guides clarify approaches to and methods for evaluation, provide examples specific to the scope and purpose of the state HDSP programs, and recommend resources for additional reading. Some guides will be more applicable to evaluating capacity building activity and others more focused on interventions. Although examples provided in the guides are specific to HDSP programs, the information might also prove valuable to other state health department programs, especially chronic disease programs.

### **Background**

Heart disease and stroke, the primary components of cardiovascular disease (CVD), are leading causes of death and disability in the United States. As the burden of heart disease and stroke continues to increase, these conditions are projected to remain the number one and two causes of death worldwide through the year 2020. In the United States alone, CVD affects 61.8 million Americans and claims nearly 1 million lives annually among people of all racial/ethnic groups and ages.

In 1998, the U.S. Congress provided funding for CDC to initiate a national, state-based heart disease and stroke prevention program. As of July 2005, CDC funds heart disease and stroke prevention programs in 32 states and the District of Columbia. The priority areas for State activities are:

- Increase control of high blood pressure.
- Increase control of high cholesterol.
- Increase awareness of signs and symptoms of heart attack and stroke and the need to call 9-1-1.
- Improve emergency response.
- Improve quality of care.
- Eliminate disparities.

Many factors increase the risk of developing heart disease and stroke. State-based programs must therefore use strategies that target multiple risk factors in many different settings, including health care settings, work sites, communities, and school worksites to be effective.

States are encouraged to build capacity, use evidence-based approaches when they exist, and develop innovative interventions to address heart disease and stroke prevention. CDC-funded states are charged with providing evidence of capacity, of intervention, and of change within their state and are encouraged to build evidence for innovative and promising practices.

In 2003, CDC convened key public health partners, including state programs, to develop *A Public Health Action Plan to Prevent Heart Disease and Stroke*. The *Action Plan* identifies targeted recommendations and specific action steps necessary to reduce the health and economic toll caused by heart disease and stroke and supports the identification of innovative ways to monitor and evaluate policies and programs. The *Action Plan* is available online at [http://www.cdc.gov/DHDSP/library/Action\\_Plan/index.htm](http://www.cdc.gov/DHDSP/library/Action_Plan/index.htm)

### **Using the guides**

The guides are intended to be companion pieces to existing program evaluation documents. The *CDC State Heart Disease and Stroke Prevention Program Evaluation Framework* is located on the Internet at [http://www.cdc.gov/DHDSP/library/evaluation\\_framework/index.htm](http://www.cdc.gov/DHDSP/library/evaluation_framework/index.htm). The document is also available on CDROM by contacting [ccdinfo@cdc.gov](mailto:ccdinfo@cdc.gov) or your CDC project officer.

The guide topics are divided broadly into two categories, fundamentals and capacity building- or intervention-related. The guides in the fundamentals series will be completed first and will cover general evaluation topics using specific HDSP examples. Capacity building- and intervention-related guides will provide the tools and techniques to evaluate capacity building activities, like the effectiveness of partnerships, and interventions in the health care, work site, and community settings. Some of the guides will be developed for evaluations of specific interventions and others will focus on tools for evaluating interventions.

Because states have different levels of experience and involvement with evaluation, the series of guides will range from very basic to more advanced topics. Depending on the evaluation capacity of state programs, some guides will be more useful to program staff than others.

The guides are expected to be distributed over time. They will be posted online for easy review and access. State programs should review the guides as they are distributed and determine which are most applicable given current resources and activities. The series will be expanded and enhanced as additional needs are identified and as state evaluation capacity is increased. States are encouraged to provide feedback to the Evaluation Team on the utility of guides and suggested topics for future guides.

### **Bibliography**

American Heart Association. *Heart Disease and Stroke Statistics – 2006 Update*. Dallas, Tex: American Heart Association; 2006.

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# **Heart Disease and Stroke Prevention Program Evaluation Guide**

## **Writing SMART Objectives**

The evaluation guide "Writing SMART Objectives" is aimed at helping states develop realistic and measurable objectives. This guide describes the components of a SMART objective and provides examples. An exercise at the end offers an opportunity to work through the development of SMART objectives. We will appreciate your comments on the utility and applicability of this guide.

As part of the program development process, states propose objectives and develop a work plan and an evaluation plan. Both these plans are based on proposed objectives so it is important that they are developed using the SMART approach. Such objectives offer specific, relevant, and measurable benchmarks to measure achievement of your state's HDSP program goals and will serve as the foundation for your program activities.

### **Goals and Objectives**

In program planning, we often think of what we want to accomplish in terms of goals and objectives so that we can easily explain our expectations to others.

A **goal** is a statement that explains what the program wishes to accomplish. It sets the fundamental, long-range direction. Typically, goals are broad general statements.

Example: Improve control of high blood pressure in (state).

**Objectives** break the goal down into smaller parts that provide specific, measurable actions by which the goal can be accomplished. Objectives define for our stakeholders and partners the results we expect to achieve in our program or intervention. For our program expectations to be clear, we must write clear, concise objectives.

The two general types of objectives are process and outcome. *Process objectives* focus on the activities to be completed in a specific time period. They enable accountability by setting specific activities to be completed by specific dates. Process objectives explain what you are doing and when you will do it. They describe participants, interactions, and activities.

Example: By June 30, 2006, provide training for 20 community health center administrators in the use of electronic medical records.

*Outcome objectives* express the intended results or accomplishments of program or intervention activities. They most often focus on changes in policy, a system, the environment, knowledge, attitudes, or behavior.

Objectives can also be thought of as short-term, intermediate or long-term.

- Short-term objectives are generally expected immediately and can occur soon after the program or intervention is implemented, very often within a year.
- Intermediate objectives result from and follow short-term outcomes.
- Long-term objectives state the ultimate expected impact of the program or intervention.

Example: Let's put all these concepts together to form a series of related objectives.

Goal: Improve control of high blood pressure in the state.  
Long-term objective: By December 30, 2010, increase from baseline to 65% the percentage of hypertension patients at community health centers whose blood pressure is under control.  
Intermediate objective: By June 28, 2008, increase from 2 to 10 the number of community health centers that have implemented use of electronic medical records with provider reminders of high blood pressure treatment guidelines. (There are currently 15 community health centers in the state.)  
Short-term objective: By June 28, 2006, increase from 2 to 5 the number of community health centers that have provided staff training on the JNC7 guidelines.

For the short-term objective listed above, activities or process objectives could include:

By December 30, 2006, provide training for 20 community health center administrators on the impact of using guidelines and electronic medical records.

By February 2006, form one collaborative of at least five health centers to examine issues related to blood pressure control.

By May, 2006, provide one train-the-trainer program on the JNC7 guidelines for collaborative members.

Objectives are meant to be realistic targets for the program or project. They are written in the active voice and use action verbs such as plan, write, conduct, and produce (rather than more vague terms like learn, understand, feel). Well-written objectives will always answer the following question:

**WHO is going to do WHAT, WHEN, and TO WHAT EXTENT?**

States develop an HDSP work plan using short-term, intermediate, and long-term objectives for capacity building and interventions. Capacity building objectives will likely focus on the achievement of products or processes, such as developing a state plan, a partnership, or a burden document that will help the state reduce heart disease and stroke. Intervention objectives should focus on processes such as training, or on



outcomes such as systems change or health status change. The state work plan will also include activities or processes needed to achieve proposed objectives.

### **Developing SMART Objectives**

One way to develop well-written objectives is to use the SMART approach. Developing specific, measurable objectives requires time, orderly thinking, and a clear picture of the results expected from program activities. The more specific your objectives are, the easier it will be to demonstrate success.

**SMART** stands for:

- Specific
- Measurable
- Attainable/Achievable
- Relevant
- Time bound

#### **Specific**—*What exactly are we going to do for whom?*

The “specific” part of an objective tells us what will change for whom in concrete terms. It identifies the population or setting, and specific actions that will result. In some cases it is appropriate to indicate how the change will be implemented (e.g., through training, or through implementation of the Chronic Care Model). Coordinate, partner, support, facilitate, and enhance are not good verbs to use in objectives because they are vague and difficult to measure. On the other hand, verbs such as provide, train, publish, increase, decrease, schedule, or purchase indicate clearly what will be done.

#### **Measurable**—*Is it quantifiable and can WE measure it?*

Measurable implies the ability to count or otherwise quantify an activity or its results. It also means that the source of and mechanism for collecting measurement data are identified, and that collection of these data is feasible for your program or partners.

A baseline measurement is required to document change (e.g., to measure percentage increase or decrease). If the baseline is unknown or will be measured as a first activity step, that should be indicated in the objective as “baseline to be determined using HRSA database, 2005.” The data source you are using and the year the baseline was obtained should always be specified in or adjacent to your objective statement. If a specific measurement instrument is used, you might want to incorporate its use into the objective. For example, “By June 2007, increase the proportion of physicians at the Green Clinic who are 100% compliant with the JNC7 Guidelines from 70% to 80% as measured by the Physician Guideline Self-Assessment Tool.” specifies not only the performance measure, but the data source as well.

Another important consideration is whether change can be measured in a meaningful and interpretable way given the accuracy of the measurement tool and method. For example, to estimate population awareness of the signs and symptoms of heart attack, we estimate awareness using a sample of the state population. Since this is an estimate, there is a chance of error associated with it—usually expressed by a confidence interval (the point estimate, plus or minus an estimate of variability). Projecting a very small change in population awareness, although measurable, might not be meaningful because the change projected falls within expected variability or within the bounds of the confidence interval for population awareness.

**Attainable/Achievable**—*Can we get it done in the proposed time frame with the resources and support we have available?*

The objective must be feasible with the available resources, appropriately limited in scope, and within the program's control and influence.

Sometimes, specifying an expected level of change can be tricky. To help identify a target, talk with an epidemiologist, look at historical trends, read reports or articles published in the scientific or other literature, look at national expectations for change, and look at programs with similar objectives. Consult with partners or stakeholders about their experiences. Often, talking to colleagues in other states who have implemented similar programs or interventions can provide you with information about expected change.

In some situations, it is more important to consider the percentage of change as a number of people when discussing impact. Will the effort required to create the amount of change be a good use of your limited resources?

For example, our intervention might be intended to increase awareness of the symptoms of stroke and the need to call 9-1-1 among patients in a statewide health clinic system. If as a result of our intervention we measure a 5% increase in awareness among all clinic patients, but 5% of our population is a very small number, we might want to consider the cost of the intervention relative to the number of people affected. We could choose to enhance the intervention for a greater impact or not implement that intervention again.

**Relevant**—*Will this objective have an effect on the desired goal or strategy?*

Relevant relates to the relationship between the objective and the overall goals of the program or purpose of the intervention. Evidence of relevancy can come from a literature review, best practices, or your theory of change. For state HDSP programs, the objective should accomplish one of the following:

- Directly lead to achieving or enhancing one of the required recipient activities.
- Directly lead to a desired change in one of the CDC HDSP priority areas (controlling high blood pressure or high cholesterol, increasing knowledge of signs and symptoms, improving health care or emergency response, or eliminating disparity).
- Directly lead to a policy or system level change in a priority setting.

For example, although it may be important to public health, assessing the height and weight of high school students does not directly lead to change in an HDSP priority area for an at-risk population. Also, the intervention focuses at an individual level rather than on a system change.

**Time bound**—*When will this objective be accomplished?*

A specified and reasonable time frame should be incorporated into the objective statement. This should take into consideration the environment in which the change must be achieved, the scope of the change expected, and how it fits into the overall work plan. It could be indicated as "By December 2010, the HDSP program will" or "Within 6 months of receiving the grant,..."

## Using SMART objectives

Writing SMART objectives also helps you to think about and identify elements of the evaluation plan and measurement, namely indicators and performance measures.

An indicator is what you will measure to obtain observable evidence of accomplishments, changes made, or progress achieved. Indicators describe the type of data you will need to answer your evaluation questions. A SMART objective often tells you what you will measure.

Consider the example “By February 15, 2006, increase by four the number of community health centers in [State] that have incorporated into the clinic system electronic medical records with reminders of treatment protocols.” The indicator is

the number of community health centers in [State] that have incorporated electronic medical records with reminders of treatment protocols into the clinic system

A performance measure is the amount of change or progress achieved toward a specific goal or objective. **SMART** objectives can serve as your performance measures because they provide the specific information needed to identify expected results.

Consider the example, “By February 15, 2006, increase by four the number of community health centers in [State] that have incorporated into the clinic system electronic medical records with reminders of treatment protocols.” The performance measure is

increase by four the number of community health centers in [State] that have incorporated electronic medical records with reminders of treatment protocols into the clinic system

## Getting Started

To develop SMART objectives, use the template below and fill in the blanks:

By \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_, \_\_\_\_\_  
[WHEN—*Time bound*] [WHOWHAT—*Specific*]

from \_\_\_\_\_ to \_\_\_\_\_  
[MEASURE (number, rate, percentage of change and baseline)—*Measurable*]

Next, review your objective to assure that it is achievable and relevant to your overall program goals.

Here are some examples of SMART objectives:

- By June 29, 2006 (**time bound**), increase the number of training sessions given for HDSP program partners on “Implementing and Evaluating System Change” (**specific & relevant**) from 10 to 14 (**measurable & achievable**).
- By December 31, 2009 (**time bound**), increase awareness of the signs and symptoms of stroke and the importance of calling 9-1-1 among African American men in [State] (**specific & relevant**) from 11% to 15% (Baseline: 2005 BRFSS) (**measurable & achievable**).

- By February 15, 2006 (**time bound**), increase by four (**measurable & achievable**) the number of community health centers in [State] that have incorporated into the clinic system electronic medical records with reminders of treatment protocols (**specific & relevant**).

Each of these objectives is either a capacity building activity or directly relates to one of the HDSP program areas and will be a policy and systems-level change.

**Exercise**

Take the following objectives and “make them SMART.”

1. Increase the number of HDSP partners.  
\_\_\_\_\_
2. Train physicians on clinical practice guidelines.  
\_\_\_\_\_
3. Enhance EMS policy to decrease stroke deaths in 2002.  
\_\_\_\_\_
4. By June 2007, increase by 10% the percentage of state residents that know the signs and symptoms of stroke and heart attack.  
\_\_\_\_\_
5. Increase the number of work sites that adopt heart-healthy insurance options.  
\_\_\_\_\_

**Making them SMART:**

There are many ways that these objectives could be made SMARTer. For each example, several things to think about as you review your answer are provided below.

1. *Increase the number of HDSP partners.* The objective needs to specify how many and by when. Do you have a baseline? Is the proposed increase reasonable given the context and available resources? Does the program seek a specific kind of partner or partners from a specific setting? What action must be taken for someone to be considered a partner (e.g., a written agreement)?

One SMART example might read: By June 29, 2006, increase from 12 to 14 the number of HDSP program partners that represent the health care setting and have signed an “HDSP Program Letter of Partner Commitment.”

2. *Train physicians on clinical practice guidelines.* How many physicians? By when? Which guidelines? Do you expect them to increase their knowledge? How will you measure that? Do you expect them to increase guideline use in their

practice? Are you training a specific type of physician or physicians in a certain geographic region?

One SMART example might read: By June 29, 2007, a minimum of 50 [State] primary care physicians who attend training will achieve a score of 90% or higher on the "HDSP Program Blood Pressure Standardization" post training test.

3. *Enhance EMS policy to decrease stroke deaths in 2002.* What does "enhance" mean? How will you measure "enhance"? By when? Is this realistic? Will you measure policy adoption or decreased stroke deaths?

One SMART example might read: By December 31, 2008, [State] Emergency Medical Services will adopt a statewide policy to transport stroke patients to the nearest certified hospital.

4. *By June 2007, increase by 10% the percentage of [state] residents who know the signs and symptoms of stroke and heart attack.* Is this 10% of a number or 10 percentage points? Is this a meaningful increase? Do you have a baseline? What is the data source? Does "know" mean all the signs and symptoms? Of both heart attack and stroke? Does this apply to all residents or a specific group or region? Adults only or are teens included? Is it reasonable, given the level of activities, to see this amount of increase population wide? Is it achievable in the time frame stated? Is a data source available to measure change at the appropriate time, at the level we have targeted the intervention? (The signs and symptoms BRFSS module measures state-level change—typically not county-level data—and is planned for implementation in 2005 and 2009.)

One SMART example might read: By December 30, 2009, increase by 10 percentage points from baseline, the percentage of adult males in [State] who know all five of the signs of stroke (as listed by the American Stroke Association) and who also know to call 9-1-1 if stroke is suspected. Baseline to be determined by 2005 BRFSS.

5. *Increase the number of work sites that adopt heart-healthy insurance options.* Increase by how much? By when? Where? All work sites or a subset? What does "adopt" mean (how will you know when it's adopted)? What exactly are "heart-healthy insurance options" (is there a list)? What data source(s) are you using or how will you document an increase?

One SMART example might read: By December 31, 2008, 50 work sites that participated in the Chamber of Commerce education day will offer employee health insurance benefit packages that include comprehensive rehabilitation services for heart attack and stroke survivors.

DIVISION FOR  
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STROKE PREVENTION

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## Logic Model Worksheet

**Instructions:** Read the following text below explaining the different components of a logic model and the reasons/benefits of using one. The logic model template at the end of this worksheet can be used for your injury prevention project (AAP, 2008; CDC, 2008; Kaplan & Garrett, 2004).

### Logic models: A brief explanation

Logic models have been widely used as a method to aid in program planning, management, and evaluation. Specifically, a logic model is a flowchart of a program's goals, the activities needed to reach these goals, and the expected outcomes—a clear, one-page, visual snapshot. Though the actual visual images of logic models come in a wide variety of graphic designs, they are all flowcharts showing inputs (resources needed), activities (describing what the program will do), outputs (measuring what the program does and for whom), and outcomes (the change that was produced because of this program).

Logic models can be beneficial on many levels. They bring together the planning, activities, resources of implementation, and evaluation into an all-inclusive visual image. This can then

1. Be used as a presentation tool for stakeholders, community members, and sources of funding
2. Keep the team focused throughout the program
3. Reveal needs, resources, or potential holes in the planning process
4. Aid in prioritizing program activities
5. Clearly articulate program goals
6. Build a strong sense of collaboration amongst program team members

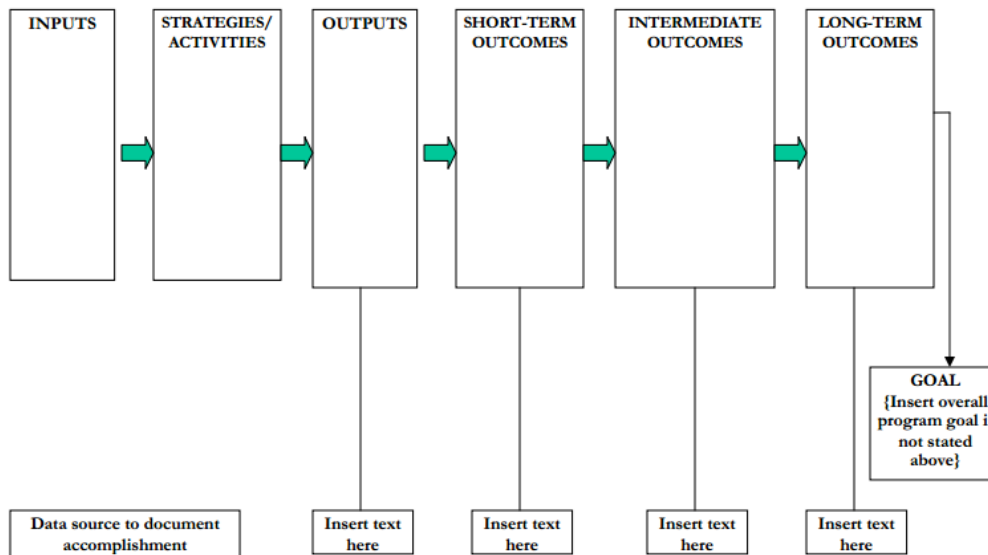
The downside of logic models is that people tend to feel intimidated to even begin the process of putting them together, and they can be concerned about the time needed to create them. While the undertaking is certainly time-consuming, the act of creating a logic model can garner a sense of ownership, collaboration, and camaraderie among the injury prevention program team.





## Components of a logic model

{Insert overall program goal that is reflected in the Logic Model below}



Adapted from CDC. (2008).

**Inputs:** These are the resources required for this program to complete its goals. Examples include finances, staff, facilities, materials, equipment, and training resources.

**Strategies/Activities:** The program activities are the strategies being used to achieve the goal. Examples could include distributing materials, educational sessions, lobbying activities, specific community outreach activities, and teaching of skills.

**Outputs:** These are measurable data of what the program is accomplishing and who is attending the program. This determination feeds into the formative evaluation. Examples of data would be the number of people who attended program activities, the amount of materials that was distributed, and the number of educational sessions held.

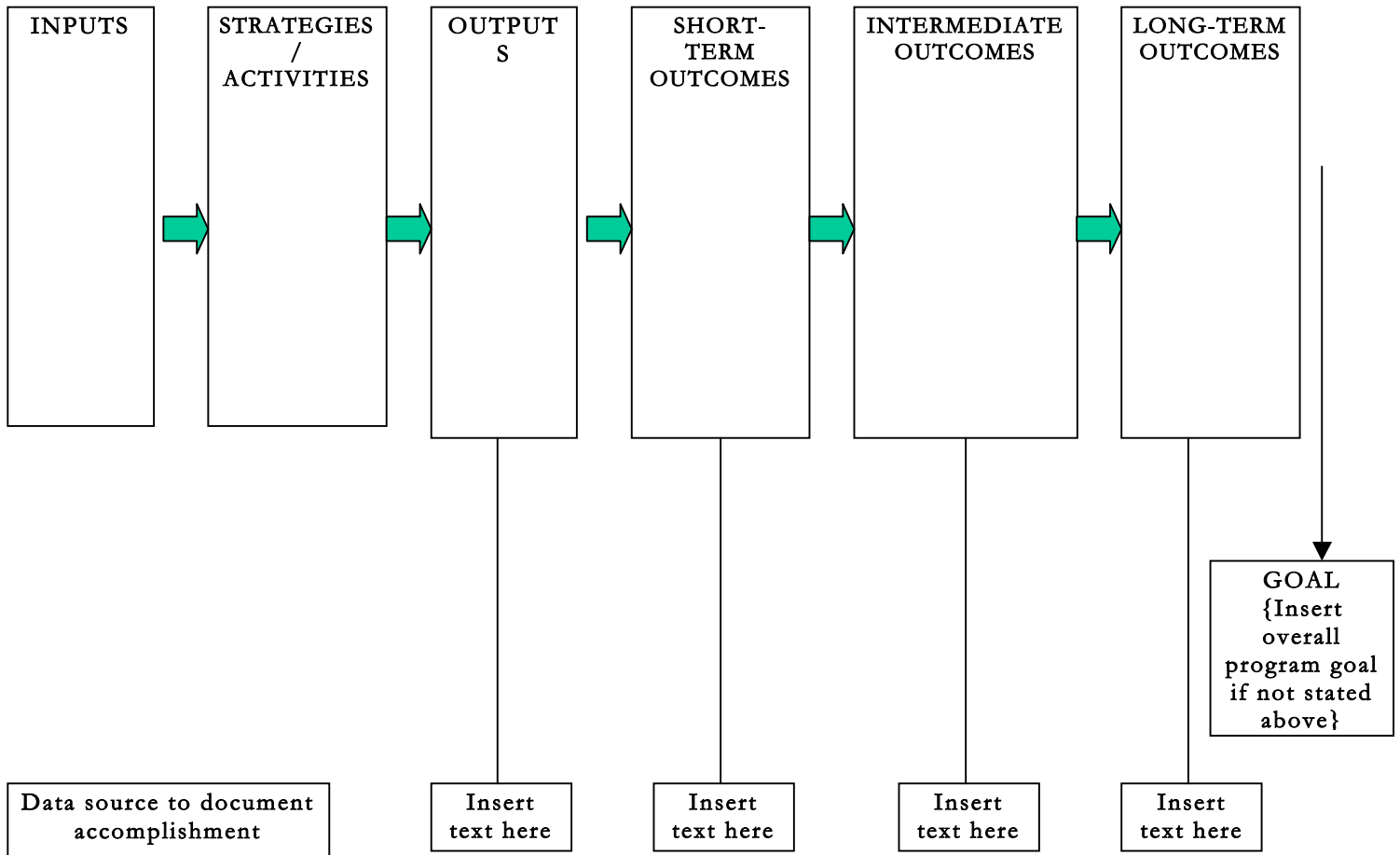
**Outcomes:** The outcomes are what you want to change in the community in order to decrease the injury problem. Outcomes include changes in injury incidence and prevalence, or changes in target populations behaviors and knowledge. **Short-term outcomes** are the immediate outcomes of the program. These include changes in knowledge, skill, and attitudes of the target population. **Intermediate outcomes** happen after the program has been active for a while, and the effects have become more embedded into the community. These outcomes should show changes in the social norms and policies of the community. **Long-term outcomes** occur after the program has been in place for quite some time. These outcomes signify a deeper change in the community that results in a more sustainable level of change.

**Goal:** The goals stated here are the SMART goals that have been put together by the injury prevention program team to guide this program. These goals demonstrate the reduction of morbidity and mortality due to injury in the specified target population.

Below is a logic model template that you may use for your injury prevention program.

**{Insert program name and/or priority for logic model}**

{Insert overall program goal that is reflected in the logic model below}





# COMMUNITY INJURY PREVENTION TOOLKIT

## References

American Academy of Pediatrics (AAP). (2008). Evaluating your community-based program: Part II: Putting your evaluation to work. Retrieved from <https://www2.aap.org/compeds/htpcp/EvalGuide2.pdf>

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### **Step 3: Choosing the program and developing the operational strategies**

With the Extended Public Health Model, this step is usually applied to developing and testing a new public health innovation, as it is with the Traditional Public Health Model (Hanson et al., 2012; CDC [n.d.], Sogolow et al., 2007). However, as is recommended for injury prevention in the military, this step is used to select an appropriate existing injury prevention program and the program planning (Jones et al., 2010). The already gathered members of the injury prevention program team may be quite helpful in providing feedback while selecting the appropriate injury prevention program (Shakeshaft et al., 2012; Klassen et al., 2000).

The community assessment should have unearthed any existing injury prevention programs in the community. A literature review, perhaps through the Cochrane database, can assist in finding effective interventions for the target community. The injury program that best fits the problem and the target population is determined in this step (CDC, 2013). The emergency nurse is not expected to develop a brand-new injury prevention program here; rather, this is discouraged as it consumes numerous resources, and the program would not have yet been evaluated for effectiveness. The best method to pursue an effective injury prevention program is to find an evidence-based injury prevention program that fits the criteria for “Components to a successful injury prevention program,” and check whether or not this program has previously been implemented in the same population.

It is paramount to stress the fit: that the chosen intervention matches the characteristics of the target community and population as closely as possible (Edwards et al, 2000; Castaneda et al, 2012). Potential interventions also can be found by asking the regional trauma coordinator, EMS, and the local public health department for ideas. If representatives from these organizations are not already involved in an injury prevention initiative, this might be a good time to bring them to the table.

Step 2 provided us with concrete goals and objectives for a specific injury prevention program, which will be used to guide the development, implementation, and evaluation of an appropriate injury prevention program. The next step is to outline a program charter to aid in the operational aspect of the program. Evidence has revealed a “research to practice” gap. Involving a professional in the area of public health/injury prevention has been shown to increase effectiveness of the program and aid in selecting an appropriate program for the chosen target audience (Brussoni et al., 2006; Hanson et al., 2012).



## Components of a successful injury prevention program

Matching the needs assessment and goals/objectives to an injury prevention program begins the process. However, there are additional characteristics that have been described as traits of an effective injury prevention program that should be taken into consideration. Commonly cited qualities of injury prevention programs that effectively result in the reduction of injuries include:

1. Involving the community in the picking, planning, implementation, and evaluation of the injury prevention program. Community involvement throughout the entire process of injury prevention, from assessment through evaluation, is part of key guidelines for injury prevention (University of Kansas, [n.d.]; CDC, 2010). This is evidence-based, as lack of community involvement is considered a common pitfall of ineffective injury prevention programs (Klassen et al., 2000).
2. Being founded on a community needs assessment, which should be the first step in the injury prevention process (CDC, 2010; University of Kansas, [n.d.]; Klassen et al., 2000).
3. Being theory driven, with the components of the program clearly linked to and explained in terms of the relevant theory (Oldenburg & Brodie, 2007). Some of the commonly used theories for community injury prevention programs have been included in this toolkit (Nation et al., 2003; Klassen et al., 2000).
4. A multifactorial/comprehensive approach through use of a combination of multiple interventions and settings that impact different “E’s” (Klassen et al., 2000). For example, increasing seatbelt use through passing child safety seat system laws (Enactment), increased enforcement of these laws (Enforcement), fines for lack of seatbelt use (Economic), and public education (Education). Multiple settings may be through the healthcare setting during maternal care visits, public service announcements (home television), and child safety seat system checks at fire stations and other locations in the community (Nation et al., 2003).
5. Varied teaching methods, such as interactive instruction, skill building, and hands-on active learning (Nation et al., 2003).
6. An appropriate match for community characteristics, culture, environment (both social and physical), demographics, and strengths/areas for improvement. This sociocultural relevancy aids in driving at the social norms of the community that may be contributing to the rate of a particular injury (Nation et al., 2003; Klassen et al., 2000).
7. An adequate amount of time that community members are in contact (dosage) with the intervention for it to be effective. One-time interventions are rarely effective, and to maximize potential for effectiveness, the key is to determine the amount of time the intervention should continue, the exposure or saturation level, and the necessary reach or dissemination within the community. Look for community injury prevention programs that specify the amount of quality and quantity of intervention time, also referred to as dosage (Nation et al., 2003; Thompson et al., 2003). Some interventions are designed with “booster



- sessions” that repeat and reinforce key intervention components at regular intervals (e.g., every 6 months).
8. Efforts that lead to changes in social norms (Thompson et al., 2003; Nation et al., 2003).
  9. A clearly defined program implementation description that includes the “dose” of intervention and desired levels of active participation in the program by members of the target audience.
  10. Assessing the durability of the injury prevention program. It is difficult to plan for durability, as this is usually considered to be the community’s ownership of the intervention after the original practitioner or researcher hands off the program, or funding ends. Sustainability and durability, however, are of utmost importance in choosing an injury prevention program that will have lasting behavioral change effects in the community. Involving the community early in the process may increase the chances of successful sustainability (Thompson et al., 2003; Oldenburg & Brodie, 2007; Johnson et al., 2012).
  11. A cost-benefit analysis, which is an effective means of gaining support for funding any injury prevention program.
  12. A clearly planned outcome evaluation.
  13. Well-trained staff. Staff should be well-versed in their roles and responsibilities, feeling comfortable and competent in carrying out their charges (CDC, 2010, Nation et al., 2003).
  14. Estimates of an appropriate time frame. The timing of the injury prevention program can increase or decrease its effectiveness, and activities should be timed considering risk factors for the injury and behavioral readiness and risk (Nation et al., 2003; ENA, 2010). For example, injury prevention programs related to seasonal activities such as boating should correspond with the appropriate season. Ideally, interventions should also occur before a behavior becomes ingrained or established as a social norm for a peer group, such as a distracted-driving prevention program prior to teenagers obtaining driver’s licenses. While these programs should continue throughout the adolescent years, waiting until teenagers are driving is a missed opportunity for injury prevention.

### Step 3: Evaluation Opportunities

In this step, each evaluation—formative, process, short- and long-term—should be planned. The questions needing answers during this process are:

- What information will tell me the accurate results of each part of this evaluation?
- What is the best way to collect this data?

The answer to the first question is determining the “indicators” for each outcome. An indicator is the information needed to answer an evaluation question (NCCCP, 2010). It is the data and the method by which it is measured (NCCCP, 2010).



During this process, the formative evaluation should be underway. Formative evaluations are a check to ensure that the planned activities will run smoothly (Fowler, 2009). For example, offering a drinking and driving program at a high school aimed at teenagers would probably have better turnout during the school day than on a Saturday. Another example would be testing reading levels and ensuring the material presented is at a developmentally appropriate level for the audience.

If a presentation requires a video, will there be electrical equipment available at the presentation center? If the activities are being held outside, is there an alternative venue in case of inclement weather? These might seem like obvious questions, but when planning a project these can easily be overlooked and lead to a failed program. Further still, a free bike helmet program for kids won't work if the kids don't like the appearance of the helmet. Involve the kids in the program planning by asking them what they think of the helmet, and if they would wear it. If the answer is no, find out what design would be more appealing. Make the formative evaluation as thorough as possible, and once potential problems are identified, act on them immediately.

The tools below are helpful in the planning of the evaluations.

### **Step 3: Evaluation Tools:**

The following educational tool is designed to inform of various data collection methods:

- Summary of Data Collection Methods

The following tool will help to organize and plan the formative, process, impact and outcome evaluations:

- Evaluation Methods and Design Worksheet

### **Step 3: Tools:**

Below are some possible sources of quality injury prevention programs and information. There are many sources of effective injury prevention programs and information available, and those below represent just a small sample. An Internet search or collaboration with some of the aforementioned resources could also act as a guide.

The Guide To Community Preventive Services: [www.thecommunityguide.org](http://www.thecommunityguide.org)

Centers for Disease Control and Prevention: [www.cdc.gov](http://www.cdc.gov)

National Highway Traffic Safety Administration: [www.nhtsa.gov](http://www.nhtsa.gov)

Cochrane Reviews: [www.cochrane.org](http://www.cochrane.org)

SAMHSA's National Registry of Evidence-based Programs and Practice (NREPP) [www.nrepp.samhsa.gov](http://www.nrepp.samhsa.gov)





The following tool is the program charter that will help to align stakeholders and members of the injury prevention program team and focus the goals/objectives and actions of the program:

- Injury Prevention Program Charter Template

The following tool provides a checklist for qualities of effective injury prevention programs. When deciding on a program, compare the program qualities to those on this checklist:

- Choosing an Effective Injury Prevention Program



## Summary of Data Collection Methods

**Instructions:** The following table provides a comparison of some data collection methods. Use this as an educational tool for an overview of data collection.

	Description	Uses	Limitations
<b>Interview</b>	The interviewer asks a series of questions of the subject and records responses. Interviews vary in the level of structure. A single interview may include assessment of multiple domains. Data may be quantitative, qualitative, or a mix of the two.	Interviews are good for obtaining individual-level information not easily collected on a written questionnaire. They are appropriate for individuals unable to complete a questionnaire. Interviewing also allows for in-depth probing and follow-up questions.	Interviewing is labor-intensive. An interview requires that the subject be comfortable with and able to trust the interviewer; he or she may feel some loss of privacy.
<b>Questionnaire or Survey</b>	Consists of a series of written questions to which the subject responds. Questions may include open-ended, short-answer, and forced-choice questions. Like an interview, a questionnaire may include many different scales within one instrument. If resources permit, a questionnaire may also be administered electronically. Data may be quantitative, qualitative, or a mix of the two.	Questionnaires allow for anonymous response. They are generally cost-effective.	A questionnaire can be burdensome for certain categories of respondents and may yield problematic data if respondents do not understand the questions the way the question designer intended. A questionnaire is not useful when response categories cannot be anticipated, nor is it as well suited to “why” or “how” kinds of questions.
<b>Knowledge assessment</b>	A knowledge assessment is a test of knowledge, commonly seen as a pretest before an intervention and a posttest afterward. Data are usually quantitative.	Pretests and posttests are commonly used as quick, inexpensive indicators of program progress.	Questions must be well chosen to sample the content of the intervention and must be appropriate for the culture and literacy level of the target population. For most programs, knowledge gains are necessary but not sufficient outcomes.
<b>Biometric test</b>	A biometric test is a physiologic measurement, such as body mass index (BMI), blood lead level, or bone density. Tools such as a pedometer or accelerometer also measure a physiologic function. Data are usually quantitative.	Usually, biometric indicators are highly reliable and well established for certain conditions.	Biometric indicators are often relatively expensive to collect.
<b>Observation</b>	A trained individual (or individuals) observes an environment or process using a specific protocol for recording or rating incidents of interest. Data may be quantitative, qualitative, or a mix of the two.	Observation can be useful for assessing change in an environment or for understanding a process.	Observation is dependent on the expertise, objectivity, and consistency of the observer(s).
<b>Chart review</b>	Information is systematically extracted from existing patient or client records. Data may be quantitative, qualitative, or a mix of the two.	Information has already been gathered, so data can be extracted without concern for subject scheduling, etc. Any sampling method can be used, including a random sample.	Chart review is somewhat labor-intensive, and missing information can be a particular problem.



<p><b>Focus group</b></p>	<p>A focus group is a professionally facilitated, focused discussion among a group of people to help understand a topic of interest. Usually, individual focus group participants are selected based on specific characteristics relevant to the topic. Data are usually qualitative.</p>	<p>Focus groups can be excellent for identifying concerns, needs, and barriers, as well as for providing richer understanding of what goes on in the target population.</p>	<p>Focus groups do not necessarily represent the dominant experience of the population. Meeting the standards for a true focus group can be somewhat challenging for programs. Language barriers are particularly salient for focus groups; the facilitator must be fluent in the participants' language, and participants who speak different languages cannot be combined.</p>
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Adapted from American Academy of Pediatrics (AAP) (2008). Evaluating your community-based program. Part II: Putting your evaluation plan to work. Retrieved from <https://www2.aap.org/commpeps/htpcp/EvalGuide2.pdf>



## Evaluation Methods and Design Worksheet

**Instructions:** Fill in the blanks on the following worksheet to aid in creating a well-thought-out evaluation plan. There are four listed, one for each major component of the evaluation. These should be developed in this step and filled out at the appropriate times.

Formative Evaluation (Evaluation of the detailed planning/troubleshooting of the program)											
Component being evaluated	Evaluation question	Indicators	Data collection source	Necessary data collection resources	Data collection methods	Data collection timing	Team member(s) responsible for data collection	Data analysis	Team member(s) responsible for data analysis	Team discussion of the results	Dissemination of the results
Aspect of the program being evaluated	What you want to know from the evaluation	Type of data needed to answer the question	Where will you get the data?	What resources do you need to collect the data?	How will you logistically collect the data?	When will you collect the data?	Who will collect the data?	How will the data be organized and analyzed?	Who will organize and analyze the data?	When will the team discuss the results?	How will the results be disseminated, and to whom?

Process Evaluation (Are the program activities being carried out as planned)											
Component being evaluated	Evaluation question	Indicators	Data collection source	Necessary data collection resources	Data collection methods	Data collection timing	Team member(s) responsible for data collection	Data analysis	Team member(s) responsible for data analysis	Team discussion of the results	Dissemination of the results
Aspect of the program being evaluated	What you want to know from the evaluation	Type of data needed to answer the question	Where will you get the data?	What resources do you need to collect the data?	How will you logistically collect the data?	When will you collect the data?	Who will collect the data?	How will the data be organized and analyzed?	Who will organize and analyze the data?	When will the team discuss the results?	How will the results be disseminated, and to whom?



Impact Evaluation/Short-term outcomes (The impact the program had on the participants at the time of their exposure to the program)											
Component being evaluated	Evaluation question	Indicators	Data collection source	Necessary data collection resources	Data collection methods	Data collection timing	Team member(s) responsible for data collection	Data analysis	Team member(s) responsible for data analysis	Team discussion of the results	Dissemination of the results
Aspect of the program being evaluated	What you want to know from the evaluation	Type of data needed to answer the question	Where will you get the data?	What resources do you need to collect the data?	How will you logistically collect the data?	When will you collect the data?	Who will collect the data?	How will the data be organized and analyzed?	Who will organize and analyze the data?	When will the team discuss the results?	How will the results be disseminated, and to whom?

Outcome Evaluation (Long-term outcome: Was there a reduction of injury in the community as a result of this program)											
Component being evaluated	Evaluation question	Indicators	Data collection source	Necessary data collection resources	Data collection methods	Data collection timing	Team member(s) responsible for data collection	Data analysis	Team member(s) responsible for data analysis	Team discussion of the results	Dissemination of the results
Aspect of the program being evaluated	What you want to know from the evaluation	Type of data needed to answer the question	Where will you get the data?	What resources do you need to collect the data?	How will you logistically collect the data?	When will you collect the data?	Who will collect the data?	How will the data be organized and analyzed?	Who will organize and analyze the data?	When will the team discuss the results?	How will the results be disseminated, and to whom?

Tables adapted from the National Comprehensive Cancer Control Program (NCCCP), Centers for Disease Control and Prevention. (2010). Comprehensive Cancer Control Branch Program Evaluation Toolkit.



# COMMUNITY INJURY PREVENTION TOOLKIT

## <Injury Prevention Program Name>

### Program Charter

**Project Team:**

<name>

<name>

<name>

Version #	Date	Section(s) modified (include brief summary of reason for changes)
Draft		
1.0		



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## 1 Use of this Template

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This Program Charter 1) summarizes injury problems and how the proposed program will impact these injury problems; 2) defines program scope and key deliverables; 3) identifies stakeholders; 4) outlines initial project tasks, milestones, and metrics; and 5) establishes a team charter and operating practices.

Save this template as a new file and rename it. You may delete all the template instructions—enclosed in [brackets] at the beginning of most sections—but for best results, aim to complete all of the sections of the document.

Some parts of the initial Injury Prevention Program Charter will require routine updating throughout the program (e.g., program schedule, tasks and assignments, minor adjustments to the team charter, etc.). Events that occur during the program may also require the program team to make major revisions to the initial Program Charter (e.g., a major shift in program scope, key changes in stakeholders, reconfiguration of the initial team charter, etc.). You should manage these updates and revisions using the following conventions:

- The initial version of the Injury Prevention Program Charter should be designated Ver. 1.0. (Draft versions prior to your initial Injury Prevention Project Charter can simply be designated as Draft with a date.)
- You may choose to have highly dynamic parts of the charter—such as project plans and schedules—updated in a document outside of the initial charter. But your charter should explicitly reference these documents.
- Minor updates to the charter should be incorporated into a new “dot” version (1.1, 1.2, etc.). A summary of updates should be included on the title page.
- Major updates to the charter should be designated by using a full new version number (Ver. 2.0, 3.0, etc.). *Major updates should be made only when the program or program team undertakes a significant change.*





## 2 Table of Contents

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## 3 Injury Prevention Program Overview

### 3.1 Injury Prevention Program Summary

**Project Name:** \_\_\_\_\_

**Project Sponsor:** [This is the organization/person who is funding and through whom the project is being primarily staffed/organized.]

**Project Manager:** [The project manager is a designated lead contact for the project, the point person for the community, stakeholders, and all those who are participating in this project, including project staff, volunteers, stakeholders, and community members. This person is accountable for day-to-day communications with the project team. In most cases this will be an individual other than the principal project sponsor.]

### 3.2 Program Description, Goals, Objectives, and Expected Outcomes

[This section should describe the overall project. An introduction here would provide a summary of the client's objectives for the project. Use the SMART goals and objectives worksheet to create SMART goals and objectives. The expected outcomes should match those being evaluated. Add more objectives or goals as needed.]

<b>Goal 1:</b>	<b>Objective 1a:</b>	<b>Expected Outcome 1a:</b>
	<b>Objective 1b:</b>	<b>Expected Outcome 1b:</b>
<b>Goal 2:</b>	<b>Objective 2a:</b>	<b>Expected Outcome 2a:</b>
	<b>Objective 2b:</b>	<b>Expected Outcome 2b:</b>
<b>Goal 3:</b>	<b>Objective 3a:</b>	<b>Expected Outcome 3a:</b>
	<b>Objective 3b:</b>	<b>Expected Outcome 3b:</b>



### 3.3 Program Catalysts

[This section summarizes the reason why a particular injury is being brought to attention and an injury prevention program is needed for this community.

Key Questions: What precipitated the need for this injury prevention program? What were the conditions leading to the project? What set of problems is the program trying to solve? Has the internal or external organizational environment changed in some way? The needs assessment summary from Step 1 can be inserted here.]

### 3.4 Program Benefits and Measures (Evaluation) of Success

[This section highlights the expected benefits of the project and defines how the program team will evaluate the success of the program.

Measures of success should include both results measures (e.g., effect of the injury prevention program on rates of injury and attitudes toward the injury in the community) as well as program team operation measures (e.g., related to work quality, cohesiveness of team, ability to perform activities, ability to obtain required resources, schedule, etc.).

### 3.5 Key Stakeholders

[A stakeholder is a person or organization (e.g., funding sponsor, hospital administrator or manager, collaborating organization, community leader, community organization, agency, or the public) that is actively involved in, or is a potential user of, the program, or whose interests may be positively or negatively affected during the implementation or outcomes of the program. A stakeholder may also exert influence over the project and its activity(ies) and in this role can serve as a program champion.

Key Questions: Who is required to make decisions regarding the implementation of the program activities and the achievement of their ultimate value? Who is required to make decisions regarding resource allocation, assignment and utilization? Who needs to be involved to ensure each activity can be carried out and outcomes are met? Who is committed to the accomplishment of this project? Who else may be impacted by the process itself and/or the outcomes of the project?]

Stakeholder			
Name	Role	Department/ Organization/ Community Role	Description of program impact



## 4 Project Scope and Schedule

### 4.1 Project Activities/Desired Outcomes

[This section lists major activities that are in the scope of the program as well as major activities or desired outcomes that are out of scope. This establishes program boundaries and allows for more disciplined change control. Clarifying this early in the program planning will ease any tensions, confusion or problems related to unrealistic activities, expectations and outcomes proposed during the development and implementation phases. Remember, activities and desired outcomes that are out of scope at this time might be moved into the “in scope” column at a later date and quite achievable if the initial program is a success. The process of identifying ‘out of scope’ activities is also referred to as placing them in a “parking lot.”

Key Questions: What activities are critical to fulfill the purpose of the project? Are there any activities or desired outcomes that have been discussed but are outside the scope of this project’s resources or timeline? What will not be acted on or be included within the scope of this project? Have the various expectations of the project’s stakeholders been clarified? Is there agreement as to what will/will not be delivered?]

<b>Project Activities/Desired Outcomes: In Scope</b>
<b>Discussed Activities/Desired Outcomes: Out of Scope (Parking lot; to be considered another time)</b>

### 4.2 Major Tasks and Milestones

[This section defines the major tasks and critical milestones required to meet the objectives of the program. This is *not* intended to be a detailed program plan, but the major tasks and milestones outlined here should set the framework for your detailed plan (e.g., the detailed plan should include additional sub-tasks required to complete the major tasks). Milestones should be concrete, dated events that mark the completion of one or more major tasks. Major milestones outlined here should be considered critical to meeting the overall program time frame.

Key Questions: What are the major activities of the program? What are the key tasks required to meet the interim and major milestone dates?]



Milestone/Task	Description	Estimated completion date	Owner(s)
Milestone	Project kickoff meeting	TBD	Your emergency department/hospital and ...
Task	Major task 1		

### 4.3 Assumptions, Risks, and Dependencies

[This section lists key assumptions, risks, and dependencies for the program. An **assumption** is an assertion about some characteristic that underlies the current operations or plans of the community. A **risk** is a future event that may impact the program and jeopardize its success. Assess the potential risk with both a probability rating (1 = unlikely; 5 = likely) and an impact rating (1 = minor; 5 = major) and describe the potential impact. A **dependency** is another project or activity that must be completed for this program to succeed; describe its potential impact.

Key Questions: Were any assumptions made in defining the problem or the solution the scope of the solution? If so, what are they? What are the risks associated with completing the program or operationalizing the solution? In terms of dependencies, is the program dependent on delivery of other activities outside its control that should be considered? Are there other programs that depend on the completion of this program for their success?]

Key Assumptions
[Add more assumptions as needed]

Risks	Probability	Impact	Description of Impact
[Add more risks as needed]			

Key Dependencies	Description of Impact
[Add more dependencies as needed]	



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## 5 Program Team Charter

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### 5.1 Team Charter Basics

Congratulations on reaching out to the community and involving community members in your injury prevention program! You now have an injury prevention program team. A team charter will help to keep this team rooted in the enthusiasm and purpose of preventing injury in your community. It can aid in maintaining focus and strengthening ownership of each team member, which includes having team members jointly develop a written statement of team objectives and operating practices. This will help to clarify the process of collaborating with such a robust and resourceful team of committed community members. In addition, effective teams translate their common purpose into specific performance goals.

Your team charter has a number of properties that should be noted:

1. It is an agreement. Each team member should be held accountable for all of the items outlined in the contract.
2. It is a living document, subject to changes and modifications based on the needs of the team. Your team should plan to review the charter to make appropriate revisions whenever it is deemed necessary.
3. Everyone on the team must help write the charter. You should not have one person write the charter and then circulate it to everyone else on the team. The charter must include everyone's ideas and opinions in order for all team members to buy into it.

Before writing the team charter, each team member should discuss personal characteristics and work preferences and give a brief background to help everyone get acquainted. A good start is to state why participating in this specific injury prevention program is important to them. Further, each team member could describe their personality traits that are relevant for team effectiveness.

An addendum to the team charter should list basics for each member:

1. Contact information and preferred modes of communication. This is highly important. Include preferences for texting, cell phone vs. home or work phone, and e-mail. Stress the importance of team members updating the contact information should it change during the program.
2. Daytime/nighttime availability
3. Work style and habits
4. Any additional pertinent information that the team should know

The group meeting should also cover the following:

1. Discuss your individual and team goals for the project.
2. What principles do we want to operate by?
3. What roles will be taken?



## **Team Operating Principles, Mechanisms to Avoid Failure, Expectations, and Ways of Working**

Team expectations can be written as short bullet-point statements, as if you are completing the sentence “We expect all team members to ....” Or you may wish to write them as short sentences. But in aggregate, your expectations should make a clear statement about the operating principles that you intend to guide your team experience. Exactly which principles and expectations you choose to make explicit in this section should provide insight into what your team considers as important.

While your team might brainstorm a list of 20 principles, it purposefully has to choose only the five that are most important. This forces your team to narrow and prioritize what is most important and have a conversation about the key principles to keep in mind. For example, you might come up with the principle that “everyone is always honest and forthright.” While that is laudable and true, it may be a given and not one of the five principles that are most critical to keep top of mind.

## **Team Roles**

Team roles should be defined for internal program operations as well as for community liaison and community program planning. For example, a role for internal operations might be minute-taking or meeting facilitation. Or, a teen drinking and driving program at the local high school would need a community liaison as a primary point person for communication between the high school and the injury prevention program team. Some roles, such as primary contact for the community, might be better if they remain assigned to the same person, while other roles—such as meeting facilitator or minute taker—might rotate.





## Team Charter

Principle #	Team Operating Principles, Expectations, and Ways of Working (5 maximum)
1	
2	
3	
4	
5	

Role	Description



## Checklist for Choosing an Effective Injury Prevention Program

**Instructions:** Fill in the table below as part of the process of selecting the appropriate injury prevention program for your community. This can be filled out for each program being evaluated, then compared at the point of selection.

Program Quality/Selection Process Quality	Exists in our program/ the program selection process
Stakeholders and Injury Prevention Program Team involved in selecting/reviewing programs	
Community involvement throughout program planning and implementation is possible and will be achieved	
The program is a close match to the results from the needs assessment	
The program is comprised of theory-driven components	
Components are multifactorial (Involve more than one of the following: Law enforcement/enactment, economic incentives, education, environment alterations, and/or engineering strategies)	
Teaching methods are varied and hands-on, and incorporate skills learning	
The “dose” of time that participants are exposed to the intervention is sufficient to produce the desired outcomes	
Program implementation instructions are clearly defined	
The program has been evaluated and has produced the desired outcomes	
The community is ready to accept and embrace the injury prevention program	
The program has political support (from elected officials as well as administrative positions in participating organizations)	
A cost-benefit analysis reveals that the program is within your budget and should produce the level of beneficial outcomes expected	
Your department has sufficient resources and staff to complete this program	
Your staff on hand is able to meet the training requirements for this program	
The timing of the implementation of this program is a match for the community’s needs (e.g., a boating safety program would be more effective in the summer than winter)	
The program has strong potential to be durable and sustainable within the community	
Evaluation is integrated into each step of the program	
Results of the program evaluation will be made available for others to use	
The predicted outcomes include a change in social norms	

### References

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## Step 4: Implement effective interventions

Now that the injury prevention program has been planned, staff and stakeholders have committed and been well-trained, resources acquired and project management detailed and defined, you can begin implementing the program (Jones et al., 2010). During this time, it is important to commit to the evaluation checks that have been integrated into the program, and to intervene when there are unexpected or undesirable outcomes.

Concerns regarding implementation fidelity may arise during the time of program implementation. This refers to the ability of the program to follow the original program design during implementation. It is difficult to achieve high implementation fidelity due to varying reasons including need to alter the program to fit community needs in the beginning of implementation, inability to meet an ideal condition of the original program, and changes that need to be made during the implementation process. With any change to the original program design, there is a risk of losing the program's effectiveness. Checks for adherence to the original program can and should be built into the ongoing evaluation of program outcomes and goals. Ongoing staff training and refreshing of competencies and skills may assist in this process.

### Step 4: Evaluation Opportunities

Process evaluation and short-term evaluation take place in this step. All the planning of these steps of the evaluation has taken place in the previous step, so this step is primarily focused on data collection and interpretation. When process evaluation data come back indicating part of the program was not as successful as planned, you then determine if there is an opportunity to improve this before proceeding with the rest of the program (Fowler, 2009).

### Step 4: Evaluation Tools

Continue to fill in and apply the knowledge gained from the Evaluation Methods and Design Worksheet from Step 3 in this step. Since this section is collecting the data from the tools that were created in the previous step, there is no additional worksheet or checklist tool for this step.

### Step 4: Tools

The following tool is helpful if your program will involve working with the media: CDC's Injury Center 20th Anniversary: Tips and Tools for Working with the Media

<http://www.cdc.gov/injury/anniversary/media.html>



## Step 5: Widespread use and dissemination of efforts

Be mindful that this step of the injury prevention process is often overlooked. Evaluation of the program is vital to assess effectiveness and make any necessary adjustments for the sustainability of the program. Sharing of results occurs in this step to add to the collective efforts and knowledge of the injury prevention field as well as to inform all stakeholders about the program's outcomes. Keep in mind that many times the unexpected or "bad" outcomes may be just as important as the expected outcomes. Program managers and injury prevention experts learn essential information from sharing what worked well and what didn't.

It is imperative to begin planning your evaluation in the beginning of the program planning. A carefully planned and well-thought-out evaluation method will result in a clearer analysis of your program results. The purpose of evaluating your program is to determine whether or not it was effective overall and to tease out what parts might have led to, or detracted from, its intended outcomes and overall effectiveness.

Evaluations have separate purposes for each person involved in the program and each step of the program. By performing evaluations throughout the program, problems can be identified and potentially solved earlier in the process.

The evaluation process has been integrated into each step of the toolkit. The evaluation for Step 5 has three parts:

**Part 1**—Complete the long-term outcome evaluation. This may be done at this point and other times in the future to see if the change is being sustained (Fowler, 2009).

**Part 2**—Analyze the results from the long-term evaluation (NCCCP, 2010; HHS, 2011; AAP, 2008).

**Part 3**—Disseminate the results of the injury prevention program, whether evaluation found it to be effective or not (AAP, 2008; Mee, 2000; Fowler, 2009; HHS, 2011). It is just as important to share results of what doesn't work as it is to share those that produce the expected outcomes.

### Dissemination

Sharing the results of your program's effectiveness can be done through many avenues. Consider sharing your outcomes via any of the following methods (NCCCP, 2010; Mee, 2000; HHS, 2011):

**Hospital newsletter, website, or social media outlet**—Be sure to contact your hospital's marketing department early in the program process. This will let them know what you are doing, and they may want to be involved in the process to help plan how the results of your program can be integrated into a marketing project. They might enlist a professional photographer to be part of community events and activities related to the project, or request an interview with a person on the program team.



**Community radio, news, newspaper, or website**—The community in which the program took place might want to promote this as part of community improvement. Again, contact the city newspaper or city officials early in the process to determine if they are interested in the program.

**Participating community organizations/agencies**—Participating organizations and agencies have worked hard throughout this process and will want to promote the success of the program, whether it is through community educational sessions about the program (such as a slide presentation), church/school newsletters, marketing materials, websites, etc. City councils, police departments, state legislators, health departments, community advocacy groups, schools, and parents may also be interested in learning about the program and evaluation findings.

**Professional associations**—Associations and organizations to which the professionals involved in this program belong may have potential sources of publication for the outcomes of the program. This could include educational talks at conferences, social media, listservs, and publishing in the association's magazine or peer-reviewed journal.

### Dissemination: Publishing your results

The reason to publish is simple: You have discovered something great (i.e., an effective injury prevention program) that has the potential to positively impact the health of many people—but only if you share the information. It is equally important to share information about ineffective programs, as this will save others time and resources (Fowler, 2009).

As nurses, we need to publish to advance our profession and share positive results that can improve the lives of our patients and members of our communities (Oermann, 2011). The decision to submit the results of a program for publication can seem daunting; however, this is a doable process. There are many ways to publish, including a hospital newsletter, community newspaper, hospital website, a professional association's magazine, and a peer-reviewed journal. Publishing has many rewards, including spreading the information about an effective injury prevention program, and the personal satisfaction of having material published. While some are well versed in how to publish, others may be new to the process. Keep in mind that each widely published author began with one publication.

If you have never published before, then sharing the results of an effective injury prevention program is certainly a great and exciting way to start. Below are some tips/pointers for publishing.

1. **Confidence.** Every author with multiple publications under his/her belt at one time had nothing in print (Mee, 2000).
2. **Overcome barriers.** These may include writer's block, lack of knowledge on writing for publications, lack of time, and fear of the paper being rejected (Oermann, 2011). For writer's block, set appointments with yourself and your colleagues to brainstorm and discuss ideas (Oermann, 2011; Mee, 2000). It might help not to begin with a catchy title, but by writing the methods or results section of the paper (Mee, 2000). Should the paper be declined, then use the opportunity to do further editing and resubmit (Oermann, 2011). If the concern is that you truly



don't understand the writing process, then a class on writing for publications could be a beneficial experience (Oermann, 2011).

3. **Plan the writing process prior to doing any writing.** Why do you want to write on this topic? What is the purpose? Will sharing this topic be important and beneficial? Ask yourself specifically: Who will want to read about this, and what will they want to know? Have other people already written on this topic? What type of article should I write—one for a newsletter, magazine, or peer-reviewed journal? Answering these questions will help you begin the writing process with clear purpose, direction, and focus (Oermann, 2011).
4. **Identify what type of article you want to write and the best place for it to be published.** Become familiar with the publication itself and its audience and write following their format (Mee, 2000; Oermann, 2011).
5. **Determine your most productive time to write and make it a routine appointment** (Oermann, 2011).
6. **Create realistic due dates throughout your writing process** (Oermann, 2011). Consider your workload and personal life when creating your writing schedule to ensure it is realistic and can be adhered to. Set due dates for each section of the paper as well as for literature searches, editing initial and final drafts, and tasks toward submission of the final paper.

## Step 5: Evaluation Tools

The following tool will aid in understanding, justifying, and analyzing the results of your evaluations:

- Understanding and justifying evaluation results worksheet

## Step 5: Tools

### Publishing tools

The Nurse Author & Editor website offers numerous tools for writing, including an extensive list of nursing journals and a writer's handbook: <http://www.nurseauthor.com>

The Society for Public Health Education has multiple quick-fact handouts for how to publish in peer-reviewed journals or textbooks: [http://www.sophe.org/healthy\\_communities.cfm](http://www.sophe.org/healthy_communities.cfm)



## Understanding and Justifying Evaluation Results Worksheet

**Instructions:** Fill out this worksheet to aid in understanding, justifying, and analyzing the results of your evaluations.

Question	Response
1 Who will analyze the data (and who will coordinate this effort)?	
2 How will data be analyzed, and then displayed (in print and/or online; for stakeholders or team members only)?	
3 Against what standards will you compare your interpretations in forming your judgments?	
4 Who will be involved in making interpretations and judgments, and what process(es) will be employed?	
5 How will you handle conflicting interpretations and judgments?	
6 Are your results similar to what you expected? If not, why do you think they are different?	
7 Are there alternative explanations for your results? If so, please describe.	





<p>8 How do your results compare with those of similar programs?</p>	
<p>9 What are the limitations of your data analysis and interpretation process (e.g., potential biases, generalizability of results, reliability, validity), if any?</p>	
<p>10 If you used multiple indicators to answer the same evaluation question, did you get similar results? Please explain.</p>	
<p>11 How will you ensure that others interpret the findings in an appropriate manner?</p>	
<p>12 How will the results be shared and utilized by stakeholder groups?</p>	
<p>13 Will there be a method for obtaining feedback from stakeholders about their use of evaluation outcomes?</p>	

Adapted from U.S. Department of Health and Human Services (HHS), Centers for Disease Control and Prevention (CDC), Office of the Director, Office of Strategy and Innovation. (2011). Introduction to program evaluation for public health programs: A self-study guide. Atlanta, GA.



# COMMUNITY INJURY PREVENTION TOOLKIT

## **Conclusion**

Congratulations—at this point, you should feel comfortable beginning efforts to reduce the rate of preventable injury within your community. In the interest of safe practice and safe care, ENA acknowledges that injury prevention is a necessary and integral element of emergency nursing. Your efforts to help make your community a safer place are to be commended.

**Your feedback on this toolkit is important to us--please send your comments to [IQSIP@ena.org](mailto:IQSIP@ena.org).**



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