

Core Competencies: Essentials for Injury and Violence Prevention *Developed by the SAVIR-STIPDA Joint Committee Infrastructure Development*

Injury is a leading cause of death, disability and health care use in the United States. Although significant progress has been made in the last few decades, there remains a great need to further reduce the frequency of injury and its burden. This effort will require a workforce that is knowledgeable about injuries and violence and skilled in practices to reduce them. At present, there is no comprehensive and systematic way to ensure that those who work to prevent injury and violence possess the competencies necessary to be effective in this endeavor. The Institute of Medicine report, Reducing the Burden of Injury (1999), recognized that "... there is a yawning gap between what we already know about preventing and ameliorating injuries and what is being done in our communities, work-places and clinics... education is the area in which the field of injury has made the least progress..." To address this deficiency, the National Training Initiative for Injury and Violence Prevention (NTI) was created in 2000 to coordinate and enhance training infrastructure for injury and violence prevention professionals. One effort of this group has been the identification of a set of core competencies that are fundamental to injury and violence prevention practice.

The competencies contained within this document outline a common understanding of the essential skills and knowledge that are regarded as necessary to work in injury and violence prevention. These competencies provide a basis for professional development and are intended to guide future training and curriculum development efforts. It is not expected that an individual will have to be an expert in all of the competencies in order to effectively carry out their job. The intent is that the individual should be competent in the mix of skills that is required to best serve injury and violence prevention programs in their setting. Ultimately, with research-based training and consistent implementation of best practices, it will be possible to reduce the burden of injury.

Process of Creating the Core Competencies in Injury and Violence Prevention

In 2000, the Society for the Advancement of Violence and Injury Research (SAVIR)[§] and the State and Territorial Injury Prevention Directors Association (STIPDA) formed the National Training Initiative for Injury and Violence Prevention (NTI) and began collaborating on a process to define the essential knowledge and skills that injury prevention professionals need to reach their greatest potential in the field. The Maternal and Child Health Bureau (MCHB) and the National Center for Injury Prevention and Control (NCIPC) at the Centers for Disease Control and Prevention (CDC) have provided the funds to support this initiative. Members from other important injury programs including the Education Development Center's Children's Safety Network, Indian Health Service and the National Highway Traffic Safety Administration are also involved in NTI.

In formulating the competencies, a working group of NTI reviewed numerous needs assessmentsⁱ as well as other relevant competencies and curriculumsⁱⁱ, creating a draft set of competencies in the summer of 2003. During the fall of 2003, a group of 52 injury and violence experts from research and practice reviewed the draft competencies and provided detailed feedback to the committee. The comments from this expert panel were incorporated into the competencies before a public comment period in September of 2004. Final revisions have been made, and the competencies will be updated as needed in the coming years.

[§] Formerly the National Association of Injury Control Research Centers, NAICRC.

Challenges in Defining the Scope of the Core Competencies

In developing the core competencies, the fundamental issues that the NTI working group struggled with included the intended audience for the competencies and the level of specificity to apply to the competencies. Injury and violence prevention is a very broad field encompassing a number of different disciplines: public health, law enforcement, emergency medical services, occupational health, highway and traffic safety, etc. The diversity of practices and approaches makes it impossible to create a single competency set that is appropriately relevant for all injury and violence prevention practitioners. As a result, the competencies outlined here were developed with a primary focus on public health practitioners and will be the most useful to this audience. However, the working group recognizes that the core competencies could also be applicable to others working to reduce injury and violence. Consequently, great care was taken to limit public health jargon and influence on the core competencies, such that many aspects of the competencies will have application to other disciplines.

In addition, the competencies were also designed to provide a broad perspective on the fundamentals of injury and violence prevention. In this fashion, the listed core competencies are intended to support a variety of training opportunities and curricula. The purpose of the competencies is to provide structure and guidance to future training efforts. Specific details related to content and learning methods for the competencies will be supplied by the related training and curriculum programs.

Guiding Principles for the Core Competencies

Throughout the writing process, the NTI working group developed a perspective of what the competencies should and should not be. In the end, certain guiding principlesⁱⁱⁱ dictated the nature and content of the competencies. These are:

- Competencies are best acquired through multiple means. Training alone may not be sufficient to achieve competency. Additional work experience that complements training may be necessary.
- While all workforce development should be competency-based, there is no expectation that a single uniform curriculum is necessary to accomplish this goal. Each training opportunity is unique, and the curriculum should be matched to the needs of the audience.
- Any one competency may apply broadly to injury and violence prevention professionals or be specific to a small subset. The developers of curricula should specify the professional audience and functional level intended in the training materials.
- The core competencies for injury and violence prevention will intersect and overlap with other existing competencies developed for practicing professionals.
- Competencies need to be routinely updated as science and practice evolve and injury morbidity and mortality trends change.

Proficiency Levels

The guiding principles hint at a key aspect of the core competencies: injury and violence prevention professionals are not expected to achieve competency in all learning objectives. Different positions will require different proficiency levels and have a stronger focus on certain competencies and learning objectives. A senior manager would need to be competent in areas not required of a health educator or fire-fighter; and vice versa. Additionally, the proficiency levels will also vary depending on the workforce. The public health workforce will have different proficiency needs than those who work in emergency medical services.

These competencies were designed to address multiple issues in injury and violence prevention. They will have differing applications both across and within organizations. Competency may be developed by individuals or by groups, such as an agency or coalition. As an example, one person in the organization might be competent in competencies 1, 2, 4, and 7; while another person might be competent in 3, 5, and 6; and another person competent in 8 and 9. Thus, the combined competencies of the individuals should ideally result in an overall organizational competency.

The main purpose of the core competencies for injury and violence prevention is to systematically guide the development of training programs. Nevertheless, there are also other uses for competencies. The competencies may be used to develop tool kits for self-assessment, create job descriptions, develop needs assessments or for performance evaluation. As times and needs change in the field of injury and violence prevention, these competencies will also change. The core competencies are considered a living document: to be used, revised and continually improved.

ⁱ Needs Assessments Reviewed:

- Education Development Center, Training Needs Assessment, 1989.
- UNC Injury Prevention Research Center, Pre-VINCENT Training Needs Assessment, 1996.
- STIPDA Core Capacity Survey, 2000.
- Canadian Collaborating Centres for Injury Prevention & Control, Education Needs Assessment, 2000.
- SAVIR-STIPDA Joint Committee on Infrastructure Development, Training Survey of Health Departments, 2001.
- SAVIR-STIPDA Joint Committee on Infrastructure Development, Survey of Safe USA participants, 2001.

ⁱⁱ Relevant Competency & Objective Materials Reviewed:

- Core Competencies for Public Health Professionals, Council on Linkages between Academia and Public Health Practice.
- Core Competencies for Injury Prevention, Indian Health Service.
- State and Technical Assessment Team Review Guide, STIPDA.
- Course Objectives, Johns Hopkins Summer Institute, Principles and Practice of Injury Prevention.
- Canadian Injury Prevention and Control Curriculum, Canadian Collaborative Centres for Injury Prevention and Control (in draft).
- WHO TEACH-VIP—International injury prevention curriculum (in draft).
- Core Competencies for Effective Practice, Southern California Developing Center for Youth Violence Prevention and the University of Southern California Department of Family Medicine, 2001.

ⁱⁱⁱ Competency-to-Curriculum Tool Kit: Developing Curricula for Public Health Workers, Columbia University School of Nursing Center for Health Policy and Association of Teachers of Preventive Medicine, 2004.

Core Competencies for Injury and Violence Prevention

Developed by the SAVIR[§]-STIPDA Joint Committee on Infrastructure Development

The essential competencies for injury and/or violence prevention are identified below. Following the general list of competencies is a more detailed list including learning objectives.

- 1) Ability to describe and explain injury and/or violence as a major social and health problem.
- 2) Ability to access, interpret, use and present injury and/or violence data.
- 3) Ability to design and implement injury and/or violence prevention activities.
- 4) Ability to evaluate injury and/or violence prevention activities.
- 5) Ability to build and manage an injury and/or violence prevention program.
- 6) Ability to disseminate information related to injury and/or violence prevention to the community, other professionals, key policy makers and leaders through diverse communication networks.
- 7) Ability to stimulate change related to injury and/or violence prevention through policy, enforcement, advocacy and education.
- 8) Ability to maintain and further develop competency as an injury and/or violence prevention professional.
- 9) Demonstrate the knowledge, skills and best practices necessary to address at least one specific injury and/or violence topic (e.g. motor vehicle occupant injury, intimate partner violence, fire and burns, suicide, drowning, child injury, etc.) and be able to serve as a resource regarding that area.

[§] Formerly the National Association of Injury Control Research Centers, NAICRC.

Core Competency #1 with Learning Objectives

Ability to describe and explain injury and/or violence as a major social and health problem.

To achieve this core competency, participants will be able to:

- a. Define injury and/or violence and describe the concepts of intentionality and mechanism as they relate to injury and/or violence.
- b. Describe the biomechanics which underlie how injuries occur.
- c. Describe how injury and/or violence compare with other leading causes of morbidity and mortality and with regard to burdens on the population (e.g. incidence, cost, years of potential life lost, etc.).
- d. Explain how injuries and/or violence are preventable.
- e. Describe an approach to prevention that includes the following steps: (1) problem detection/assessment, (2) identification of risk and protective factors, (3) development of interventions and (4) evaluation of the effectiveness of interventions.
- f. Explain the continuum of injury and/or violence prevention, from primary prevention to acute care and rehabilitation.
- g. Explain the importance of collaboration and the role that different agencies, organizations, and disciplines play in prevention.
- h. Describe how conceptual models (e.g. Haddon Matrix, social ecological model, etc.) are used to portray the multiple factors underlying injury and/or violence.
- i. Describe the disparity in the risks of injury and/or violence (e.g. differences by age, gender, race, ethnicity, education, location, access to economic resources, access to health care services, sexual orientation, creed, community norms, and the environment).
- j. Describe the influence of a variety of factors (including age, gender, race, ethnicity, education, access to economic resources, sexual orientation, creed, community norms, access to health care services, and the environment) on injury and/or violence prevention.

Core Competency #2 with Learning Objectives

Ability to access, interpret, use and present injury and/or violence data.

To achieve this core competency, participants will be able to:

- a. Describe key sources of data at the national, state and community level and describe their strengths and weaknesses.
- b. Describe the strengths and weaknesses of the International Classification of Diseases (ICD) system and its use.
- c. Describe the differences between primary (“self-collected”) and secondary data (“existing data”) and provide examples of appropriate uses of each method.
- d. Describe how data can be used to identify disparate populations.
- e. Explain how data can be used to identify emerging issues in injury and/or violence.
- f. Identify the ethical and legal issues involved in the collection and use of data.
- g. Identify how a variety of factors (including age, gender, race, ethnicity, access to economic resources, community norms, etc.) may influence the collection, interpretation, and use of injury and/or violence data.
- h. Define quantitative and qualitative forms of data and give examples of their use in constructing and evaluating injury and/or violence prevention programs. Describe the benefits and limitations of each kind of data.
- i. Explain the importance of data for use in priority setting, program planning, quality improvement, evaluation, and advocacy in injury and/or violence prevention.
- j. Describe how qualitative and quantitative data can be used in conducting an assets and needs assessment of a community of interest.
- k. Demonstrate the ability to present data in a clear and understandable manner for different audiences.

Core Competency #3 with Learning Objectives

Ability to design and implement injury and/or violence prevention activities.

To achieve this core competency, participants will be able to:

- a. Identify and explain the roles of national, state and local level agencies and organizations that can serve as resources for prevention efforts.
- b. Explain the role and benefits of collaboration in prevention efforts.
- c. Identify types/examples of current and potential stakeholders/partners and their current prevention activities.
- d. Describe how to identify and prioritize injury and violence problems.
- e. Describe how to locate and evaluate the best sources of information (or "evidence") available on which to base intervention decisions.
- f. Describe various levels where prevention activities can be focused (e.g. individual, institutional, community, public policy).
- g. Demonstrate the use of a conceptual model (e.g. Haddon Matrix, social ecological model, etc.) for identifying intervention opportunities.
- h. Provide examples of interventions that use education/behavior change, legislation/enforcement and technology/engineering to prevent injuries and/or violence. Describe how they can work together to create a comprehensive program.
- i. For a given injury or violence problem, choose and justify an intervention based on 1) relevant data, 2) characteristics of the intended audience, 3) a conceptual model or theory (e.g. social ecological model, stages of change, etc.) and 4) evidence related to "best practice."
- j. Design an implementation plan, to include a description of the intended audience, goals and objectives, proposed activities, evaluation component, timeline and resources.
- k. Describe and understand how cultural, socio-economical, political, and physical environment factors may influence a prevention effort.

Core Competency #4 with Learning Objectives

Ability to evaluate injury and/or violence prevention activities.

To achieve this core competency, participants will be able to:

- a. Understand the importance of evaluation and why and when evaluation should be done.
- b. Understand how evaluation should be integrated into intervention design and implementation.
- c. Describe formative, process, impact and outcome evaluation and describe when and how to use each of these.
- d. Describe the use of qualitative and quantitative methods in evaluation, and explain the benefits and limitations of each method.
- e. Understand effective means of communicating evaluation results as well as the role of evaluation in identifying the key components of an intervention that are effective, for whom they are effective and under what conditions they are effective.
- f. Identify potential stakeholders/partners and resources to assist in conducting an evaluation.
- g. Identify potential barriers to specific types of evaluation and approaches to overcome these.
- h. Develop an evaluation plan for an intervention.

Core Competency #5 with Learning Objectives

Ability to build and manage an injury and/or violence prevention program.

To achieve this core competency, participants will be able to:

- a. Describe how to establish and maintain an advisory group to assist with the development and monitoring of goals for injury and/or violence prevention within a population (e.g. a community, a state, among children, among Latinos, etc.).
- b. Develop a long-range plan for injury and/or violence prevention and identify issues that may impact program goals, implementation, and sustainability.
- c. Identify key funding sources for injury and/or violence prevention activities.
- d. Prepare a proposal for funding from an external source.
- e. Demonstrate the ability to create, justify, and manage a budget.
- f. Demonstrate the ability to prioritize the allocation of resources (e.g. personnel, financial, space, time, equipment, etc.) to align with program goals.
- g. Develop a plan for hiring, supervising and promoting the professional development of staff.
- h. Demonstrate knowledge of ethical issues that may arise in injury and/or violence prevention practice.
- i. Describe ways that injury and/or violence prevention can be integrated into other programs and identify common barriers to integration.
- j. Demonstrate the ability to leverage program success to further program growth.
- k. Demonstrate the ability to develop and use performance standards to monitor program success.

Core Competency #6 with Learning Objectives

Ability to disseminate information related to injury and/or violence prevention to the community, other professionals, key policy makers and leaders through diverse communication networks.

To achieve this core competency, participants will be able to:

- a. Identify and differentiate the components and methods of designing and delivering effective messages for different audiences.
- b. Demonstrate the ability to prepare different types of written documents (e.g. written testimony, public health brief, fact sheet, press release, letter to the editor, policy statement, website content, etc.) to effectively communicate information about injury and/or violence.
- c. Be able to serve as a resource to the public, media and policy makers when appropriate and be able to provide referrals to other resources.
- d. Demonstrate the ability to be effectively interviewed by both broadcast and print media on an injury and/or violence topic.
- e. Participate in the preparation of a professional report or publication that addresses an injury and/or violence prevention finding or theory.

Core Competency #7 with Learning Objectives

Ability to stimulate change related to injury and/or violence prevention through policy, enforcement, advocacy and education.

To achieve this core competency, participants will be able to:

- a. Develop and implement a culturally appropriate marketing plan to promote an injury and/or violence prevention activity (e.g. within an organization, given community, etc.).
- b. Describe the differences between policy, education, lobbying and advocacy as tools to stimulate change in the community.
- c. Identify key prevention policies, laws or regulations that address injury and/or violence.
- d. Identify gaps in policies, laws, regulations and enforcement that, if addressed, could reduce injury and/or violence in the community.
- e. Identify potential partners and opponents in influencing policies, laws, regulations and enforcement and distinguish their roles.
- f. Describe the role the media and other communication channels play in public education and how to utilize these channels to shape public opinion about injury and/or violence prevention.
- g. Identify information on the cost of injury and/or violence and be able to describe its application in policy making.
- h. Demonstrate the ability to work effectively with advocacy/survivor groups (e.g. MADD, National Coalition Against Domestic Violence, etc.) to advance injury and/or violence prevention policies, laws or regulations.
- i. Demonstrate the ability to use research and evaluation to develop culturally appropriate policy, advocacy and education initiatives.
- j. Demonstrate the ability to translate policy into organizational plans and programs.
- k. Understand how policy change can have positive or negative effects on injury and/or violence outcomes.

Core Competency #8 with Learning Objectives

Ability to maintain and further develop competency as an injury and/or violence prevention professional.

To achieve this core competency, participants will be able to:

- a. Demonstrate the ability to access and use key journal and electronic resources to obtain updated information regarding injury and/or violence prevention.
- b. Identify key professional organizations and agencies related to injury and/or violence prevention and describe how these organizations can assist in maintaining and developing skills.
- c. Identify a potential mentor/advisor who has experience in injury and/or violence prevention and can assist with professional development.
- d. Identify and describe training resources, conferences and courses that would be appropriate for learning new information on injury and/or violence prevention strategies, research and best practices.

Core Competency #9 with Learning Objectives

Demonstrate the knowledge, skills and best practices necessary to address at least one specific injury and/or violence topic (e.g. motor vehicle occupant injury, intimate partner violence, fire and burns, suicide, drowning, child injury, etc.) and be able to serve as a resource regarding that area.

To achieve this core competency, participants will be able to:

- a. Describe the causes and characteristics of the specific injury and/or violence topic.
- b. Identify major sources of data related to the problem.
- c. Identify at-risk populations and stakeholders.
- d. Describe major risk and protective factors.
- e. Demonstrate the ability to apply varied approaches to prevention, including the use of evidence-based information and/or best practices.