Texas Hospital-Based Injury Prevention Program Core Components for Level III & IV Trauma Centers

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Background:

In 2014, the Governor's EMS and Trauma Advisory Council (GETAC) Injury Prevention Committee (currently Injury Prevention and Public Education Committee) established recommended essential core components for hospital-based injury prevention programs. The core components were developed with input from representatives of Texas EMS, Trauma & Acute Care Foundation (TETAF), Texas Trauma Coordinators Forum (TTCF), and Regional Advisory Councils (RAC). *The Building Safer States: Core Components of State Public Health Injury & Violence Prevention Programs* defined by the Safe States Alliance and the American College of Surgeons *2014 Resources for Optimal Care of the Injured Patient* (Orange Book) were also utilized to define the core components. In 2016, the GETAC Injury Prevention Committee produced standards and indicators to meet the core components.

In 2017, the National Association of County and City Health Officials (NACCHO) and the Safe States Alliance, with funding support from the Centers for Disease Control and Prevention (CDC) convened a group of public health injury and violence prevention representatives and trauma center professionals to develop national core components and standards and indicators for Level I and II trauma centers. In preparation for the meeting, Safe States and NACCHO reviewed several documents, including the Texas Hospital-Based Core Components document. They also conducted key informant interviews for an environmental scan and reviewed results of an online survey of trauma center IVP professionals. *The Standards and Indicators for Level I and II Trauma Centers Injury and Violence Prevention Programs* were released in November 2017. The national standards and indicators can be accessed at http://www.safestates.org/page/traumaivp.

With the release of the national standards and indicators in 2017, the GETAC Injury Prevention and Public Education Committee made the decision to align and update the Texas Hospital-Based Injury Prevention Program Core Components. Since the national standards focus on Level I and II trauma centers, the revised Texas document provides recommendations for injury and violence prevention programs at Level III and IV trauma centers including those seeking designation.

Users of this document are encouraged to explore each of the five core components to:

- Plan, develop, and establish a hospital-based injury prevention program based on these five core components, and/or
- Identify opportunities to strengthen an existing hospital-based injury prevention program based on the five core components, and/or
- Self-assess an existing hospital-based injury prevention program to determine opportunities for growth. A self-assessment tool is included to assist program staff in conducting the self-assessment.

The term "program" in this document is referred to as a designated functioning operation within the hospital (e.g., unit, department) that is responsible for providing leadership, coordination, and implementation of injury prevention efforts. It is recommended that an injury prevention program have at a minimum:

- A designated, qualified staff member(s) responsible for coordinating these efforts that are consistently supported by senior leadership; and
- Possess some level of public/population health qualifications, and injury and violence prevention knowledge and skill. ***Hospital leadership should pursue efforts to ensure that individuals who are responsible for injury and violence prevention activities at the hospital should have continuing opportunities to meet the*** Core Competencies for Injury and Violence Prevention***.***

CORE COMPONENTS

For each core component, we provide a brief rationale; a statement of the model standard, and indicators that would suggest the model standard is being met. Components and standards are summarized in the table below.

CORE COMPONENT	STANDARD
Leadership	The program is sufficiently supported by trauma center administrators and/or senior hospital administrators who are invested in IVP interventions and activities that are implemented by the hospital or in collaboration with community partners.
Resources	The program has adequate resources (e.g., staff and funding) to carry out injury prevention activities, and it is overseen by an injury prevention professional who has and continually updates his or her expertise in injury and violence prevention and ensures that staff have access to relevant training and professional development opportunities.
Partnerships	The program identifies and strengthens relationships at the community, local, state, regional and national levels that amplify the program's impact and contribute to coordinated, effective injury and violence prevention programs.
Data	The program collects, analyzes, interprets, and uses qualitative and quantitative data to determine priority program and policy interventions, evaluate progress, internally "make the case" for investment in injury and violence prevention, and/or increase awareness among external audiences of the value of injury and violence prevention programs.
Strategies	The program selects, implements, and evaluates or researches evidence-based and/or evidence-informed prevention strategies that respond effectively to the major causes of injury and violence in the community.

LEADERSHIP

Rationale

Trauma centers should take a leadership role in educating and influencing others about the potential of injury and violence prevention to reduce the burden of injury and its costs to health systems and society, and it's potential to drive positive changes in community health outcomes. This can occur both *internally*, helping to articulate the need for and value of the program's activities and impact within hospital chains of command, and *externally* in the community.

Injury and Violence Prevention (IVP) Programs need to regularly support continuing education and training for staff members. Because IVP programs address a diverse range of social, behavioral, policy and industrial conditions, IVP professionals need a multi-skilled set of education and knowledge.

Standard

The program is sufficiently supported by trauma center administrators, hospital staff and/or senior hospital administrators who are invested in IVP interventions and activities that are implemented by the hospital or in collaboration with community partners.

	Indicator	Essential or Desired Indicator
L-1	Internal hospital chains of command (within the hospital infrastructure) are aware of and support IVP activities in collaboration with the IVP professional.	**Essential**
L-2	The IVP program demonstrates how its activities and priorities align with those of the hospital's strategic plan.	**Desired**
L-3	The IVP professional attends and/or reports to hospital leadership meetings.	**Desired**
L-4	The IVP professional seeks ongoing leadership development training and mentorship.	**Desired**
L-5	The program provides a report to the community annually that includes the scope and status of its partnerships, data findings and evaluation of programs and activities designed to reduce injury and violence in the communities served, in an accessible, user-friendly format.	**Desired**

Suggested Leadership Resources

- Texas Injury Prevention Leadership Collaborative
- UCLA Mindful Awareness Research Center
- Simon Sinek

Publications

- Finding the Space to Lead by Janice Marturano
- What Got You Here Won't Get You There by Marshall Goldsmith

- Humble Inquiry by Edgar H. Schein
- The Power of Positive Deviance by Richard Pascale
- Leading with Questions by Michael Marquardt
- Conversational Intelligence by Judith E. Glaser
- The Advantage by Patrick Lencioni
- Change Your Questions Change Your Life by Marilee Adams

RESOURCES

Rationale

With adequate resources in the form of staffing, expertise, skills, and funding, programs are able to fulfill their responsibilities and potential to achieve sustainable injury and violence prevention outcomes. Additionally, Injury and Violence Prevention (IVP) Programs need to regularly support continuing education and training for staff members. Because IVP programs address a diverse range of social, behavioral, policy and industrial conditions, IVP professionals need a multi-skilled set of education and knowledge. Hospital leadership should ensure that IVP professionals obtain training to meet the Core Competencies for Injury and Violence Prevention.

Standard

The program has adequate resources (e.g., staff and funding) to carry out injury prevention activities, and it is overseen by an injury prevention professional who has and continually updates his or her expertise in injury and violence prevention and ensures that staff have access to relevant training and professional development opportunities.

	Indicator	Essential or Desired Indicator
R-1	The program has adequate resources (e.g., staff and funding) to fulfill its responsibilities and potential to achieve sustainable IVP outcomes.	**Essential**
R-2	The IVP professional continually updates his or her knowledge by accessing continuing education and trainings in IVP to meet the Core Competencies for Injury and Violence Prevention.	**Essential**
R-3	IVP is formally included in the job description of staff designated to conduct IVP efforts.	**Desired**
R-4	The program provides education and outreach (e.g., lectures, conferences, websites, newsletters, social media and advocacy) on injury and violence prevention topics.	**Essential**
R-5	Newly hired IVP professionals receive an orientation to familiarize the professional with the Core Competencies for Injury and Violence Prevention and resources available to the IVP professional. This includes seeking technical assistance from the state and local health departments, Regional Advisory Councils, and other hospital-based injury programs, and other appropriate injury prevention experts.	**Desired**

Suggested Training Resources

- National Training Initiative (NTI) Core Competencies
- Johns Hopkins University Summer Institute: Principles and Practices of Injury Prevention
- Texas Injury Prevention Leadership Collaborative
- Principles of Prevention.

- Road Traffic Injury Prevention and Control in Low- and Middle-Income Countries-- online training certificate program on Road Traffic Injury Prevention and Control in Low- and Middle-Income Countries (RTIP).
- The Society for Advancement of Violence and Injury Research (SAVIR)
- The Safe States Alliance has self-study trainings available including: Injury Prevention 101
- The World Health Organization TEACH VIP E-learning
- The Center for Disease Control and Prevention on Injury and Violence Prevention and Control
- The WHO Violence and Injury Prevention internet based program
- GETAC Trainings: check on www.dshs.state.tx.us/emstraumasystems then click the left page on Governors EMS & Trauma Advisory Council, and under Injury Prevention Committee you will find various documents, recommendations and tools addressing injury prevention.
- American Trauma Society Injury Prevention Course

PARTNERSHIPS

Rationale

Injury and violence prevention activities extend across a wide range of topics, mechanisms of injury, risk and protective factors, behaviors, populations, and social determinants of health. No single organization can be expected to address these alone; partnerships are essential for any trauma center-based IVP program.

Standard

The program identifies and strengthens relationships at the community, local, state, regional and national levels that amplify the program's impact and contribute to coordinated, effective injury and violence prevention programs.

	Indicator	Essential or Desired Indicator
P-1	The program *strengthens relationships with partners* to advance IVP, including data partners.	**Essential**
P-2	The program *participates in* broader IVP networks (e.g., state planning efforts or coalitions, regional trauma advisory committees, HHS regional networks, juvenile court systems and national organizations such as Safe Kids Worldwide, Safe States Alliance, and CDC).	**Essential**
P-3	The program *contributes to* broader, systems approaches to IVP (e.g., state planning efforts or coalitions; regional trauma advisory committees; HHS regional networks; juvenile court systems; housing, transportation, and education agencies; and national organizations such as Safe Kids Worldwide, Safe States Alliance, and CDC)	**Desired**
P-4	The program collaborates with external partners and community members to implement multi-level interventions that are aligned with broader IVP efforts and plans. Multi-level interventions are those that address the complex interplay between individual, relationship, community, and societal factors.	**Desired**
P-5	The program collaborates with external partners and community members to implement multi-level interventions that are aligned with broader IVP efforts and plans.	**Desired**
P-6	The injury program collaborates with partners to educate for policies, legislation and regulations that address injury and/or violence as allowed by hospital leadership/designation.	**Desired**

Suggested Partnership Resources

- Developing Effective Coalitions: An Eight Step Guide
- The Tension of Turf: Making it Work for the Coalition
- Community How To Guide on Coalition Building
- Hospital, local, regional trauma councils

DATA

Rationale

The use of valid injury data is essential in understanding the extent of injuries and violence and is essential in making informed decisions regarding prevention priorities in a healthcare environment that imposes competing demands on resources. Data serves as a foundation for highlighting problems, identifying solutions, and evaluating results (World Health Organization, 2007). Injury data can guide local, regional, and statewide policies and actions by harnessing public support, political will, and funding opportunities (World Health Organization, 2007). Injury data is also essential to evaluate successes and cost-effectiveness of interventions (World Health Organization, 2007).

Data from within the community will always build a more convincing case for an injury prevention project than national data (The American Association for the Surgery of Trauma, 2014). Potential sources of data include hospital reports including emergency and inpatient discharge information, ambulance records, police reports, trauma registries, death records, community-based surveys or registries, transportation department reports, occupational safety records, rehabilitation centers (World Health Organization, 2007). When considering sources of valid injury data, contemplate combining data of individual organizations to create a more robust and inclusive pool of information through the formation of coalitions or partnerships.

Standard

The program collects, analyzes, interprets, and uses qualitative and quantitative data to determine priority program and policy interventions, evaluate progress, internally "make the case" for investment in injury and violence prevention, and/or increase awareness among external audiences of the value of injury and violence prevention programs.

	Indicator	Essential or Desired Indicator
D-1	The program uses trauma registry data to characterize the frequency and patterns of injury in patient populations.	**Essential**
D-2	The program collects, analyzes, interprets, and uses additional hospital data (e.g., discharge data, readmissions, re-occurrences) and/or community data (e.g., law enforcement, local coalitions, private safety entities) to deepen its understanding of preventable injuries in the community it serves in selecting program and policy priorities.	**Desired**
D-3	The program has access to a data professional to characterize the frequency and patterns of injury and violence.	**Desired**
D-5	The program shares injury and violence data with *internal* stakeholders (e.g., physicians, nurses, volunteers, and foundation staff, executive teams) within the hospital/system.	**Desired**
D-6	The program provides a report to the community annually that includes data findings and evaluation of programs and activities designed to reduce injury and violence in the communities served, in an accessible, user-friendly format.	**Desired**

Suggested Data Resources

- Hospital, local, regional trauma registries
- Texas Department of State Health Services, Injury Epidemiology & Surveillance Branch; 512-776-3575
- CDC, Web-based Injury Statistics Query and Reporting System (WISQARS);
- CDC, Youth Risk Behavior Surveillance System (YRBSS);
- Texas Department of Transportation Crash Record Information System (CRIS);
- Texas Transportation Institute;

EFFECTIVE INTERVENTIONS

Rationale

It is crucial to devote the program's intervention resources as wisely as possible and to evaluate interventions to understand whether they worked as intended. Hospital injury programs should use evidence-informed interventions. **Evidence-informed interventions are those that have been scientifically evaluated from well-conducted research studies. Implementing programs that are not evidence-informed or that haven't been appropriately evaluated can result in a waste of resources and time, and ultimately, a lack of credibility**. Information that comes from properly designed and evaluated research studies are the best source to obtain evidence, particularly information that comes from systematic reviews. A systematic review synthesizes the results of several studies on a particular topic and sums up the best available research. Studies included in a review are screened for quality, so that the findings of a large number of studies can be combined.

Standard

The program selects, implements, and evaluates or researches evidence-based and/or evidence-informed prevention strategies that respond effectively to the major causes of injury and violence in the community.

	Indicator	Essential or Desired Indicator
I-1	The program's intervention strategies are multi-level approaches specific to populations at risk in the community (e.g., Spectrum of Prevention). Multi-level interventions are those that address overlaps between individual, relationship, community, and societal factors. Reference available tools.	**Essential**
I-2	Prevention strategies or interventions are evidence-based or evidence-informed and are the program's main focus (e.g., there is evidence or research that the chosen intervention strategy/ies is/are effective).	**Essential**
I-3	The program collaborates with internal and external partners and community members to implement multi-level interventions that align with broader IVP efforts and plans.	**Desired**
I-4	The evidence-based intervention strategies selected are logistically feasible to support over time at a level/dose that yields an impact.	**Essential**
I-5	The program has a plan for monitoring the implementation of its intervention strategies to ensure that they are being implemented effectively and achieving intended outcomes (e.g., performance improvement program).	**Essential**
I-6	The program is engaged (or collaborates) in pursuing *policy (e.g., organizational or legislative) and/or advocacy opportunities* that address injury and violence.	**Desired**
I-7	The program provides a report to the community annually that includes successes and shortfalls in reducing injury and violence in communities served, in an accessible, user-friendly format.	**Desired**

Suggested Intervention Resources

- CDC: Guide to Community Preventive Services
- National Center for Injury Prevention and Control/Centers for Disease Control and Prevention (CDC)
- Substance Abuse and Mental Health Services Administration (SAMHSA)
- Cochrane Collaboration Reviews
- Campbell Collaboration Reviews
- Countermeasures that Work: A Highway Safety Countermeasure Guide
- Google Scholar

Associations

- Safe States Alliance
- Children's Safety Network
- Society for Advancement of Violence and Injury Research (SAVIR)
- The Eastern Association for the Surgery of Trauma/Injury Control and Violence Prevention
- Emergency Nurses Association

Publications

- *Handbook of Injury and Violence Prevention (Second Edition).* Authors: Doll, Lynda; (EDT)/ Bonzo, Sandy E. (EDT)/ Sleet, David A. (EDT)/ Mercy, James A. (EDT)/ Haas, Elizabeth N. (EDT) Publication Date: 2006.
- Injury Prevention and Public Health: Practical Knowledge, Skills, and Strategies. Authors: Christofell, Tom; Gallagher, Susan Scavo. Publication Date: 2006.

Tools

- Revised Intervention Decision Matrix. Developed by Fowler, CJ and Dannenberg, AL. Revised 1998, 2000, 2003 & 2010.
- Spectrum of Prevention
- The Social-Ecological Model: A Framework for Prevention

Suggested Evaluation Resources

- CDC: Demonstrating Your Program's Worth, *A Primer on Evaluation for Programs to Prevent Unintentional Injury*– is a free resource to help program managers, coordinators, and planners to demonstrate the value of their work. This resource explains why evaluation is worth the resources and effort involved
- CDC Evaluation Working Group Provides a framework for program evaluation and other resources. Centers for Disease Control and Prevention. Framework for Program Evaluation in Public Health. MMWR 1999; 48(No. RR-11).
- Community Toolbox: Bringing Solutions to Light From the University of Kansas, this provides information on evaluating under "Learn a Skill", "Plan the Work", and "Solve a Problem".
- W.K. Kellogg Foundation Evaluation Toolkit A guide to design an effective and useful evaluation.
- The American Evaluation Association
- CDC Program Performance and Evaluation Office
- Better Evaluation
- The Evaluation Exchange

The Social-Ecological Model: A Framework for Prevention

Prevention requires understanding the factors that influence violence. CDC uses a four-level social-ecological model to better understand violence and the effect of potential prevention strategies. This model considers the complex interplay between individual, relationship, community, and societal factors. It allows us to understand the range of factors that put people at risk for violence or protect them from experiencing or perpetrating violence. The overlapping rings in the model illustrate how factors at one level influence factors at another level.

Besides helping to clarifying these factors, the model also suggests that in order to prevent violence, it is necessary to act across multiple levels of the model at the same time. This approach is more likely to sustain prevention efforts over time than any single intervention.

Individual

The first level identifies biological and personal history factors that increase the likelihood of becoming a victim or perpetrator of violence. Some of these factors are age, education, income, substance use, or history of abuse. Prevention strategies at this level promote attitudes, beliefs, and behaviors that prevent violence. Specific approaches may include education and life skills training.

Relationship

The second level examines close relationships that may increase the risk of experiencing violence as a victim or perpetrator. A person's closest social circle-peers, partners and family members-influences their behavior and contributes to their experience. Prevention strategies at this level may include parenting or family-focused prevention programs, and mentoring and peer programs designed to reduce conflict, foster problem solving skills, and promote healthy relationships.

Community

The third level explores the settings, such as schools, workplaces, and neighborhoods, in which social relationships occur and seeks to identify the characteristics of these settings that are associated with becoming victims or perpetrators of violence. Prevention strategies at this level impact the social and physical environment – for example, by reducing social isolation, improving economic and housing opportunities in neighborhoods, as well as the climate, processes, and policies within school and workplace settings.

Societal

The fourth level looks at the broad societal factors that help create a climate in which violence is encouraged or inhibited. These factors include social and cultural norms that support violence as an acceptable way to resolve conflicts. Other large societal factors include the health, economic, educational and social policies that help to maintain economic or social inequalities between groups in society.

Dahlberg LL, Krug EG. Violence-a global public health problem. In: Krug E, Dahlberg LL, Mercy JA, Zwi AB, Lozano R, eds. World Report on Violence and Health. Geneva, Switzerland: World Health Organization; 2002:1–56.

The Revised Intervention Decision Matrix © Fowler CJ & Dannenberg AL, 1995. Revised 1998, 2000, 2003 & 2010			
Intervention	**Option 1**	**Option 2**	**Option 3**
Effectiveness			
Feasibility			
Cost Feasibility			
Sustainability			
Ethical Acceptability			
Political Will			
Social Will			
Potential for Unintended Benefits (maximize benefits)			
Potential to "Do No Harm" (avoid unintended risks)			
Final Priority Rating			
Compare options ranking each cell as "high, medium, or low priority". Which option is strongest? Is there a "fatal cell"?			

Prevention Institute

Prevention and equity at the center of community well-being

SPECTRUM OF PREVENTION

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

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

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

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