

A PROFILE OF WAKE COUNTY CHILDHOOD INJURY &

INJURY PREVENTION

MAY 2014

Section IV - Discussion

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IV. DISCUSSION

This section includes discussion of: A) Secondary Data Sources; B) Leading Cause of Childhood Injury; C) Limitations of the Survey of Organizations; D) Comparison of Organizational Capacity for Injury Prevention and Interest in Capacity Building Activities; E) Relationship Among the Leading Causes of Childhood Injury, Injury Prevention Focus of Organizations, and Programmatic Approach; and F) Accessibility of Evidence Based-Practices.

A. Secondary Data Sources

1. Mortality Data

Mortality data for childhood injury in Wake County were accessed through publically available files on the NC State Center for Health Statistics website. The most recent year of data available through this site was 2011. However, 2012 mortality data are now available directly from the State Center for Health Statistics and could be requested through staff in the Injury and Violence Prevention Branch. We decided to use the publically available files to give us greater control over our analysis of these data.

The North Carolina Violent Death Reporting System (NC VDRS) was also queried for Wake County. To access county level data from the NC VDRS required a special request to staff at the Injury and Violence Prevention Branch, asking them to run tables for us. Having fatality data from both systems was useful; we were able to verify that we had information on all the violent deaths to children in Wake County for the years 2006-2011 from both data sources, providing the most detail available for these deaths.

There are, thankfully, few child injury deaths in Wake County, thus making it relatively easy to pull these data from publically available sources. That said, the publically available data are relatively limited in terms of details. Being able to access county level data through the NC VDRS provided more details for the child deaths from assault and suicide.

2. Hospital Discharge Data

The hospital discharge data are available through the North Carolina State Center for Health Statistics but are not readily available to individual researchers. Accessing these data required special requests to the Injury and Violence Prevention Branch (IVP) Branch staff of the NC Division of Public Health to obtain summary tables. We benefited from our long standing and ongoing relationship with the IVP Branch, allowing us to ask for and receive special reports that they could run for us on these data. Record level data were not available to us which greatly limited our ability to analyze these data at the injury sub-mechanism level.

The most recent year of data available for this data source was 2011. The NC Hospital Discharge data include only one mechanism of injury code (E-code). While the inclusion of only one E-code simplifies analyses, it limits the information we can glean about mechanism and circumstances of injury. As a result of our work on this project, working through colleagues at the IVP Branch, we have raised questions with the State Center for Health Statistics and the North Carolina Hospital Association to determine why there is only one E-code included in these data. We recommend the inclusion of up to five E-codes, to make these data comparable to the ED visit data and more useful for injury surveillance and descriptive analysis.

3. Emergency Department Visit Data

The ED visit data from NC DETECT provided a wealth of detailed injury information for this study. Wake County in general provides very thorough and complete data through this data source. The secondary nature of these data, however, does preclude the ability to validate the injury codes assigned by the hospitals and provided to NC DETECT.

One major hospital system in Wake County experienced data quality issues related to injury coding for their ED visits for part of 2010. This problem was large enough that we decided not to include 2010 in any year-based analysis of the data (e.g. calculations of rates). It should also be kept in mind that the overall frequencies of injury reported are thus an underestimate for the time period studied.

Due to the large number of injury related ED visits by Wake County children, we relied primarily on the ICD-9-CM coded diagnoses and external cause of injury codes. The use of ICD-9-CM coding sometimes limits the ability to pinpoint the exact cause of injury, particularly for intentional injury, where many of the mechanism and sub-mechanism categories are relatively vague and imprecise. NC DETECT captures up to five external causes of injury codes (E-codes). Many ED visit records in Wake County included multiple and contradictory mechanism of injury E-codes (e.g. fall and cutting/piercing instrument). This required individual review of each record to try to determine which code to use as the primary mechanism or sub-mechanism of injury code. This extensive coding and the level of detail included, however, are also strengths of these data.

Most ED visit records for childhood injury in Wake County include the triage note, as well as chief complaint. This additional textual information is invaluable when examining data at the record level for details about the injury event.

4. EMS Data

Wake County EMS is a large organization that has their own, well-respected data system which they use for research and evaluation projects. Due to the time constraints of this study, they were unable to provide data directly for our use. We were, however, able to obtain a Data Use Agreement to allow access to the Wake County EMS data available through the EMS Performance Improvement Center (EMSPIC) and NC DETECT.

Wake County EMS data in NC DETECT were available only for the years 2009-2012. The EMSPIC generated a standardized child injury report for Wake County, called the EMS Pediatric Trauma Care Toolkit, which covered children ages 0-15 and the years 2011-2012. The EMS data from NC DETECT had high levels of missing data for many key data elements necessary for identifying responses to injured children. In addition, several notable changes in the distributions of key data elements (e.g. disposition) were observed from one year to another in the EMS data from NC DETECT, with no readily available explanation. It was unclear if changes observed in the data were due to changes in coding practice or policy changes or something else. The Pediatric Trauma Care Toolkit report lacked clarity in data definitions and had high levels of not recorded or non-specific data categories.

The EMS data we were able to access were often incomplete for key variables. We suspect the EMS data are more complete at the local level than what we saw in the data obtained from state level data systems. The EMS data passed through several gate keepers before being made available for this study and the problems we observed could have been introduced at any one of those levels. Data auditing work, to track the provision and flow of data from Wake County EMS through EMSPIC and into NC DETECT, may lead to overall improvements in the EMS data provided to NC DETECT and would certainly improve our understanding of these data for Wake County.

5. Carolinas Poison Center Data

Data for calls to the Carolinas Poison Center (CPC) for Wake County children were obtained under a Data Use Agreement and provided through NC DETECT. These data have not been accessed through NC DETECT for a research project before so this was a learning experience for all involved. The poison control center call data available from the CPC are very complete and collected in a standardized method, thus resulting in high quality data for a secondary data source. The data are very well standardized before they are submitted to NC DETECT and are updated as additional information becomes available. Staff members at CPC make follow-up calls to caregivers of children with poisoning exposures to capture additional outcome measures over time. While we were provided with record level data, most of our analyses were able to use the data categories already assigned by CPC, including substances of exposure, clinical effects, and medical outcomes.

These data provide a wealth of information about calls to the poison control hotline for acute exposures to potentially harmful substances, as well as other types of injury in the community (e.g. bites). CPC fields calls from worried caregivers about many injury events besides typical poisoning, including animal, insect and human bites, burns, and food poisoning, thus providing a fairly broad based community level response to potentially injured children.

6. Other Data

Some of the injury issues of interest to JRE are addressed by community organizations not well identified through secondary healthcare data sources. The addition of data sources beyond healthcare sources is especially important when addressing specific causes of injury and examining them in a more in-depth manner. While Wake County presents a wealth of health related data that are useful for the study of childhood injury, other data sources could be considered for examination and evaluation (e.g., schools, social services, law enforcement).

B. Leading Cause of Childhood Injury

For the leading causes of childhood injury, Table 60 summarizes by injury type (e.g., Intentional and Unintentional), factors associated with secondary data, including: rank for morbidity and mortality leading causes; age distributions; sex distributions; injury location; and costs.

Table 60. Summary of leading causes of childhood injury in Wake County, NC by injury type.	
Unintentional Injury	
#1 Motor Vehicle Traffic Crash – Occupants	<ul style="list-style-type: none"> a. There were twice as many male deaths than females deaths (Males=41, Females=20). b. Older children (age groups 10-14 and 15-17) are at highest risk of MVC-occupant injury. c. Many children injured or killed in MVCs are coded as “Unspecified.” d. MVCs are expensive injuries, with the second highest hospital charges reported in the hospital discharge data. e. A higher than expected proportion of MVC-occupant injury related ED visits were self-pay (18.2%).
#3 Motor Vehicle Traffic Crash – Pedestrian	<ul style="list-style-type: none"> a. Child pedestrians hit by motor vehicles are likely to be fatalities (15 fatalities to 310 ED visits). b. Over 60% of child pedestrian fatalities (66.7%) and ED visits (61.8%) are males. c. Many (42.9%) pedestrian deaths were children under 5 years of age but 83.8% of ED visits for pedestrian injury were 5-17 years of age, with 33.8% in the 15-17 year age group (i.e. younger children are more vulnerable, more likely to die from these injuries). d. More than a quarter (25.7%) of the pedestrian injury ED visits were admitted to the hospital or transferred to another hospital. e. “Hot spots” for crashes involving child pedestrians have been identified in a previous JRE funded study.

Table 60. Summary of leading causes of childhood injury in Wake County, NC by injury type.	
#5 Falls	<ul style="list-style-type: none"> a. Falls are overwhelmingly the leading injury cause of hospital discharges (21.5%) and ED visits (26.7%) for Wake County children. b. Most fall injuries are to males (60.5% hospital discharge, 58.1% ED visits). c. All age groups have high numbers of fall related injury. d. There were over 3,000 ED visits for injury related to falling from playground equipment and over 2,000 ED visits for falls from bed. e. Many fall related ED visits do not have specific sub-mechanism codes assigned (14.8% are Unspecified Fall).
#6 Unintentional Suffocation	<ul style="list-style-type: none"> a. Eleven children died due to unintentional suffocation or other breathing threats (e.g. choking), and eight were under 1 year of age. b. There were only 47 hospital discharges and 87 ED visits due to unintentional suffocation. c. More suffocation deaths were females (6 of 11, 54.5%) but 52.9% of ED visits due to suffocation were males. d. Almost half (48.8%) the ED visits due to suffocation listed Medicaid/Medicare as the expected payment source. e. Over half the ED visits due to suffocation resulted in admission to the hospital (51.2%).
#7 Burns	<ul style="list-style-type: none"> a. Burns include injury from both fire and hot liquids, steam and other hot substances/objects. The vast majority (83.0%) of burn injuries treated in the ED were from hot liquids/steam/substances/objects. b. Burn injury was the 4th leading cause of injury related hospital discharges, responsible for 6.8%, and the 6th leading cause of injury related ED visits, with over 1,500 burn injuries identified in this study. c. Males accounted for 55% of the burn related ED visits. d. Over half the burn related ED visits (50.2%) were for children ages 1-4 years of age. e. Most burns did not require admission to the hospital, with 81.6% discharged home.
#8 Struck by or against	<ul style="list-style-type: none"> a. This category includes being <i>unintentionally</i> struck by or striking against people or objects, with or without subsequent fall. About 43 percent (42.6%) of these are coded as “Other”, with no further information. b. Almost 26,000 ED visits (18.7%) were for injury resulting from being struck by or striking against something, thus being the second leading cause of injury related ED visits. c. 35% of these injuries are due to being struck or striking against something or someone in sports activity. d. 13.3% of these injuries involved furniture or falling objects. e. These injuries do not include injuries caused by falling and then striking against something.
#9 Natural and environmental factors	<ul style="list-style-type: none"> a. This category includes a wide variety of injury mechanisms; most (92.2%) were due to injury involving animals or insects (e.g. dog bites, bee stings). b. Weather related injury (exposure to heat/cold, extreme weather) was responsible for only 4.1% of the ED visits due to natural and environmental factors but resulted in five child deaths, with four of these deaths from one cataclysmic storm. c. Dog bites resulted in an average of 278 ED visits for Wake County children per year. d. Children ages 1-4 years of age were most at risk, accounting for 34.5% of ED visits for injury from natural and environmental factors; children ages 5-9 represented 28.2%. e. Male children were the injured patient in 55.5% of the ED visits for this cause.
#10 Bicycle Injury	<ul style="list-style-type: none"> a. Injuries from falls and crashes involving bicycles, not including those involving a motor vehicle, led to over 3,000 ED visits for Wake County children during the years 2006-2012. b. Bicycle injury related ED visits are overwhelmingly for male patients (70.8%). c. Children ages 5-9 are at highest risk of bicycle injury, followed by those ages 10-14. d. Bicycle injuries are responsible for 85.8% of all Other Transportation related injury, which include injuries related to animals being ridden, animal-drawn vehicles, other non-motorized road vehicles, railway transport, water transport and water craft, and other vehicles not elsewhere classifiable.

Table 60. Summary of leading causes of childhood injury in Wake County, NC by injury type.

Other - Poisoning

- a. More children are hospitalized and visit the ED for self-inflicted poisoning than for unintentional poisoning.
- b. Many ED visits for poisoning may be averted by calls to the Carolinas Poison Center hotline; over 32,000 calls to the poison control hotline were made for Wake County children ages 0-17 during the years 2006-2012.
- c. Most calls (68.1%) are for children ages 1-4 years.
- d. “Analgesics” (e.g. aspirin, acetaminophen, ibuprofen) were a leading substance of exposure for all age groups. “Cosmetics/personal care products” was the leading substance group for exposures by children ages 1-4 years.
- e. Most exposures reported through calls to the poison control hotline did not result in clinical effects or serious medical outcomes.
- f. Results highlight the importance of looking at unintentional and self-inflicted poisoning separately. While many prevention strategies may address both intentional and unintentional poisoning, these two sub-sets of childhood poisoning affect different groups of children and have different healthcare outcomes.
- g. Calls to the CPC for child exposures to potentially harmful materials are important to note because numbers are much higher than what we see for poisonings in the ED Visit data; calls to CPC may be keeping children at low risk from a potential poisoning exposure out of the ED.

Intentional Injury

#2 Assault

- a. Children under age five are at highest risk of death from assault.
- b. Children 15-17 years of age are most likely to be hospitalized or visit the ED for injuries related to assault.
- c. Over half the child deaths from assault were female while approximately two out of three hospital discharges and ED visits for assault were for males.
- d. ED visits for assault are more likely than other injury related ED visits to have Medicaid/Medicare as the expected payment.
- e. Firearm assault injuries had the highest reported median hospital charges of any injury type reported and a median hospital length of stay of five days.

#4 Self Inflicted / Self Harm

- a. Eight of the 14 child suicide deaths were for children 10-14 years old.
- b. Ten of the 14 child suicide deaths were from hanging.
- c. For hospital discharges and ED visits for self-inflicted injury, approximately 70% were for ages 15-17 years.
- d. Most suicide deaths (78.6%) were male but most hospital discharges (71.0%) and ED visits (70.3%) for self inflicted injury were females. Males tend to chose more lethal means to attempt self-harm.
- e. Non-fatal self inflicted injury was overwhelmingly due to poisoning (71.7% hospital discharges, 71.3% ED visits).
- f. Most ED visits for self-inflicted injury were admitted to the hospital or transferred to another hospital (70.5%).
- g. Anecdotally, we suspect that there may be a reluctance to code injuries as self-harm in children under 10 years old; these may be more likely to receive an “Undetermined” intent code.

C. Limitations of Childhood Injury and Violence Prevention Survey of Organizations

We identified several primary limitations to the Wake County Childhood Injury & Violence Prevention Survey.

1. *Organizational Demographics and Outreach:* The results from this assessment are limited to those agreeing to participate and have their survey data included in this technical report. As a result, the 110 responding organizations surveyed do not represent the work of *all* organizations that may be addressing childhood injury and violence prevention in Wake County, NC. However, a 71% response rate was a good indicator that our sampling frame identified many organizations in Wake County working in the area of childhood injury and violence prevention. Generally, we did not include schools or medical facilities on our initial list.
2. *Injury Prevention Focus of Organizations:* Terminology between professional entities varies. For example, hospital, clinics, insurance companies and organizations working to prevent injury and or violence often differ in their use of terminology to refer to injury events/incidents. We sought to identify terminology that would be understood by all entities involved with this project. Our goal was to align the multiple phrases through the use of similar terminology, guided by the terminology used by the Centers for Disease Control and Prevention (CDC) and the North Carolina Disease Event Tracking and Epidemiologic Collection Tool (NC DETECT) (Appendix A). The standardization of terminology allowed for consistent presentation, review, and discussion of similarities, differences, and gaps among the project activities completed for the *Wake County Childhood Injury Prevention Assessment Project*. This was more difficult to achieve than we originally expected.
3. *Survey Questions:* To collect information about the work being performed by Wake County organizations addressing childhood injury and violence prevention, we selected to use an online, self-reported survey. Use of this method presented some general limitations (e.g., respondents may have misunderstood the intent of questions), as well as specific limitations related to the indicators used in the questions that are described in Table 61.

Category of Questions	Limitations
Organizational Demographics	Some individuals responded for their department and others for their agency. This appeared to be an issue for only one large organization.
Geographical Area Served	These three questions collected at the aggregate level for all services provided at an organization and therefore was not a direct link to specific programs and/or an injury prevention focus. Information detailing the geographical areas, targeted populations and groups would have been too complicated to collect for each individual program via a survey.
Populations Served	
Targeted Groups Served	
Organizational Work Focus	Respondents were asked to indicate how important (Not at all important (0) to Very Important (6)) various types of work were for their efforts to promote childhood health and safety through the prevention of injury and violence. This was originally intended to identify the type of work performed by the organization. However some respondents seemed to indicate how much an organization might rely on the types of work listed (e.g. funding) to function rather than using their response to indicate the extent to which they conducted the service. Perhaps because the question was poorly worded there was limited variability in responses and therefore the indicator was less helpful for understanding organizational work focus.
Intentional Injuries	Respondents self-reported if they addressed Intentional and/or Unintentional injuries. The wording of the question allowed for respondents to identify which injury events they believed they work in, however it may not account for the full extent of their work. In addition, entities that work on prevention of intentional and/or unintentional injuries may not self-identify

Table 61. Survey limitations.	
Category of Questions	Limitations
Unintentional Injuries	because they may not think of their work as preventing such events or injuries. For example, the provision of job skill training may not have been associated for some respondents to the prevention of violence. Therefore, we may be underestimating the work organizations are doing. However, we believe the responding organizations are ones doing a lot of the IP work in Wake County since the organizations and coalitions responding to the survey strongly identified childhood injury and/or violence prevention as important to their work focus.
Childhood IVP Programs/ Activities	Organizations were asked how many (#) childhood health and safety programs or activities are provided by their organization and to name the ‘top five’ programs or activities. We did not provide detailed information to define what ‘top five’ means, nor did we ask them to link the programs they listed to specific injury events (assessed earlier in the survey). Due to the use of a self-reported survey, we did not ask questions to assess effectiveness, reach, extent of evaluation, implementation fidelity (i.e., program impact) about the programs submitted.
Name/description of “TOP FIVE” Programs and Activities	
Organizational Capacity	Respondents’ self-reported organizational capacity and as such, results are limited to individuals completing the survey and their beliefs about the organization’s capacity, which may not reflect actual capacity. Because we did not use a criterion reference indicator for capacity, High, Medium and Low categories were based on the frequency distribution of the responding organizations.
Capacity Building Activities	Respondents’ self-reported needs for capacity building are limited to individuals completing the survey and their beliefs about the organization’s needs, which may not reflect actual needs. In addition, the list of capacity building activities included six elements, so it may not reflect the full nature of capacity building needs at an organization. In the survey, respondents were provided the opportunity to list ‘other’ types of capacity building activities.
Estimated Program Impact Index (e.g., Socio-Ecological Framework, Freidan’s Health Impact Pyramid, and 3Es of Injury Prevention)	Estimated program Impact did not use a criterion based indicator, rather, higher scores on the index indicate the potential for having a population based impact. While this index provided a sense of the distributions based on several frameworks (e.g. individual level to societal level), the program impact measure would be enhanced by including indicators that would assess program reach and level of effectiveness. In addition, there is likely considerable variability among respondents’ ability to answer questions about other terms associated with ‘program effectiveness’ (e.g., reach, efficiency, implementation fidelity). This limited our ability in this project to study different measures of program impact.

D. Comparison of Organizational Capacity and Interest in Capacity Building Activities

Forty percent or more (range of 44% to 56%) of the organizations responding to the online survey rated all capacity building activities assessed as ‘very valuable’ (activities shown using ✓ symbols in Table 62). High Capacity and Medium Capacity organizations, in particular, expressed interest in all capacity building activities described in the survey. Information collected in the organization survey, however, does not allow us to determine why Low Capacity organizations were less interested in capacity building activities.

Table 62. Capacity Building Activity Interest (>40%) by Capacity Level.

Activities	All Organizations	High Capacity	Medium Capacity	Low Capacity
	N = 110	N = 32	N = 33	N = 30
Participate in informational networking sessions for identifying public and private funders	✓	✓	✓	
Receive Wake County childhood IVP resources	✓	✓	✓	
Network with Wake County childhood IVP stakeholders	✓	✓	✓	
Attend trainings focused on building capacity in resource development	✓	✓	✓	
Receive Wake County childhood injury data reports	✓	✓	✓	
Attend trainings on evidence-based programs, interventions, and strategies	✓	✓	✓	

^aHigh Capacity Organizations N= 33 with 110 programs

^bMedium Capacity Organizations N= 33 with 76 programs

^cLow Capacity Organizations N= 32 with 46 program

The 15 coalitions who responded to the survey were also asked about their interest in capacity building activities. Compared to organizations, a lower proportion of coalitions indicated an interest in capacity building activities. Only 12%-22% of Coalitions indicated these activities were very valuable.

E. Relationship Among the Leading Causes of Childhood Injury, Injury Prevention Focus, and Programmatic Approach

1. Leading Cause of Injury and Injury Prevention Focus

When considering results from both secondary data and the organization survey conducted for this project, it is valuable to identify the degree to which organizations in Wake County are addressing childhood injury and violence prevention. To what degree are these organizations focused on the leading causes of childhood injury in Wake County? To examine this question, we identified two Tiers of Leading Injury Causes to investigate the distribution of effort across organizations and then to specifically assess if there are any differences in injury prevention focus by organizational capacity (Table 63).

The leading injury causes in Tier I appear to be appropriately addressed, with almost 50% of all organizations and 60% of High Capacity organizations addressing prevention in these leading injury causes. Fewer than 40% of Medium Capacity and coalitions identified working in these leading injury causes. Among all organizations (regardless of capacity level) and coalitions, additional emphasis on these leading causes of childhood injury would be beneficial.

With approximately 20% of All, High Capacity and Medium Capacity organizations, and coalitions, addressing the leading injury causes in Tier II, enhanced emphasis to address these leading causes of childhood injury seems warranted.

Table 63. Average Percentage of Organizations Working to Prevent Injuries by Ten Leading Injury Causes Tiers.

Leading Injury Event Tiers ^a	All Organizations	High Capacity	Medium Capacity	Low Capacity	Coalitions
	N = 110	N = 33	N = 33	N = 32	N=15
Tier I					
1. MVC Traffic-Occupant					
2. Assault					
a. Assault/Physical Violence					
b. Child Abuse/ Maltreatment (physical, sexual, emotional)	46.7%	57.2%	38.3%	45.3%	36.7%
c. Sexual Violence (e.g. assault, rape)					
3. MVC Traffic-Pedestrian					
4. Self-Inflicted/ Self-Harm					
Tier II					
5. Falls					
6. Unintentional Suffocation					
7. Burns					
8. Struck By or Against ^b	17.2%	21.0%	21.5%	11.0%	17.9%
9. a. Natural/Environmental Factors					
b. Animal bites					
10. Bicycle Injury/Crashes					

^a Leading Injury Event Tiers were created by reviewing the differences between leading causes of mortality leading causes of morbidity.

^b Struck By or Against was not collected in the organization survey.

2. Injury Prevention Focus and Programmatic Approach

Considering results from both secondary data and the organization survey conducted for this project, it is also important to identify the degree to which organizations in Wake County addressing childhood injury and violence prevention are appropriately applying a public health approach to their efforts to prevent childhood injury in Wake County, NC.

The field of injury prevention has significantly developed over the past sixty years. Years behind the field of chronic disease, it was not until 1981 when the first national conference on injury control was sponsored by the CDC at Johns Hopkins (Christoffel & Gallagher, 2000). This national conference was followed by a CDC publication in 1982 providing an Injury Control and Implementation Plan for State and Local Governments. In 1990, the first six states mandated E-coding as a standard practice. In 1993, President Bill Clinton declared injury a public health problem. In 1999, the Institute of Medicine published “Reducing the Burden of Injury” (Bonnie, Fulco, & Liverman, 1999), drawing attention and comprehensive research into the spotlight. These, among other pivotal events over the past six decades, have made significant strides in the public health contribution to the prevention of injury and/or violence.

The complexity of public health issues requires the implementation of multi-level approaches to address childhood injury (e.g. population based approaches, individual education approaches). Programs that are focused on individual knowledge, skills, and behavior (e.g. counseling and education), are necessary; however, additional interventions should address population-level factors (e.g. socioeconomic factors, environmental conditions, public policy changes). Population-level interventions will increase the public health impact, leading to a reduction in childhood injury mortality and morbidity (Frieden, 2010).

The estimated program impact index (Table 50), developed by coding programs listed by responding organizations, was based on several public health models, including: Socio-Ecological Framework; Frieden’s Health Impact; and the 3E’s of injury prevention (Environment, Education, Enforcement). Our estimated

program index measure for an organization represents the average estimated program impact index for the programs listed by the organization.

Application of this index identified a range from low impact (3) to high impact (13), with a 5.8 average program impact index score for all programs listed (n=243) by organizations completing the survey. The higher the score, the more likely the program was using some approach beyond education. Programs that focused on more comprehensive and/or population level-approaches received higher index scores. Among intentional injury prevention programs listed by survey respondents, there is a need to encourage increased use of population-level strategies. For example, the average program impact index for Intentional Only programs is 4.5 (Table 50), noticeably lower than the average for Unintentional Only (6.6) and for Both Intentional and Unintentional (6.9).

Our analysis reveals that self-reported capacity can make a difference, in that High Capacity organizations were more likely to have a higher estimated program impact index for programs addressing intentional injury (8.3) and for programs addressing both intentional and unintentional injury events (8.1). Our analysis also revealed that coalitions completing the survey (although we did not create an impact index for them) identified working with policy makers (80%) and public safety officials (80%) most often. This is in contrast with the programs submitted by organizations, which most frequently identified working with children (85%) and parents (78%).

F. Accessibility of Evidence-Based Practices

The accessibility of readily available and comprehensive evidence-based resources for intentional injuries and/or violence (including risk factors) was greater than the accessibility of comparable resources related to unintentional injuries. More effort was required to identify and compile programs and interventions which addressed unintentional injuries. Information about unintentional injuries was commonly found in the form of tips for individuals on safety practices, laws and policies, and environmental approaches to modify the physical environment. Many curriculums and programs are available to educate individuals about safe behaviors and safety practices; however, no comprehensive database exists to review supporting evidence of such interventions.