Violence Prevention Task Force Meeting

Meeting Date: 3-13-14 **Facilitator:** Dr. LaMar Hasbrouck **Recorder:** DeLacy Taylor
Task Force Members present: Sen. Mattie Hunter, Rep. LaShawn Ford (via phone), Sen Tim Bivins (via phone), Rep Bryan Stewart (via phone), Pastor Corey Brooks
Task Force Absent/excused: N/A
Others Present: Kim Egonmwan, Michael Holmes (AAFC), Onie Riley (AAFC), Barbara McChriston (Rep. Ford's Chief of Staff) (via phone), Hank Martinez (LFC, via phone) Rebecca Levin – presenter (Lurie's Children Hospital), MaryAnn Mason, PhD – presenter (Lurie's Children Hospital), Reshma Desai – presenter (IL Criminal Justice Information Authority) Marie Crandall, MD, MPH – presenter (Northwestern Memorial Hospital Trauma Surgery)

Item	Topic	Summary of conclusions, decisions, Assignments, and next steps
1.	**Presentation: Using Geographic information Services to inform Violence Prevention** **Marie Crandall, MD, MPH** Associate Professor of Surgery Northwestern University Feinberg School of Medicine	• **Biography –** works in the Trauma center at Northwestern University and is also a community researcher who has published extensively in the area of injury risk factors and outcomes, disparities, and violence prevention. Residency was done at Cook County and since then, the number of people who've been shot have decreased. She has worked in partnership with Ceasefire/Cure Violence who provide response services for families with a family member who's been shot. Researched showed that instead of treating nearby victims, they treat patients who commute 25-30minutes to a hospital. • **Handout: Truama Deserts: Distance from a Truama Center, Transport Times, and Mortality from Gunshot Wounds in Chicago -** Figure #1 Density map of gunshot wound (GSW) mortality and distance from a trauma center – Found that if shot in an area 5 miles away from a trauma center, individual has a 20% increased likelihood of dying from GSW. Also found that the victims are likely to be African-American males from lower income communities that are more distressed. The darkest shadowing on the map shows transport times of more than 20 minutes, estimated travel time to survive GSWs. New Trauma Center – there is interest in a new trauma center on the South side and there are 5 hospitals well located with capacity to handle this. Advocate Trinity and Mercy Chatham are best suit. Other candidates incl Roseland Hospital and University of Chicago. Can't recall the 5th one right now. Roseland is ideally located to support both the southside and the south suburbs, but with the recent financial issues and layoffs, they no longer have the proper resources to run it. Advocated Trinity is interested in becoming Level 2 or 1 Trauma Center. They are also ideally located and have the resources to staff it. If they became a trauma center, they would need to do some preparations beforehand. • **Question**: What is the difference between a Trauma Center and Emergency Department? **Answer**: Trauma centers decreases the likelihood of dying. It is a specialized hospital that has a 24/7 availability of a trauma surgeon, operating room, radiologist, surgeon and community outreach. It is very expensive to run and can cost as little as $5M for a Level 3 to $20M for a Level 1 Trauma Center. Emergency Departments diagnoses and provide treatment for life threatening illness. There's a likelihood of needing intervention for injuries that causes lacerations (ie: GSWs). If you have a lacerated blood vessel in the pelvis, this not likely repairable unless a surgeon is available to do this. Emergency Departments don't always have surgeon's available. • **Comment:** Referencing Table 3, noticed that if uninsured and injured there's an increased risk of dying from GSW if not insured.

2.	**Presentation: Illinois Violent Death Reporting System (IVDRS)** **Maryann Mason, MD,** Assistant Director, Child Health Data Lab **Rebecca Levin, MPH,** Director, Strengthening Chicago's Youth (SCY) & Strategic Director, Injury Prevention and Research Center Ann & Robert H. Lurie Children's Hospital of Chicago	• **Review of IVDRS handout/slide deck. See Slide deck.** IL not funded at the current time. Fed budget has line item to fund the next year. • **Question:** How can we better disseminate this data? **Answer**: Perpetrator info is in the police report. We've talked about exploring data on relationship between perpetrator and victim. There's a higher number of minority victims who have no extenuating circumstances to help collect additional information. Where are the homicides happening? This info as well as time frams is available on the police report. For example: Trying to look at cases as it relates to a love interest where there's a fight before the homicide. Example of a trend: initial analysis shows that there was an uptick of suicides related to financial distress from the 2007 economic downturn. • **Question:** There's a lot to learn from other states that have the full blown NVDRS. We need to focus on timeliness of the data. We support you in getting CDC funding to take it to scale. What is the plan for the next phase? Additional counties/geographic areas? **Answer**: We launched a survey last week to identify counties with electronic data so that the system can be expanded at a low labor/staffing cost. We plan to expand downstat to rural areas to show CDC that we can handle these populations as well. • **Question: Sen Hunter -** What can I do to assist in obtaining info? Do we need to look at statutory updates to make it easier and streamline statutes? Have filed a few shell bills to take care of this and we will need to include governmental affairs staff on this process.**Answer**: We may have a staffing issue. Ohio is similar to IL and we are looking at how they are using/collecting data. Have been communicating with Dr. Conover to get death data in a more timely manner. We can discuss all of this more at the separate meeting. **To do:** IVDRS will follow up directly with Sen. Hunter to discuss this. Kim Egonmwan will be included in the meeting. • **Question:** Have any other ideas of expanding the data uses? **Answer**: we are working to have data in graphs or more presentable ways to show legislators the data with stories that come from communities to substantiate requests. Would like to use basic Geographic Information System (GIS) data to show how we compare to our neighbors. There are data briefs with 4pg charts – we are open to working with researchers who work in public health data. On March 19th, we are publishing an article on suicides. Once IL becomes fully staffed & funded, we'll be able to upload to the national database.
3.	**Presentation: Illinois Criminal Justice Information Authority (ICJIA)** **Reshma Desai** Research Associate IL Criminal Justice Information Authority (ICJIA)	• **Overview of Grant Programs –** see handouts. • **Community Violence Prevention Program (CVPP)** – formally known as the Neighborhood Recovery Initiative (NRI) was transferred from IL Violence Prevention Authority – budget has dramatically been reduced. Any new program is going to take years to get all kinks worked out. There's still a lot to build & refine. • **Afterschool Violence Prevention Program –** looking to increase/continue funding. • **Ceasefire –** funding used to go to Department of Corrections (DOC) but this is the 1st year that funding goes to ICJIA. • **Safe from the Start –** focuses on the impact of a child's exposure to violence. There are eleven (11) sites across IL that work with children to help deal with exposure to violence. These children are high risk. Those who use services, their symptons from exposure to violenceare reduced. Both children's and parent's symptoms are reduced. **Question**: Do they follow families in continuation of time? **Answer:** They are followed at several points in time. Validation tools help to assess progress. Many of the families are in crises for one reason or another. It's much harder to track continuously. **Question**: Are you comparing families who get help vs. those who don't? **Answer:** No control group. **To do: will send annual report to the task force. Question**: How many people are held

		accountable for CVPP? **Answer:** Everyone is involved to maintain accountability. Info is tracked through a database. • **Family Violence Coordinating Council -** this focuses on protocols on how police should respond to domestic violence. • **IL Healthcares –** grantees coordinates with communities to improve response to elder abuse. • **Choose Respect IL –** This program promotes healthy relationships. Teens learn skits and perform them. They host cafes and hold confersation and engage processes about what's going on in their lives. • **Bullying Prevention –** Current grantees are in a planning phase to decide which curriculum to use (Second Step or Olweus Bullying) • **Question**: What are the sources of funding? Is it mostly General Revenue Fund (GRF) or Federal funding? **Answer:** All programs are state funded programs and all have some GRF or is strictly funded from GRF. • **Question**: What are the number of programs that were transferred from IL Violence Prevention Authority (IVPA)? **Answer:** All but Afterschool Violence Prevention Program and Ceasefire • **Question**: What is the process to identify grantees? **Answer:** Request for Proposals are used for most of the programs. In the case of CeaseFire, funding was designated to ICJIA. In the case of Community Violence Prevention Program (formally NRI) – lead agencies were recommended to ICJIA from IVPA & Governor's Office. • **Question**: Who makes the decisions in awarding grants? **Answer:** All grants goes to the ICJIA board to be approved. • **Question**: Can ICJIA withstand another audit? **Answer:** I can't speak to that as I am only a researcher. • **Question**: What about the jobs**?** Is there a list of employers that participate in the program? **Answer: Answer:** We are recruiting for this season and next season . I can get the list and send it to you. Will forward to DeLacy to distribute to the group.
4.	**Approval of Minutes**	• **Quorum –** Every member was present either in person or via phone conference. There was a quorum. Minutes for the January 23, 2014 meeting were 1st motioned by Sen. Hunter and 2nd by Rep. Stewart and unanimously approved.
5.	**Discussion of and Approval of Bylaws**	• **Attendance requirements –** Rep. Ford recommends that this is listed • Every member was present either in person or via phone conference. There was a quorum. Minutes for the January 23, 2014 meeting were 1st motioned by Sen. Hunter and 2nd by Rep. Stewart and unanimously approved.
6.	**Public Comment**	• **There were no public comments shared during the meeting**

Illinois Department of PUBLIC HEALTH

Pat Quinn, Governor
LaMar Hasbrouck, MD, MPH, Director

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VIOLENCE PREVENTION TASK FORCE COMMITTEE MEETING

March 13, 2014 @ 10:00 a.m.
Director's Conference Room
Chicago and Springfield, Illinois (via Video Conference)
Teleconference: 888-806-4788, passcode 120 2145 247

122 S. Michigan Ave, 20th Floor
Ste 2009
Chicago, IL 60603

535 W. Jefferson
5th Floor
Springfield, IL 62761

AGENDA

1. Welcome and Introductions

2. **Presentation: Using Geographic information Services to inform Violence Prevention**
   Marie Crandall, MD, MPH
   Associate Professor of Surgery
   Northwestern University Feinberg School of Medicine

3. **Presentation: Illinois Violent Death Reporting System**
   Maryann Mason, MD, Assistant Director, Child Health Data Lab
   Rebecca Levin, MPH, Director, Strengthening Chicago's Youth (SCY) &
   Strategic Director, Injury Prevention and Research Center
   Ann & Robert H. Lurie Children's Hospital of Chicago

4. **Presentation: Illinois Criminal Justice Information Authority**
   Reshma Desai
   Research Associate
   IL Criminal Justice Information Authority

5. Approval of minutes

6. Discussion of and approval of Bylaws

7. Public Comment

Upcoming Meeting Dates

Friday, May 2, 2014 at 10:00 a.m. in Springfield and Chicago (video conference)

Violence Prevention Task Force Meeting 3-13-14
Presenter Biographies

Marie Crandall, MD, MPH, FACS

Marie Crandall, MD, MPH, FACS is an Associate Professor of Surgery and Preventive Medicine at Northwestern University Feinberg School of Medicine. She is an attending trauma surgeon and surgical intensivist in the Division of Trauma and Critical Care. She is originally from Detroit, MI, a product of Head Start and local public schools. Dr. Crandall obtained a Bachelor's Degree in Neurobiology from U.C. Berkeley in 1991, and completed her M.D. in 1996 at the Charles R. Drew/ U.C.L.A program in Los Angeles. She finished her General Surgery residency at Rush University & Cook County Hospital in 2001, and in 2003, completed a Trauma & Surgical Critical Care Fellowship at Harborview Medical Center in Seattle, WA. During her fellowship, she obtained a Masters in Public Health from the University of Washington. Dr. Crandall performs emergency general and trauma surgery, staffs the SICU, and is an active health services researcher. She has published extensively in the area of injury risk factors and outcomes, disparities, and violence prevention, Dr. Crandall loves travel, triathlons, hiking, and is a passionate animal rights activist; you can follow her on Twitter @vegansurgon.

Maryann Mason, PhD

Maryann Mason, PhD is an Assistant Research Professor in the Department of Pediatrics at Northwestern University's Feinberg School of Medicine. Dr. Mason serves as the Principal Investigator on the Illinois Violent Death Reporting System, a partnership between the Ann and Robert H. Lurie Children's Hospital of Chicago and the Illinois Department of Public Health. Dr. Mason also serves as Community-Faculty Liaison for Research with Northwestern University's Alliance for Research in Chicago Communities (ARCC), a program of Northwestern University's Clinical and Translational Science Institute. Dr. Mason received her PhD in Sociology from Loyola University of Chicago. Her areas of research in include injury and violence prevention, child health and well-being and community-engaged research.

Rebecca Levin, MPH

Rebecca Levin, MPH, is the Strategic Director of the Injury Prevention and Research Center at Ann & Robert H. Lurie Children's Hospital of Chicago. She directs the Strengthening Chicago's Youth (SCY) violence prevention collaborative, which is building capacity among stakeholders in multiple sectors to connect, collaborate and mobilize around a public health approach to violence prevention. Before coming to Lurie Children's in 2011, Ms. Levin worked at the American Academy of Pediatrics for 12 years, overseeing all violence and injury prevention efforts. Ms. Levin received her bachelor's degree in Integrated Science and Biology from Northwestern University and her master's degree in Health Policy and Administration from the University of Illinois at Chicago.

Violence Prevention Task Force Meeting 3-13-14
Presenter Biographies

Reshma Desai

Ms. Reshma Desai has over fifteen years working in the violence intervention and prevention fields. Currently, she is assisting with violence prevention program development and evaluation at the Illinois Criminal Justice Information Authority. Previously, she directed a variety of violence prevention grant programs that address childhood exposure to violence; bullying prevention; healthy relationship promotion; and community violence. Her experience also includes a depth of knowledge on violence intervention. While directing the largest domestic violence shelter in Chicago, she collaborated to bring needed substance abuse and mental health services to victims of domestic violence. Reshma Desai holds a Masters in Social Work from University of Iowa.

Trauma Deserts: Distance From a Trauma Center, Transport Times, and Mortality From Gunshot Wounds in Chicago

Marie Crandall, MD, MPH, Douglas Sharp, MURP, PhD, Erin Unger, MD, David Straus, MD, Karen Brasel, MD, MPH, Renee Hsia, MD, MSc, and Thomas Esposito, MD, MPH

Objectives. We examined whether urban patients who suffered gunshot wounds (GSWs) farther from a trauma center would have longer transport times and higher mortality.

Methods. We used the Illinois State Trauma Registry (1999–2009). Scene address data for Chicago-area GSWs was geocoded to calculate distance to the nearest trauma center and compare prehospital transport times. We used multivariate regression to calculate the effect on mortality of being shot more than 5 miles from a trauma center.

Results. Of 11 744 GSW patients during the study period, 4782 were shot more than 5 miles from a trauma center. Mean transport time and unadjusted mortality were higher for these patients ($P < .001$ for both). In a multivariate model, suffering a GSW more than 5 miles from a trauma center was associated with an increased risk of death (odds ratio = 1.23; 95% confidence interval = 1.02, 1.47; $P = .03$).

Conclusions. Relative "trauma deserts" with decreased access to immediate care were found in certain areas of Chicago and adversely affected mortality from GSWs. These results may inform decisions about trauma systems planning and funding. (*Am J Public Health.* 2013;103:1103–1109. doi:10.2105/AJPH.2013.301223)

Traumatic injury is the leading cause of death in the United States among individuals aged 1 to 44 years.[1] Trauma centers are specialized facilities within hospitals with the expertise to care for the injured patient; resources include trauma surgeons, interventional radiology, surgical subspecialists, and immediate availability of an operating room. The development of trauma centers and trauma systems grew out of wartime experiences from the 1950s through 1970s that increasingly emphasized early and aggressive care and treatment of injured combatants. Trauma centers and organized trauma systems, including prehospital triage criteria and transport plans, have been shown to significantly decrease mortality for injured patients.[2,3]

However, not all areas of the country have equal access to trauma centers. Although 84% of Americans live within 1 hour of a trauma center, rural areas are particularly underserved.[4,5] Longer prehospital transport times likely contribute to the higher mortality rates among rural trauma patients as compared with similarly injured urban patients.[6–8] For urban trauma patients, the relationship between transport times and outcomes is inconclusive. Feero et al. examined more than 800 urban trauma patients and found that shorter transport times were associated with improved survival.[9] Gervin and Fischer also found this association for patients with penetrating cardiac injuries.[10] Several other investigators, however, have not found a link between transport times and survival from trauma.[11–13] The largest and most recent of these studies was from Newgard et al.,[13] who used data from 10 cities and 51 trauma centers. The centers included a heterogeneous mix of urban and rural hospitals from the United States and Canada. They found that prehospital transport time was not associated with increased mortality for major trauma. The disparate results from these studies may be in part attributable to the heterogeneity of injury mechanisms in the patient populations[12] or smaller sample sizes underpowered to detect the effects of transport times.[11] The Newgard study did separately analyze patients injured by penetrating trauma (i.e., gunshot wounds [GSWs] or stab wounds), but nearly two thirds of those patients and 67% of GSW victims were within the first or second quartile of prehospital transport times (i.e., the shortest transport times). These patients also constituted only 22% of the sample size. Both of these facts may limit the generalizability of this study to areas of the country with higher rates of penetrating trauma.

The city of Chicago currently has 7 Illinois-verified level I adult trauma centers in and around the city, and a mature emergency medical services (EMS) system providing care to a population of 3 million people. There are no level II centers within the city limits. (Level I and level II centers both provide 24-hour comprehensive trauma services, including trauma surgeons, radiology, and EMS; however, level II facilities do not need to have a surgical residency or ongoing research programs.) Unfortunately, Chicago also has one of the highest homicide rates in the country, ranging from 450 to 650 deaths per year from 1999 to 2009 (averaging 16 per 100 000 annually), mostly attributable to firearm-related violence[14] (Figure A; available as a supplement to the online version of this article at http://www.ajph.org). As in most major cities, socioeconomically distressed neighborhoods in Chicago suffer most of the burden of firearm-related homicide; these neighborhoods, as well as the 7 trauma centers, are not evenly distributed around the city (Figure B; available as a supplement to the online version of this article at http://www.ajph.org).

Urgent surgical intervention is much more frequently required for penetrating trauma than for blunt mechanisms of injury, and it is less likely that definitive care can be provided in the prehospital setting. As trauma centers are not equally distributed around the city, we hypothesized that patients who suffer GSWs in areas that are farther from trauma centers will have longer transport times and worse outcomes.

METHODS

Our data source was the Illinois State Trauma Registry (ISTR), a mandatory reporting database containing information about all traumas presenting to level I and level II centers in the state. This database is maintained by the Illinois Department of Public Health; it is de-identified with respect to name and hospital, but includes other demographic information, such as gender, age, race, physiological data, mortality and discharge outcomes, and incident address information.

Patient Population

We extracted data from all patients for the years 1999 through 2009 from the registry (n = 510 429). The data set was restricted to Chicago by zip code and city. We also included in the data set a 1-mile perimeter around the city to incorporate spatial effects beyond the city's administrative demarcation, given that trauma center catchment areas include neighboring communities but do not necessarily adhere to published neighborhood or city boundaries (n = 119 349). We further limited the data set to GSWs (n = 12 475) by using the External Causes of Injury codes from the *International Classification of Diseases, Ninth Revision*[15] (e-codes 922.0–922.9, 955.0–955.7, 965.0–965.4, 968.6, 985.0–985.7, 970, and 979.4). The longitudinal trend of GSW incidence in our data set paralleled homicide data publicly available from the city of Chicago (Figure C; available as a supplement to the online version of this article at http://www.ajph.org).

We mapped all incidents with available address data for the scene of the incident using ArcGIS software (Esri, Redlands, CA); more than 94% could be geocoded (n = 11 744). We then created maps of GSW incidence and superimposed them with a map of Chicago-area trauma centers. We calculated distance measurements as the Euclidean distance between the GSW incident and the nearest level I trauma center.

Predictors

We created a variable to denote being more than vs less than or equal to 5 miles from a trauma center. We selected 5 miles from 1-mile increments of distance between 1 and 10 miles because it provided the best balance of minimizing geographic overlap of trauma center radii but allowed for sufficient comparison proportions. The approximately two thirds of patients in the data set who were within this 5-mile boundary served as observational controls (Table A; available as a supplement to the online version of this article at http://www.ajph.org). We also analyzed important potential confounders, including age, gender, race, insurance status, injury severity score (ISS) greater than 16 (which is associated with higher likelihood of mortality), systolic blood pressure (SBP) in the emergency department of less than 90 millimeters of mercury, year of injury, and intent of injury. We coded insurance status as those self-paying being "uninsured" and everyone else being "insured." We determined injury intent and whether the police were involved by E-codes. Older age,[16] male gender,[17] non-White race,[18] lack of insurance,[18] and injury severity as measured by ISS and blood pressure have all been shown to predict mortality after trauma.[19] Insurance status is difficult to code because there is a wide spectrum between insured and uninsured, with many underinsured individuals in between. However, we have adopted a dichotomization that is consistent with current work in the trauma disparities literature.[18,20,21]

With respect to injury markers, there are many other methods to calculate injury severity (such as the Revised Trauma Score and the Trauma and Injury Severity Score), all of which have incrementally better performance than the ISS alone on mortality prediction and include anatomical and physiological markers of injury, along with demographic criteria. However, these are calculated values, some requiring use of a regression model, and they are not routinely included in all trauma data sets, including the ISTR.

We included year of injury to account for any longitudinal improvements or other changes in trauma care or systems. We included intent because firearm suicide attempts have been found to be highly lethal (over 90% fatal),[22] but firearm-related assaults seem to be less so, judging from the nonfatal firearm assault rate in the United States.

Outcomes

Outcomes of interest were mean transport times and mortality. Transport time is divided into 3 components in the ISTR: response time, scene time (i.e., time spent by EMS personnel at the scene), and travel time from the scene to the hospital. These are all actual times recorded by the EMS providers and verified in the medical record by trauma registrars. Of the 3 components, we used travel time from the scene for our analysis because it should be the most directly correlated with distance from the scene to the closest trauma center. Response times vary irrespective of distance from the scene, because EMS personnel may or may not be in the area at any given time; although they are not all dispatched from a central location, response times are typically very brief. For this sample, 97% of response times were 10 minutes or less. Scene times for penetrating trauma are highly dependent on the ability of police to secure the scene and EMS personnel to safely evacuate the patient, and are therefore not readily modifiable. Because a scene time of more than 20 minutes is a quality indicator of the American College of Surgeons Committee on Trauma, we examined this for our sample, and 95% of scene times were 20 minutes or less. Because geographic boundaries such as the Chicago River, road construction, bridges, and traffic patterns might influence transport times, we first calculated the association between transport time and distance from a trauma center.

Mortality was defined as all patients who died in the hospital, excluding those "dead on arrival" (DOAs; i.e., individuals who were pronounced dead in the emergency department without any interventions). These latter patients were excluded because we posited that they would have a lower probability of survival due to greater injury burden and that injury severity would overwhelm any smaller effect of transport times. In addition, prehospital data (e.g., vital signs and injury severity) were largely incomplete for these patients, with some data collection points having greater than 70% missing values. In addition, prehospital decision-making with respect to transporting patients in extremis may also be dependent on distance from a trauma center, introducing bias into the study.

Statistical Analysis

We calculated bivariate and multivariate analyses using Stata statistical software version 10 (StataCorp LP, College Station, TX). We estimated logistic regression models of mortality. Covariates included age, gender, race, insurance status, ISS greater than 16, SBP in the emergency department of less than 90 millimeters of mercury, year of injury, mechanism and intent of injury, and our variable of interest, being shot more than 5 miles from a trauma center. Using ArcGIS software, we then created maps of GSW mortality rates and superimposed them with a map of area trauma centers. The method used to depict mortality rates in the city was a quadrat grid of half-mile by half-mile cells symbolizing the mortality rate for GSW patients in each quadrat that contained 10 or more GSWs. We used this approach to limit small sample size or land use effects (because industrial areas have few GSWs) to optimize mortality rate mapping.

RESULTS

Of the 11 744 GSW victims in the data set, the overwhelming majority were male (91.6%), younger than 40 (98.4%), non-White (89.9%), and victims of assault (89.9%; $P<.001$ for all). A total of 4782 patients (38.3%) were shot more than 5 miles from a trauma center (Table 1).

Overall mortality was 18.8%, with 64% of those deaths coded as DOA or dead in the emergency department without interventions provided. Among patients who were not DOA, mortality was very high for White patients, who tended to be older (≥ 50 years; 15% of White patients vs 3% of the cohort overall; $P<.001$) and more frequently had a suicidal intent (9% vs 3%; $P<.001$). Firearm-related suicide attempts were highly lethal; of patients surviving to the hospital, 68% ultimately died. The patients who were DOA had a much higher mean ISS (18.62 ±18.80 vs 9.89 ±10.45 for other deaths) and much lower mean SBP (28.49 ±54.39 vs 129.47 ±36.90; $P<.001$ for each).

TABLE 1—Patient Demographics and Mortality From Gunshot Wounds: Chicago, IL, 1999–2009

Variable	GSW Frequency, No. (%) or Mean ±SD	GSW Mortality, No. (%) or Mean ±SD
Total	11 744	2204 (18.8)
Race/ethnicity		
White, non-Hispanic	495 (4.2)	125 (25.3)
Black, non-Hispanic	8027 (68.3)	1489 (18.5)
Hispanic	2529 (21.6)	452 (17.9)
Other or unknown	693 (5.9)	138 (19.9)
Gender		
Female	988 (8.4)	165 (16.7)
Male	10 754 (91.6)	2037 (18.9)
Age, y		
Birth-9	109 (0.9)	26 (23.9)
10–19	3389 (28.9)	515 (15.2)
20–29	5274 (44.9)	1025 (19.4)
30–39	1815 (15.5)	369 (20.3)
40–49	750 (6.4)	157 (20.9)
50–59	260 (2.2)	62 (23.8)
60–69	89 (0.8)	20 (22.5)
≥ 70	58 (0.5)	30 (51.7)
Insurance coverage		
Insured	5488 (47.4)	704 (12.8)
Not insured	6086 (52.6)	1464 (24.0)
Incident within 5 miles of trauma center		
Yes	7736 (65.9)	1430 (18.5)
No	4008 (34.1)	774 (19.3)
Intent		
Unintentional	695 (5.9)	82 (3.7)
Suicide	157 (1.3)	107 (4.9)
Assault	10 558 (89.9)	1920 (87.1)
Legal intervention	85 (0.7)	17 (7.7)
Undetermined	249 (2.1)	78 (3.5)
ISS[a]	10.9 ±12.8	22.3 ±14.9
SBP, mm Hg	117.6 ±50.5	82.0 ±64.2

Note. GSW = gunshot wound; ISS = injury severity score; SBP = systolic blood pressure. GSW mortality is a subset of GSW frequency. Column totals should approach 100% for each variable within each column. The totals may not add to 100% because of a small amount of missing data.
[a]An ISS > 16 is associated with higher likelihood of mortality.

Transport Times

The mean transport time was significantly higher for patients who were shot more than 5 miles away from a trauma center (16.6 ±7.6 minutes vs 10.3 ±6.5 minutes; $P<.001$).

Patients shot more than 5 miles away from a trauma center were disproportionately Black ($P<.001$), were less likely to be insured ($P<.001$), had a slightly higher ISS (10.4 vs 9.3; $P<.001$), were more likely to have suffered a primary abdominal wound (13% vs 8%; $P<.001$), and were more frequently the victim of an assault ($P<.001$; Table 2).

Mean transport times did not vary significantly by time of day, day of week, or month of year ($P>.05$ for all). Transport times were directly proportional to distance from a trauma center. Linear regression modeling of transport time and distance found that each additional mile increased transport time by 1.5 minutes (95% confidence interval [CI] = 1.46, 1.56; $P<.001$; $R^2=0.27$).

Mortality

The strongest predictors of mortality were the 2 injury severity markers (SBP and ISS) and

TABLE 2—Demographics of Gunshot Wound Patients, by Distance From a Trauma Center: Chicago, IL, 1999–2009

Variable	Distance ≤ 5 Miles	Distance > 5 Miles	*P*
Total, no.	6786	3543	
Unadjusted mortality	0.070	0.087	.002[a]
Race/ethnicity, no.			.001[b]
White, non-Hispanic	343	86	
Black, non-Hispanic	4048	3013	
Hispanic	1959	279	
Other or unknown	433	165	
Gender, no. (%)			.288[b]
Female	589 (9)	286 (8)	
Male	6192 (91)	3257 (92)	
Age, y, no. (%)			.029[b]
Birth–19	2142 (32)	1027 (29)	
20–39	3993 (59)	2182 (62)	
40–59	575 (8)	289 (8)	
≥ 60	73 (1)	45 (1)	
Insurance coverage, no. (%)			.001[b]
Insured	3541 (53)	1515 (43)	
Not insured	3145 (47)	1977 (57)	
Abbreviated Injury Scale,[c] no. (%)			.001[b]
Head	486 (13)	185 (11)	
Neck	79 (2)	42 (2)	
Chest	621 (16)	289 (16)	
Abdomen	290 (8)	222 (13)	
Other	2816 (62)	1257 (58)	
Intent, no. (%)			.001[b]
Unintentional	515 (8)	124 (3)	
Suicide	62 (1)	42 (1)	
Assault	6006 (89)	3316 (94)	
Undetermined	159 (2)	28 (1)	
Legal Intervention	41 (1)	33 (1)	
SBP, mm Hg, mean			
Overall	130.7	131.1	.494[a]
Among patients who died	83.5	79.8	.449
ISS,[d] mean			
Overall	9.3	10.4	.001[a]
Among patients who died	22.7	21.6	.335

Note. ISS = injury severity score; SBP = systolic blood pressure. The totals may not add to 100% because of a small amount of missing data.
[a]*P* value determined by the *t*-test.
[b]*P* value determined by the χ^2 test.
[c]Based on data from 1999 to 2003; no data from 2004 to 2009 were available.
[d]An ISS > 16 is associated with higher likelihood of mortality.

suicidal intent (Table 3). Lack of insurance was also associated with a higher mortality. Being Black was associated with lower mortality in this group. Being White and having a suicidal intent markedly increased the mortality risk. There was high correlation between these 2 variables, and injury severity was much worse for the group of White GSW patients with suicidal intent, which likely explains the association of increased mortality among Whites in our sample.

Unadjusted mortality was higher for patients who were shot farther than 5 miles from the nearest trauma center (8.7% vs 7%; $P<.001$). In a multivariate model adjusting for injury severity, age, race, gender, insurance status, and intent of GSW, being shot more than 5 miles from a trauma center was independently associated with increased risk of mortality (odds ratio [OR] = 1.23; 95% CI = 1.02, 1.47; $P=.03$). To validate our model, we performed 3 additional analyses. We first compared our model using a 5-mile distance from a trauma center with a model that dichotomized patients using a 4-mile distance (46% of patients), which yielded similar results (OR = 1.19; 95% CI = 1.03, 1.27; $P=.04$). As a sensitivity analysis, we created a second regression model using SBP at the scene vs emergency department SBP. The results were the same, but there were fewer missing values for emergency department SBP, so the latter results are reported here. Third, distance from a trauma center was independently associated with increased mortality among GSW victims, irrespective of intent. Regression modeling that limited the sample to assaults demonstrated identical results. However, regression models for suicidal intent alone had insufficient power to determine associations between transport times and outcomes. Finally, we constructed a correlation matrix, which did not demonstrate severe multicollinearity.

A GSW mortality map demonstrated higher mortality rates for individuals living outside the 5-mile boundary, despite reasonable proximity to main roadways and freeways (Figure 1).

DISCUSSION

These data demonstrate an association between being shot more than 5 miles from a trauma center, longer prehospital transport times, and mortality from gunshot wounds from 1999 to 2009. Most of Chicago's gun violence occurs on its south and west sides. There are a number of trauma centers located on the west side of the city. On the south side, however, particularly the southeast side, there is no nearby trauma center to serve this high-risk population. This same population with no local access to a level 1 trauma care has a higher mortality rate from GSWs. The high-profile death of a young activist on the southeast side has created tremendous interest in this issue among community activists and the media.[23–25]

TABLE 3—Adjusted Odds of Mortality From Gunshot Wounds: Chicago, IL, 1999–2009

Variable	OR (95% CI)	P
Male	1.1 (0.77, 1.55)	.61
Black	0.65 (0.44, 0.96)	.03
Hispanic	0.85 (0.56, 1.31)	.47
Age > 55 y	1.14 (0.58, 2.23)	.7
Lack of insurance	2.27 (1.86, 2.77)	< .001
ED SBP < 90	16.93 (13.72, 20.91)	< .001
ISS > 16[a]	8.06 (6.72, 9.66)	< .001
Trauma center > 5 miles away	1.23 (1.02, 1.47)	.03
Suicidal intent	8.76 (5.04, 15.24)	< .001
Suicidal intent and White	16.06 (6.52, 39.54)	< .001

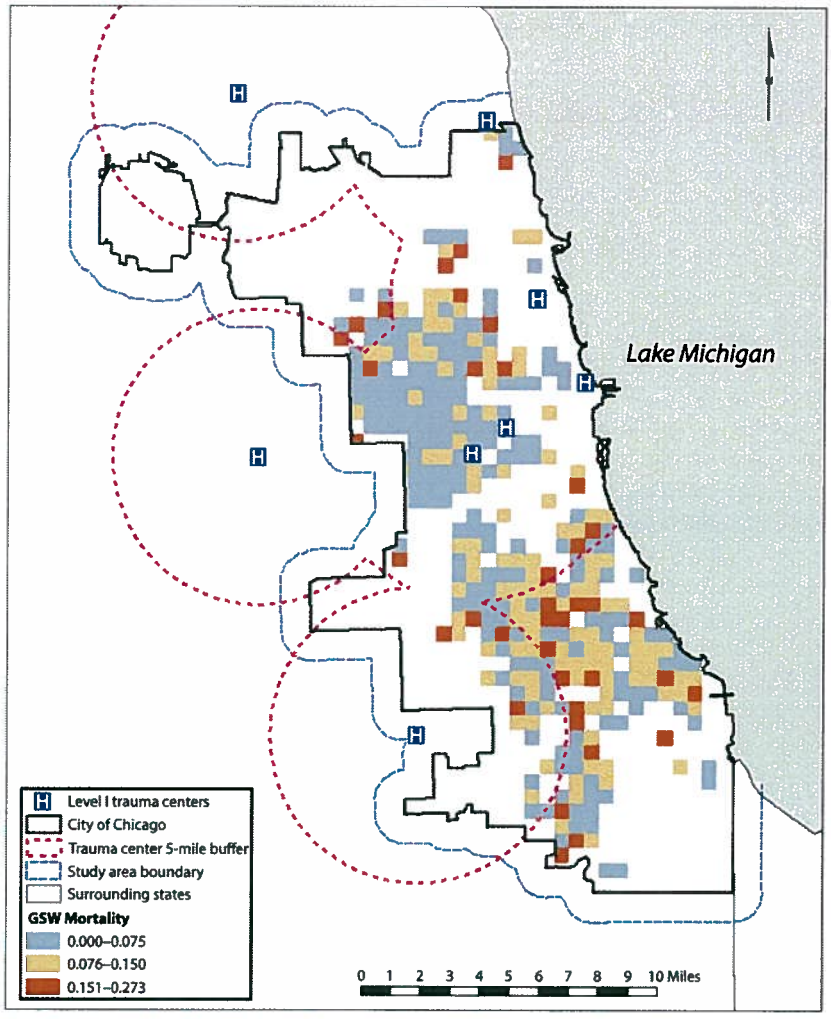
Note. CI = confidence interval; ED = emergency department; ISS = injury severity score; OR = odds ratio; SBP = systolic blood pressure.
[a]An ISS > 16 is associated with higher likelihood of mortality.

However, solutions are neither simple nor easy. Creation, certification, and maintenance of a trauma center in these relative "trauma deserts" could be very expensive and resource-consuming, though potentially cost-effective.[26] Another solution would be to facilitate existing local hospitals within these deserts to care for trauma patients, possibly in a level II capacity, akin to similar fresh produce initiatives in "food deserts" in the city.[27] This is a possibility because there are at least 4 hospitals in this particular area that are not trauma centers but have surgical and emergency department facilities. Lastly, trauma centers could be rebalanced on the basis of volume and proximity as opposed to capacity, including perhaps reallocating resources or forging new partnerships between academic and community centers. However, any changes to the existing system would need to be studied prospectively because a positive impact is not guaranteed. For example, some researchers have found risk-adjusted mortality to be higher at level II centers than at level I centers, although these studies were not restricted to penetrating trauma.[28,29]

This study is not without limitations. Although there was an association between distance from a trauma center and mortality, we found that injury severity, lack of insurance, and suicidal intent were much stronger predictors of mortality. Modifications of trauma systems cannot address any of these issues. In addition, given that suicidal intent predicted higher mortality, but represented a small subset of our data and has very different prevention and public health implications, it might have been reasonable to exclude these patients from the analysis. However, we felt that they added value by encompassing a real-world spectrum of GSWs in which intent may not be immediately known.

Second, we excluded DOAs from the analysis; better information about these cases might have been useful. This remains a tremendous challenge in prehospital trauma research; the patients that are in extremis require intense resources, and data collection is often less rigorous, as was the case in this data set.

Third, we used a distance of 5 miles from a trauma center to compare outcomes, but this number was somewhat arbitrary given the lack of work regarding optimal trauma center proximity. However, for our particular sample, this distance yielded the optimal balance between comparison groups, and a separate model comparing patients that used a 4-mile radius did not elicit significantly different results. Fourth, systemic differences in



Source. Illinois State Trauma Registry.

FIGURE 1—Density map of gunshot wound (GSW) mortality and distance from a trauma center: Chicago, IL, 1999–2009.

prehospital interventions or trauma center care may partly explain mortality differences by proximity to a trauma center, but these have not been found in rigorous programmatic evaluations performed by state and local agencies. It is also possible that an as-yet-unidentified confounder exists that is correlated with both transport time and mortality that could explain these associations. Fifth, because of changes in data collection and reporting, and the problems associated with missing data in an administrative database, we were unable to completely control for anatomical location of injuries, which might have an independent effect on mortality, although overall injury severity and physiological measures of injury were taken into account.

The final question is one of generalizability. Chicago is unique in the comprehensiveness and maturity of its trauma system and the prevalence of penetrating trauma; results from this study may not be applicable to other communities. However, potential solutions to this problem could have national and global relevance. For example, designation of a new level II trauma center was employed in south Los Angeles, California, to help decrease the impact of closure of a busy level I center in 2004. Expanding the capacitance of local hospitals to act as trauma service providers may improve outcomes in Chicago, or it may be applicable to other communities with long travel distances to trauma centers or a heavy burden of penetrating trauma. As a second example, for states or communities that are beginning to implement trauma systems, such as Indiana, these data may help inform planning and infrastructure building, particularly in areas such as Gary or Hammond, which are demographically similar to Chicago.

Despite these limitations, to our knowledge this is the largest study to date looking specifically at the impact of distance from a trauma center and mortality from GSWs in a particular geographic area. To determine the effect of these results within a real-world context, an attributable risk analysis can easily be calculated for GSW patients. For example, the crude mortality for Blacks shot within 5 miles of a trauma center is 6.42%, whereas outside of 5 miles it is 8.73%; the overall mortality is 7.41%, so the percent attributable risk is 26.05%. This would translate to 6.3 excess deaths per year for this community, and, assuming a per-patient loss of 40 quality-adjusted life years, a total of approximately 240 quality-adjusted life years. Assuming a cost-effectiveness threshold of $100 000 per quality-adjusted life year, the sum is $24 million per year, far higher than the typical annual costs of maintaining a trauma center.[30] It is unclear whether these data will affect policy or funding decisions, but they should certainly be used to inform discussions. In addition, future work should evaluate the effects of distance from a trauma center on other outcomes, such as hospital length of stay, permanent disability, and quality of life.

Gun violence remains endemic to Chicago, and GSWs account for the overwhelming majority of homicides within the city. We have demonstrated that incident proximity to a trauma center has a positive effect on survival outcomes for GSW victims. We have identified the southeast side of the city as a relative trauma desert in Chicago's regional trauma system that is associated with increased GSW mortality. We hope that the data presented will inform discussions aimed at optimizing regional trauma care in Chicago and will also aid in planning regional trauma systems in other urban settings. ■

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Contributors

M. Crandall was responsible for conceptualization, study design, data analysis, and article preparation. D. Sharp performed statistical and geographic data analysis and contributed to the article preparation. E. Unger contributed to the study design, initial geographic data analysis, and article preparation. D. Straus contributed to the study design and article preparation. K. Brasel, R. Hsia, and T. Esposito contributed key editorial assistance to the article preparation.

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Human Participant Protection

Institutional review board approval was obtained from Northwestern University and the Illinois Department of Public Health.

References

1. Centers for Disease Control and Prevention. Scientific data, surveillance, and injury statistics. 2011. Available at: http://www.cdc.gov/injury/wisqars. Accessed December 1, 2012.

2. Nathens AB, Jurkovich GJ, Cummings P, Rivara FP, Maier RV. The effect of organized systems of trauma care on motor vehicle crash mortality. *JAMA.* 2000;283 (15):1990–1994.

3. MacKenzie EJ, Rivara FP, Jurkovich GJ, et al. A national evaluation of the effect of trauma-center care on mortality. *N Engl J Med.* 2006;354(4):366–378.

4. Centers for Disease Control and Prevention. Access to trauma care: getting the right care at the right place at the right time. January 2012. Available at: http://www.cdc.gov/traumacare/access_trauma.html. Accessed December 1, 2012.

5. Branas CC, MacKenzie EJ, Williams JC, et al. Access to trauma centers in the United States. *JAMA.* 2005;293 (21):2626–2633.

6. Gonzalez RP, Cummings G, Mulekar M, Rodning C. Increased mortality in rural vehicular trauma: identifying contributing factors through data linkage. *J Trauma.* 2006;61(2):404–409.

7. Grossman DC, Kim A, Macdonald S, Klein P, Copass MK, Maier RV. Urban–rural differences in prehospital care of major trauma. *J Trauma.* 1997;42(4):723–729.

8. Esposito TJ, Maier RV, Rivara FP, et al. The impact of variation in trauma care times: urban versus rural. *Prehosp Disaster Med.* 1995;10(3):161–166, discussion 166–167.

9. Feero S, Hedges JR, Simmons E, Irwin L. Does out-of-hospital EMS time affect trauma survival? *Am J Emerg Med.* 1995;13(2):133–135.

10. Gervin AS, Fischer RP. The importance of prompt transport of salvage of patients with penetrating heart wounds. *J Trauma.* 1982;22(6):443–448.

11. Pepe PE, Wyatt CH, Bickell WH, Bailey ML, Mattox KL. The relationship between total prehospital time and outcome in hypotensive victims of penetrating injuries. *Ann Emerg Med.* 1987;16(3):293–297.

12. Petri RW, Dyer A, Lumpkin J. The effect of prehospital transport time on the mortality from traumatic injury. *Prehosp Disaster Med.* 1995;10(1):24–29.

13. Newgard CD, Schmicker RH, Hedges JR, et al. Emergency medical services intervals and survival in trauma: assessment of the "golden hour" in a North

American prospective cohort. *Ann Emerg Med.* 2010; 55(3):235–246.

14. CLEARpath. Crime summary. 2012. Available at: https://portal.chicagopolice.org/portal/page/portal/ClearPath. Accessed December 1, 2012.

15. *International Classification of Diseases, Ninth Revision.* Geneva, Switzerland: World Health Organization; 1980.

16. Tornetta P 3rd, Mostafavi H, Riina J, et al. Morbidity and mortality in elderly trauma patients. *J Trauma.* 1999;46(4):702–706.

17. Haider AH, Crompton JG, Chang DC, et al. Evidence of hormonal basis for improved survival among females with trauma-associated shock: an analysis of the National Trauma Data Bank. *J Trauma.* 2010;69(3):537–540.

18. Haider AH, Chang DC, Efron DT, Haut ER, Crandall M, Cornwell EE 3rd. Race and insurance status as risk factors for trauma mortality. *Arch Surg.* 2008;143(10): 945–949.

19. Nakahara S, Yokota J. Revision of the International Classification of Diseases to include standardized descriptions of multiple injuries and injury severity. *Bull World Health Organ.* 2011;89(3):238–240.

20. Maybury RS, Bolorunduro OB, Villegas C, et al. Pedestrians struck by motor vehicles further worsen race- and insurance-based disparities in trauma outcomes: the case for inner-city pedestrian injury prevention programs. *Surgery.* 2010;148(2):202–208.

21. Salim A, Ottochian M, DuBose J, et al. Does insurance status matter at a public, level I trauma center? *J Trauma.* 2010;68(1):211–216.

22. Rhyne CE, Templer DI, Brown LG, Peters NB. Dimensions of suicide: perceptions of lethality, time, and agony. *Suicide Life Threat Behav.* 1995;25(3):373–380.

23. In memoriam: Damian Turner. 2010. Available at: http://www.areachicago.org/p/issues/institutions-and-infrastructures/damian-turner. Accessed December 1, 2012.

24. Chicago Now. 20th Ward aldermanic candidate Rev. Andre Smith demands Damian Turner's killers to surrender. August 17, 2010. Available at: http://www.chicagonow.com/and-the-ordinary-people-said/2010/08/20th-ward-aldermanic-candidate-rev-andre-smith-demands-damian-turners-killers-to-surrender. Accessed December 1, 2012.

25. Health Care Now. Activists call for trauma care from University of Chicago Medical Center. August 22, 2011. Available at: http://www.healthcare-now.org/activists-call-for-trauma-care-from-the-university-of-chicago-medical-center. Accessed December 1, 2012.

26. MacKenzie EJ, Weir S, Rivara FP, et al. The value of trauma center care. *J Trauma.* 2010;69(1):1–10.

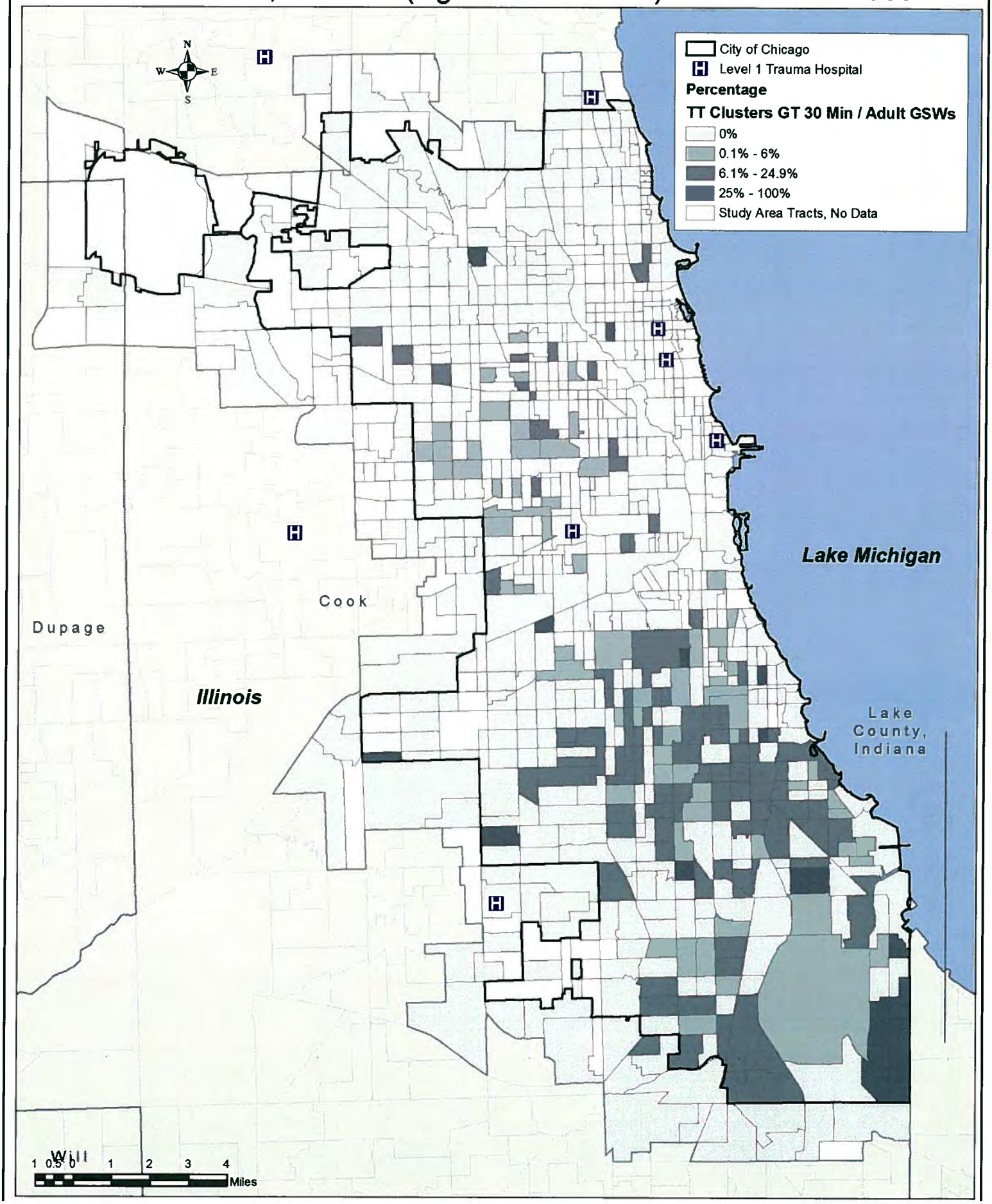
27. Healthy Places. Food. 2012. Available at: http://www.healthyplaceschicago.org/food/index.lasso. Accessed December 1, 2012.

28. Cudnik MT, Newgard CD, Sayre MR, Steinberg SM. Level I versus level II trauma centers: an outcomes-based assessment. *J Trauma.* 2009;66(5):1321–1326.

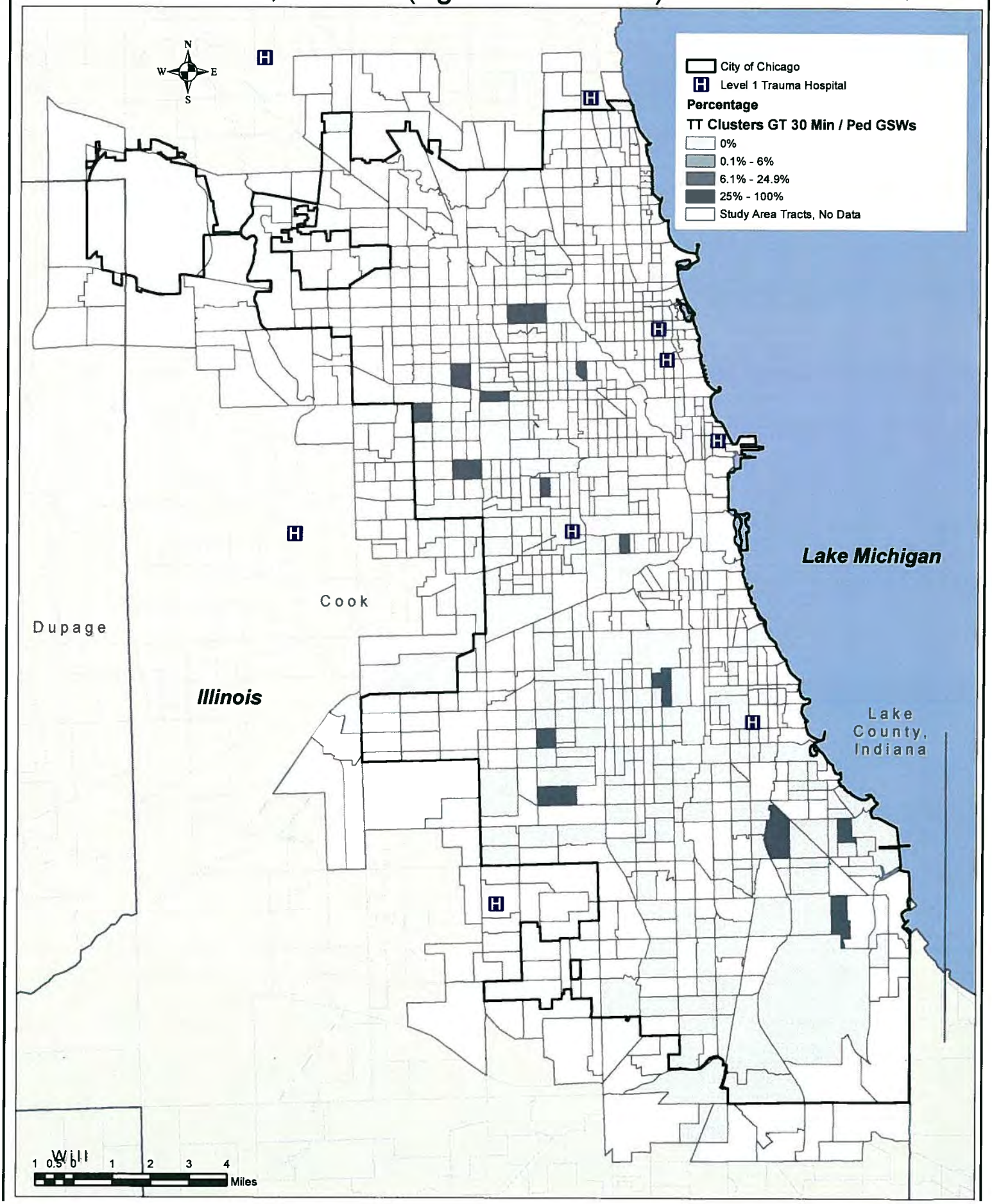
29. Demetriades D, Martin M, Salim A, Rhee P, Brown C, Chan L. The effect of trauma center designation and trauma volume on outcome in specific severe injuries. *Ann Surg.* 2005;242(4):512–517, discussion 517–519.

30. Rotondo MF, Bard MR, Sagraves SG, et al. What proce commitment: what benefit? The cost of a saved life in a developing level I trauma center. *J Trauma.* 2009;67 (5):915–923.

'High' Morans I Travel Time (TT) Clusters Exceeding 30 Minutes as a Percentage of Adult Gunshot Wounds (GSWs) by 2010 U.S. Census Tract, All Adult (Aged 16 & Above) GSWs 1999-2009



'High' Morans I Travel Time (TT) Clusters Exceeding 30 Minutes as a Percentage of Pediatric Gunshot Wounds (GSWs) by 2010 U.S. Census Tract, All Adult (Aged 16 & Above) GSWs 1999-2009



Ann & Robert H. Lurie
Children's Hospital of Chicago®

Illinois Violent Death Reporting System (IVDRS)

Maryann Mason, PhD

March13th, 2014

Ann & Robert H. Lurie Children's Hospital of Chicago®

Violence Prevention at Lurie Children's

- Strengthening Chicago's Youth (SCY)
- Legislative Advocacy
- Mental Health in Schools
- Positive Youth Development
- Protective Services Team
- Bullying Prevention
- Child Health Data Lab

What is the IVDRS?

- Public health surveillance system
- Modeled on the NVDRS
- Begun in 2005
- Extracts data from 3 data sources
  - Death certificates
  - C/ME reports
  - Law enforcement reports
- Intention to become a NVDRS state

IVDRS: Data Sources

- Includes data from 5 (of 102) Illinois counties: Cook, DuPage, Kane, McHenry, Peoria and City of Chicago
- Data provided via MOU or LOS mechanism
- Data populated by a combination of electronic transfer and hand entry (based on record review)

IVDRS: Current Funding and Staffing

- Funding sources
  - IDPH
  - Kohl's
  - Joyce (pilot & strategic planning process)
- Amount –about 1/3 what NVDRS funding would be
- Staffing
  - PI (.2 FTE)
  - Epidemiologist (.5 FTE)
  - Project Manager (.6 FTE)
  - RA (data extraction (1.0 FTE)

Ann & Robert H. Lurie Children's Hospital of Chicago®

IVDRS: Scope

- Includes about 55% of all Illinois violent deaths
  - 50% of all Illinois suicides
  - 75% of all Illinois homicides
- Most recent complete data: 2009

IVDRS Products

- IVDRS: Unique Information to Inform Prevention (2007)
- Violent Death and Intimate Partner Violence (2009)
- Racial Disparities in Violent Death (2009)
- Understanding sleep-related Infant Deaths (2010)
- Examining Suicides in Illinois 2005-8 (2011)
- Homicides of School-Aged Children and Adolescents (2011)

What Does IVDRS Do?

- Describe magnitude of, and trends for, specific types of violence
- Identify risk factors associated with violence
- Provide information to target and guide violence prevention programs, policies and practices

How NVDRS States Have Used Findings

North Carolina

- Improved identification of populations in need of adult protective services
- Improved targeting of elder maltreatment prevention programs (based on violent death risk)
- Developed a case review protocol for deaths of those in adult protective custody.

How NVDRS States Have Used Findings

Rhode Island

- Informed Dept of Health Violence & Injury Prevention Program priority setting and program planning

How NVDRS States Have Used Findings

Utah

- Led to a partnership between Utah Dept of Health violence and Injury Prevention Program and Utah's Domestic Violence Fatality Review Committee

- Informed a policy change to close a gap in services for children of domestic violence-related homicide victims –immediate referral to DCFS at time of homicide

How NVDRS States Have Used Findings

Virginia

- Informed targeting of prevention efforts
- Informed development of a regional prevention plan
- To develop public education messaging

Why is IVDRS important to Illinois?

- Brings together data on fatal violence of ALL types – helps us understand the big picture
- Is incident vs. victim based –so can be used to understand the *context* of as well as victim characteristics
- Is based on the best, most completed data available, death records, coroner reports, police reports
- Allows to understand patterns, trends both for localities and the state as a whole

IDVRS: Challenges/Opportunities

- How do we make the current system more timely (last complete data is for 2009)?
- How do we set IVDRS up for future expansion/incorporation into NVDRS system?
- How do we do more dissemination of IVDRS findings?

Thank you for your time today!

For more information, contact:

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312-227-7026

ILLINOIS CRIMINAL JUSTICE INFORMATION AUTHORITY

VIOLENCE PREVENTION GRANT PROGRAMS

Grant Program	FY 14 Grant Budget	Purpose	Target Population	FY 14 Projected Impact
Community Violence Prevention Program (formerly NRI)	$14,300,000	To create jobs for community youth, adults and professionals that promote community wellness and healthy behaviors, youth and parent leadership, and healthy, caring community environments. To provide a wide range of community-based services for youth and young adults; including social, emotional and job skills development, case management; mentoring; and reentry services.	At risk youth and young adults ages 13-28 and parents living in 33 Chicago communities with high rates of crime, violence, poverty and unemployment.	• 1,800 youth ages 16-24 will be employed with local employers. In addition to job skills, the youth will receive mentoring and complete community service projects. • 1,010 parents employed as parent leaders. The parents will be trained to parenting skills, child development and personal improvement. The parents will host parent conversations and complete community service projects. • Approximately 300-420 of youth will be served with reentry services
Afterschool Violence Prevention Program	$9,600,000	To provide high quality After school programs that address youth risk factors by providing structured and supportive environments within which academics, life skills and recreational/cultural activities are provided.	At risk youth age range 6-17 (with vast majority within the 11-17 age range) who live in targeted counties. The program also targets the youth's parents by engaging them in educational opportunities.	• Approximately 5,300 youth will receive a variety of academic, life skills (including violence prevention activities) and recreational/cultural activities. • Additional outcomes are in development.
Ceasefire	$4,700,000	CeaseFire's approach to stopping violence involves a three-pronged strategy: 1. Engage highest-risk individuals to interrupt and change violent behavior. 2. Change group-level and broader community beliefs and norms about violence. 3. Continue to professionalize and develop all program staff (Program Managers, Outreach Supervisors, Outreach Workers, and Violence Interrupters) as credible messengers.	"Highest-risk" individuals who are susceptible to violent behavioral norms and those most likely to be involved in a shooting. CeaseFire defines this group as those who meet at least four of the following criteria: • 16—25 years old • Recently released from prison with a weapons charge or crime against a person • Recent victim of shooting, stabbing, or blunt trauma	• 16 Ceasefire sites will be in operation across Illinois • Each outreach worker will engage 15 at risk individuals. • 25% of individuals working with an outreach worker will experience a behavioral change. • CeaseFire Chicago sites ended FY2013 (January-June) with a 26% reduction in shootings and an 18% reduction in homicides compared to FY2012 (January-June).[1] This demonstrates CeaseFire's capacity to assist sub-contractors to successfully attain shooting and homicide reductions within a 12-month span. • Additional outcomes are in development.

			• Major player or active in a violent street organization • Involved in high-risk activity (high risk activity defined as activities that significantly increase the probability of an individual shooting someone and/or being shot; for example: armed robbery, or participating in illegal drug trade, etc.) • History of crimes against other people • Carries or has ready access to lethal weapons	
Safe From the Start	$1,274,400	To provide services to children and their families exposed to violence. In addition, the grantees work within the community to raise the awareness and response to childhood exposure to violence.	The target population is children ages 0-5 and their families. Older siblings and children on the cusp of 5- 6 years old are also served. The primary caregiver is also engaged and provided supportive services.	• Over 1,270 children/caregivers served • Over 18,600 people reached through community outreach • Formal evaluation shows reduction in 33% of children's trauma symptoms improved and 21% of parents' stress improved using validated scales.
Family Violence Coordinating Council	$544,500	Local family violence coordinating councils in all 24 judicial circuits in Illinois. The IFVCC Councils work to improve local and state level family violence response systems.	The target population is the judiciary and the systems with which it interacts (i.e. law enforcement, schools)	• 7,000 persons trained on family violence prevention issues • 2,700 persons engaged in coordinating efforts
Illinois Health Cares	$354,400	Community coalitions improve the health care system's response to domestic and sexual violence and elder abuse.	The target population is the health care professionals who can facilitate improvements to the health care response and those that work directly with patients.	• Over 2,100 Health/service professionals trained • 12 counties impacted • Annual trainings demonstrate statistically significant increased knowledge and improved attitude regarding the prevention of, and intervention in, family violence.
Choose Respect Illinois	$267,700	This program was developed in partnerships with the Center for Disease Control (CDC) program. Community organizations and	Youth ages 11-17 in a variety of urban, suburban and rural communities.	• 320 Youth leaders engaged • Over 16,500 youth reached by the program • Annual survey showed statistically significant increase

		schools engage youth in learning about healthy relationships. The youth prepare and present plays and facilitate discussions on healthy relationships in their communities.		in youth leader's reported actions that they have taken in the past year to promote healthy relationships and take action against abuse.
Bullying Prevention	$264,900	Community organizations and schools evaluate the extent of bullying in their school(s), select a bullying prevention program to implement and plan for this implementation.	Students and school administrators responsible for addressing bullying within the school culture.	• 18,000 youth reached by the program • 79 schools engaged in the program • Additional outcomes in development