Children's Safety Network
National Injury and Violence Prevention Resource Center

NACCHO
National Association of County & City Health Officials

The National Action Plan for Child Injury Prevention - Webinar I

September 10, 2013, 2-3pm

Audio will begin at 2:00 PM ET.

You can listen through your computer speakers or call 866-835-7973

www.ChildrensSafetyNetwork.org

National Association of County and City Health Officials (NACCHO)

- Nonprofit membership organization
- National voice for approximately 2,600 LHDs
- Governed by a 27-member Board of Directors
- Advised by 40+ workgroups and committees
- 100+ staff headquartered in Washington, D.C.

Public Health
Prevent. Promote. Protect.

The National Connection for Local Public Health

NACCHO
National Association of County & City Health Officials

What are LHDs doing to address IVP?

- Providing community education and outreach (80%)
- Building partnerships (79%)
- Educating or counseling clients (71%)
- Raising community awareness (68%)
- Disseminating information (68%)

- Conducting surveillance (29%)
- Setting priorities (26%)
- Providing monetary and in-kind resources to community (26%)
- Offering professional development to community (23%)
- Conducting research and evaluation (18%)

NACCHO
National Association of County & City Health Officials

Public Health
Prevent. Promote. Protect.

Meeting Orientation Slide

- If you are having any technical problems joining the webinar please contact the Adobe Connect hotline at 1-800-416-7640 or email csninfo@edc.org

- Type any additional questions or comments into the Q&A box on the left.

Presenter

Julie Gilchrist, MD, CDR,

US Public Health Service,

Centers for Disease Control & Prevention

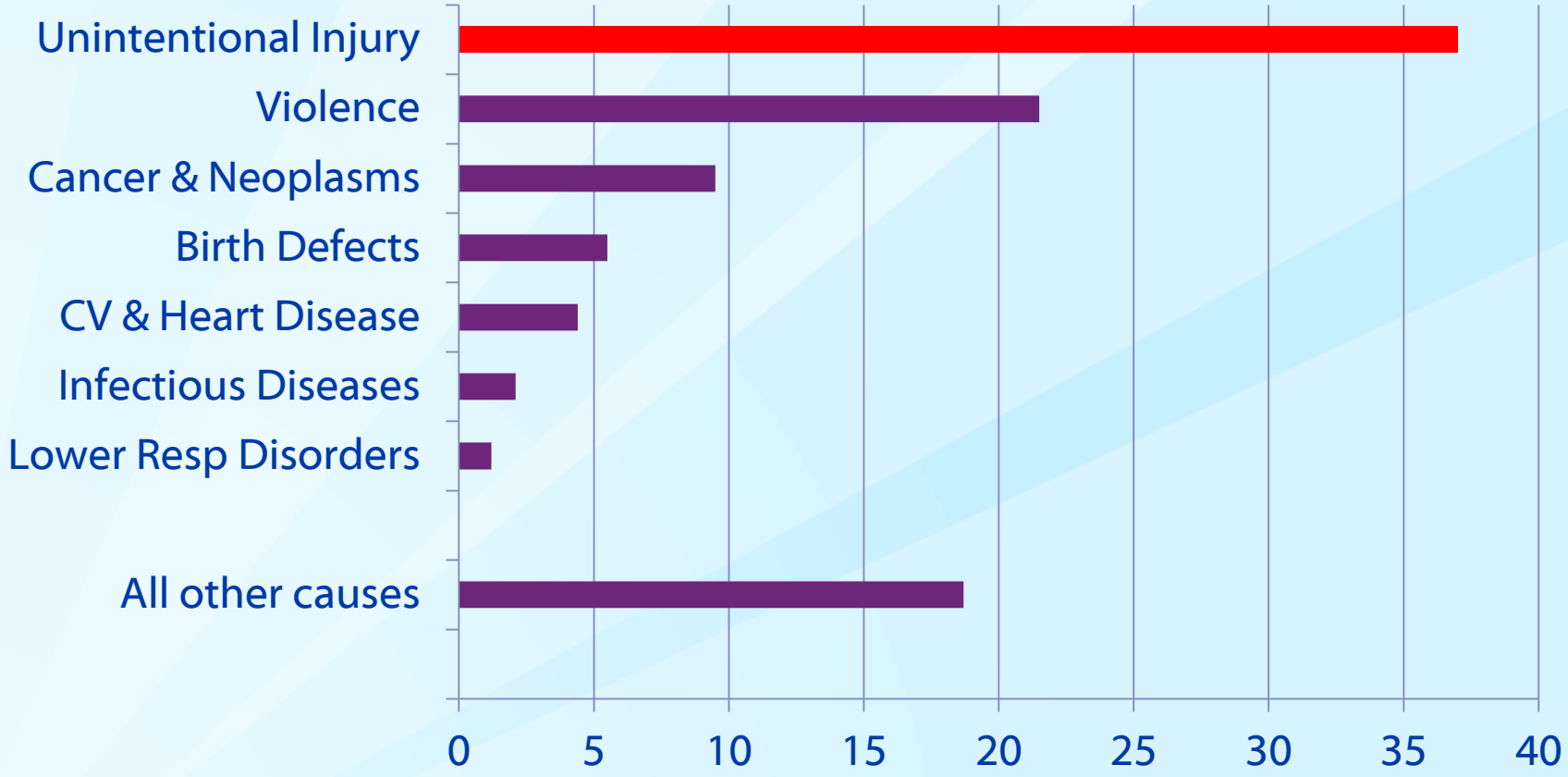
20 YEARS
Celebrating the past, protecting the future

Launching a Roadmap for Injury-Free Childhood – National Action Plan

Julie Gilchrist, MD
Medical Epidemiologist
National Center for Injury Prevention & Control
Centers for Disease Control & Prevention

September 10, 2013

Percent of All Deaths Among Children 1-19 Years



From: WISQARS 2010 data. Cancer includes benign neoplasms; Birth Defects includes other perinatal mortality and pregnancy complications; Infectious Diseases includes influenza, HIV, meningitis

INJURY

The #1 killer of children in the US

For every **1** child that dies there are...

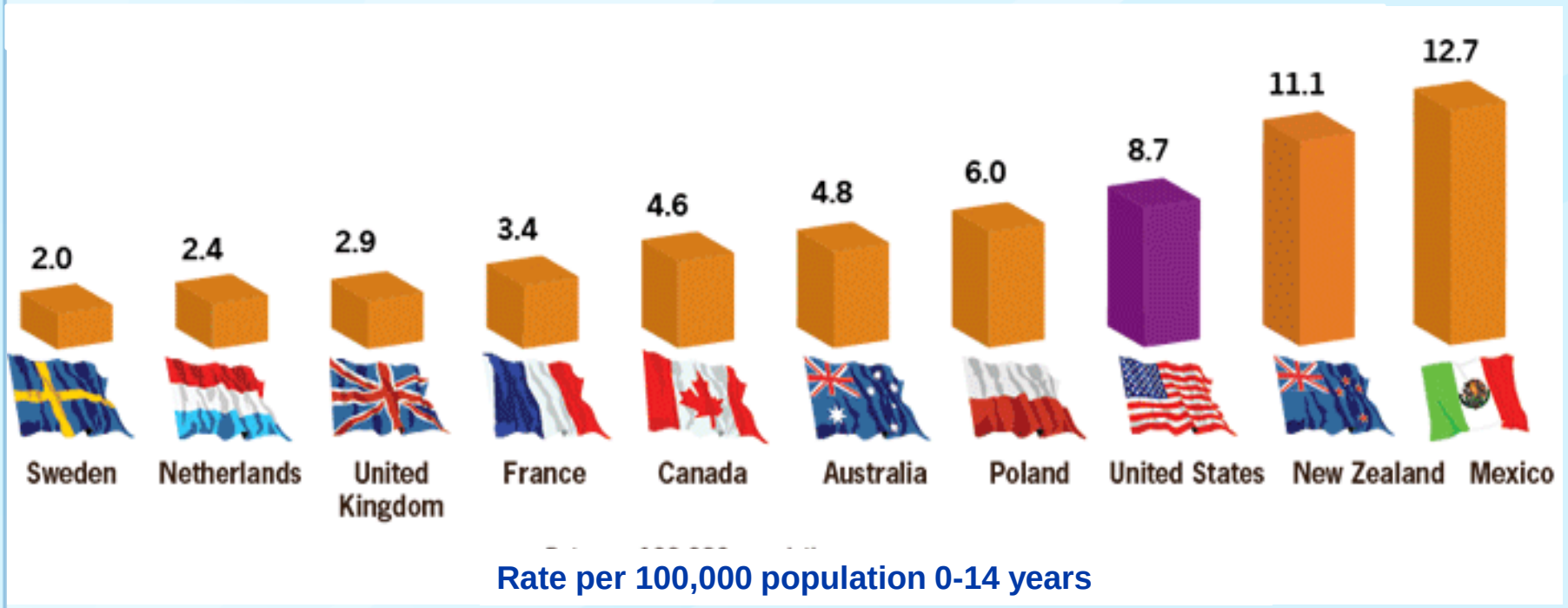
25 hospitalizations

925 treated in ER

Many more treated in doctors' offices

SOURCE: CDC Vital Signs, 2012

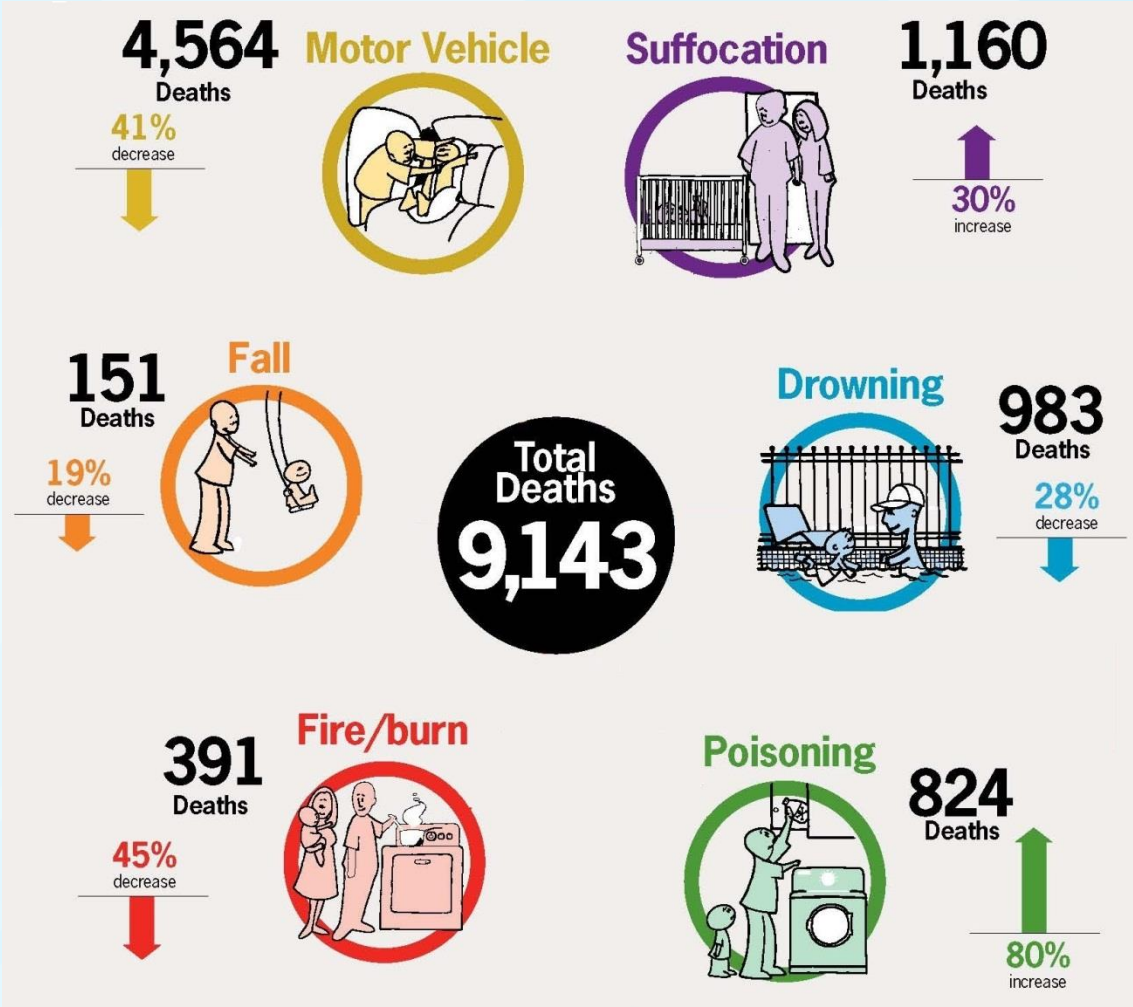
US Rates Poorly Compared with Others



Rate per 100,000 population 0-14 years

SOURCE: CDC Vital Signs, 2012

Unintentional Injury Deaths and Trends among U.S. Children 0-19 Years



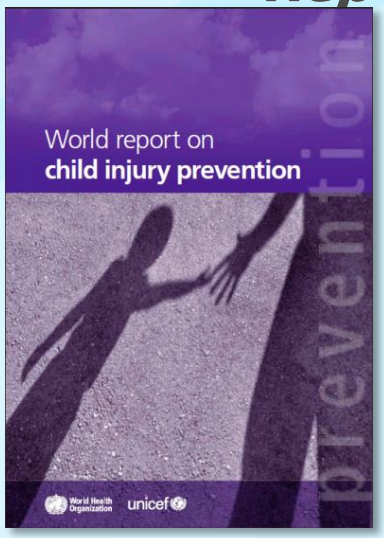
SOURCE: CDC Vital Signs, 2012; deaths – 2009, trends – 2000-2009

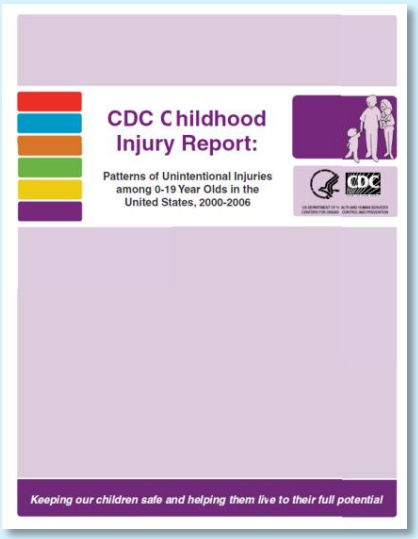
CDC's Role

- Identify and share tools and strategies
- Support organizations and individuals in their implementation

Protect the Ones You Love

World Report on Child Injury Prevention & CDC Childhood Injury Report





National Action Plan for Child Injury Prevention

- Raise awareness
- Highlight prevention solutions
- Mobilize action

A Framework for Action

- Data & Surveillance
- Research
- Communication
- Education & Training
- Health Systems & Health Care
- Policy

DATA AND SURVEILLANCE

Improve Existing Data Collection Systems

- Improve data quality (completeness and validity), use cause-codes to better understand the circumstances surrounding injuries
- Enhance collaboration among key agencies and organizations that collect data; a more comprehensive understanding of child injuries can inform program and policy decisions
- Standardize data collection and reporting of key data systems such as child death reviews. Can be used to inform decision making about interventions

Upgrade/Enhance Systems to Address Gaps

- Add additional injury questions or modules into existing national and state surveillance systems
- Collect true economic costs and long-term disability
- Collect information on circumstances (e.g., activity, protective equipment)
- Assess data needs for states, local communities, and underrepresented populations, and develop strategies to address such needs
- Improve links among databases through sharing information, improving and sharing linking algorithms and approaches, and supporting the development of new technologies

Improve Access to Data

- Use stakeholder input to understand data access barriers
- Assess and address barriers for timeliness of data release/availability
- Develop online access systems for key databases; systems should include enhanced functionality to query, analyze, and display data
- Encourage sharing designs, protocols, procedures, software, and programs for data access systems
- Develop and maintain a central, Web-based clearinghouse for key population-based databases

Improve Analysis, Interpretation, and Dissemination of Surveillance Data

- Build capacity by training local public health practitioners and agencies to conduct analysis and interpret results
- Develop plans for regular analysis and reports of key surveillance data
- Tailor data reports for specific audiences and develop dissemination strategies for key decision makers
- Support the use of local data, such as data from local hospital systems, to evaluate local prevention efforts

IMPLEMENTATION

NAP Implementation Projects

- Funded nine pilot projects
- Test the feasibility of implementing specific actions in the NAP
- Identify potential next steps and new avenues

“Knowing is not enough; we must apply. Willing is not enough; we must do.”
~Goethe

For more information please contact Centers for Disease Control and Prevention

1600 Clifton Road NE, Atlanta, GA 30333
Telephone: 1-800-CDC-INFO (232-4636)/TTY: 1-888-232-6348
E-mail: cdcinfo@cdc.gov Web: http://www.cdc.gov

National Center for Injury Prevention and Control
Division of Unintentional Injury Prevention

Presenter

George Bahouth, PhD

CSN Economics, Data and Research Center

PIRE

Resources & Tools to Understand National, State and Local Level Child Injury Data

George Bahouth, D.Sc., Director
CSN, Economic & Data Analysis Resource Center
Pacific Institute for Research & Evaluation
September 10, 2013

Funded by Health Resources and Services Administration's, Maternal and Child Health Bureau, US Department of Health and Human Services

Presentation Overview

- NAP- Data and Surveillance
  - Improve existing data collection systems
  - Upgrade and enhance systems to address gaps in data
  - Improve access to data
  - Improve analysis, interpretation and dissemination of surveillance data
- Data resources and tools
- Local data- challenges and opportunities

Children's Safety Network- Annual State Fact Sheets

- Mortality Data

Major Causes of Injury Death

Table 2. Leading Causes and Total 5-Year Incidence of Injury Deaths by Age Group, Illinois, 2006-2010

	Age Groups					
Rank	<1	1 - 4	5 - 9	10 - 14	15-19	20-24
1	Suffocation 245	Homicide 80	MV Traffic 63	MV Traffic 92	Homicide 669	Homicide 913
2	Homicide 85	Drowning 56	Homicide 41	Homicide 65	MV Traffic 609	MV Traffic 752
3	MV Traffic 21	MV Traffic 51	Fire/Burn 30	Suicide 41	Suicide 294	Poisoning 561
4	Undetermined Suffocation 15	Fire/Burn 47	Drowning 19	Drowning 25	Poisoning 164	Suicide 419
5	Fire/Burn ****	Suffocation 34	Suffocation ****	Suffocation 18	Drowning 39	Drowning 42

Source: CDC WISQARS Fatal Injury Reports 2006-2010

NCHS Multiple Cause of Death File

State Fact Sheets- Hospital Admitted Injuries

- Incidence and Costs derived from hospital discharge data

Table 4: Leading Causes and Total Medical Cost in Thousands ($1,000) for Hospital-Admitted Injuries by Age Group, Illinois Residents, 2010

	Age Groups					
Rank	<1	1 - 4	5 - 9	10 - 14	15-19	20-24
1	Fall $2,497	Fall $3,982	Fall $3,632	Fall $4,445	MV Traffic $19,464	MV Traffic $20,869
2	Assault $1,502	Hot Object/ Substance $3,144	Pedestrian $1,537	Struck By/ Against $2,526	Assault $13,534	Assault $13,877
3	Suffocation $1,397	Assault $1,519	MV Traffic $1,472	Pedestrian $2,067	Fall $7,210	Fall $9,859
4	Hot Object/ Substance $1,093	Other Specified, NEC $1,215	Hot Object/ Substance $1,049	Assault $1,931	Self-inflicted $8,760	Self-inflicted $6,736
5	Unspecified $1,006	Unspecified $958	Struck By/ Against $1,028	MV Traffic $1,668	Firearm $3,308	Pedestrian $4,354

Note: MV = Motor Vehicle. NEC = Not Elsewhere Classifiable. Source: Children's Safety Network Economics and Data Analysis Resource Center (CSN EDARC), at Pacific Institute for Research and Evaluation (PIRE), Calverton, MD, January 2013. Incidence based on 2010 data from the state and obtained from the XYZ State Inpatient Databases (SID), Healthcare Cost and Utilization Project (HCUP), Agency for Healthcare Research and Quality (AHRQ). Costs presented are medical costs in thousands. These injuries exclude patients who were dead at the time of discharge, readmission cases, transfers (e.g., from another short or long-term care facility, different acute care hospital), medical misadventures, and/or who suffered non-acute injuries. All counts were based on the patients' state of residence.

Source: Healthcare Cost and Utilization Project, State Inpatient Database (HCUP SID) 2010

State Fact Sheets-
National Performance Measures

Figure 1: Rate of Deaths Caused by Motor Vehicle Crashes, Children Aged 0 through 14, Illinois and US, 2006-2010

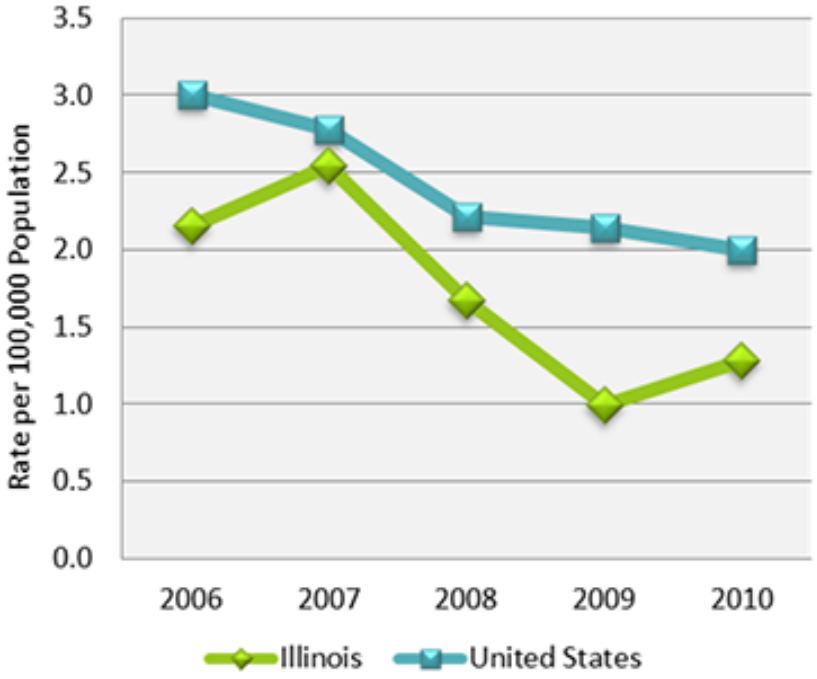
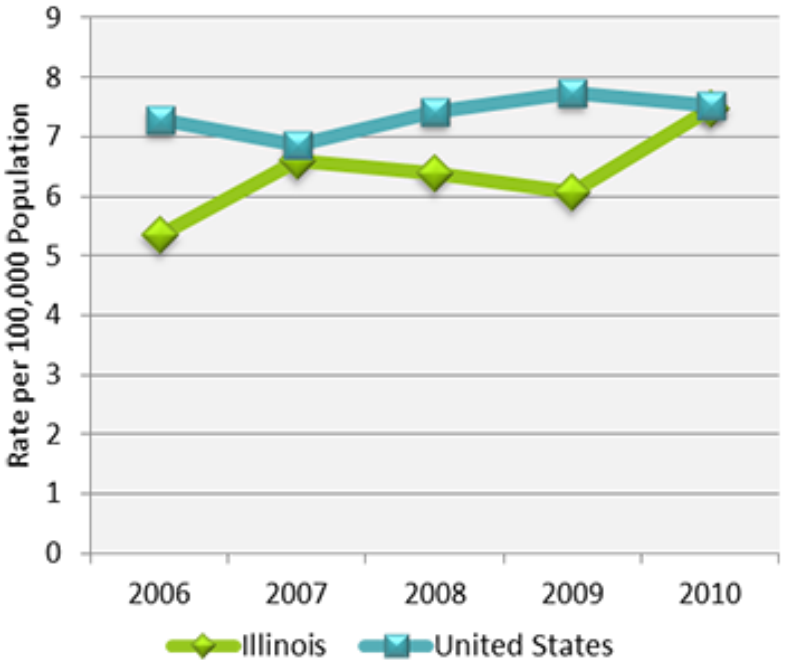


Figure 6: Rate of Suicide Deaths, Youths Aged 15 through 19, Illinois and US, 2006-2010



State Fact Sheet Data Sources

State Fact Sheets Figure & Table Source Data

Table 1 Source: **WISQARS Leading Causes of Death Reports, 2006-2010**
Table 2 Source: National Center for Health Statistics, Multiple Cause of Death Data, 2006-2010
Table 3 Source: Children's Safety Network Economics and Data Analysis Resource Center (CSN EDARC), at Pacific Institute for Research and Evaluation (PIRE), Calverton, MD, January 2013.
Table 4 Source: Children's Safety Network Economics and Data Analysis Resource Center (CSN EDARC), at Pacific Institute for Research and Evaluation (PIRE), Calverton, MD, January 2013.
Figure 1 Source: **WISQARS Fatal Injury Reports, 2006-2010 and WISQARS Injury Mortality Reports, 2003-2007**
Figure 2 Source: **WISQARS Fatal Injury Reports, 2006-2010 and WISQARS Injury Mortality Reports, 2003-2007**
Figure 3 Source: **WISQARS Injury Mortality Reports, 2006-2010**
Figure 4 Source: **WISQARS Fatal Injury Reports, 2006-2010 and WISQARS Injury Mortality Reports, 2003-2007**
Figure 5 Source: **CDC WONDER Multiple Cause of Death data, 2006-2010 and Urban-Rural Definition Classification System**
The classification scheme can be found at: **http://wonder.cdc.gov/wonder/help/CMF/Urbanization-Methodology.html**. 2006 NCHS Urban-Rural Classification Scheme for Counties, by Deborah D. Ingram and Sheila Franco.
Figure 6 Source: **WISQARS Fatal Injury Reports, 2006-2010 and WISQARS Injury Mortality Reports, 2003-2007**
Figure 7 Source: **WISQARS Fatal Injury Reports, 2006-2010 and WISQARS Injury Mortality Reports, 2003-2007**
Figures 8 & 9 Source: **Youth Online: High School Youth Risk Behavior Survey (YRBS), 2003-2011**
Figure 10 Source: **WISQARS Injury Mortality Reports, 2006-2010 and WISQARS Injury Mortality Reports, 2003-2007**
Figure 11 Source: **WISQARS Fatal Injury Reports, 2006-2010 and WISQARS Injury Mortality Reports, 2003-2007**
Figure 12 Source: **CDC WONDER Multiple Cause of Death data, 2006-2010 and Urban-Rural Definition Classification System**
Figures 13 & 14 Source: **HRSA, Title V Information System Multi-Year Report**. Some states may have changed their method of calculation.

CSN Resources- State Injury Facts

Census of hospital admitted cases in Illinois

Source: 2009 IL State Inpatient Database (HCUP SID)

Children's Safety Network
National Injury and Violence Prevention Resource Center

Incidence and Rates (per 100,000) of Hospital-Admitted Injuries by Intent, Mechanism, and Age
Illinois, 2009

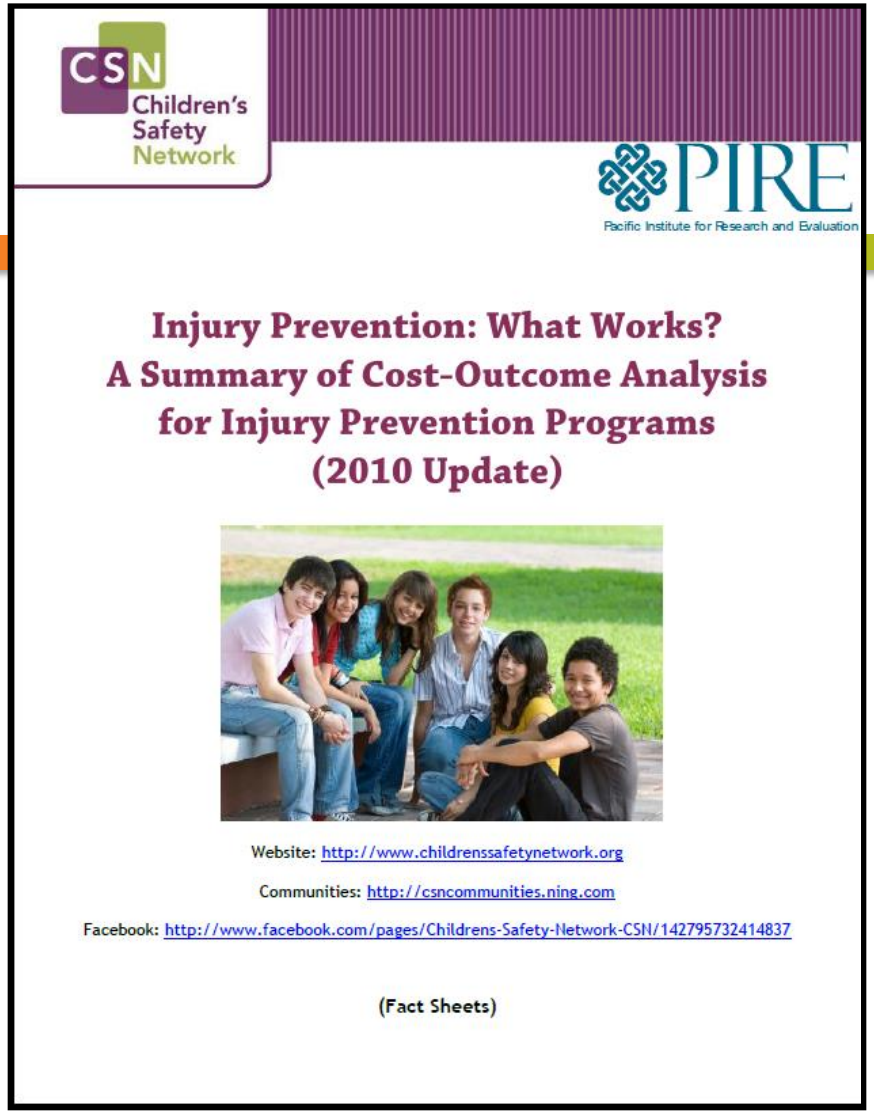
										All Ages	
Intent/Mechanism	**<1**	**1-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-44**	**45-64**	**65+**	**Total**	**Rate**
Total Incidence	**535**	**1,194**	**998**	**1,596**	**4,503**	**4,622**	**17,202**	**22,963**	**42,924**	**96,538**	**747.8**
Unintentional	**398**	**1,002**	**852**	**1,020**	**1,946**	**2,155**	**9,279**	**15,888**	**35,173**	**67,714**	**524.5**
Cut/Pierce	****		23	27	53	74	244	220	106	763	5.9
Drowning	****	16	****	****	****	****	****	****	****	52	0.4
Fall	181	338	296	324	360	397	2,684	7,969	28,583	41,132	318.6
Fire/Burn	45	133	41	42	37	34	228	282	188	1,030	8.0
Fire/Flame	****	****	*11*	*15*	*13*	*15*	*101*	*109*	*76*	*348*	*2.7*
Hot Object/Substance			*30*	*27*	*24*	*19*	*127*	*173*	*112*	*682*	*5.3*
Firearm	0	****	****	11	98	60	148	19	****	344	2.7
Machinery	0	****	****	****	11	29	137	149	41	378	2.9
Motor Vehicle Traffic	15	78	133	149	591	771	2,139	1,946	1,070	6,892	53.4
Occupant	*14*	*41*	*57*	*51*	*448*	*574*	*1,337*	*1,118*	*834*	*4,474*	*34.7*
Motorcyclist	*0*	****	****	****	*36*	*76*	*407*	*376*	*50*	*961*	*7.4*
Pedal Cyclist	*0*	****	*21*	*16*	*23*	****	*61*	*77*	*16*	*226*	*1.8*
Pedestrian	****		*50*	*62*	*61*	*82*	*230*	*277*	*113*	*908*	*7.0*
Unspecified	*0*	*0*	*0*	****		*24*	*91*	*85*	*52*	*275*	*2.1*
Other	*0*	****	****	****	****	****	*13*	*13*	****	*48*	*0.4*
Pedal Cyclist, Other	0	****	54	74	38		116	235	77	634	4.9
Pedestrian, Other	0	****	****	****	****	****	25	28	21	96	0.7
Transport, Other	0	****		58	103	76	312	291	185	1,060	8.2
Bites and Stings	****	96	77		62	66	319	459	269	1,406	10.9
Other Natural/Environmental	****	13	****	****	12	27	103	232	218	632	4.9
Overexertion	****	****	****	24	42	49	263	310	388	1,086	8.4
Poisoning	17	123	20	29	204	235	1,310	1,762	944	4,644	36.0
Struck By/Against	17	60	72	138	195	117	384	426	511	1,921	14.9
Suffocation	19	20	12	****	****	13	49	118	267	504	3.9
Other	83	83	64	69	131	172	811	1,433	2,294	5,140	39.8
Self-Inflicted	**0**	**0**	****	**280**	**1,318**	**1,115**	**3,538**	**2,045**		**8,621**	**66.8**
Cut/Pierce	0	0	0	119	290	188	467	203	42	1,309	10.1
Firearm	0	0	0	0	****	****	****	****	****	31	0.2
Poisoning	0	0	0	138	933	851	2,893	1,741	251	6,807	52.7
Suffocation	0	0	0	****					****	123	1.0
Other	0	0	****		75	45	121	71	21	351	2.7
Assault	**58**	**50**	**21**	**92**	**678**	**725**	**1,602**	**814**	**125**	**4,165**	**32.3**
Cut/Pierce	0	****	****	****	120	122	304	110	****	670	5.2
Firearm	****	****	****		275	268	385	58	****	1,018	7.9
Struck By/Against	****	****	****	46	203	225	624	423	40	1,570	12.2
Other	55	40	16	21	80	110	289	223	73	907	7.0
Undetermined	**19**	**16**	****	**17**	**121**	**160**	**721**	**720**	**137**	**1,915**	**14.8**
Poisoning	****	****	****		98	131	663	685	118	1,720	13.3
Other		****	****	****	23	29	58	35	19	195	1.5
Legal/Military	**0**	**0**	**0**	**0**	****	****	**27**	**14**	**0**	**55**	**0.4**
Unspecified	**60**	**126**	**116**	**187**	**435**	**458**	**2,035**	**3,482**	**7,169**	**14,068**	**109.0**
Population										12,910,409	

Source: Children's Safety Network Economics and Data Analysis Resource Center (CSN EDARC) at the Pacific Institute for Research and Evaluation (PIRE), Calverton, MD, September 2013. Incidence based on 2009 data from the state and obtained from the Illinois State Inpatient Databases (SID), Healthcare Cost and Utilization Project (HCUP), Agency for Healthcare Research and Quality (AHRQ). These injuries exclude patients who were dead at the time of discharge, readmission cases, transfers (e.g., from another short or long-term care facility), medical misadventures, and/or who suffered non-acute injuries. All counts were based upon the patients' state of residence and observation stays are included in these data. Population statistics (All ages): U.S. Census Bureau, Population Division [USCBPD] (2009, December). Table 1. Annual Estimates of the Resident Population for the United States, Regions, States, and Puerto Rico: April 1, 2000 to July 1, 2009 (NST-EST2009-01. Retrieved from: http://www.census.gov/popest/data/state/totals/2009/tables/NST-EST2009-01.xls. Note. **** = indicates that the cell value ranges from 1-10 and is suppressed. Blank cells contain data that have been deleted to prevent the addition or subtraction of information in a given row or column that would compromise the value of a suppressed cell(s) (i.e., ****). Row and column totals that are in bold reflect the actual totals for a given incidence category. Row and/or column totals that are not bolded and include either a value of **** or a missing cell do not necessarily reflect the actual total for a given incidence category. Totals may not add due to rounding and/or cases with missing age data.

Suggested links: CSN EDARC: http://www.edarc.org CSN: http://www.childrenssafetynetwork.org/
PIRE: http://www.pire.org HCUP: http://www.hcup-us.ahrq.gov/home.jsp
AHRQ: http://www.ahrq.gov/

Injury Prevention: What Works?

- Motor Vehicle
- Impaired Driving
- Open-Flame/Burns
- Violence
- Substance Abuse
- Health Services



http://www.childrenssafetynetwork.org/publications/whatworks2012

Injury Prevention: What Works? Reports on 160 Interventions

	Youth	Adult	Youth & Adult	Total
Motor Vehicle	10	0	28	38
Impaired Driver	1	10	0	11
Open Flame/Burn	1	0	8	9
Violence	15	17	2	34
Other Injury	6	2	3	11
Substance Abuse	22	4	10	36
Tobacco	4	17	0	21
Total	59	50	51	160

Estimated cost savings by select child injury intervention- What Works?

Every Dollar Spent On	Saves Society
Childproof Cigarette Lighter	$72
Booster Seat	$71
Bicycle Helmet	$48
Child Safety Seat	$42
Zero Alcohol Tolerance, Driver Under 21*	$25
Smoke Alarm	$17
Pediatrician Counseling	$9
Poison Control Center	$7

Children's Safety Network. Injury prevention: what works? A summary of cost outcome analysis for injury prevention programs (2010 update) [online]. 2010. [cited 2011 Mar 1]. Available from URL: http://www.childrenssafetynetwork.org/publications_resources/PDF/data/Injury PreventionWhatWorks.pdf.

Data Sources

- US & some international published and unpublished studies from 1987-2010
  - Medline & Internet search
  - Bibliographic review
  - Contact with Federal agencies
- Excluded analyses of occupational, air, rail, & water transport safety programs

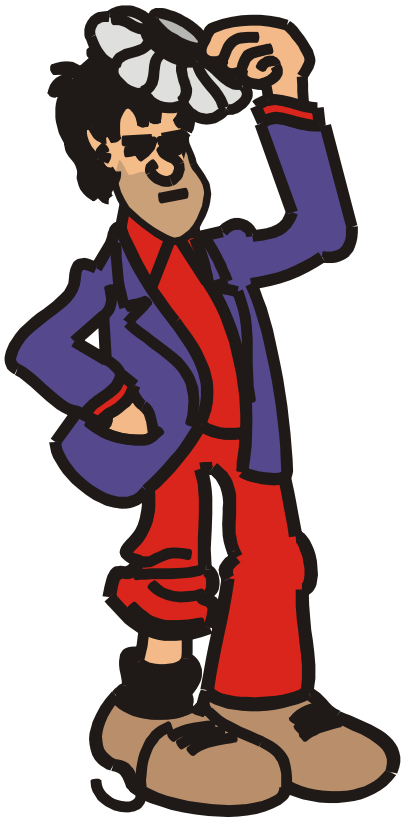
Definitions: Costs and Savings

- Cost per Unit: cost of the intervention for a single individual
- Total Benefits per Unit: the amount the intervention saved by preventing injuries & other problems
- **Aggregate Benefit/Unit = Total Benefits - Cost**
- Benefit Cost Ratio (BCR): savings from preventing injuries divided by cost of the intervention
- Cost-effective: the BCR > 1.0

  *Positive Return on investment if the intervention exceeds amount invested

Costs are estimated from a Perspective

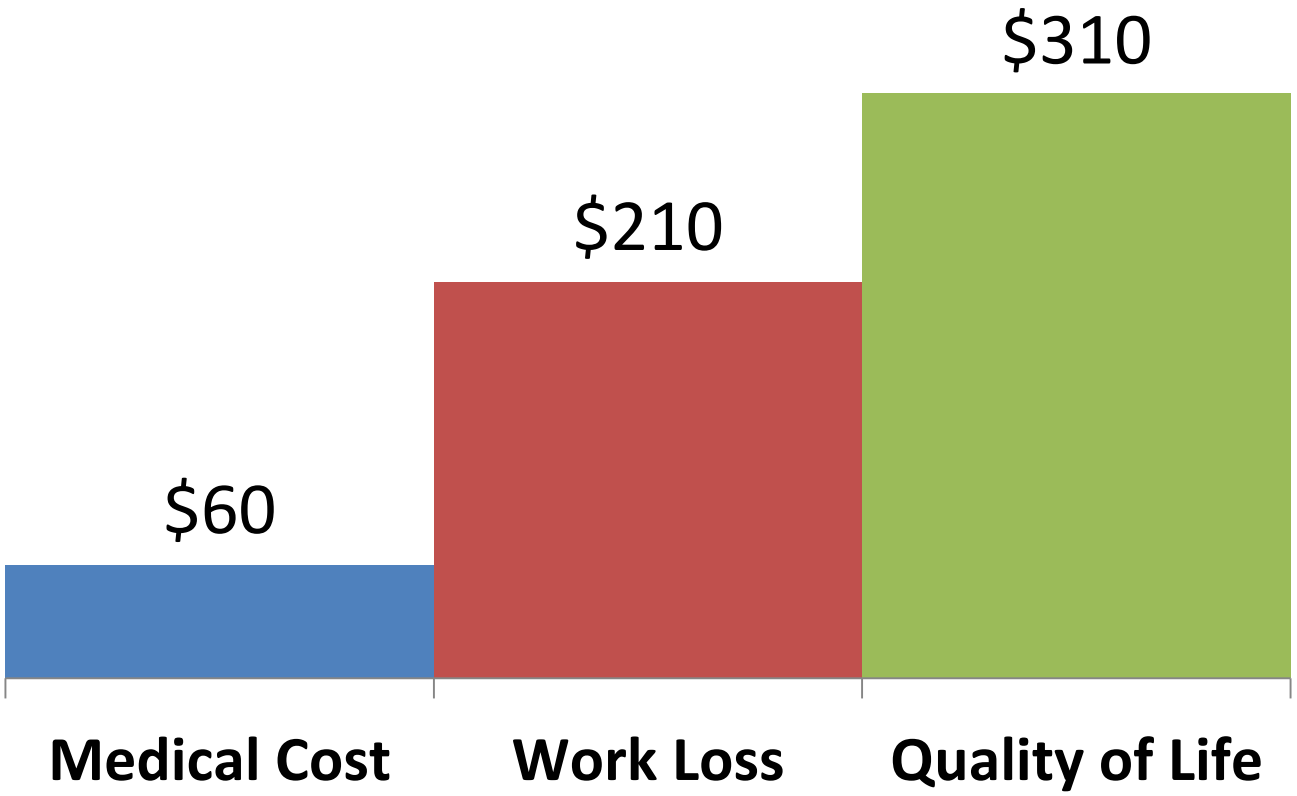
- Society
- Government
- Insurers
- Employers



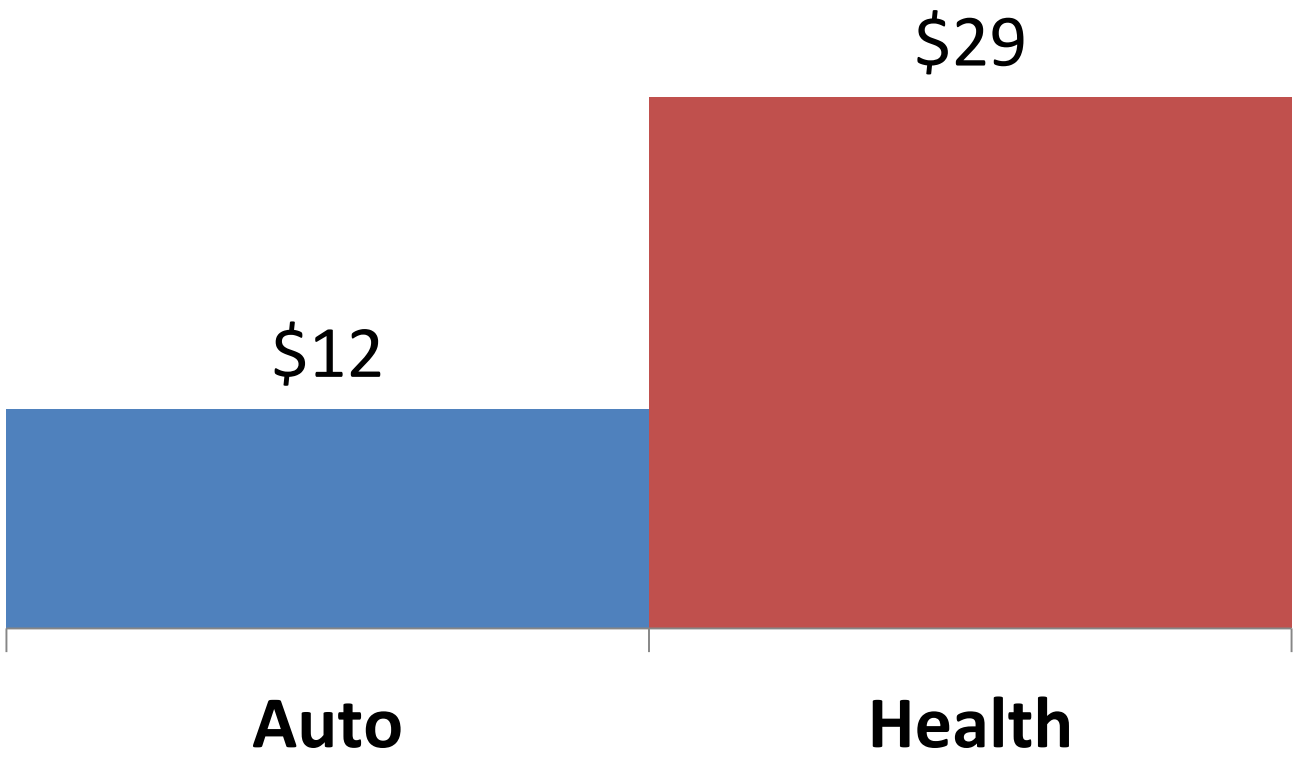
Burden Categories- ECONOMIC COSTS

- Medical & mental health
- Other resources/ Tangible
  - Emergency services
  - Victim services
  - Legal/court/jail
  - Insurer Admin Costs
  - Property damage
- Work loss (productivity)
  - Wage work
  - Household work
- Quality of Life

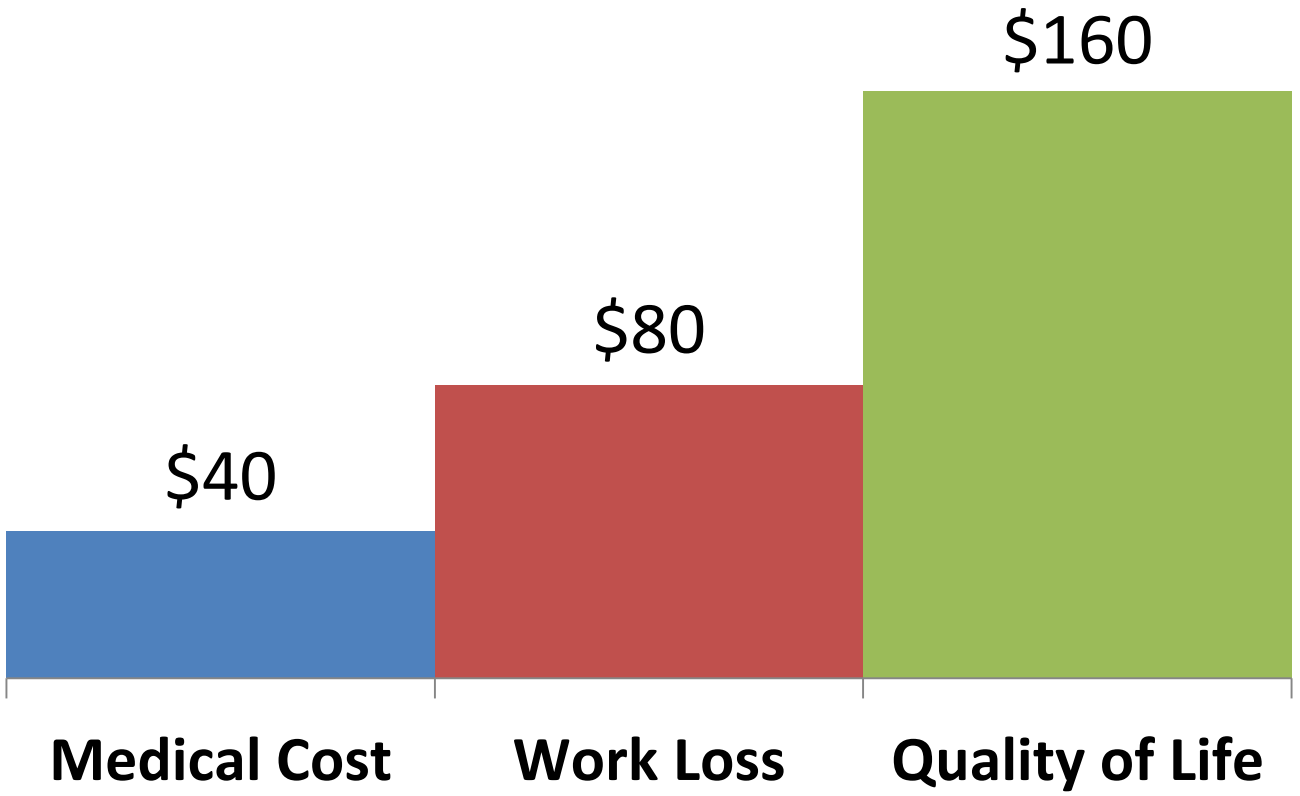
A $12 bike helmet for kids 0-4 saves $580 (BCR 48)



A $12 Bike Helmet for Kids 3-14 Saves Insurers $41



A $19 bike helmet for ages 15 & above saves $280 (BCR 16)



Injury Data Sources and Limitations

Some Data Sources are applicable for national level or state analysis

- CDC WISQARS- Mortality Data (state/regional)
- NEISS-AIP (national/regional)
- HCUP NIS (national/regional)
- NASS/GES (national)

Some data samples are designed to be representative of the national or regional picture and not counties or local jurisdictions

Other Injury Data Sources Available for County and Community Level Analysis

Data Examples

- CDC WONDER (http://wonder.cdc.gov)
- HCUP SID (http://hcupnet.ahrq.gov/)
- HCUP SEDD (http://hcupnet.ahrq.gov/)

Secondary data sources have limits including timeliness of data and limited identifiers

Local Partnerships

- Collaboration with Local and State Partners
- Schools
- Local Hospitals, Trauma Centers
- Health Plans
- Community Programs

Other Data Sources Available for City and Community Level Analysis- FARS

- Fatality Analysis Reporting System (FARS) – NHTSA
  - Census of crash involved fatalities on US roads
  - 120+ Accident, Vehicle and Person Attributes Coded

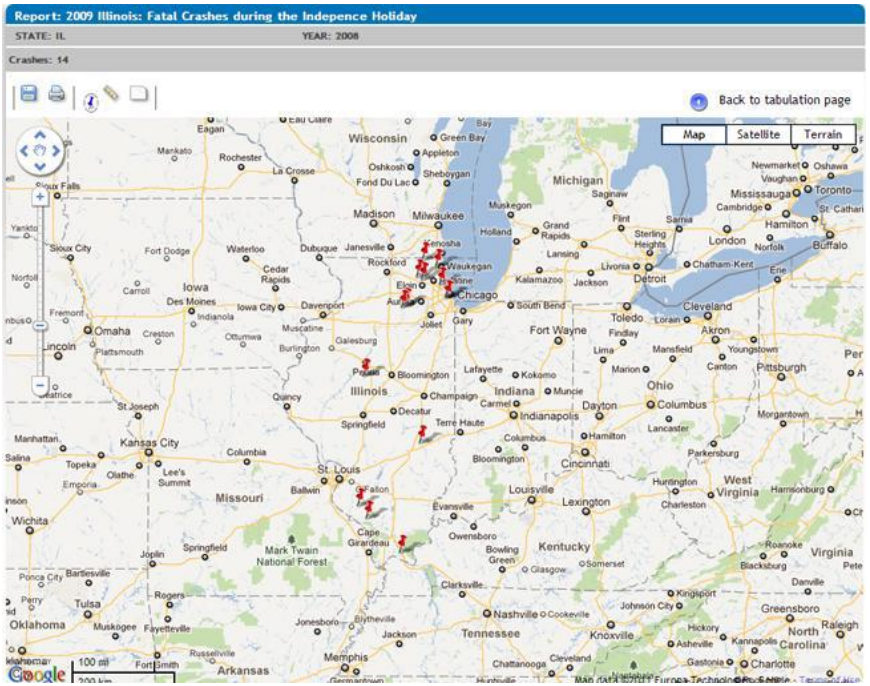
Report: 2009 Illinois: Fatal Crashes during the Indepence Holiday

Map It!

OUTPUT OPTIONS: EXPORT (TXT) EXPORT (XLS)

Obs.	State	Case Number	County	Crash Hour	Day Of Week	First Harmful Event
1	17	400	35	21	7	34
2	17	402	179	1	1	34
3	17	404	127	23	6	32
4	17	450	31	18	5	12
5	17	461	93	22	6	12
6	17	462	99	2	6	42
7	17	465	77	19	6	30
8	17	466	97	0	7	42
9	17	467	97	12	7	12
10	17	468	157	22	1	34
11	17	470	31	0	2	30
12	17	482	31	6	1	29
13	17	514	31	19	5	12
14	17	629	89	13	7	8

- GPS Coordinates Available
- Online GIS Viewer



Data Sources Available for City and Community Level Analysis- YRBS

- Youth Risk Behavior Survey (YRBS) provides data on health-risk behaviors among 9th–12th grade students in the United States
- Collected every 2 years (2011 most recent)
- Comparisons between 43 states, 21 Districts and national level data are possible

States*				
Alabama	Alaska	Arizona	Arkansas	Colorado
Connecticut	Delaware	Florida	Georgia	Hawaii
Idaho	Illinois	Indiana	Iowa	Kansas
Kentucky	Louisiana	Maine	Maryland	Massachusetts
Michigan	Mississippi	Montana	Nebraska	New Hampshire
New Jersey	New Mexico	New York	North Carolina	North Dakota
Ohio	Oklahoma	Rhode Island	South Carolina	South Dakota
Tennessee	Texas	Utah	Vermont	Virginia
West Virginia	Wisconsin	Wyoming		

Districts*	
Boston, MA	Broward County, FL
Charlotte-Mecklenburg, NC	Chicago, IL
Dallas, TX	Detroit, MI
District of Columbia	Duval County, FL
Houston, TX	Los Angeles, CA
Memphis, TN	Miami-Dade County, FL
Milwaukee, WI	New York City, NY
Orange County, FL	Palm Beach County, FL
Philadelphia, PA	San Bernardino, CA
San Diego, CA	San Francisco, CA
Seattle, WA	

YRBS Health Risk Behaviors

- Alcohol Use
- Behaviors that Contribute to Unintentional Injury
- Behaviors that Contribute to Violence
- Behaviors that Contribute to Violence on School Property
- Marijuana, Cocaine, and Other Illegal Drug Use
- Obesity, Dietary Behaviors and Weight Control Practices
- Physical Activity
- Sexual Behaviors and HIV Testing
- Suicide-Related Behaviors
- Tobacco, Alcohol, and Illegal Drug Use on School Property
- Tobacco Use

Children's Safety Network
National Injury and Violence Prevention Resource Center

Contact Information

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Presenter

Leslie Ray

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San Diego County Health and Human Services Agency

BUILD A LOCAL LEVEL INJURY SURVEILLANCE SYSTEM USING EXISTING RESOURCES

Leslie Ray, MPH, MPPA, MA
Senior Epidemiologist
County of San Diego
Health and Human Services Agency

COUNTY OF SAN DIEGO HHSA HEALTH AND HUMAN SERVICES AGENCY

LIVE WELL SAN DIEGO

YES, IT CAN BE DONE…

- Community demand for accessible, reliable and routinely collected data for grants, prevention efforts, prioritization and evaluations
- San Diego County EMS began developing an Injury Surveillance System fifteen years ago that evolved into the Community Profiles
  - Expanded to include chronic disease, infectious disease, maternal and child health, behavioral health (mental health, substance abuse)
  - Also includes demographic data and survey data on risk behaviors
  - Everything is mapped by community
  - SAME basic data sources for all disease/injury data

www.sdhealthstatistics.com

COUNTY OF SAN DIEGO HHSA HEALTH AND HUMAN SERVICES AGENCY

LIVE WELL SAN DIEGO

Pedestrian Injury† Emergency Department Discharge due to Motor Vehicle Accidents on Public Roads Among San Diego County Residents by Location of Residence, 2010 Detail

Geography	2010 Total		Gender				Race/Ethnicity										Age Group									
			Male		Female		White		Black		Hispanic		API‡		Other‡		Ages 0-14		Ages 15-24		Ages 25-44		Ages 45-64		Ages 65+	
	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*
San Diego County (Actual Rate)	875	28.3	483	31.1	392	25.4	382	25.5	88	60.0	324	32.7	43	12.6	23	19.9	143	24.0	221	44.6	257	28.8	181	23.8	73	20.8
San Diego County (Age-Adjusted Rate)	875	27.9																								
Central Region	208	42.9	124	50.1	84	35.5	58	40.4	48	84.7	81	39.6	12	18.8	6	37.8	35	39.0	45	54.1	83	39.0	50	46.9	15	34.7
Central San Diego	86	51.9	56	61.9	30	40.0	38	46.2	16	139.3	26	45.1	<5	§	<5	§	8	41.3	14	60.9	30	43.0	28	73.8	6	38.6
Mid-City	64	39.3	35	43.1	29	35.4	13	28.0	19	98.4	21	30.7	6	25.5	<5	§	9	26.6	10	54.1	21	41.7	12	36.6	<5	§
Southeast San Diego	50	37.2	33	43.4	25	31.3	7	47.0	13	50.2	34	43.4	<5	§	<5	§	18	49.1	13	48.4	12	29.0	10	27.8	5	33.4
East Region	126	27.2	72	31.6	54	23.0	78	27.9	11	41.4	33	28.5	<5	§	<5	§	20	22.2	38	55.5	32	26.4	22	17.3	14	25.0
Alpine	5	33.3	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§
El Cajon	28	22.5	14	23.0	14	22.0	22	29.9	<5	§	5	15.1	<5	§	<5	§	6	23.5	10	50.9	6	18.2	<5	§	<5	§
Harbison Crest/El Cajon**	44	31.6	20	29.3	24	33.8	32	37.5	<5	§	9	25.5	<5	§	<5	§	9	32.4	13	60.4	14	39.1	<5	§	<5	§
Jamul	8	42.2	<5	36.7	<5	§	6	57.2	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§
La Mesa	18	30.5	11	39.0	7	22.6	10	27.0	<5	§	6	50.6	<5	§	<5	§	<5	§	6	71.1	6	35.1	<5	§	<5	§
Laguna-Pine Valley	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§
Lakeside	9	16.1	6	21.7	<5	§	7	17.1	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§
Lemon Grove	5	16.8	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§
Mountain Empire	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§
Santee	15	29.3	9	36.3	6	22.7	14	36.9	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	7	50.5	<5	§	<5	§
Spring Valley	20	24.7	14	35.5	6	14.4	5	13.1	<5	§	10	38.4	<5	§	<5	§	5	29.6	10	82.7	<5	§	<5	§	<5	§
North Central Region	145	24.0	72	23.6	73	24.5	87	23.8	10	53.3	27	31.5	13	12.0	7	26.8	13	13.7	42	40.9	48	25.0	26	18.2	16	22.3
Coastal	25	33.2	10	25.7	15	41.1	15	24.7	<5	§	<5	§	6	181.9	<5	§	<5	§	9	80.8	8	28.9	<5	§	<5	§
Del Mar-Mira Mesa	22	14.0	10	12.6	12	15.3	9	11.8	<5	§	<5	§	<5	§	<5	§	<5	§	7	36.3	6	12.6	5	11.2	<5	§
Elliott-Navajo	16	18.0	7	16.2	9	19.6	13	21.6	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	5	22.2	5	37.6
Kearny Mesa	53	35.1	33	43.8	20	26.4	27	32.0	<5	§	18	53.8	<5	§	<5	§	6	25.8	17	72.2	18	36.2	9	25.3	<5	§
Miramar	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§
Peninsula	17	27.0	8	23.4	9	31.3	16	33.4	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	11	52.3	<5	§	<5	§
University	12	19.1	<5	§	8	25.3	7	21.3	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§
North Coastal Region	119	23.5	61	23.7	58	23.4	57	19.1	7	48.2	44	30.6	5	16.6	<5	§	18	17.8	27	32.3	31	22.7	31	24.8	12	20.1
Carlsbad	8	7.0	5	9.0	<5	§	8	9.5	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§
Oceanside	54	33.8	30	37.9	24	29.8	25	33.7	<5	§	21	35.1	<5	§	<5	§	7	21.8	11	43.4	17	38.1	15	38.3	<5	§
Pendleton	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§
San Dieguito	20	21.4	10	21.7	10	21.0	13	17.7	<5	§	5	39.9	<5	§	<5	§	<5	§	<5	§	6	24.3	8	27.3	<5	§
Vista	36	35.8	15	29.6	21	42.2	10	22.8	<5	§	18	38.6	<5	§	<5	§	10	46.9	12	71.6	5	17.4	6	25.5	<5	§
North Inland Region	118	20.7	73	26.0	45	15.6	59	18.7	<5	§	46	28.0	<5	§	<5	§	30	25.1	30	38.9	37	24.9	14	9.2	7	9.7
Anza-Borrego Springs	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§
Escondido	59	36.2	33	40.8	26	31.6	26	36.6	<5	§	28	57.8	<5	§	<5	§	18	49.7	12	46.8	21	46.4	6	15.6	<5	§
Fallbrook	16	33.8	13	55.2	<5	§	8	29.3	<5	§	8	46.4	<5	§	<5	§	5	56.6	<5	§	<5	§	<5	§	<5	§
North San Diego	10	9.4	5	9.7	5	9.1	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§
Palomar-Julian	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§
Pauma	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§
Poway	9	10.4	5	11.9	<5	§	6	10.4	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§
Ramona	9	25.8	5	28.5	<5	§	7	28.2	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	5	63.0	<5	§	<5	§
San Marcos	6	6.7	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§
Valley Center	6	25.7	5	42.7	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§
South Region	138	29.5	65	27.8	73	31.1	29	29.6	7	35.5	89	32.0	9	15.1	<5	§	26	25.7	36	44.6	38	28.8	30	28.3	8	16.5
Chula Vista	62	53.8	29	52.2	33	55.3	17	79.6	<5	§	36	44.3	<5	§	<5	§	19	77.6	14	74.5	13	42.0	13	49.1	<5	§
Coronado	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§
National City	18	30.9	8	26.7	10	35.3	<5	§	<5	§	12	32.3	<5	§	<5	§	<5	§	6	49.0	5	31.8	6	50.0	<5	§
South Bay	40	35.6	26	38.2	22	32.9	8	39.0	<5	§	36	38.9	<5	§	<5	§	5	16.9	13	54.4	17	44.8	10	32.7	<5	§
Sweetwater	8	5.9	<5	§	6	8.6	<5	§	<5	§	5	7.9	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§	<5	§
Unknown	21	—	16	—	5	—	14	—	<5	—	<5	—	<5	—	<5	—	<5	—	<5	—	8	—	8	—	<5	—

*Rates per 100,000 population. County age-adjusted rates per 100,000 2000 US standard population.

**Harbison Crest/El Cajon is an aggregation of the Harbison Crest and El Cajon SRAs. Due to geographic limitations, the Harbison Crest SRA is not shown alone. See the Data Guide for more information.

***Numbers may not add up to totals due to unknown or missing details.

†Pedestrian injury emergency department discharges refers to those involving Motor Vehicle Accidents occurring on public roads: primary ICD-9 Ecodes E810-E819(.7).

‡API includes Asian, Pacific Islander, Native Hawaiian. Other includes 2 or more races, Native American/Alaska Native, American Indian, or other.

§Rates not calculated for fewer than 5 events. Rates not calculated in cases where zip code is unknown.

Source: Emergency Department Discharge Database (CA OSHPD), County of San Diego, Health & Human Services Agency, Public Health Services, Emergency Medical Services; SANDAG, Current Population Estimates, 10/2012.

Prepared by: County of San Diego, Health & Human Services Agency, Public Health Services, Community Health Statistics Unit, 2013.

COMMUNITY HEALTH STATISTICS RESOURCES

Demographic Profile (2011 SANDAG Estimates)

	Number	Percent
Total Population	3,115,810	100.00%
Age Distribution		
0 to 4 Years	197,712	6.35%
5 to 14 Years	395,753	12.70%
15 to 24 Years	498,542	16.00%
25 to 44 Years	890,925	28.59%
45 to 64 Years	770,970	24.74%
65+ Years	361,908	11.62%
Gender Distribution		
Male	1,562,790	50.16%
Female	1,553,020	49.84%
Race/Ethnicity		
White	1,495,582	48.00%
Hispanic	1,010,784	32.44%
Black	142,905	4.59%
Asian/Pacific Islander*	348,724	11.19%
Other	117,815	3.78%

Poverty Estimates (2011 ACS)†

Income Percent of Poverty Level	
<50%	6.03%
50 - 74%	2.99%
75 - 99%	3.99%
100 - 124%	4.41%
125 - 149%	4.26%
150% - 199%	8.66%
200% +	69.65%
Percent Below Poverty Level	
Population	13.01%
Families	9.18%
Families With Children	13.54%

www.SDHealthStatistics.com

COUNTY OF SAN DIEGO HHSA HEALTH AND HUMAN SERVICES AGENCY

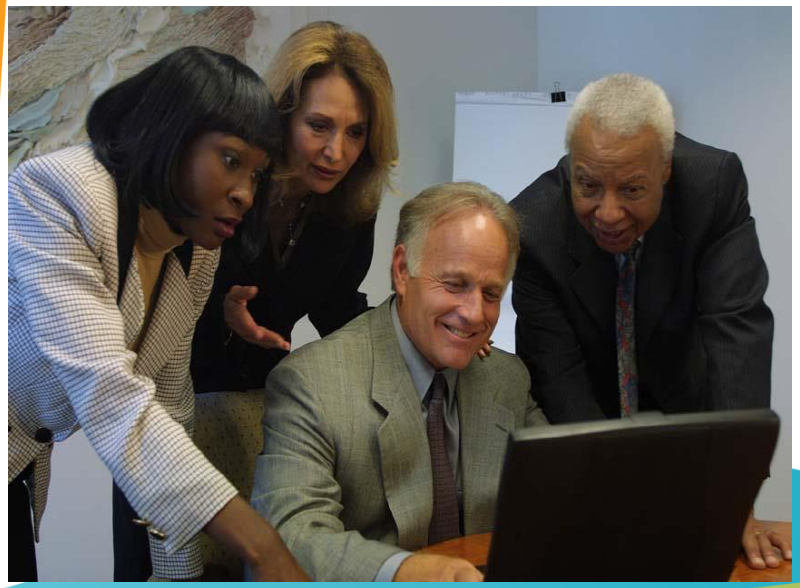
LIVE WELL SAN DIEGO

WHAT YOU NEED TO KNOW…

- There are challenges in accessing and using local data
  - Small numbers analysis
  - Statistical significance
  - Confidentiality
  - Understanding coding systems
- There are benefits to using local data for local action
  - Primary vs. secondary data collection
  - Local data does not necessarily mean primary collection
  - People identify with local data
  - Surveillance system design strategies
- You need internet access and some creativity!

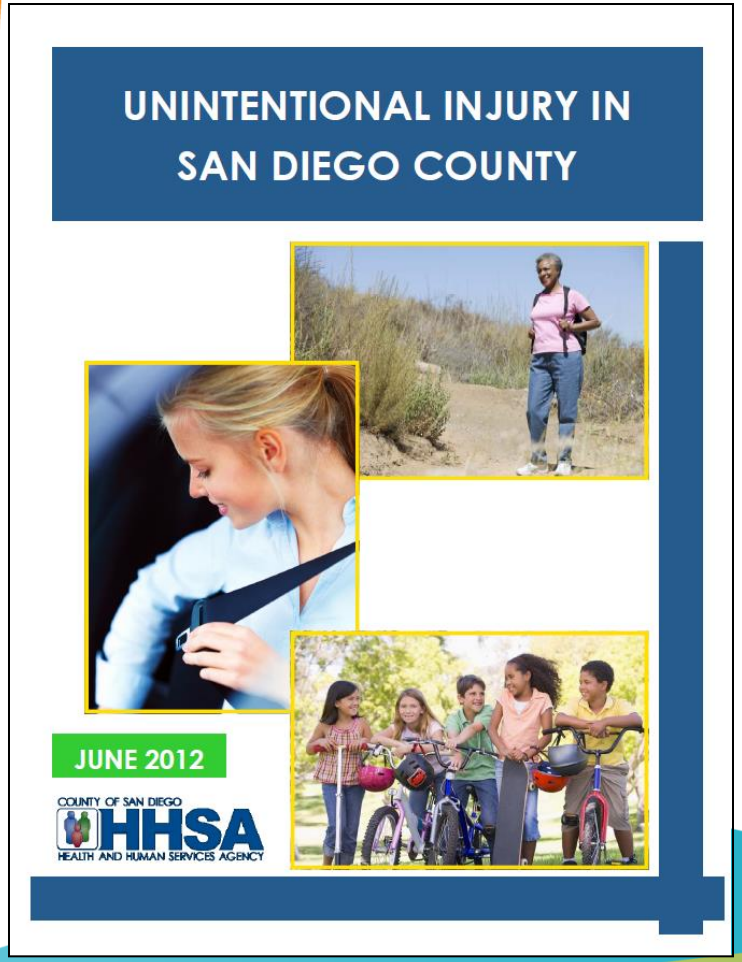
WHAT IS THE PURPOSE OF YOUR SYSTEM?

- Identify priorities?
- Change policies?
- Answer questions?



- Measure effectiveness of a prevention?
- Track trends?
- Save kids lives?

A WELL DESIGNED LOCAL SURVEILLANCE SYSTEM CAN BE THE SOURCE OF MULTIPLE INFORMATIONAL MATERIALS AND FACT SHEETS



- Analyze data once, repackage for individual audiences and different needs.
- Consistency in reporting numbers and rates.
- Trends!
- Health disparities are identified.

COUNTY OF SAN DIEGO HHSA HEALTH AND HUMAN SERVICES AGENCY

LIVE WELL SAN DIEGO

PRACTICALLY PRIMARY DATA SOURCES

Data you collect yourself, or collect locally such as trauma registry, EMS paramedic reports, child death reviews, special project or grant data, or one time surveys, that other jurisdictions do not collect in the same way.

- Pros
  - More timely or faster turnaround
  - Potentially more detail in text fields
  - May influence questions or fields collected
  - Opportunity to highlight prevention partners contributions
  - Access is often based on relationships

- Cons
  - Often preliminary, subject to change
  - Questions may change or data collection may not be repeated in future
  - Data collection may be dependent on funding
  - No state or national comparison data
  - Access is often based on relationships

SECONDARY DATA SOURCES

Data that is collected for another purpose, usually required by law or regulation and includes vital records deaths, hospital discharge data, and emergency department discharge data.

- Pros
  - More stable systems
  - Can compare with other counties, states and national rates
  - Often available at zip code or small area level
  - Payor source and billed amount data
  - Usually no cost to local governments

- Cons
  - Need to understand coding systems
  - Time lag up to 2 years
  - Not much detail

CODING SYSTEMS

- Vital records, hospitals, emergency departments and CMS doctor's offices code diagnosis, external cause and procedures using either ICD9 or ICD10 or CPT codes
- By 10/1/2014 CMS will require everyone will use ICD10
  - E-codes replaced by V-Y codes
- Caution! Big differences between diagnosis (unduplicated count) and billing (duplicated count) records
- Make friends with someone who understands these systems or take a class

OTHER DATA TO COMPLETE YOUR SYSTEM

- Census data needed for denominators
  - American Community Survey (aka the Census)
    - American Fact Finder 2
    - Local Planning Agency or Designated Census Holder
- Risky behaviors
  - Youth Risk Behavior Survey (22 states)
    - High school level kids and questions on their risk behaviors
  - American Community Survey www.census.gov/acs
    - Some data on housing, insurance and household configurations
  - State or Local Surveys
    - In California use the CA Healthy Kids Survey
    - United Way surveys

AMERICAN COMMUNITY SURVEY (ACS)

- Collects information such as age, race, income, commute time to work, home value, veteran status, and other important data
- Data available at the national, state, county, census tract, congressional district, and more

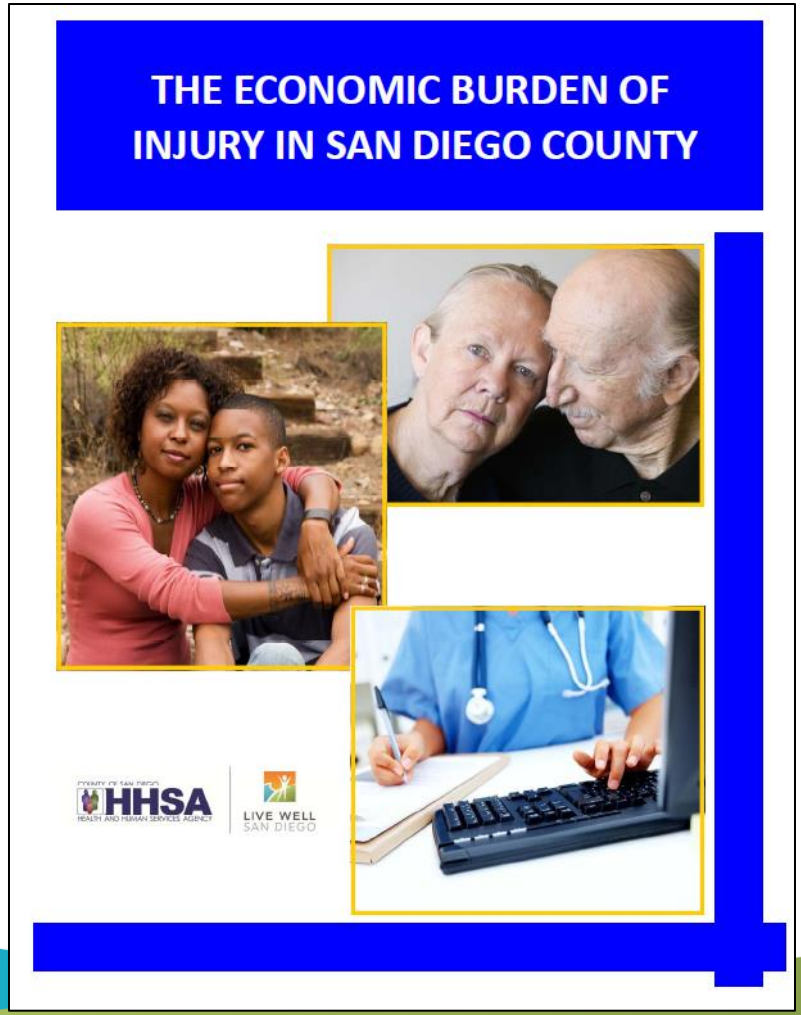
www.census.gov/acs

COUNTY OF SAN DIEGO HHSA HEALTH AND HUMAN SERVICES AGENCY

LIVE WELL SAN DIEGO

CALCULATE THE COST OF INJURY

- Injuries have defined prevention opportunities that fit neatly into ROI and cost models.
- CDC staff and members of the Injury Control and Emergency Health Section of APHA have worked on various cost of injury calculators for years.
- On the CDC website WISQARS can provide both incidence data for your state or county as well as a cost estimation calculator that includes both direct medical costs and work loss costs.
- Policy makers and the public pay attention to dollars.



COUNTY OF SAN DIEGO HHSA HEALTH AND HUMAN SERVICES AGENCY

LIVE WELL SAN DIEGO

WISQARS™ provides cost estimates for injury deaths (including violent deaths) and nonfatal injuries where the patient was treated and released from a hospital or ED. http://www.cdc.gov/injury/wisqars/index.html

UNINTENTIONAL INJURY	Number of cases	Medical costs	Work loss costs	Total combined costs
Deaths	949	$11,868,000	$1,002,829,000	$1,014,696,000
Hospitalizations	21,149	$540,635,000	$1,113,603,000	$1,654,238,000
ED discharges	149,437	$136,439,000	$473,753,000	$610,192,000
	171535	$688,942,000	**TOTAL UNINTENTIONAL INJURY COSTS**	**$3,279,126,000**

INTENTIONAL INJURY	Number of cases	Medical costs	Work loss costs	Total combined costs
Homicides	90	$645,000	$144,997,000	$145,642,000
Assault Hospitalizations	1,644	$38,947,000	$152,845,000	$191,792,000
Assault ED discharges	8,188	$9,041,000	$27,661,000	$36,702,000
	9922	$48,633,000	**TOTAL ASSAULT INJURY COSTS**	**$374,136,000**
Suicides	365	$1,390,000	$400,950,000	$402,339,000
Self-inflicted Hospitalizations	1,590	$15,120,000	$29,807,000	$44,928,000
Self-inflicted ED discharges	2,435	$3,360,000	$2,329,000	$5,689,000
	4390	$19,870,000	**TOTAL SELF-INFLICTED INJURY COSTS**	**$452,956,000**

COUNTY OF SAN DIEGO HHSA HEALTH AND HUMAN SERVICES AGENCY

LIVE WELL SAN DIEGO

WISQARS™ also calculates cost estimates by injury mechanism.

UNINTENTIONAL INJURY

*for 2009	Overdose/ Poisoning	Falls	Pedestrian
Number of cases			
Deaths	409	231	59
Hospitalizations	2,365	10,734	348
ED discharges	4,677	52,581	963
Total costs (both medical & work loss) det. by WISQARS			
Deaths (based off 2005 CA costs)	$492,291,000	$85,786,000	$65,859,000
Hospitalizations (based off 2005 US costs)	$34,325,000	$666,846,000	$50,822,000
ED discharges (based off 2005 US costs)	$6,539,000	$237,293,000	$3,972,000
Total costs of all three categories	$533,155,000	$989,925,000	$120,653,000
Calculated cost per person			
Deaths	$1,203,645	$371,367	$1,116,254
Hospitalizations	$14,513	$62,124	$146,040
ED discharges	$1,398	$4,512	$4,124

COUNTY OF SAN DIEGO HHSA HEALTH AND HUMAN SERVICES AGENCY

LIVE WELL SAN DIEGO

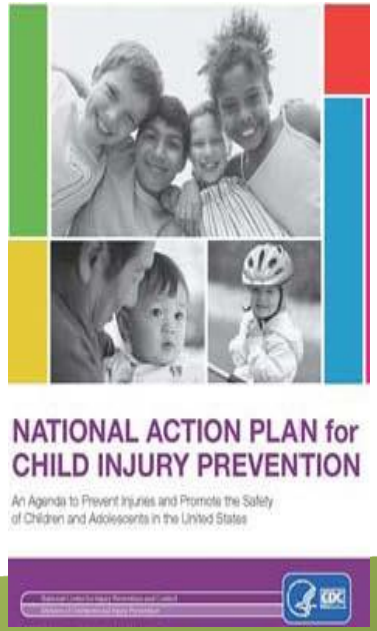
NATIONAL ACTION PLAN FOR CHILD INJURY PREVENTION

The *National Action Plan* calls for better standardizing of data, improving data quality, and filling gaps that will help inform prevention efforts.

Goals for Data and Surveillance:

- Improve existing data collection systems
- Upgrade and enhance systems to address gaps in data
- Improve access to data
- Improve analysis, interpretation, and dissemination of surveillance data

http://www.cdc.gov/safechild/NAP/index.html



FOR MORE INFORMATION GO TO:

WWW.SDHEALTHSTATISTICS.COM

OR CONTACT

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COUNTY OF SAN DIEGO HHSA HEALTH AND HUMAN SERVICES AGENCY

LIVE WELL SAN DIEGO

Questions?

Thank you for your participation

Please take a moment to complete our short evaluation

https://www.surveymonkey.com/s/NAP_Sept102013

Questions or Comments? Contact:

Rhunt@edc.org

617-618-2178