SAFE COMMUNITIES

TOOL KIT

A DATA GUIDE FOR SAFE COMMUNITY PROGRAMS

REVISED MAY 2006

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ACKNOWLEDGEMENTS

We would like to recognize the critical roles played by the following individuals in the creation and production of this publication.

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Produced May 2002 by The National Highway Traffic Safety Administration (NHTSA) Southeast Region, and The University of Georgia, through a Cooperative Agreement (DTNH22-99-H-09032).

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WHAT'S INSIDE

I. **Introduction**
- Why data templates?
- Focusing on the holes in the ceiling using the "Big 3" concept
- What's in the tool kit?
- Where do you find the data?
- What are some "Real World" issues on data?
- Injury Classification and coding

II. **Community Profile**
- Community Profile Worksheets (2)
- Comparison of the "Top 10" Leading Causes of Death for Your Community

III. **Injury Profile**

Fatal Injury Templates
- Leading Causes of Fatal Injuries
- Leading Causes of Transportation Fatal Injuries
- Transportation Fatal Injuries by Demographics
- Fatal Injuries by Demographics (Other than transportation)

Non-Fatal Injury Templates
- Leading Causes of Non-Fatal Injuries
- Leading Causes of Transportation Non-Fatal Injuries
- Transportation Non-Fatal Injuries by Demographics
- Non-Fatal Injuries by Demographics (Other than transportation)

Medical Charges
- Medical Charges for the Leading Causes of Non-Fatal Injuries

IV. **Contributing Factors**
- Contributing Factors to Motor Vehicle Fatalities by Demographics
- Contributing Factors to Transportation Non-Fatal Injuries by Demographics
- Contributing Factors to Bicycle Injuries
- Contributing Factors to Pedestrian Injuries

V. **Location Mapping**
- Fatal Transportation Injuries by Zip Code
- Transportation Non-Fatal Injuries by Zip Code
- Fatal Injuries by Zip Code
- Non-Fatal Injuries by Zip Code (Other than transportation)

VI. **Glossary**
VII. **Resources**
VIII. **References**

INTRODUCTION

Why data templates?

Data collection is not always an enjoyable task. You may have asked yourself many questions related to data collection such as: How much data do I have to wade through to accurately identify my community's problems? Which pieces of information are critical and which are "nice to know?" The Safe Community Data Tool Kit was created as a roadmap for YOU, the local practitioner. Through a systematic approach to answering a few basic questions related to injury type, population, severity, and location, you can identify which problems and target groups to focus on and the prevention programs that will be most effective in addressing the injury problems in your community.

The Data Tool Kit will ease data collection of these important pieces of information. The tool kit provides a simple, organized structure that allows some flexibility in the data template to meet your community's needs. Think of the templates as your personal blueprint for building a profile of the significant injury problems in your community. The data templates will help you rank fatal and non-fatal injuries; identify major contributing factors to a specific injury problem; identify problem locations and target groups; and, compare costs associated with different types of injuries. By comparing traffic injuries to other injury problems, your Safe Community program can influence the public's perception of traffic injury as a priority issue and help turn their attention from the front-page events (such as a murder) to the injuries and deaths that occur on our roadways everyday. A comprehensive view of all injury problems may change the civic and community leaders' perspectives on the magnitude of motor vehicle crashes as a leading cause of death, hospitalizations, and health care costs.

The Data Tool Kit enables the process of data collection for community programs to be more practical, less confusing, and less intimidating. Only a handful of Safe Community programs have the available resources, in-house data expertise or manpower to undertake a massive data collection effort or establish a local injury surveillance program. The Data Tool Kit will guide your Safe Community Coalition toward identifying the gross injury problems in their community; selecting the appropriate countermeasure (intervention) programs; and allocating their injury prevention dollars and resources. It is very important to get your data keepers involved in your collection. This can make it much easier to access data and avoid other data issues.

Focusing on the holes in the ceiling using the "Big 3" concept

Members of your community are important partners in bringing safety issues to your attention. It is your responsibility to determine if the particular safety issue that has attracted community and media attention is in fact a safety problem. In order to determine if the safety issue is a problem, you must collect data. For example, if it is brought to your attention that speeding is a safety issue in a neighborhood or if residents are insisting that some action be taken to address this concern, then you can do an observational survey to determine if this is indeed a problem that requires an intervention program. Some injury issues may be easier to act on depending on your community, and the accessible resources. No matter how important a safety issue may seem, you should maintain your focus on addressing the “Big 3” or top three injury problems in your community, and the Safe Community Data Tool Kit will help you do this. However, this does not eliminate the need to at times address other community problems.

It is easy for safety advocates to get distracted and focus on issues that receive a lot of media attention and community interest. Directing your time, energy and resources toward an issue that is a lower priority can be compared to having a hole in the ceiling in your home during a nonstop rainy season. You may make repairs to the windows or walls (working on non-priority injury issues) or mop up the water on the floor (treating the persons who have been injured); however, you are not addressing the cause of the water leakage into your house--- the hole in the ceiling! Take the time with this kit to ensure that your safety efforts are focused on the main injury problems in your community. It is very likely that your “hole in the ceiling” is a motor vehicle crash problem that is not receiving the attention that is deserved.

Although it would be nice to try to fix every problem in your community, unfortunately, with most Safe Community programs, resources are very limited. You must set priorities and address the most critical problems first. The strategy of focusing on the "Big 3" allows the data to guide you in the right direction. How do you do this? —by ranking the injury problems in your community. The Data Tool Kit utilizes the ranking system to focus your prevention efforts in the right direction. This helps you prioritize the key injury problems and target populations that should be addressed. Additionally, the data you collect can help you tailor your interventions by identifying the makeup of your target audience, available resources, and needs of the community. Finally, you can identify the community partners that should be recruited to address these issues and “fix the hole in the ceiling”.

What's in the tool kit?

The tool kit contains several sections, which correspond to the order of progression in your Safe Community's data collection efforts. The four major sections will help you answer the Who, What, Why, Where and How of the injury problems in your community. These sections include:

- Community Profile
- Injury Profile
- Contributing Factors
- Location/Mapping

At the beginning of each section, the following questions will be answered that will guide you through the entire process of gathering and interpreting the data you collect.

Why you need to collect data.

What you need to collect.

How you can use it.

Your best sources for the information.

It is important to note some general information about sources. You may be able to consolidate data collection steps by planning ahead of time. Before you start, you should know which sources of data can provide you with what information. **Table 1 is a general break down of the potential data sources and the type of data that can be retrieved from each. On this Table the data sources are ranked; the best data sources have a red star *. On each template we have also identified your best source for data. If you cannot find the data from this source then try the other sources listed. Work with the data that is available in your community.** Before contacting any of these sources, review the data request list on this Table to determine what pieces of data you need from that specific source in order to complete your templates. This simple step can save you a lot of work and time in the long run!

On each of the templates there is a space provided entitled, "What are your source(s) for this information?" To ensure consistency in your data over time, completely document in this section where you got your data. Include in this documentation contact name, telephone number, text reference, and/or web-site.

Once you have figured out what your community's "Big 3" problems are, then you can begin the process of collecting additional data. The good news --- this comprehensive data collection effort is an initial task to prioritize the injury problems in your community. After you've identified your specific target groups, injury problems and contributing factors, you will simply track (or monitor) the injury trends within that target group over time (at least once a year during the intervention phase). You do not have to continue to collect data on all injury problems, just the "Big 3".

Where do you find the data?

Table 1

Ask for these data elements when you contact the data source. Your total collection sample should represent one year for each data source.

Data Source	Data Elements	Data Keepers
Community Profile		
Census & Demographics Data	Population, age distribution, gender, ethnicity, socioeconomic characteristics (i.e.. income, household size, educational level), geographic features	**National**: Electronic data is available from U.S. Bureau of the Census on CD-ROM (can be sorted by state/county/zip code level) or Internet (www.census.gov); **State:** Government (Department of Business/ Commerce, request by mail or internet, ex. www.state.your state's initials.us; libraries; State Chamber of Commerce site (links to counties); **County**: Local Chamber of Commerce (request in person, by mail, or via internet, City Hall (Economic Planning & Development), Libraries
Office of Vital Statistics (Fatal Data)	Number of Resident deaths, age, gender, race, zip code of residence and injury classification	**National:** Center for Disease Control and Prevention (CDC) **State:** Government, Department of Health, by mail or internet, www.state.your state's initials.us; **County:** Department of Health, Medical Examiner's Office

Where do you find the data?

Table 1 continued.

Crash Reports	Number of fatal and non-fatal injuries, type of crash, crash location, contributing factors, driver/passenger/rider/ped identifiers and actions, and use of safety devices	**National:** Fatality Analysis Reporting System (FARS) by internet www-fars.idinc.com **State**: Government (Department of Transportation, www.dot.state.your state's initials.us); **County**: Law Enforcement agencies, Traffic Engineering
Pre-Hospital Emergency Medical Services Reports	Date, time, location, age, gender, race, mechanism of injury, type of injury, protective equipment/restraints, facility identifiers, destination, charges	**State:** Government, Emergency Medical Services **County**: Emergency Medical Service Agencies
Hospital Treated Injury Reports (Emergency Department, Inpatient, Outpatient)	Date, time, age, gender, race, E-code, type of injury, zip code of residence, disposition/discharge status, charges, facility identifiers. Due to the Health Insurance Portability and Accountability Act (HIP AA), much patient information is restricted due to privacy protection.	**State**: Government (Department of Health) for Hospital Discharge files (Inpatient Medical Records by County); Registries (Trauma, Spinal Cord, Head Injury, Burns); **County**: Emergency department records, Medical records from outpatient ambulatory care facilities and Health Maintenance Organizations
Contributing Factors		
Police Reports	Number of fatal and non-fatal injuries, type of crash, crash location, contributing factors, driver/passenger/rider/ped identifiers and actions, and use of safety devices	**State:** Government, Department of Transportation, www.dot.state.your state's initials.us; **County:** Law Enforcement Agencies, Traffic Engineering
Medical Charges		
Pre-hospital Emergency Medical Services care	Billing Data	**State**: Government, Emergency Medical Services
Cost for medical care	E-codes, Charges	**State**: Hospital Billing Data **County:** Hospital finance departments, Emergency department business office, Outpatient facility medical records

Where do you find the data?

Table 1 continued.

Location/Mapping		
Location & mapping of fatal & non-fatal injuries	Injury location	**State:** Government, Department of Transportation, Emergency Medical Services; **County**: County/City Traffic Engineering, County/City Planners, EMS agencies
Emergency Department treated injuries	Zip code of origin of residence of injured	**County:** Emergency Department medical records

*Adapted from Vira, C. 1999. The Data Smart Manual: Use and analysis of data for local highway and traffic safety programs. National Highway Traffic safety Administration.

What are some "Real World" issues on data?

There are some issues associated with collecting and using data that are important to recognize and understand. The following items are important data issues.

Access: Some data will be easier to access than others. For example, mortality data is usually easier to get than morbidity data. It is important to keep in mind that if you cannot access data from one source you should always try another source; access to data will vary. The data templates will guide you in asking for data. Use the templates to make your data requests. The data sources in Table 1 will show you where to locate the "data keepers". Getting these "data keepers" involved in your coalition can improve the level of access you will have to essential data.

Timeliness: There may be a lag time in the data you are able to access. It is not possible in most cases to get statewide data that is current. For example, 2005 FARS (Fatality Analysis Reporting System: www-fars.nhtsa.dot.gov) data may not be available to you until late 2007 due to the lag in reporting. However, you may be able to retrieve local data that is up to date. The most current data you can find should be used as your baseline data prior to initiating your Safe Communities initiatives.

Confidentiality: State laws on the confidentiality of hospital, police, and other official records vary. Anyone starting to collect data should make sure to investigate state laws and regulations concerning confidentiality. Hospital, trauma centers, and other institutions are often concerned about the confidentiality of their files.

Format: The data you retrieve or that comes across your desk may have different formats. You may have to sort through the data to find what you are looking for. The data templates provided should help limit the amount of work you have to do. Use the templates to ask for specific data sets (or data queries).

Limitations: Accessing and collecting local data are more complex and expensive that using existing state sources. Sometimes accessing local data sources, such as emergency department data, may be impossible because the data are not computerized. You may be able to tap into state data sources that routinely computerize statewide data.

Assistance: There are many people in your community who can assist you in finding, collecting and analyzing data. Look for data helpers in a variety of places, such as health departments, colleges and universities, law enforcement agencies, and hospitals. They may be health educators, epidemiologists, graduate students, interns, data specialists, people with formal data training, and people with on-the-job data experience. Work with your data keepers. Remember, you are not alone.

How much data do I need to collect?

The answer to this question can be best be determined based on the size of your community. If your community is small, it may be necessary to collect data from 2-3 years prior to the year you are collecting because single catastrophic events may skew your data.

You have to collect more than baseline data to ensure you are not getting a misleading impression of where your top priorities are. In larger communities, it may not be as necessary to collect as much data because a major catastrophic event would not skew your data as much as in smaller communities. It is particularly important in small communities to collect data on fatal and nonfatal injuries to provide a clear problem identification picture.

How do I know if my "Big 3" Have Changed?

You will know if your "Big 3" injury problems have changed by reevaluating the leading causes of fatal (transportation and non-transportation) and non-fatal (transportation and non-transportation) injuries in your community every 2-3 years. The rank order of the injury problems may change over time due to a variety of factors, so it is important that you stay aware of any of these changes. It is too big a task to monitor the rankings every year. Check for changes in injury problem priorities only every second or third year.

When will I see results?

Since there may be a lag in the timeliness of data, it could take longer for you to show that your program has made an impact. Be patient, your hard work will pay off. Have confidence in the fact that you collected the appropriate data and completed a needs assessment of your community based on the data you collected. Since you based your injury prevention programs on the needs of your community, you are bound to see promising results.

What other sources of data are available?

As a part of your community injury problem identification, you may want to look at other databases. These sources of data may be used in addition to the data collected here. Other data sources may include, but not be limited to the following: DUI citations, BAC levels, child safety seat violations, seat belt surveys, and health department assessment surveys. These additional sources can help you better understand your community injury problems.

Injury Classification and Coding

E-codes (for the external cause of injury) are a part of the International Classification of Diseases (ICD) codes, developed through the World Health Organization. These codes provide a standard way to classify disease and injury information that doctors, nurses, paramedics, and social workers may put in the medical record. Basically, they are numbers assigned to specify the external causes for an injury (how it happened) and the nature of the injury (what kind of injury occurred). Numbers range from 800-999 with fourth and fifth digit extensions. At this time the classification system is moving from a 10th revision, ICD-10, implemented for years 1999 and onward, which represents a substantial change from the ICD-9. An 11th revision, ICD-11 is currently under development to address changing technology. The ICD-10 does not use E-codes, but rather defines codes to specify the mechanism, nature of the injury and intent (intentional or unintentional). For example, a query can detail how many head injuries occurred with bicycles crashes. Currently, the ICD-10 is being used for fatal injuries only and will eventually extend to being used for non-fatal injuries.

E-codes may be grouped into large categories to classify falls, motor vehicle-related crashes, fires, drownings, poisonings, assaults, firearm injuries, etc., using specific 3-digit numbers. If more detail is desired, then a fourth or fifth digit extension is used. For example, several E-codes apply to the “motor vehicle” classification alone, including E810.0 (driver of motor vehicle injured), E810.1 (passenger in motor vehicle injured), E810.7 (pedestrian injured), or E813 (motor vehicle traffic accident involving collision with other vehicle). One fatality may fall into 2 different categories. For example, a suicide death using a firearm falls within both the suicide and firearm categories. Be careful not to double-count any fatalities. Put each death into just one category. You decide which category is most appropriate.

E-Codes may not be available in every community; however, this should not stop you from trying to locate data. Ask for help from your state or local data specialists with regard to E-codes and bring a copy of the information you need using Tool Kit templates and examples. By including these data specialists as part of your Safe Communities coalition, you will increase the likelihood that your data will be reliable, timely and accurate. Even if the retrieval of this data is difficult, keep trying to get it.

E-codes recreate a picture of the specific circumstances of an injury—the how and the where. In conjunction with other data, E-codes can be a valuable tool in tailoring your injury prevention activities.

See the National Center for Injury Prevention and Control web site for more information on E-code groupings: http://www.cdc.gov/ncipc.

COMMUNITY PROFILE

Why do I need this?

The purpose of the Community Profile is to provide for the collection of basic information on the demographics of your community. It will help describe what your community looks like and what makes it unique compared to other communities. Demographic information (about the people who live there) will help you ensure representation in your coalition that resembles the community's diversity (including age, race/ethnicity, economic status, gender). Your Safe Community group should reflect the makeup of the community. It may help you decide how best to approach the community and its injury problems or obstacles to communication. For example, learning that the community has a large ethnic population may suggest the need to use non-English language communications channels such as foreign-language newspapers and radio stations. The community profile also includes a ranking of the ten leading causes of death. Unlike cancer, cardiovascular disease, and other chronic diseases, injuries disproportionately strike the young. The effect of this premature death is reflected in a measurement of the years of potential life lost (YPLL) for persons between the ages of 1 and 65 at the time of death (see Guide to Calculating YPLL on the back of the Comparison of the "Top 10" Leading Causes of Death For Your Community and Years of Potential Life Lost template).

What do I collect?

This section includes the following data templates:

Community Profile Worksheets (2)
Comparison of Leading Causes of Death for Your Community

These templates can guide you in finding the above information. The best approach for Safe Communities is to look at residence only. When trying to define your community, determine boundaries for your Safe Communities project. Then make a list of the zip codes contained within that area. Figure out the population for this defined area. This data can be listed under the geographic section of the first community profile worksheet.

How can I use it?

The data you collect can be organized in a way that presents the characteristics of your community and what the leading causes of death might be. One method of prioritizing your community's health problems is by using the calculations for years of potential life lost (YPLL) for each death that occurs from a specific cause (i.e., if a person dies at 45 years of age, the county now has a YPLL of 65-45, or 20 life-years.

Calculating YPLL and displaying the data on a chart may help stakeholders understand the impact injuries have in your community and help justify your programs. An example of how this is done can be found on the back of the Comparison of the "Top 10" Leading causes of Death For Your Community and Years of Potential Life Lost (YPLL) template.

★ You can get a statewide YPLL calculation by using the WISQARS database (www.cdc.gov/ncipc/wisqars) and following the step by step process for your state. It is very important that you get a local YPLL figure in addition to the statewide number if possible. A local YPLL number may be available at your state or local health department.

It should take you approximately one week to complete the community profile process based on a pilot test of the tool kit. This timeline is only a guide. You can include as much or as little detail about your community as you wish. You should first decide how much you want to know about your community. Remember the goal of doing a community profile is to describe and define your area. You can gain access to this information from the CDC at: http://webapp.cdc.gov/sasweb/ncipc/ypll9.html.

What are my best sources?

The best sources for gathering the data in this section include but are not limited to:

- Bureau of Census
  - ◊ Local Chamber of Commerce (County or city data)
  - ◊ Office of Vital Statistics
- Center for Disease Control and Prevention (by State)
- WISQARS (CDC)
- State Department of Health
- American Hospital Association Guide to U.S. Hospitals
- Networks
- Health Care Systems
- Alliances
- Health
- Local Telephone Book

Community Profile Worksheet

Community Definition Urban[ ]
Suburban[ ]
Rural[ ]
Other[ ]

Geographic Boundaries: _____

POPULATION CHARACTERISTICS
Population Distribution for the Community by Age, Gender, and Ethnicity **Year** _____

AGE DISTRIBUTION			GENDER DISTRIBUTION				ETHNICITY		
			FEMALE		MALE				
Category (years)	Number	Percent	Number	Percent	Number	Percent	Category	Number	Percent
0-4							White		
5-9							Black		
10-14							Hispanic Origin		
15-19									
20-24							American Indian		
25-34									
35-44							Asian/Pacific Islander		
45-64									
65-74							Other		
75+									
Total	0		0		0		Total	0	
Other Age Groups									

What is your source of information? _____

Recommended source of information: Bureau of Census, Wisquars, Department of Health (State and County Data), Office of Vital Statistics
*Adapted from Vira, C. 1999. The Data Smart Manual: Use and Analysis of data fro local highway and traffic safety programs. NHTSA

Community Profile Worksheet

Community Definition
Urban[X]
Suburban[ ]
Rural[ ]
Other[ ]

Geographic Boundaries:

North: Lake Erie, East: Lake & Geauga Counties,
South: Summit & Medina counties, West: Lorain County

POPULATION CHARACTERISTICS

Population Distribution for the Community by Age, Gender, and Ethnicity **Year** 2000

AGE DISTRIBUTION			GENDER DISTRIBUTION				ETHNICITY		
			FEMALE		MALE				
Category (years)	Number	Percent	Number	Percent	Number	Percent	Category	Number	Percent
0-4	90996	7%	44556	6%	46440	7%	White	938863	66%
5-9	101372	7%	49952	7%	51420	8%	Black	382634	
10-14	99235	7%	48374	7%	50861	8%	Hispanic Origin	47078	3%
15-19	89960	6%	44230	6%	45730	7%			
20-24	77515	6%	40285	5%	37230	6%	American Indian	2529	0%
25-34	188873	14%	97932	13%	90941	14%			
35-44	219449	16%	113815	15%	105634	16%	Asian/Pacific Islander	25583	2%
45-64	309417	22%	164338	22%	145079	22%			
65-74	107327	8%	61021	8%	46306	7%	Other	20962	1%
75+	109834	8%	70994	10%	38840	6%			
Total	1393978	100%	735497	100%	658481	100%	Total	1417649	100%
Other Age Groups									

What is your source of information?

U.S. Census Bureau, Census 2000 Summary File 1, Matrices P13 and PCT12
U.S. Census Bureau, Census 2000 Summary File 1, Matrices P3 and P4
U.S. Census Bureau, Census 2000 Summary File 1, Matrix PCT11

Recommended source of information: Bureau of Census, Wisquars, Department of Health (State and County Data), Office of Vital Statistics
*Adapted from Vira, C. 1999. The Data Smart Manual: Use and Analysis of data fro local highway and traffic safety programs. NHTSA

Safe Communities Project Area/Name: _____

Community Profile Worksheet

Inventory* of Selected Types of Health Care Providers in the Community/Health Provider Characteristics

Provider/Facility Name/Address	Contact Person/Phone	Types of Services*	Number of Beds
Hospitals			
Walk-in Clinics			
Rehab Facilities			
Health Maintenance Organizations (HMO)			

*Pediatric=P; Maternity=M; Adult=A; Geriatric=G; Trauma=T; Rehab=R; Emergency Room=ER; Veterans Services=V; Substance Abuse=S

What are your source(s) for this information? _____

_____

Recommended sources of information: *American Hospital Association Guide to U.S. Hospitals, Networks, Health Care Systems, Alliances, Health, Local Telephone Book, Organizations, Agencies, and Providers.* (Published annually) *Adapted from Vira, C 1999. The Data Smart Manual: Use and analysis of data for local highway and traffic safety programs. National Highway Traffic Safety Administration.

Safe Communities Project Area/Name: Cuyahoga County

Community Profile Worksheet

Inventory* of Selected Types of Health Care Providers in the Community/Health Provider Characteristics

Provider/Facility Name/Address	Contact Person/Phone	Types of Services*	Number of Beds	Level
Hospitals w/ Trauma Center				
Fairview Hospital	216-476-7876	AT		2
Hillcrest Hospital	440-473-4215	AT		2
Lakewood Hospital	(216) 521-4200 ext 8198	AT		2
Metrohealth Medical Center	216-778-4979	AT, PT		1
Southwest General Health Center	(440) 816-8878	AT		3
UHHS University Hospital Rainbow Babies and Childrens Hospital	216-844-3898	PT	947	1
Huron Hospital	216-761-7450	AT		2

*Pediatric=P; Maternity=M; Adult=A; Geriatric=G; Trauma=T; Rehab=R; Emergency Room=ER; Veterans Services=V; Substance Abuse=S

What are your source(s) for this information? Ohio EMS website

Recommended sources of information: *American Hospital Association Guide to U.S. Hospitals, Networks, Health Care Systems, Alliances, Health, Local Telephone Book, Organizations, Agencies, and Providers.* (Published annually) *Adapted from Vira, C 1999. The Data Smart Manual: Use and analysis of data for local highway and traffic safety programs. National Highway Traffic Safety Administration.

Safe Communities Project Area/Name: _____

Comparison of the "Top 10" Leading Causes of Death for Your Community and Years of Potential Life Lost (YPLL)

Year _____

"Big 3 Rankings"
1
2
3

Causes of Death	Raw Number	RANK		YPLL	RANK	"Big 3 from YPLL"

What are your source(s) of information? _____

_____

"Big3" from YPLL Ranking

1 _____

2 _____

3 _____

Recommended source of information: Office of Vital Statistics, CDC (by State), WISQARS, State Department of Health

Safe Communities Project Area/Name: Ohio

Comparison of the "Top 10" Leading Causes of Deaths for Your Community and Years of Potential Life Lost (YPLL)

Year 2002

"Big 3 Rankings"
1
2
3

Causes of Death	Raw Number	RANK		YPLL	RANK	"Big 3 from YPLL"
Malignant Neoplasms	25173	2		81550	1	Malignant Neoplasms
Unintentional Injury	4146	4		78335	2	Unintentional Injury
Heart Disease	31388	1		63978	3	Heart Disease
Perinatal Period	608	8		39472	4	
Suicide	1287	6		26552	5	
Congenital Anomalies	403	10		20542	6	
Homicide	549	9		17776	7	
Diabetes Mellitus	3846	5		9476	8	
Cerebrovascular	7252	3		9313	9	
Liver Disease	1047	7		8074	10	

What are your source(s) of information?
WISQARS

"Big3" from YPLL Ranking

1 Malignant Neoplasms
2 Unintentional Injury
3 Heart Disease

Recommended source of information: Office of Vital Statistics, CDC (by State), WISQARS, State Department of Health

Safe Communities Project Area/Name: Ohio

Comparison of the "Top 10" Leading Causes of Injury Death for Your Community and Years of Potential Life Lost (YPLL)

Year 2002

"Big 3 Rankings"
1
2
3

Causes of Death	Raw Number	RANK		YPLL	RANK	"Big 3 from YPLL"
Unintentional MV Traffic	1547	1		39514	1	Unintentional MV Traffic
Unintentional Poisoning	755	2		17768	2	Unintentional Poisoning
Suicide Firearm	675	3		12096	3	Suicide Firearm
Homicide Firearm	353	5		11671	4	
Suicide Suffocation	262	6		7244	5	
Suicide Poisoning	249	7		5096	6	
Unintentional Suffocation	232	8		4323	7	
Unintentional Drowning	105	10		3507	8	
Unintentional Fire/Burn	126	9		2814	9	
Unintentional Fall	646	4		2175	10	

What are your source(s) of information?
WISQARS

"Big3" from YPLL Ranking

1 Unintentional MV Traffic
2 Unintentional Poisoning
3 Suicide Firearm

Recommended source of information: Office of Vital Statistics, CDC (by State), WISQARS, State Department of Health

Guide to calculating Years of Potential Life Lost

One method of prioritizing your communities' health problems is by calculating years of potential life lost (YPLL) for each death that occurs from a specific cause. You can calculate YPLL by subtracting the age at death from 65 for all deaths that occur, regardless of cause. Calculating YPLL and displaying the data on a chart may help stakeholders understand the impact injuries have in on your community and help justify your programs.

Example: Figure 1

Years of Potential Life Lost Before Age 65 (by cause of death – United States, 1990)		
Cause of Death	YPLL in 1990	Percentage of Total
All causes (total)	12,237,379	100
Unintentional injuries	2,235,335	17.5
Malignant neoplasms	1,846,719	15.1
Suicide/homicide	1,493,672	12.2
Diseases of the heart	1,375,923	11.2
Congenital anomalies	666,684	5.4
HIV (including AIDS)	660,261	5.4

*Source: McKenzie, & J.F, Pinger, R.R. 1997. An Introduction to Community Health: Web Enhanced Edition. London: Jones and Bartlett Publishers International.

As you can see in Fig. 1, a total of 12,237,379 years of potential life were lost by people who died before they reached 65 years of age. Using this approach, unintentional injuries, which accounted for 17.5% of all YPLL was the most serious community health problem in 1990.

Leading Causes of Death by Years of Productive Life Lost
Cuyahoga County, Ohio

Submitted by:

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Cleveland, Ohio

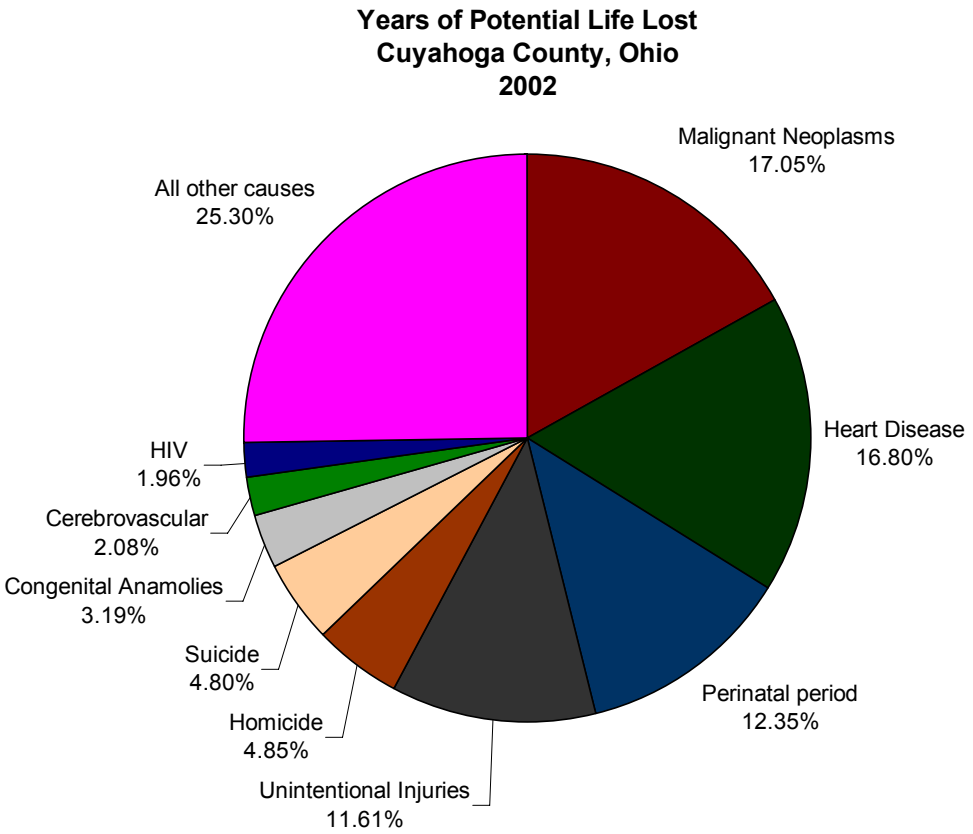
March 6, 2007

Leading Causes of Death by Years of Productive Life Lost
Cuyahoga County, Ohio

Years of Potential Life Lost (YPLL) is a measurement used to estimate premature mortality in a population. This measure places more weight on deaths of younger persons compared to older persons. YPLL is appealing because it is simple to calculate and easy to interpret.

Unintentional injury is a health problem that affects people of all ages. It is the leading cause of death for persons age 1 to 34.[1] However, its impact on public health can be overshadowed by mortality due to heart disease, cancer and cerebrovascular disease in the elderly. Unintentional injury is the fifth leading cause of death, accounted for just 4.5% of all deaths in the United States.[2] YPLL can be used by those in the field of injury prevention to show that unintentional injury, and particularly motor vehicle crashes, account for a greater percentage of potential life lost than other causes, because its victims are younger.

The leading cause of Years of Potential Life Lost in Cuyahoga County, Ohio was malignant neoplasms (17.0%), followed by heart disease (16.8%), and conditions originating in the perinatal period (12.4%). The fourth leading cause was unintentional injury, accounting for 11.6% of all years of potential life lost. The pie chart below shows the top nine leading causes of years of potential life lost.



Tables 1 also shows leading causes of years of potential life lost in Cuyahoga County, Ohio. The top four leading causes account for over half of the years of potential life lost in the population.

In many communities, unintentional injuries are the leading cause of years of potential life lost. Indeed, nationally, unintentional injuries are the leading cause when age 65 is used as the fixed age.[3] Cuyahoga is a large urban county in Ohio. Rates of heart disease, cancer, and infant mortality are higher in the county than the national average. This point is brought up to show that the leading causes of YPLL for one community are not necessarily applicable to another community.

Table 1. Years of Potential Life Lost, Cuyahoga County, Ohio, 2002[**]

Rank	Cause of Death	ICD-10 Codes	YPLL	Percent	Cumulative Percent
1	Malignant Neoplasms	C00-C97	10,159	17.0%	17.0%
2	Heart Disease	I00-I09,I11,I13,I20-I51	10,011	16.8%	33.8%
3	Perinatal period	P00-P96	7,359	12.4%	46.2%
4	Unintentional Injuries	V00-X59, Y85,Y86	6,920	11.6%	57.8%
5	Homicide	X85-Y09, Y871	2,890	4.9%	62.7%
6	Suicide	X60-X84, Y870	2,863	4.8%	67.5%
7	Congenital Anamolies	Q00-Q99	1,902	3.2%	70.7%
8	Cerebrovascular	I60-I69	1,240	2.1%	72.7%
9	HIV	B20-B24	1,170	2.0%	74.7%
10	Liver Disease	K70,K73,K74	1,061	1.8%	76.5%
11	Nephritis	N00-N07,N17-N19,N25-N27	976	1.6%	78.1%
12	Diabetes Mellitus	E10-E14	891	1.5%	79.6%
13	Septicemia	A40-A41	768	1.3%	80.9%
14	Brochitis, emphysema, asthma	J40-J47	649	1.1%	82.0%
15	Influenza and Pnemonia	J10-J18	331	0.6%	82.6%
	All other causes			17.4%	100.0%

Table 2 is designed to shows the impact of weighting premature deaths using YPLL. It compares the cause-specific mortality percentage to the cause-specific YPLL percentage. The arrow indicates whether that particular disease has relatively less or more impact on YPLL than it does on mortality. Unintentional injuries, suicide, homicide, perinatal conditions, and liver disease have relatively more impact, because the victims of these causes of death are often younger. Conditions such as

heart disease, cancer, and strokes occur more often in older persons, and therefore have less impact on total YPLL than on mortality.

Table 2: Ranking of leading causes of death compared to ranking of years of potential life lost in Cuyahoga County, Ohio in 2002.[**]

Rank	Cause of Death	ICD-10 Codes	Deaths	Percent of all deaths	Percent of total YPLL	Relative Impact on YPLL
1	Heart Disease	I00-I09,I11,I13,I20-I51	5185	34.2%	16.8%	▼
2	Malignant Neoplasms	C00-C97	3417	22.5%	17.0%	▼
3	Cerebrovascular	I60-I69	845	5.6%	2.1%	▼
4	Bronchitis, Emphysema, Asthma	J40-J47	558	3.7%	1.1%	▼
5	Diabetes Mellitus	E10-E14	418	2.8%	1.5%	▼
6	Unintentional Injuries	V00-X59, Y85,Y86	380	2.5%	11.6%	▲
7	Nephritis	N00-N07,N17-N19,N25-N27	325	2.1%	1.6%	▼
8	Influenza and Pnemonia	J10-J18	300	2.0%	0.6%	▼
9	Alzheimer's Disease	G30	298	2.0%	0.5%	▼
10	Septicemia	A40-A41	266	1.8%	1.3%	▼
11	Suicide	X60-X84, Y870	153	1.0%	4.8%	▲
12	Liver Disease	K70,K73,K74	136	0.9%	1.8%	▲
13	Perinatal Period	P00-P96	116	0.8%	12.4%	▲
14	Hypertension	I10,I12	105	0.7%	0.03%	▼
15	Homicide	X85-Y09, Y871	99	0.7%	4.9%	▲

*Percent of all deaths is cause-specific mortality percentage. Percent of total YPLL is the cause-specific YPLL percentage. The last column shows whether a particular cause of disease has more or less of an impact on YPLL compared to its impact on overall population mortality.

Years of potential life lost is an effective tool for those involved in injury prevention. The measure places more weight on deaths of younger persons than older persons, demonstrating the public health impact of injury on children and young to middle-aged adults.

***These data were provided by the Center for Health Data and Statistics, Ohio Department of Health. The Department specifically disclaims responsibility for any analyses, interpretations or conclusions.*

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[1] Centers for Disease Control. WISQARS, 2004.
[2] Ibid.
[3] Ibid.

EXAMPLES

The following examples are included to provide you with ideas about how the community profile data you have collected can be presented. These examples are not in any way intended to limit your own creativity when designing your own presentations. These are just a few of the many ways in which the data can be organized into effective and persuasive presentations.

Overview

Cuyahoga County is located in Northeast Ohio. It is the most populous county in Ohio; as of 2000, the population was 1,393,978. Its county seat and largest city is Cleveland. Cuyahoga County is part of Greater Cleveland, a metropolitan area, and Northeast Ohio, a thirteen-county region, joined together in economic development initiatives. The county is named after the Native American word Cuyahoga, which means "crooked river." The name is also assigned to the Cuyahoga River, which bisects the county.

Culture & Entertainment

Cuyahoga County and Cleveland residents often define themselves in terms of whether they live on the east side or the west side of the Cuyahoga River. Cleveland itself is a mosaic of 36 different neighborhoods, each of which has unique demographics. Some neighborhoods are more populous than the surrounding suburbs. Community-based intervention programs must be tailored specifically to the target neighborhood. For instance, what works in the West Park neighborhood on Cleveland's west side, will not necessarily work in Glenville, a neighborhood on Cleveland's east side.

Cuyahoga County's culture originates from a mosaic of different ethnic backgrounds. The area became home to immigrants from Italy, Ireland, German, Poland, and the Slavic countries. These immigrants tended to settle in similar areas, creating ethnic neighborhoods such as Little Italy and Slavic Village that are still around today. The county also boasts the largest African-American, Asian, and Hispanic populations in Ohio. Festivals and Parades are common in ethnic neighborhoods. These can sometimes cause traffic problems.

Cleveland is home to three major professional sports teams: the Cleveland Indians (Major League Baseball), the Cleveland Browns (National Football League), and the Cleveland Cavaliers (National Basketball Association). The city is also home to other major sporting events including the Champ Car Grand Prix of Cleveland, Mid-American Conference college basketball tournament, and the Ohio Classic Football game. These sporting events often cause traffic congestion in downtown Cleveland.

Other entertainment and learning centers include the Museum of Art and Museum of Natural History in University Circle, Rock & Roll Hall of Fame & Museum, Great Lakes Science Center, and Playhouse Square. Severance Hall is home to the world-renowned Cleveland Orchestra.

Economy

Lake Erie and the Cuyahoga River played an important part in Cleveland's economy and growth over the years. The center of Cleveland and much of the county's economy was the steel industry and manufacturing. As the manufacturing industries have declined, so has Cuyahoga County's economy since the 1970's.

Cleveland has become a world leader in the fields of health care and health care sciences. The city has two prominent hospital systems: University Hospitals and Cleveland Clinic. University Hospitals' Rainbow Babies & Children's Hospital has been ranked #4 in the nation for pediatric care by U.S. News & Reports. The Cleveland Clinic Foundation is consistently ranked #1 in the treatment of cardiovascular disease, by U.S. News & Reports. Both hospitals are ranked high in many other fields of specialization as well.

Cleveland is emerging as a leader in biotechnology and fuel cell research, led by Case Western Reserve University, the Cleveland Clinic, and University Hospitals of Cleveland. Cleveland is now one of the top areas in receiving seed money for biotech start-ups and research. Case Western Reserve, the Clinic, and University Hospitals have recently announced plans to build a large biotechnology research center and incubator on the site of the former Mt. Sinai Medical Center, creating a research campus to stimulate biotech startup companies that can be spun off from research conducted in the city.

Climate

The climate of Cuyahoga County is affected by Lake Erie to its north. The shoreline turns sharply northeast at the mouth of the Cuyahoga River, which is the principal contributor to lake-effect snow in the region. Areas west of the Cuyahoga get considerably less snow than the "Snow Belt" an area that extends from Eastern Cuyahoga up to Buffalo, New York. Totals of over 100 inches of snow are not uncommon in the region. Adverse weather conditions affect the ability of law enforcement to conduct high-visibility enforcement, especially sobriety checkpoints, in the winter months.

Education

Cuyahoga County is home to a number of colleges and universities. Most prominent among these is Case Western Reserve University, a world-renowned research and teaching institution located in University Circle. Case is a private university; the top rated university in Ohio and #37 in the nation as rated by U.S. News & World Report, and is the home of several top-ranked graduate programs, notably the medical school and law school. Cleveland State University, based in downtown Cleveland, is the city's public four-year university. Other four-year universities include John Carroll, a Jesuit university in University Heights, Baldwin-Wallace College in Berea, and Myers University, a private four-year school that focuses on business education.

Transportation

Cuyahoga County has many interstate highways running through it. I-90, the nation's longest highway, runs east-west through Cleveland and connects to the end of I-71 and I-77. I-71 heads southwest from downtown Cleveland, and runs through Hopkins International Airport. It is also the route to Columbus and Cincinnati, Ohio's two other largest cities. I-77 connects Cleveland to Akron. I-80 runs through the southern portion of the county. I-271, I-480, and SR 2, and SR 176 are local divided highways that burden a large amount of traffic. The bulk of Cuyahoga County's highway fatalities occur on I-90, I-480, and I-71.

There are many state and U.S. routes that travel through the county as well, including U.S. 20, U.S. 6, U.S. 322, and U.S. 42. Cleveland's densely populated east side and its surrounding suburbs rely on these roads to travel, because divided highways do not run through them. Many of the fatal crashes on the east side occur on these roads.

Traffic Safety Partnerships

Recognizing a need to decrease the number of injuries and fatalities that occur every year in Cuyahoga County, especially to children, Rainbow Babies & Children's Hospital became the lead agency for Cuyahoga County's Safe Communities program, a program funded by a grant through the Ohio Department of Public Safety and the National Highway Traffic Safety Administration. The Safe Communities utilizes public information, education, media relations, and community outreach activities to improve traffic safety in Cuyahoga County.

The Rainbow Babies & Children's Hospital's Injury Prevention Center is also the lead agency for the Cuyahoga County DUI Task Force and the Speed, Reckless and Aggressive Driving Reduction Task Force, which are comprised of local law enforcement agencies, judges, prosecutors, political leaders, businesses, schools and community members that work together to reduce drunk and drugged driving and improve traffic safety through a combination of community education and enforcement efforts. More than 45 law enforcement member agencies work together on targeted enforcement campaigns, share equipment and conduct training to improve officers' traffic safety enforcement skills.

Only a few years ago, the state's efforts to improve traffic safety in Cuyahoga County were hampered by a demographically and geographically diverse collection of police departments in 59 political subdivisions that largely worked in isolation. Since its founding in 2002, the Cuyahoga County DUI Task Force has been highly successful in forging partnerships and creating an unprecedented level of cooperation and camaraderie among the 45 member police departments. Where once there was little or no communication or cooperation between agencies, these 45 departments now readily share information, resources, and expertise and have been tremendously successful in planning and carrying out coordinated, countywide DUI reduction efforts. The cohesiveness of the Task Force allows member departments to speak with one voice and present a united front to the 1.3 million residents of Cuyahoga County, Ohio.

POPULATION CHARACTERISTICS OF CUYAHOGA COUNTY
Age, Gender, and Ethnicity

AGE DISTRIBUTION			GENDER DISTRIBUTION			
			FEMALE		MALE	
Category (years)	Number	Percent	Number	Percent	Number	Percent
0-4	90996	7%	44556	6%	46440	7%
5-9	101372	7%	49952	7%	51420	8%
10-14	99235	7%	48374	7%	50861	8%
15-19	89960	6%	44230	6%	45730	7%
20-24	77515	6%	40285	5%	37230	6%
25-34	188873	14%	97932	13%	90941	14%
35-44	219449	16%	113815	15%	105634	16%
45-64	309417	22%	164338	22%	145079	22%
65-74	107327	8%	61021	8%	46306	7%
75+	109834	8%	70994	10%	38840	6%
Total	1393978	100%	735497	100%	658481	100%
Other Age Groups						

Source: U.S. Census Survey 2000

ETHNICITY		
Category	Number	Percent
White	938863	66%
Black	382634	
Hispanic Origin	47078	3%
American Indian	2529	0%
Asian/Pacific Islander	25583	2%
Other	20962	1%
Total	1417649	100%

Source: U.S. Census Survey 2000

TRAUMA CENTERS IN CUYAHOGA COUNTY

Provider/Facility Name/Address	Types of Services*	Number of Beds	Level
Hospitals w/ Trauma Center			
University Hospitals Rainbow Babies and Children's Hospital	Pediatric Trauma	947	I
MetroHealth Medical Center	Adult Trauma		I
Fairview Hospital	Adult Trauma		II
Huron Hospital	Adult Trauma		II
Lakewood Hospital	Adult Trauma		II
Southwest General Health Center	Adult Trauma		III

Motor vehicle crash victims are often taking to trauma centers when they are badly hurt in a crash. There are six trauma centers in Cuyahoga County. MetroHealth Medical Center and University Hospitals Rainbow Babies & Children's Hospitals are the two Level 1 trauma centers for the region. Metro is an adult trauma center, and therefore, sees a great deal of seriously injured traffic crash victims. Rainbow's Pediatric Trauma Center sees many of the children seriously injured in crashes.

Level I trauma centers must be staffed with specialists 24 hours a day, and see a high volume of patients each year. Level I trauma centers also must be actively engaged in medical research, injury prevention, and trauma education, and community outreach.

Level II trauma centers can provide comprehensive trauma care with its fully equipped emergency centers and specialists. Level II trauma centers are not required to conduct as much community outreach, research, and injury prevention, but should work with Level I centers to do so.

Level III trauma centers do not have the same range of specialists as a Level I and II center, but can do basic emergency and stabilization procedures. Level III centers have transfer agreements with Level I and II centers.

INJURY PROFILE

Why do I need this?

It is important to get a clear picture of what the "Big 3" injury problems are in your community and to rank motor vehicle injuries within the context of all injuries. The templates in this section will help you to rank fatal and non-fatal injuries. This can provide a comprehensive view of the injury problem and can help change the view of civic leaders and stakeholders as to the magnitude of the traffic injury problem.

It is also important to collect billing data to find out how much the hospitals actually charge to treat (hospitalizations and/or emergency room visits) the "Big 3" injury problems in your community. Estimates of costs really get the attention of your policy makers especially when the estimates are localized and represent the impact of an injury problem on their citizens.

What do I collect?

This section includes the following data templates:

Fatal Injuries

Leading Causes of Fatal Injuries

Leading Causes of Transportation Fatal Injuries

Transportation Fatal Injuries by Demographics

Fatal Injuries by Demographics (Other than transportation)

Non-fatal Injuries

Leading Causes of Non-Fatal Injuries

Leading Causes of Transportation Non-Fatal Injuries

Non-Fatal Transportation Injuries by Demographics

Non-Fatal Injures by Demographics (Other than transportation)

Medical Charges

Medical Charges for the Leading Causes of Non-Fatal Injuries

How can I use it?

Ranking these injuries will help you to focus your energies and resources on the "Big 3" Injuries in your community. Once you have compiled all the necessary data, you can organize it in a way that makes sense. **Complete the demographic templates for the "Big 3" injury problems only.** Under the major category of Motor Vehicle, there are 5 subcategories. The templates will automatically and separately, from the "Big 3", rank these subcategories for you. It is important to compare the percentage of injury type within an age group (injury profile) with the percentage of that age group in the overall population (community profile). The automated Excel file templates will do this for you.

What are my best sources?

★ The best sources for gathering the data in this section include but are not limited to:

★ Fatal Injuries
Office of Vital Statistics
- Police crash reports
- Fatality Analysis Reporting System (FARS)

★ Non-fatal Injuries
Traffic Crash Reports
- Emergency department records
- Trauma records
- Hospital discharge files
- Outpatient facility medical records
- EMS run reports

★ Medical Charges
Hospital finance department
- Outpatient facility medical records
- Emergency Medical Service reports
- Emergency department medical records
- Insurance claim files
- National Safety Council

The recommended sources for fatality data are the death records from your State Office of Vital Statistics or FARS report from your State Highway Safety Office. Best sources for non-fatal injuries are hospital discharge files (hospitalizations), emergency department records, and trauma records.

For non-fatal injuries, (at a minimum) you should complete templates for hospital discharge, emergency department records, and trauma records to get a complete picture of your communities injury problems. Some of these sources may not be computerized

FATAL INJURY TEMPLATES

Safe Communities Project Area/Name: _____

Leading Causes of Fatal Injuries

Year _____

"Big 3 Ranking"

1
2
3

Injury Cause	Number	Rank	"Big 3"
Motor Vehicle (810-825)			
Drownings (830, 832, 910)			
Poison 9850-869)			
Falls (880-888)			
Fire and Flame (890-899)			
Suffocation (911-913)			
Suicide (950-959)			
Homicide (965-978)			
Firearm/Explosives (922, 955, 965, 985)			
Other			

What are your source(s) for this information? _____

_____

"Big3" from ranking

_____

2 _____

3 _____

Recommended source of information: Office of Vital Statistics

Safe Communities Project Area/Name: Ohio

Leading Causes of Fatal Injuries

Year 2002

"Big 3 Ranking"
1
2
3

Injury Cause	Number	Rank	"Big 3"
Unintentional MV Traffic	1547	1	*Unintentional MV Traffic*
Unintentional Poisoning	755	2	*Unintentional Poisoning*
Suicide Firearm	675	3	*Suicide Firearm*
Unintentional Fall	646	4	
Homicide Firearm	353	5	
Suicide Suffocation	262	6	
Suicide Poisoning	249	7	
Unintentional Suffocation	232	8	
Adverse Effects	139	9	
Unintentional Fire/Burn	126	10	

What are your source(s) for this information?

"Big3" from ranking

1 **Unintentional MV Traffic**
2 **Unintentional Poisoning**
3 **Suicide Firearm**

Recommended source of information: Office of Vital Statistics

Safe Communities Project Area/Name: _____

Leading Cause of Transportation Fatal Injuries by Type

Year _____

"Big 3 Ranking"

1
2
3

Injury Cause			Number	Rank	"Big 3"
Motor Vehicle:	**Number**	**Rank**			
Passenger					
Commercial					
Pickup Truck					
Motorcycle					
Motor Vehicle			0	1	***Motor Vehicle***
Bicycle					
Pedestrian					
Other					
Other					
Other					
Other					
Other					
Other					

What are your source(s) for this information? _____

Recommended source of information: Office of Vital Statistics

"Big3" from Ranking

1 **Motor Vehicle**
2 _____
3 _____

Safe Communities Project Area/Name: Cuyahoga County

Leading Cause of Transportation Fatal Injuries by Type

Year 2002 - 2004

"Big 3 Ranking"

1
2
3

Injury Cause			Number	Rank	"Big 3"
Motor Vehicle:	**Number**	**Rank**			
Passenger	125	1			
Commercial	1	4			
Pickup Truck	10	3			
Motorcycle	35	2			
Motor Vehicle			171	1	***Motor Vehicle***
Bicycle			2	3	***Bicycle***
Pedestrian			21	2	***Pedestrian***
Other					
Other					
Other					
Other					
Other					
Other					

What are your source(s) for this information?

Ohio Dept of Public Safety, TRACTAPE database

Recommended source of information: Office of Vital Statistics

"Big3" from Ranking

1 **Motor Vehicle**
2 **Pedestrian**
3 **Bicycle**

Communities Project Area/Name: _____

Transportation Fatal Injuries by Type by Demographics

pulation		Passenger Vehicle				Commercial Vehicle				Pickup Truck				Motorcycle				Bicycle				Pedestrian				
	Female	Male		Female		Male		Female		Male		Female		Male		Female		Male		Female		Male		Female		Ma
#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#
0		0		0		0		0		0		0		0		0		0		0		0		0		0
#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#
0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0

or this information? _____

_____

nformation: hospital discharge files, outpatient facility medical records, and registries (trauma).

Safe Communities Project Area/Name: Cuyahoga County, Ohio

Transportation Fatal Injuries by Type by Demographics

002 - 2004

Population				Passenger Vehicle				Commercial Vehicle				Pickup Truck				Motorcycle				Bicycle				Pedestr	
Male		Female		Male		Female		Male		Female		Male		Female		Male		Female		Male		Female		Male	
	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
440	3%	44556	3%	1	1%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
420	4%	49952	4%	1	1%	2	2%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	1	5%
861	4%	48374	3%	1	1%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
730	3%	44230	3%	7	6%	5	4%	0	0%	0	0%	1	10%	0	0%	3	150%	0	0%	0	0%	0	0%	0	0%
230	3%	40285	3%	15	12%	5	4%	1	100%	0	0%	2	20%	0	0%	5	250%	1	50%	0	0%	0	0%	1	5%
941	7%	97932	7%	14	11%	3	2%	0	0%	0	0%	2	20%	0	0%	9	450%	0	0%	0	0%	0	0%	3	14%
634	8%	113815	8%	8	6%	6	5%	0	0%	0	0%	1	10%	0	0%	11	550%	1	50%	0	0%	0	0%	2	10%
079	10%	164338	12%	19	15%	11	9%	0	0%	0	0%	3	30%	0	0%	5	250%	1	50%	1	50%	1	50%	9	43%
306	3%	61021	4%	6	5%	0	0%	0	0%	0	0%	1	10%	0	0%	1	50%	0	0%	0	0%	0	0%	0	0%
840	3%	70994	5%	10	8%	11	9%	0	0%	0	0%	0	0%	0	0%	1	50%	0	0%	0	0%	0	0%	1	5%
481	47%	735497	53%	82	66%	43	34%	1	100%	0	0%	10	100%	0	0%	35	92%	3	8%	1	50%	1	50%	17	81%
	0%		0%		0%		0%		0%		0%		0%		0%		0%		0%		0%		0%		0%
	0%		0%		0%		0%		0%		0%		0%		0%		0%		0%		0%		0%		0%
	0%		0%		0%		0%		0%		0%		0%		0%		0%		0%		0%		0%		0%
	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%

ource(s) for this information?
Transportation, Crash File Export: Cuyahoga County 2002 - 2004

ource of information: hospital discharge files, outpatient facility medical records, and registries (trauma).

Safe Communities Project Area/Name: _____

Fatal Injuries by Demographics
(Other than Transportation)

Population			Assault (E-960.0-969.9)				Falls (E-880-888)				Struck/Cut/Caught (E-916-920)				Other				Other			
	Female		Male		Female		Male		Female		Male		Female		Male		Female		Male		Female	
%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
	0		0		0		0		0		0		0		0		0		0		0	
%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%

) for this information? _____

of information: hospital discharge files, outpatient facility medical records, and registries (trauma).

Safe Communities Project Area/Name: Cuyahoga County

Fatal Injuries by Demographics
(Other than Transportation)

04

Population			Falls (excluding work-related)				Poisoning (excluding work-related)				Homicide				Suicide				Other			
	Female		Male		Female		Male		Female		Male		Female		Male		Female		Male		Female	
%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
3%	44556	3%	1	0%	0	0%	7	1%	4	1%	7	2%	9	3%	0	0%	0	0%				
4%	49952	4%	0	0%	0	0%	0	0%	0	0%	1	0%	0	0%	0	0%	0	0%				
4%	48374	3%	1	0%	0	0%	0	0%	0	0%	1	0%	1	0%	7	2%	3	1%				
3%	44230	3%	1	0%	0	0%	9	2%	3	1%	24	7%	8	2%	14	3%	3	1%				
3%	40285	3%	1	0%	0	0%	14	3%	9	2%	39	11%	4	1%	26	6%	8	2%				
7%	97932	7%	1	0%	1	0%	40	8%	22	4%	63	18%	24	7%	61	13%	18	4%				
8%	113815	8%	5	0%	5	0%	109	20%	45	8%	53	16%	17	5%	65	14%	14	3%				
10%	164338	12%	74	5%	33	2%	182	34%	65	12%	50	15%	17	5%	111	24%	49	11%				
3%	61021	4%	67	4%	62	4%	11	2%	4	1%	8	2%	2	1%	25	5%	7	2%				
3%	70994	5%	434	28%	856	56%	3	1%	6	1%	8	2%	5	1%	41	9%	10	2%				
47%	735497	53%	585	38%	957	62%	375	70%	158	30%	254	74%	87	26%	350	76%	112	24%	0		0	
0%		0%		0%		0%		0%		0%		0%		0%		0%		0%				
0%		0%		0%		0%		0%		0%		0%		0%		0%		0%				
0%		0%		0%		0%		0%		0%		0%		0%		0%		0%				
%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%

) for this information?

eport Cuyahoga County, 2003 Coroner's Statistical Reprot Cuyahoga County, 2002 Coroner's Statistical Report, Cuyahoga County

of information: hospital discharge files, outpatient facility medical records, and registries (trauma).

e deaths where the trauma occurred outside the county, but the death within Cuyahoga.

NON-FATAL INJURY TEMPLATES

Safe Communities Project Area/Name: _____

Leading Cause of Non-Fatal Injuries

Year _____

"Big 3 Ranking"

1
2
3

Injury Cause/E-Code	Number	Rank	"Big 3"
Motor Vehicle (810-825)			
Drownings (830, 832, 910)			
Poison (850-869)			
Falls (880-888)			
Fires and Flames (890-899)			
Struck/Cut/Caught (916-918)			
Attempted Suicide (950-959)			
Assault (960-978)			
Firearm/Explosives (922, 955, 965, 985)			
Adverse Affects/Medication (850-858)			
Other			
Other			

What are your source(s) for this information? _____

_____

Recommended source of information: Office of Vital Statistics

"Big 3" from Ranking

1 _____

2 _____

3 _____

Safe Communities Project Area/Name: _____

Leading Cause of Transportation Non-Fatal Injuries by Type

Year _____

"Big 3 Ranking"

1
2
3

Injury Cause			Number	Rank	"Big 3"
Motor Vehicle:	**Number**	**Rank**			
Passenger					
Commercial					
Pickup Truck					
Motorcycle					
Motor Vehicle			0	1	*Motor Vehicle*
Bicycle					
Pedestrian					
Other					
Other					
Other					
Other					
Other					
Other					

What are your source(s) for this information? _____

Recommended source of information: Office of Vital Statistics

"Big3" from Ranking

1 **Motor Vehicle**
2 _____
3 _____

ded source of information: Office of Vital Statistics

in Mind to get the correct e-codes, you will need to be specific and include 3 digit codes, such as 810 and/or 4 digit as 810.1

e Communities Project Area/Name: _____

Non-Fatal Transportation Injuries by Type by Demographics

pulation		Passenger Vehicle				Commercial Vehicle				Pickup Truck				Motorcycle				Bicycle				Pedestrian				
Female		Male		Female		Male		Female		Male		Female		Male		Female		Male		Female		Male		Female		
#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#
0		0		0		0		0		0		0		0		0		0		0		0		0		
#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#
0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	

) for this information? _____

of information: hospital discharge files, outpatient facility medical records, and registries (trauma).

Safe Communities Project Area/Name: _____

Non-Fatal Injuries by Demographics
(Other than Transportation)

Population			Assault (E-960.0-969.9)				Falls (E-880-888)				Struck/Cut/Caught (E-916-920)				Other				Other			
	Female		Male		Female		Male		Female		Male		Female		Male		Female		Male		Female	
%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
	0		0		0		0		0		0		0		0		0		0		0	
%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%

) for this information? _____

of information: hospital discharge files, outpatient facility medical records, and registries (trauma).

Safe Communities Project Area/Name: Cuyahoga County, Ohio

Non-Fatal Injuries by Demographics
(Other than Transportation)

Population			Assault (E-960.0-969.9)				Falls (E-880-888)				Struck/Cut/Caught (E-916-920)				Other				Other			
	Female		Male		Female		Male		Female		Male		Female		Male		Female		Male		Female	
%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
3%	44556	3%																				
4%	49952	4%																				
4%	48374	3%																				
3%	44230	3%																				
3%	40285	3%																				
7%	97932	7%																				
8%	113815	8%																				
10%	164338	12%																				
3%	61021	4%																				
3%	70994	5%																				
47%	735497	53%	0		0		0		0		0		0		0		0		0		0	
0%		0%																				
0%		0%																				
0%		0%																				
%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%

) for this information?

of information: hospital discharge files, outpatient facility medical records, and registries (trauma).

EXAMPLES

The following examples are included to provide you with ideas about how the injury profile data you have collected can be presented. These examples are not in any way intended to limit your own creativity when designing your own presentations. These are just a few of the many ways in which the data can be organized into effective and persuasive presentations.

FATAL CRASHES BY CITY IN CUYAHOGA COUNY

Total fatal crashes, passenger vehicle, pickup truck, motorcycle, and pedestrian crashes

FATAL CRASHES

City	Total	Passenger Vehicle	Pickup Truck	Motorcycle	Pedestrian	Other
Cleveland	95	54	1	25	9	6
Brook Park	8	4	3	0	1	0
Euclid	8	3	0	1	4	0
Parma	8	3	1	2	2	0
Independence	6	3	1	1	0	1
Warrensville Hts	6	5	1	0	0	0
East Cleveland	5	4	0	0	1	0
Westlake	5	5	0	0	0	0
Beachwood	4	4	0	0	0	0
Brooklyn	4	1	1	0	1	1
Garfield Heights	4	2	0	1	1	0
Maple Heights	4	3	0	1	0	0
North Olmsted	4	3	0	1	0	0
Strongsville	4	4	0	0	0	0
Berea	3	1	0	1	1	0
Brecksville	3	3	0	0	0	0
Cleveland Heights	3	2	0	1	0	0
Lyndhurst	3	3	0	0	0	0
Mayfield Heights	3	2	1	0	0	0
South Euclid	3	3	0	0	0	0
Broadview Hts	2	2	0	0	0	0
Lakewood	2	0	1	0	0	1
Parma Heights	2	2	0	0	0	0
Solon	2	2	0	0	0	0
Bedford	1	1	0	0	0	0
Bedford Heights	1	0	0	0	1	0
Bratenahl	1	0	0	1	0	0
Brooklyn Heights	1	1	0	0	0	0
Fairview Park	1	1	0	0	0	0
Gates Mills	1	0	0	1	0	0
Highland Heights	1	1	0	0	0	0
Hunting Valley	1	1	0	0	0	0
North Royalton	1	0	0	1	0	0
Olmsted Falls	1	0	0	1	0	0
Rocky River	1	1	0	0	0	0
University Heights	1	1	0	0	0	0
Walton Hills	1	0	0	0	0	1

Source: Ohio Department of Public Safety, Crash Facts 2002 - 2004

INJURY CRASHES BY CITY IN CUYAHOGA COUNY

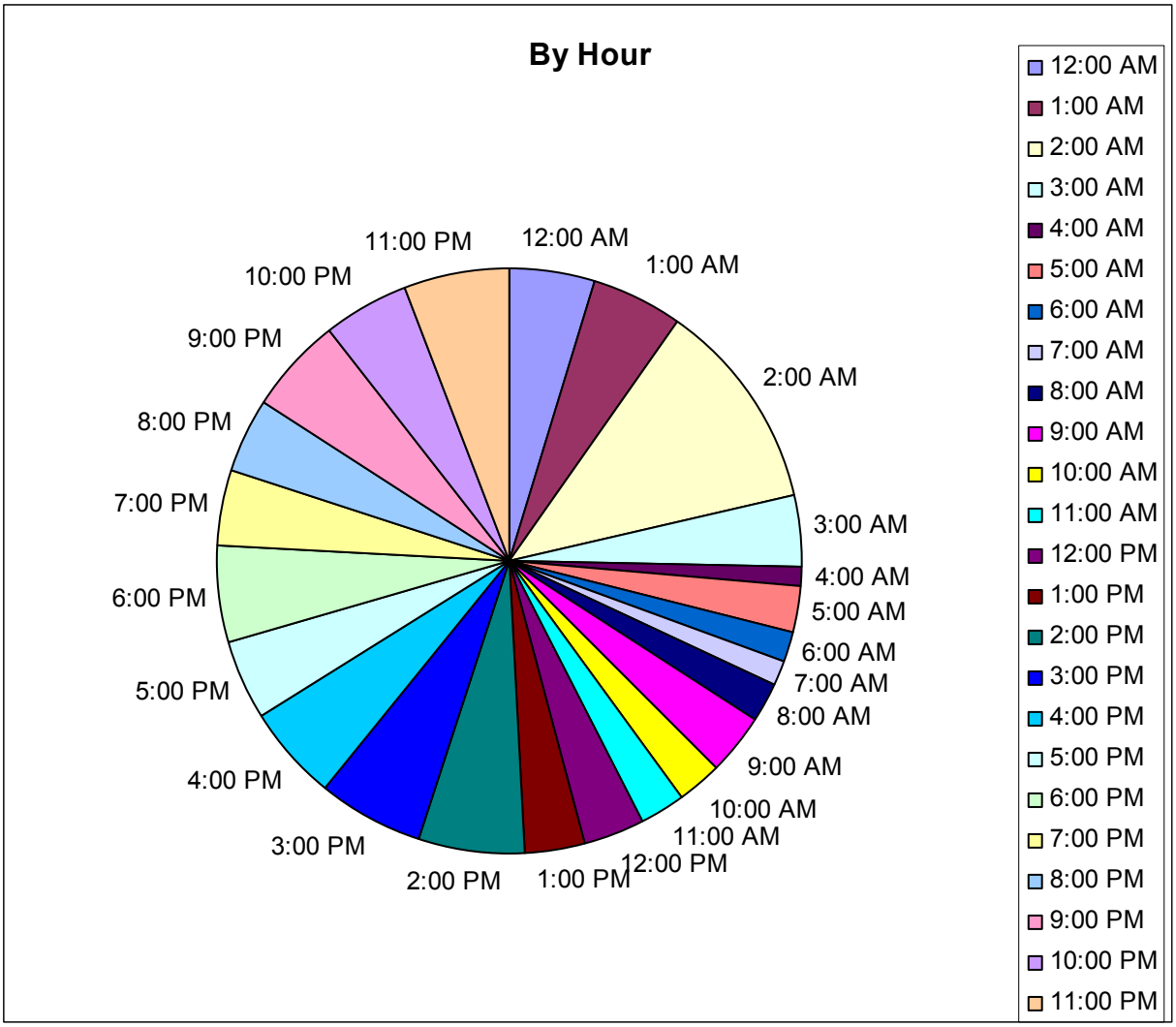
Total injury crashes, passenger vehicle, pickup truck, motorcycle, and pedestrian injury crashes

INJURY CRASHES (TOP 30 CITIES)

City	Total	Passenger Vehicle	Pickup Truck	Motorcycle	Pedestrian
Cleveland	6915	5143	270	253	528
Parma	986	807	49	35	33
Euclid	555	431	28	22	28
Lakewood	471	326	15	18	44
Strongsville	438	348	33	16	11
Garfield Heights	426	334	25	12	18
North Olmsted	357	6	21	19	10
Westlake	344	277	23	16	8
North Royalton	310	245	31	16	6
Brook Park	290	239	17	11	7
Cleveland Heights	271	204	2	7	22
Warrensville Hts	269	226	10	14	7
Middleburg Hts	237	203	12	9	2
Solon	224	171	14	12	4
East Cleveland	222	148	5	7	37
Shaker Heights	209	170	4	3	13
Beachwood	194	190	9	6	6
Independence	193	156	19	7	1
Maple Heights	173	130	7	13	10
South Euclid	164	122	5	5	10
Parma Heights	162	131	8	4	7
Broadview Hts	161	124	9	7	3
Pepper Pike	159	138	1	0	0
Mayfield Heights	152	132	11	2	6
Berea	150	108	4	14	8
Brooklyn	144	118	10	3	1
Lyndhurst	134	110	3	7	6
Bedford	133	145	4	6	11
Bedford Heights	128	111	5	5	3
Fairview Park	123	86	10	6	5

Source: Ohio Department of Public Safety, Crash Facts 2002 - 2004

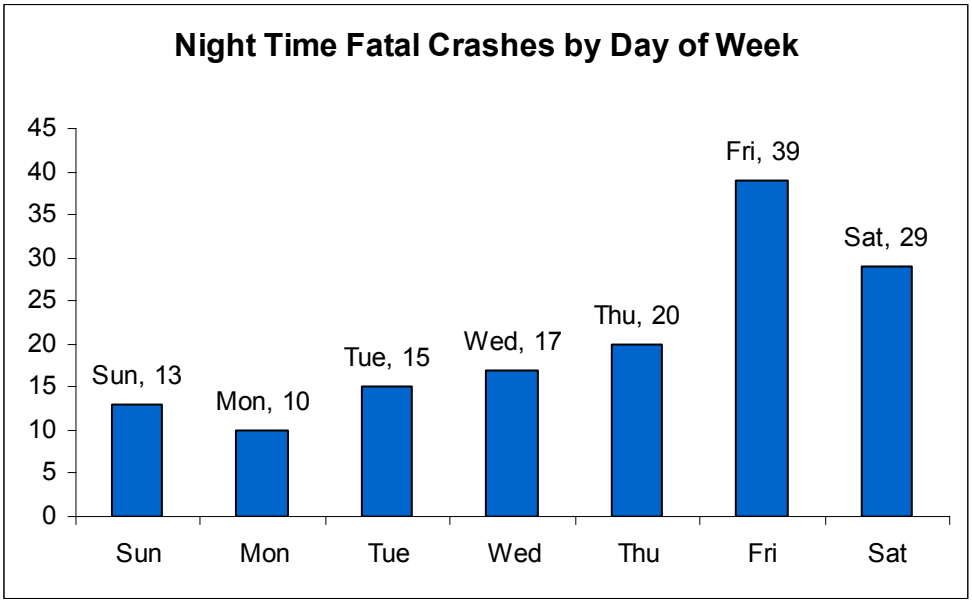
FATAL CRASHES BY HOUR OF THE DAY IN CUYAHOGA COUNTY



Source: Ohio Department of Public Safety, Statewide Crash Database: 2001 -2005

This graph shows the hours that fatal crashes occurred during the past five years in Cuyahoga County. Fatal crashes are most likely to in the night time hours. Approximately one-fourth of fatal crashes occurred between midnight and 4 AM.

NIGHTTIME FATAL CRASHES



Source: Ohio Department of Public Safety, Statewide Crash Database: 2001 -2005

Rainbow Babies & Children's Hospital attempted to analyze what times of day and what days of week appeared to have the most crashes. The table above breaks down fatal crashes during the night hours of 8 pm – 3:59 am over the past five years. For instance, Friday includes all crashes that occurred from 8:00 pm Friday night to 3:59 am Saturday. They found that Friday night was by far the most deadly night of the week with Saturday as the second most deadly night. This lead to the creation of a special patrol in 2005 called "Friday Night Lights" that put extra police officers on the road during late night hours on Friday night. A year later this patrol was expanded to include Saturday late night as well and was renamed "Night Cap Patrols."

ECONOMIC COST OF CRASHES IN CUYAHOGA COUNTY
2004

Injury or Crash Type	Number of Injuries/PDO crashes*	Estimated Multiplier**	Estimated Cost***
Fatalities	69	$ 1,130,000	$ 77,970,000
Incapacitating injuries	942	$ 58,500	$ 55,107,000
Non-incapacitating injuries	4529	$ 18,900	$ 85,598,100
Possible injuries	10475	$ 10,700	$ 112,082,500
Propery Damage Only Crashes	26929	$ 7,400	$ 199,274,600
Total Cost Estimate			**$ 530,000,000**

Source: Ohio Department of Public Safety, Crash Facts 2004
National Safety Council, Injury Facts, 2004.

Economic cost of crashes is an estimate of the dollar value of the total losses that were incurred due to motor vehicle crashes in Cuyahoga County during the year 2004. The figures are derived from a formula created by the National Safety Council to estimate costs of injuries. Costs include medical costs, property damage, police and paramedic costs, and productivity costs. The economic cost of crashes in Cuyahoga during 2004 was approximately $530 million.

MEDICAL CHARGES

Safe Communities Project Area/Name: _____

Medical Charges for the Leading Causes of Non-Fatal Injuries

Year _____

"Big 3 Ranking"
1
2
3

Injury Cause/E-Code	Total Charges	Rank	"Big 3"
Motor Vehicle (810-825)			
Drownings (830, 832, 910)			
Poison (850-869)			
Falls (880-888)			
Fires and Flames (890-899)			
Struck/Cut/Caught (916-918)			
Attempted Suicide (950-959)			
Assault (960-978)			
Firearm/Explosives (922, 955, 965, 985)			
Adverse Affects/Medication (850-858)			
Other			
Other			

What are your source(s) for this information? _____

_____

Recommended source of information: hospital discharge files, outpatient facility medical records, and registries (trauma), and National Safety Counc

Big 3 from Ranking

1 _____

2 _____

3 _____

CONTRIBUTING FACTORS

Why do I need this?

Now that you've identified the "Big 3" injury problems for fatal injury, non-fatal injury, and the affected population groups, continue your data collection efforts related to contributing factors. In collecting contributing factors you should only focus on the "Big 3". Why? Injury surveillance procedures dictate that a community program collect data on all injury problems, examining every aspect of injury in the community, conducting special studies to capture every element of all injury problems.

Remember---we are not establishing an injury surveillance program here. Your goal is simply to identify the priority problems that must be addressed with the limited resources in your community. With that goal in mind, additional data collection should be focused only on the "Big 3". Your next step is to determine what behavioral or environmental factors (alcohol, speed, roadway design, etc.) contributed to the "Big 3" injury problems in the first place.

The Data Tool Kit provides templates for a basic analysis of major contributing factors for motor vehicle, bicycle, or pedestrian injuries. Note that the templates do not identify every possible contributing factor; instead, the focus is on factors that could be addressed by a typical Safe Community coalition and the most prominent factors related to the problem. Typically, data is reported for drivers; in your community you should include data related to all individuals involved in the accident.

If your Safe Community program has a non-transportation related injury (within the "Big 3") such as firearm or farm injuries, then you will need to tailor a Contributing Factors Template that would include those human or environmental factors typically associated with that type of injury.

What do I collect?

This section includes the following data templates:

Contributing Factors to Motor Vehicle Fatalities by Demographics
Contributing Factors to Transportation Non-Fatal Injuries by Demographics
Contributing Factors to Bicycle Injuries
Contributing Factors to Pedestrian Injuries

How can I use it?

The following questions will be answered by this set of templates - Why these injuries are occurring and who is affected by those injuries? Are there any groups that are over represented (potential target groups)? If you know what human and environmental factors may have contributed to the “Big 3” injuries in your community, then you can design strategies that affect those specific contributing factors.

The identified factors also point you in the right direction of other organizations or resource agencies that can address a specific contributing factor. For example, you’ve identified motor vehicle injuries among teens and young adults (16 – 20 yr.) as one of the "Big 3". In this example, the "Big 3" contributing factors are alcohol, speed, and nonuse of safety belts. Your Safe Community coalition may recruit law enforcement agencies, high schools and colleges, alcohol and drug abuse programs, SADD, MADD and local retailers/servers (underage drinking) as possible partners in addressing this injury problem in your community.

What are my best sources?

- Police reports

Safe Communities Project Area/Name: _____

Contributing Factors to Motor Vehicle Fatalities by Demographics

Population			Restraint Safety Equipment Usage				Alcohol				Driver Distraction /Inattention				Speeding				Environmental /Roadway Design			
	Female		Male		Female		Male		Female		Male		Female		Male		Female		Male		Female	
%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
	0		0		0		0		0		0		0		0		0		0		0	
%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%

) for this information? _____

of information: hospital discharge files, outpatient facility medical records, and registries (trauma).

Safe Communities Project Area/Name: _____

Contributing Factors to Motor Vehicle Fatalities by Demographics

Population			No restraint used (vehicle occupant)				Alcohol-related				Drug-related				Speeding				Reckless Operation			
	Female		Male		Female		Male		Female		Male		Female		Male		Female		Male		Female	
%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
3%	44556	3%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
4%	49952	4%	1	1%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
4%	48374	3%	1	1%	0	0%	0	0%	0	0%	0	0%	0	0%	1	1%	0	0%	1	2%	0	0%
3%	44230	3%	8	7%	3	3%	4	4%	3	3%	1	4%	1	4%	10	9%	5	4%	6	14%	3	7%
3%	40285	3%	19	16%	3	3%	18	18%	4	4%	5	19%	1	4%	19	17%	3	3%	9	21%	1	2%
7%	97932	7%	20	17%	3	3%	24	24%	3	3%	8	31%	1	4%	23	20%	4	4%	10	23%	1	2%
8%	113815	8%	17	14%	6	5%	14	14%	3	3%	2	8%	2	8%	15	13%	3	3%	8	19%	1	2%
10%	164338	12%	21	18%	6	5%	22	22%	5	5%	5	19%	0	0%	17	15%	4	4%	3	7%	0	0%
3%	61021	4%	2	2%	0	0%	1	1%	0	0%	0	0%	0	0%	4	4%	0	0%	0	0%	0	0%
3%	70994	5%	4	3%	4	3%	0	0%	0	0%	0	0%	0	0%	3	3%	2	2%	0	0%	0	0%
47%	735497	53%	93	79%	25	21%	83	82%	18	18%	21	81%	5	19%	92	81%	21	19%	37	86%	6	14%
0%		0%		0%		0%		0%		0%		0%		0%		0%		0%		0%		0%
0%		0%		0%		0%		0%		0%		0%		0%		0%		0%		0%		0%
0%		0%		0%		0%		0%		0%		0%		0%		0%		0%		0%		0%
%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%

) for this information? _____

of information: hospital discharge files, outpatient facility medical records, and registries (trauma).

Safe Communities Project Area/Name: _____

Contributing Factors to Transportation Non-Fatal Injuries by Demographics

Population			Restraint Safety Equipment Usage				Alcohol				Driver Distraction /Inattention				Speeding				Environmental /Roadway Design			
	Female		Male		Female		Male		Female		Male		Female		Male		Female		Male		Female	
%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
	0		0		0		0		0		0		0		0		0		0		0	
%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%

) for this information? _____

of information: hospital discharge files, outpatient facility medical records, and registries (trauma).

Safe Communities Project Area/Name: Cuyahoga County

Contributing Factors to Transportation Non-Fatal Injuries by Demographics

04

Population			No restraint used (vehicle occupant)				Alcohol-related				Drug-related				Speeding				Reckless Operation			
	Female		Male		Female		Male		Female		Male		Female		Male		Female		Male		Female	
%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
3%	44556	3%	12	0%	7	0%	11	1%	8	0%	7	2%	5	1%	21	1%	14	0%	1	0%	2	1%
4%	49952	4%	47	2%	32	1%	7	0%	13	1%	0	0%	2	0%	41	1%	22	1%	5	2%	6	2%
4%	48374	3%	79	3%	37	1%	15	1%	3	0%	4	1%	4	1%	51	1%	41	1%	0	0%	3	1%
3%	44230	3%	246	9%	194	7%	94	6%	65	4%	30	7%	13	3%	325	9%	275	8%	14	5%	21	7%
3%	40285	3%	304	11%	164	6%	251	15%	111	7%	74	16%	28	6%	410	12%	243	7%	26	9%	28	9%
7%	97932	7%	363	14%	195	7%	284	17%	135	8%	93	21%	30	7%	445	13%	270	8%	37	12%	31	10%
8%	113815	8%	303	11%	136	5%	219	13%	111	7%	54	12%	18	4%	334	10%	215	6%	30	10%	25	8%
10%	164338	12%	298	11%	144	5%	185	11%	100	6%	47	10%	32	7%	320	9%	232	7%	39	13%	27	9%
3%	61021	4%	30	1%	28	1%	22	1%	14	1%	4	1%	4	1%	51	1%	46	1%	6	2%	3	1%
3%	70994	5%	27	1%	40	1%	3	0%	4	0%	0	0%	1	0%	33	1%	47	1%	0	0%	0	0%
47%	735497	53%	1709	64%	977	36%	1091	66%	564	34%	313	70%	137	30%	2031	59%	1405	41%	158	52%	146	48%
0%		0%		0%		0%		0%		0%		0%		0%		0%		0%		0%		0%
0%		0%		0%		0%		0%		0%		0%		0%		0%		0%		0%		0%
0%		0%		0%		0%		0%		0%		0%		0%		0%		0%		0%		0%
%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%

) for this information?
se - 2002-2004 data

of information: hospital discharge files, outpatient facility medical records, and registries (trauma).

Safe Communities Project Area/Name: _____

Contributing Factors to Motor Vehicle Non-Fatal Injuries by Demographics

Population			Restraint Safety Equipment Usage				Alcohol				Driver Distraction /Inattention				Speeding				Environmental /Roadway Design			
	Female		Male		Female		Male		Female		Male		Female		Male		Female		Male		Female	
%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
	0		0		0		0		0		0		0		0		0		0		0	
%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%

) for this information? _____

of information: hospital discharge files, outpatient facility medical records, and registries (trauma).

Safe Communities Project Area/Name: _____

Contributing Factors to Bicycle Injuries

Population			Protective Gear				Alcohol				Environmental /Roadway Design				Rider Action				Other			
	Female		Male		Female		Male		Female		Male		Female		Male		Female		Male		Female	
%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
3%	44556	3%																				
4%	49952	4%																				
4%	48374	3%																				
3%	44230	3%																				
3%	40285	3%																				
7%	97932	7%																				
8%	113815	8%																				
10%	164338	12%																				
3%	61021	4%																				
3%	70994	5%																				
47%	735497	53%	0		0		0		0		0		0		0		0		0		0	
0%		0%																				
0%		0%																				
0%		0%																				
%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%

) for this information? _____

of information: hospital discharge files, outpatient facility medical records, and registries (trauma).

Safe Communities Project Area/Name: _____

Contributing Factors to Pedestrian Injuries

Population			Pedestrian Actions				Alcohol				Mid Block Crossing				Environmental /Roadway Design				Conspicuity (Visibility)			
	Female		Male		Female		Male		Female		Male		Female		Male		Female		Male		Female	
%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
	0		0		0		0		0		0		0		0		0		0		0	
%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%

) for this information? _____

of information: hospital discharge files, outpatient facility medical records, and registries (trauma).

Safe Communities Project Area/Name: _____

Contributing Factors to Pedestrian Injuries

Population			Pedestrian Actions				Alcohol				Mid Block Crossing				Environmental /Roadway Design				Conspicuity (Visibilty)			
	Female		Male		Female		Male		Female		Male		Female		Male		Female		Male		Female	
%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
3%	44556	3%																				
4%	49952	4%																				
4%	48374	3%																				
3%	44230	3%																				
3%	40285	3%																				
7%	97932	7%																				
8%	113815	8%																				
10%	164338	12%																				
3%	61021	4%																				
3%	70994	5%																				
47%	735497	53%	0		0		0		0		0		0		0		0		0		0	
0%		0%																				
0%		0%																				
0%		0%																				
%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%

) for this information? _____

of information: hospital discharge files, outpatient facility medical records, and registries (trauma).

EXAMPLES

The following examples are included to provide you with ideas about how the contributing factors data you have collected can be presented. These examples are not in any way intended to limit your own creativity when designing your own presentations. These are just a few of the many ways in which the data can be organized into effective and persuasive presentations.

LOCATION/MAPPING

Why do I need this?

It is important to know where the injuries in your community are occurring. This information can be useful in targeting your interventions to a specific geographical area.

What do I collect?

This section includes the following data templates:

Transportation Fatal Injuries by Zip Code
Non-Fatal Transportation Injuries by Zip Code
Fatal Injuries by Zip Code (Other than transportation)
Non-Fatal Injuries by Zip Code (Other than transportation)

Other information you will need to collect includes the name or route number of the street, road, highway or intersection where the crash or injury occurred. Contact your local traffic engineer within your city or county government who will be able to help you with this process.

How can I use it?

This data can be plotted on a map using something as simple as stickpins. Once you plot where the injuries occurred, than you can look for clusters or areas where large numbers of injuries are taking place in your community. This approach has been used for many years in targeting high injury crash locations for motor vehicle crashes. These areas should be the targets of your injury control interventions. By working closely with law enforcement, high speed or DUI crash areas can be targeted with saturation patrols along with community-wide public awareness activities to reduce the problem on these roadways. Many Safe Community programs publish the “Ten Most Dangerous Roadways” in their local newspapers to publicize high injury crash locations in their community. This brings attention to the crash problem and alerts citizens on the need to practice safety behaviors behind the wheel of an automobile.

Another tool is the use of zip code mapping to identify target areas. By comparing hospital data with zip code location information, Safe Community programs can identify the neighborhoods in the community that are primarily affected by the “Big 3”. For example, bicycle injury may have been one of your “Big 3”. A zip code map may reveal that many of the victims that appear in the emergency room may come from an impoverished neighborhood in your community. A bicycle helmet survey may further validate the need for a bicycle safety and a helmet promotion program targeting this segment of the community. Mapping is a valuable subset of data that allows you to bring your program to the neighborhood in need!

What are my best sources?

★ Location Mapping
Police Crash Report
- Local or District Traffic engineers

★ Zip Code Mapping
Emergency Department medical record

Safe Communities Project Area/Name: _____

Fatal Injuries by Zip Code

(Other than Transportation)

Year _____

	Population	Assault (E-960.0-969.9)	Falls (E-880-888)	Struck/Cut/ Caught (E-916-920)	Other	Other
Zip Code						

Safe Communities Project Area/Name: _____

Non-Fatal Injuries by Zip Code

(Other than Transportation)

Year _____

	Population	Assault (E-960.0-969.9)	Falls (E-880-888)	Struck/Cut/ Caught (E916-920)	Other	Other
Zip Code						

Safe Communities Project Area/Name: _____

Fatal Transportation Injuries by Zip Code

Year _____

	Population	Passenger Vehicle	Commercial Vehicle	Pick Up Truck	Motorcycle	Pedestrian	Bicycle	Other
Zip Code								

Safe Communities Project Area/Name: _____

Non-Fatal Transportation Injuries by Zip Code

Year _____

	Population	Passenger Vehicle	Commercial Vehicle	Pick Up Truck	Motorcycle	Pedestrian	Bicycle	Other
Zip Code								

EXAMPLES

The following examples are included to provide you with ideas about how the location and mapping data you have collected can be presented. These examples are not in any way intended to limit your own creativity when designing your own presentations. These are just a few of the many ways in which the data can be organized into effective and persuasive presentations.

Safe Communities Project Area/Name: Cuyahoga County

Transportation Fatal Injuries by City

Year 2002 - 2004

City	Population	Total	Passenger Vehicle	Pickup Truck	Motorcycle	Pedestrian	Other
Beachwood		4	4	0	0	0	0
Bedford		1	1	0	0	0	0
Bedford Heights		1	0	0	0	1	0
Berea		3	1	0	1	1	0
Bratenahl		1	0	0	1	0	0
Brecksville		3	3	0	0	0	0
Broadview Hts		2	2	0	0	0	0
Brook Park		8	4	3	0	1	0
Brooklyn		4	1	1	0	1	1
Brooklyn Heights		1	1	0	0	0	0
Cleveland		95	54	1	25	9	6
Cleveland Heights		3	2	0	1	0	0
East Cleveland		5	4	0	0	1	0
Euclid		8	3	0	1	4	0
Fairview Park		1	1	0	0	0	0
Garfield Heights		4	2	0	1	1	0
Gates Mills		1	0	0	1	0	0
Highland Heights		1	1	0	0	0	0
Hunting Valley		1	1	0	0	0	0
Independence		6	3	1	1	0	1
Lakewood		2	0	1	0	0	1
Lyndhurst		3	3	0	0	0	0
Maple Heights		4	3	0	1	0	0
Mayfield Heights		3	2	1	0	0	0
North Olmsted		4	3	0	1	0	0
North Royalton		1	0	0	1	0	0
Olmsted Falls		1	0	0	1	0	0
Parma		8	3	1	2	2	0
Parma Heights		2	2	0	0	0	0
Rocky River		1	1	0	0	0	0
Solon		2	2	0	0	0	0
South Euclid		3	3	0	0	0	0
Strongsville		4	4	0	0	0	0
University Heights		1	1	0	0	0	0
Walton Hills		1	0	0	0	0	1
Warrensville Hts		6	5	1	0	0	0
Westlake		5	5	0	0	0	0

Safe Communities Project Area/Name: Cuyahoga County

Transportation Fatal Injuries by City

Year 2002 - 2004

City	Population	Total	Passenger Vehicle	Pickup Truck	Motorcycle	Pedestrian	Other
Bay Village		72	57	3	3	1	
Beachwood		194	190	9	6	6	
Bedford		133	145	4	6	11	
Bedford Heights		128	111	5	5	3	
Bentleyville		8	8	0	0	0	
Berea		150	108	4	14	8	
Bratenahl		66	57	1	5	0	
Brecksville		113	94	3	11	1	
Broadview Hts		161	124	9	7	3	
Brook Park		290	239	17	11	7	
Brooklyn		144	118	10	3	1	
Brooklyn Heights		61	46	3	7	0	
Chagrin Falls		14	11	0	0	0	
Cleveland		6915	5143	270	253	528	
Cleveland Heights		271	204	2	7	22	
Cuyahoga Heights		53	40	4	4	0	
East Cleveland		222	148	5	7	37	
Euclid		555	431	28	22	28	
Fairview Park		123	86	10	6	5	
Garfield Heights		426	334	25	12	18	
Gates Mills		68	55	3	4	1	
Glenwillow		20	16	2	1	0	
Highland Heights		71	61	2	2	2	
Highland Hills		13	12	0	0	0	
Hunting Valley		12	10	0	2	0	
Independence		193	156	19	7	1	
Lakewood		471	326	15	18	44	
Linndale		6	5	0	0	1	
Lyndhurst		134	110	3	7	6	
Maple Heights		173	130	7	13	10	
Mayfield		86	73	2	4	0	
Mayfield Heights		152	132	11	2	6	
Middleburg Hts		237	203	12	9	2	
Moreland Hills		27	23	0	4	0	
Newburgh Hts		20	13	0	3	0	
North Randall		6	280	0	0	0	
North Olmsted		357	6	21	19	10	
North Royalton		310	245	31	16	6	
Oakwood		75	55	8	5	1	
Olmsted Twp		88	66	7	4	2	
Olmsted Falls		37	31	2	2	0	
Orange		36	28	6	0	1	
Pepper Pike		159	138	1	0	0	
Parma		986	807	49	35	33	
Parma Heights		162	131	8	4	7	
Richmond Heights		78	69	2	3	0	
Rocky River		114	75	6	10	7	
Seven Hills		41	35	0	3	1	

Shaker Heights		209	170	4	3	13	
Solon		224	171	14	12	4	
South Euclid		164	122	5	5	10	
Strongsville		438	348	33	16	11	
University Heights		92	75	2	4	3	
Valley View		89	43	8	13	1	
Walton Hills		16	12	1	3	0	
Warrensville Hts		269	226	10	14	7	
Westlake		344	277	23	16	8	
Woodmere		17	12	0	1	1	

TRACKING YOUR PROGRESS

Why do I need this?

★ Now that you've identified your community's "Big 3" injury problems, you should track them over time. There are two reasons why this is important: a) to evaluate the effectiveness of any interventions that have been implemented in your community during that time frame, and b) to observe any changes in injury patterns within a specific population or area. Indicators of injury trends and of program impact should relate back to the "Big 3" problems and the objectives of your interventions. For example, if your objective is to "decrease bicycle injuries by 10% among children aged 6-12," then you must monitor bicycle injuries within this age group annually to determine if any changes have occurred. Tracking doesn't require extensive data analysis. However, it is probably one of your most powerful tools in generating support among the media, the general public and stakeholders.

What do I collect?

Collect the same data (for example, bicycle injuries in your county) over a series of time periods (a year is the most commonly used time period).

How can I use it?

How do you measure your success? Community-wide observational surveys detect the presence or absence of a behavior (for example, use or nonuse of safety belts). Collect your baseline data and then repeat your data collection each year to track your progress. Limit your annual data collection efforts to the target populations and specific types of injuries addressed by your program. Publishing your results in the local newspaper is an effective way to provide this information to the community.

This simple tracking method does not allow you to state without a doubt that a decrease in injuries is solely due to the Safe Community intervention. Tracking injury trends allows you to measure the success of the entire community in addressing injury problems.

What are my best sources?

- Police Crash Report

EXAMPLES

The following examples are included to provide you with ideas about how the trend data you have collected can be presented. These examples are not in any way intended to limit your own creativity when designing your own presentations. These are just a few of the many ways in which the data can be organized into effective and persuasive presentations.

Cuyahoga County

Economic cost of crashes in Cuyahoga County in 2004

Injury or Crash Type	Number of Injuries/PDO crashes*	Estimated Multiplier**	Estimated Cost***
Fatalities	69	$ 1,130,000	$ 77,970,000
Incapacitating injuries	942	$ 58,500	$ 55,107,000
Non-incapacitating injuries	4529	$ 18,900	$ 85,598,100
Possible injuries	10475	$ 10,700	$ 112,082,500
Propery Damage Only Crashes	26929	$ 7,400	$ 199,274,600
			$ 530,032,200

Comprehensive cost of crashes in Cuyahoga County based on 2004 crash data.

Injury or Crash Type	Number of Injuries/PDO crashes*	Multiplier**	Estimated Cost***
Fatalities	69	$ 3,760,000	$ 259,440,000
Incapacitating Injuries	942	$ 188,000	$ 177,096,000
Non-incapacitating Injuries	4529	$ 48,200	$ 218,297,800
Possible injuries	10475	$ 22,900	$ 239,877,500
Propery Damage Only Crashes	26929	$ 2,100	$ 56,550,900
			$ 951,262,200

Data Sources: Year: 2004

*Ohio Department of Public Safety. *Traffic Crash Facts* . 2004
**National Safety Council, *Injury Facts* , 2004
***Rainbow Babies & Children's Hospital, 2005

Bay Village

Economic cost of crashes in Bay Village in 2004

Injury or Crash Type	Number of Injuries/PDO crashes	Estimated Multiplier	Estimated Cost
Fatalities	0	$ 1,130,000	$ -
Incapacitating injuries	13	$ 58,500	$ 760,500
Non-incapacitating injuries	25	$ 18,900	$ 472,500
Possible injuries	23	$ 10,700	$ 246,100
Propery Damage Only Crashes	107	$ 7,400	$ 791,800
			$ 2,270,900

Comprehensive cost of crashes in Bay Village based on 2004 crash data.

Injury or Crash Type	Number of Injuries/PDO crashes	Multiplier	Estimated Cost
Fatalities	0	$ 3,760,000	$ -
Incapacitating Injuries	13	$ 188,000	$ 2,444,000
Non-incapacitating Injuries	25	$ 48,200	$ 1,205,000
Possible injuries	23	$ 22,900	$ 526,700
Propery Damage Only Crashes	107	$ 2,100	$ 224,700
			$ 4,400,400

Data Sources: Year: 2004

*Ohio Department of Public Safety. *Traffic Crash Facts* . 2004
**National Safety Council, *Injury Facts* , 2004
***Rainbow Babies & Children's Hospital, 2005

Beachwood

Economic cost of crashes in Beachwood in 2004

Injury or Crash Type	Number of Injuries/PDO crashes	Estimated Multiplier	Estimated Cost
Fatalities	2	$ 1,130,000	$ 2,260,000
Incapacitating injuries	19	$ 58,500	$ 1,111,500
Non-incapacitating injuries	70	$ 18,900	$ 1,323,000
Possible injuries	147	$ 10,700	$ 1,572,900
Propery Damage Only Crashes	431	$ 7,400	$ 3,189,400
			$ 9,456,800

Comprehensive cost of crashes in Beachwood based on 2004 crash data.

Injury or Crash Type	Number of Injuries/PDO crashes	Multiplier	Estimated Cost
Fatalities	2	$ 3,760,000	$ 7,520,000
Incapacitating Injuries	19	$ 188,000	$ 3,572,000
Non-incapacitating Injuries	70	$ 48,200	$ 3,374,000
Possible injuries	147	$ 22,900	$ 3,366,300
Propery Damage Only Crashes	431	$ 2,100	$ 905,100
			$ 18,737,400

Data Sources: Year: 2004

*Ohio Department of Public Safety. *Traffic Crash Facts* . 2004
**National Safety Council, *Injury Facts* , 2004
***Rainbow Babies & Children's Hospital, 2005

Bedford

Economic cost of crashes in Bedford in 2004

Injury or Crash Type	Number of Injuries/PDO crashes	Estimated Multiplier	Estimated Cost
Fatalities	1	$ 1,130,000	$ 1,130,000
Incapacitating injuries	7	$ 58,500	$ 409,500
Non-incapacitating injuries	53	$ 18,900	$ 1,001,700
Possible injuries	85	$ 10,700	$ 909,500
Propery Damage Only Crashes	265	$ 7,400	$ 1,961,000
			$ 5,411,700

Comprehensive cost of crashes in Bedford based on 2004 crash data.

Injury or Crash Type	Number of Injuries/PDO crashes	Multiplier	Estimated Cost
Fatalities	1	$ 3,760,000	$ 3,760,000
Incapacitating Injuries	7	$ 188,000	$ 1,316,000
Non-incapacitating Injuries	53	$ 48,200	$ 2,554,600
Possible injuries	85	$ 22,900	$ 1,946,500
Propery Damage Only Crashes	265	$ 2,100	$ 556,500
			$ 10,133,600

Data Sources: Year: 2004

*Ohio Department of Public Safety. *Traffic Crash Facts* . 2004
**National Safety Council, *Injury Facts* , 2004
***Rainbow Babies & Children's Hospital, 2005

Bedford Heights

Economic cost of crashes in Bedford Heights in 2004

Injury or Crash Type	Number of Injuries/PDO crashes	Estimated Multiplier	Estimated Cost
Fatalities	1	$ 1,130,000	$ 1,130,000
Incapacitating injuries	13	$ 58,500	$ 760,500
Non-incapacitating injuries	35	$ 18,900	$ 661,500
Possible injuries	81	$ 10,700	$ 866,700
Propery Damage Only Crashes	257	$ 7,400	$ 1,901,800
			$ 5,320,500

Comprehensive cost of crashes in Bedford Heights based on 2004 crash data.

Injury or Crash Type	Number of Injuries/PDO crashes	Multiplier	Estimated Cost
Fatalities	1	$ 3,760,000	$ 3,760,000
Incapacitating Injuries	13	$ 188,000	$ 2,444,000
Non-incapacitating Injuries	35	$ 48,200	$ 1,687,000
Possible injuries	81	$ 22,900	$ 1,854,900
Propery Damage Only Crashes	257	$ 2,100	$ 539,700
			$ 10,285,600

Data Sources: Year: 2004

*Ohio Department of Public Safety. *Traffic Crash Facts* . 2004
**National Safety Council, *Injury Facts* , 2004
***Rainbow Babies & Children's Hospital, 2005

Bentleyville

Economic cost of crashes in Bentleyville in 2004

Injury or Crash Type	Number of Injuries/PDO crashes	Estimated Multiplier	Estimated Cost
Fatalities	0	$ 1,130,000	$ -
Incapacitating injuries	1	$ 58,500	$ 58,500
Non-incapacitating injuries	4	$ 18,900	$ 75,600
Possible injuries	6	$ 10,700	$ 64,200
Propery Damage Only Crashes	11	$ 7,400	$ 81,400
			$ 279,700

Comprehensive cost of crashes in Bentleyville based on 2004 crash data.

Injury or Crash Type	Number of Injuries/PDO crashes	Multiplier	Estimated Cost
Fatalities	0	$ 3,760,000	$ -
Incapacitating Injuries	1	$ 188,000	$ 188,000
Non-incapacitating Injuries	4	$ 48,200	$ 192,800
Possible injuries	6	$ 22,900	$ 137,400
Propery Damage Only Crashes	11	$ 2,100	$ 23,100
			$ 541,300

Data Sources: Year: 2004

*Ohio Department of Public Safety. *Traffic Crash Facts* . 2004
**National Safety Council, *Injury Facts* , 2004
***Rainbow Babies & Children's Hospital, 2005

Berea

Economic cost of crashes in Berea in 2004

Injury or Crash Type	Number of Injuries/PDO crashes	Estimated Multiplier	Estimated Cost
Fatalities	1	$ 1,130,000	$ 1,130,000
Incapacitating injuries	10	$ 58,500	$ 585,000
Non-incapacitating injuries	39	$ 18,900	$ 737,100
Possible injuries	49	$ 10,700	$ 524,300
Propery Damage Only Crashes	278	$ 7,400	$ 2,057,200
			$ 5,033,600

Comprehensive cost of crashes in Berea based on 2004 crash data.

Injury or Crash Type	Number of Injuries/PDO crashes	Multiplier	Estimated Cost
Fatalities	1	$ 3,760,000	$ 3,760,000
Incapacitating Injuries	10	$ 188,000	$ 1,880,000
Non-incapacitating Injuries	39	$ 48,200	$ 1,879,800
Possible injuries	49	$ 22,900	$ 1,122,100
Propery Damage Only Crashes	278	$ 2,100	$ 583,800
			$ 9,225,700

Data Sources: Year: 2004

*Ohio Department of Public Safety. *Traffic Crash Facts* . 2004
**National Safety Council, *Injury Facts* , 2004
***Rainbow Babies & Children's Hospital, 2005

Bratenahl

Economic cost of crashes in Bratenahl in 2004

Injury or Crash Type	Number of Injuries/PDO crashes	Estimated Multiplier	Estimated Cost
Fatalities	0	$ 1,130,000	$ -
Incapacitating injuries	9	$ 58,500	$ 526,500
Non-incapacitating injuries	20	$ 18,900	$ 378,000
Possible injuries	50	$ 10,700	$ 535,000
Propery Damage Only Crashes	101	$ 7,400	$ 747,400
			$ 2,186,900

Comprehensive cost of crashes in Bratenahl based on 2004 crash data.

Injury or Crash Type	Number of Injuries/PDO crashes	Multiplier	Estimated Cost
Fatalities	0	$ 3,760,000	$ -
Incapacitating Injuries	9	$ 188,000	$ 1,692,000
Non-incapacitating Injuries	20	$ 48,200	$ 964,000
Possible injuries	50	$ 22,900	$ 1,145,000
Propery Damage Only Crashes	101	$ 2,100	$ 212,100
			$ 4,013,100

Data Sources: Year: 2004

*Ohio Department of Public Safety. *Traffic Crash Facts* . 2004
**National Safety Council, *Injury Facts* , 2004
***Rainbow Babies & Children's Hospital, 2005

Brecksville

Economic cost of crashes in Brecksville in 2004

Injury or Crash Type	Number of Injuries/PDO crashes	Estimated Multiplier	Estimated Cost
Fatalities	0	$ 1,130,000	$ -
Incapacitating injuries	5	$ 58,500	$ 292,500
Non-incapacitating injuries	45	$ 18,900	$ 850,500
Possible injuries	56	$ 10,700	$ 599,200
Propery Damage Only Crashes	242	$ 7,400	$ 1,790,800
			$ 3,533,000

Comprehensive cost of crashes in Brecksville based on 2004 crash data.

Injury or Crash Type	Number of Injuries/PDO crashes	Multiplier	Estimated Cost
Fatalities	0	$ 3,760,000	$ -
Incapacitating Injuries	5	$ 188,000	$ 940,000
Non-incapacitating Injuries	45	$ 48,200	$ 2,169,000
Possible injuries	56	$ 22,900	$ 1,282,400
Propery Damage Only Crashes	242	$ 2,100	$ 508,200
			$ 4,899,600

Data Sources: Year: 2004

*Ohio Department of Public Safety. *Traffic Crash Facts* . 2004
**National Safety Council, *Injury Facts* , 2004
***Rainbow Babies & Children's Hospital, 2005

Broadview Heights

Economic cost of crashes in Broadview Heights in 2004

Injury or Crash Type	Number of Injuries/PDO crashes	Estimated Multiplier	Estimated Cost
Fatalities	0	$ 1,130,000	$ -
Incapacitating injuries	8	$ 58,500	$ 468,000
Non-incapacitating injuries	32	$ 18,900	$ 604,800
Possible injuries	97	$ 10,700	$ 1,037,900
Propery Damage Only Crashes	354	$ 7,400	$ 2,619,600
			$ 4,730,300

Comprehensive cost of crashes in Broadview Heights based on 2004 crash data.

Injury or Crash Type	Number of Injuries/PDO crashes	Multiplier	Estimated Cost
Fatalities	0	$ 3,760,000	$ -
Incapacitating Injuries	8	$ 188,000	$ 1,504,000
Non-incapacitating Injuries	32	$ 48,200	$ 1,542,400
Possible injuries	97	$ 22,900	$ 2,221,300
Propery Damage Only Crashes	354	$ 2,100	$ 743,400
			$ 6,011,100

Data Sources: Year: 2004

*Ohio Department of Public Safety. *Traffic Crash Facts* . 2004
**National Safety Council, *Injury Facts* , 2004
***Rainbow Babies & Children's Hospital, 2005

Brook Park

Economic cost of crashes in Brook Park in 2004

Injury or Crash Type	Number of Injuries/PDO crashes	Estimated Multiplier	Estimated Cost
Fatalities	0	$ 1,130,000	$ -
Incapacitating injuries	18	$ 58,500	$ 1,053,000
Non-incapacitating injuries	77	$ 18,900	$ 1,455,300
Possible injuries	100	$ 10,700	$ 1,070,000
Propery Damage Only Crashes	297	$ 7,400	$ 2,197,800
			$ 5,776,100

Comprehensive cost of crashes in Brook Park based on 2004 crash data.

Injury or Crash Type	Number of Injuries/PDO crashes	Multiplier	Estimated Cost
Fatalities	0	$ 3,760,000	$ -
Incapacitating Injuries	18	$ 188,000	$ 3,384,000
Non-incapacitating Injuries	77	$ 48,200	$ 3,711,400
Possible injuries	100	$ 22,900	$ 2,290,000
Propery Damage Only Crashes	297	$ 2,100	$ 623,700
			$ 10,009,100

Data Sources: Year: 2004

*Ohio Department of Public Safety. *Traffic Crash Facts* . 2004
**National Safety Council, *Injury Facts* , 2004
***Rainbow Babies & Children's Hospital, 2005

Brooklyn

Economic cost of crashes in Brooklyn in 2004

Injury or Crash Type	Number of Injuries/PDO crashes	Estimated Multiplier	Estimated Cost
Fatalities	1	$ 1,130,000	$ 1,130,000
Incapacitating injuries	10	$ 58,500	$ 585,000
Non-incapacitating injuries	41	$ 18,900	$ 774,900
Possible injuries	106	$ 10,700	$ 1,134,200
Propery Damage Only Crashes	213	$ 7,400	$ 1,576,200
			$ 5,200,300

Comprehensive cost of crashes in Brooklyn based on 2004 crash data.

Injury or Crash Type	Number of Injuries/PDO crashes	Multiplier	Estimated Cost
Fatalities	1	$ 3,760,000	$ 3,760,000
Incapacitating Injuries	10	$ 188,000	$ 1,880,000
Non-incapacitating Injuries	41	$ 48,200	$ 1,976,200
Possible injuries	106	$ 22,900	$ 2,427,400
Propery Damage Only Crashes	213	$ 2,100	$ 447,300
			$ 10,490,900

Data Sources: Year: 2004

*Ohio Department of Public Safety. *Traffic Crash Facts* . 2004
**National Safety Council, *Injury Facts* , 2004
***Rainbow Babies & Children's Hospital, 2005

Brooklyn Heights

Economic cost of crashes in Brooklyn Heights in 2004

Injury or Crash Type	Number of Injuries/PDO crashes	Estimated Multiplier	Estimated Cost
Fatalities	1	$ 1,130,000	$ 1,130,000
Incapacitating injuries	1	$ 58,500	$ 58,500
Non-incapacitating injuries	12	$ 18,900	$ 226,800
Possible injuries	19	$ 10,700	$ 203,300
Propery Damage Only Crashes	61	$ 7,400	$ 451,400
			$ 2,070,000

Comprehensive cost of crashes in Brooklyn Heights based on 2004 crash data.

Injury or Crash Type	Number of Injuries/PDO crashes	Multiplier	Estimated Cost
Fatalities	1	$ 3,760,000	$ 3,760,000
Incapacitating Injuries	1	$ 188,000	$ 188,000
Non-incapacitating Injuries	12	$ 48,200	$ 578,400
Possible injuries	19	$ 22,900	$ 435,100
Propery Damage Only Crashes	61	$ 2,100	$ 128,100
			$ 5,089,600

Data Sources: Year: 2004

*Ohio Department of Public Safety. *Traffic Crash Facts* . 2004
**National Safety Council, *Injury Facts* , 2004
***Rainbow Babies & Children's Hospital, 2005

Chagrin Falls

Economic cost of crashes in Chagrin Falls in 2004

Injury or Crash Type	Number of Injuries/PDO crashes	Estimated Multiplier	Estimated Cost
Fatalities	0	$ 1,130,000	$ -
Incapacitating injuries	1	$ 58,500	$ 58,500
Non-incapacitating injuries	6	$ 18,900	$ 113,400
Possible injuries	9	$ 10,700	$ 96,300
Propery Damage Only Crashes	75	$ 7,400	$ 555,000
			$ 823,200

Comprehensive cost of crashes in Chagrin Falls based on 2004 crash data.

Injury or Crash Type	Number of Injuries/PDO crashes	Multiplier	Estimated Cost
Fatalities	0	$ 3,760,000	$ -
Incapacitating Injuries	1	$ 188,000	$ 188,000
Non-incapacitating Injuries	6	$ 48,200	$ 289,200
Possible injuries	9	$ 22,900	$ 206,100
Propery Damage Only Crashes	75	$ 2,100	$ 157,500
			$ 840,800

Data Sources: Year: 2004

*Ohio Department of Public Safety. *Traffic Crash Facts* . 2004
**National Safety Council, *Injury Facts* , 2004
***Rainbow Babies & Children's Hospital, 2005

Cleveland

Economic cost of crashes in Cleveland in 2004

Injury or Crash Type	Number of Injuries/PDO crashes	Estimated Multiplier	Estimated Cost
Fatalities	36	$ 1,130,000	$ 40,680,000
Incapacitating injuries	363	$ 58,500	$ 21,235,500
Non-incapacitating injuries	2012	$ 18,900	$ 38,026,800
Possible injuries	5471	$ 10,700	$ 58,539,700
Propery Damage Only Crashes	10732	$ 7,400	$ 79,416,800
			$ 237,898,800

Comprehensive cost of crashes in Cleveland based on 2004 crash data.

Injury or Crash Type	Number of Injuries/PDO crashes	Multiplier	Estimated Cost
Fatalities	36	$ 3,760,000	$ 135,360,000
Incapacitating Injuries	363	$ 188,000	$ 68,244,000
Non-incapacitating Injuries	2012	$ 48,200	$ 96,978,400
Possible injuries	5471	$ 22,900	$ 125,285,900
Propery Damage Only Crashes	10732	$ 2,100	$ 22,537,200
			$ 448,405,500

Data Sources: Year: 2004

*Ohio Department of Public Safety. *Traffic Crash Facts* . 2004
**National Safety Council, *Injury Facts* , 2004
***Rainbow Babies & Children's Hospital, 2005

Cleveland Heights

Economic cost of crashes in Cleveland Heights in 2004

Injury or Crash Type	Number of Injuries/PDO crashes	Estimated Multiplier	Estimated Cost
Fatalities	0	$ 1,130,000	$ -
Incapacitating injuries	19	$ 58,500	$ 1,111,500
Non-incapacitating injuries	55	$ 18,900	$ 1,039,500
Possible injuries	235	$ 10,700	$ 2,514,500
Propery Damage Only Crashes	684	$ 7,400	$ 5,061,600
			$ 9,727,100

Comprehensive cost of crashes in Cleveland Heights based on 2004 crash data.

Injury or Crash Type	Number of Injuries/PDO crashes	Multiplier	Estimated Cost
Fatalities	0	$ 3,760,000	$ -
Incapacitating Injuries	19	$ 188,000	$ 3,572,000
Non-incapacitating Injuries	55	$ 48,200	$ 2,651,000
Possible injuries	235	$ 22,900	$ 5,381,500
Propery Damage Only Crashes	684	$ 2,100	$ 1,436,400
			$ 13,040,900

Data Sources: Year: 2004

*Ohio Department of Public Safety. *Traffic Crash Facts* . 2004
**National Safety Council, *Injury Facts* , 2004
***Rainbow Babies & Children's Hospital, 2005

Cuyahoga Heights

Economic cost of crashes in Cuyahoga Heights in 2004

Injury or Crash Type	Number of Injuries/PDO crashes	Estimated Multiplier	Estimated Cost
Fatalities	0	$ 1,130,000	$ -
Incapacitating injuries	3	$ 58,500	$ 175,500
Non-incapacitating injuries	10	$ 18,900	$ 189,000
Possible injuries	34	$ 10,700	$ 363,800
Propery Damage Only Crashes	100	$ 7,400	$ 740,000
			$ 1,468,300

Comprehensive cost of crashes in Cuyahoga Heights based on 2004 crash data.

Injury or Crash Type	Number of Injuries/PDO crashes	Multiplier	Estimated Cost
Fatalities	0	$ 3,760,000	$ -
Incapacitating Injuries	3	$ 188,000	$ 564,000
Non-incapacitating Injuries	10	$ 48,200	$ 482,000
Possible injuries	34	$ 22,900	$ 778,600
Propery Damage Only Crashes	100	$ 2,100	$ 210,000
			$ 2,034,600

Data Sources: Year: 2004

*Ohio Department of Public Safety. *Traffic Crash Facts* . 2004
**National Safety Council, *Injury Facts* , 2004
***Rainbow Babies & Children's Hospital, 2005

East Cleveland

Economic cost of crashes in East Cleveland in 2004

Injury or Crash Type	Number of Injuries/PDO crashes	Estimated Multiplier	Estimated Cost
Fatalities	1	$ 1,130,000	$ 1,130,000
Incapacitating injuries	20	$ 58,500	$ 1,170,000
Non-incapacitating injuries	46	$ 18,900	$ 869,400
Possible injuries	156	$ 10,700	$ 1,669,200
Propery Damage Only Crashes	462	$ 7,400	$ 3,418,800
			$ 8,257,400

Comprehensive cost of crashes in East Cleveland based on 2004 crash data.

Injury or Crash Type	Number of Injuries/PDO crashes	Multiplier	Estimated Cost
Fatalities	1	$ 3,760,000	$ 3,760,000
Incapacitating Injuries	20	$ 188,000	$ 3,760,000
Non-incapacitating Injuries	46	$ 48,200	$ 2,217,200
Possible injuries	156	$ 22,900	$ 3,572,400
Propery Damage Only Crashes	462	$ 2,100	$ 970,200
			$ 14,279,800

Data Sources: Year: 2004

*Ohio Department of Public Safety. *Traffic Crash Facts* . 2004
**National Safety Council, *Injury Facts* , 2004
***Rainbow Babies & Children's Hospital, 2005

Euclid

Economic cost of crashes in Euclid in 2004

Injury or Crash Type	Number of Injuries/PDO crashes	Estimated Multiplier	Estimated Cost
Fatalities	3	$ 1,130,000	$ 3,390,000
Incapacitating injuries	38	$ 58,500	$ 2,223,000
Non-incapacitating injuries	140	$ 18,900	$ 2,646,000
Possible injuries	249	$ 10,700	$ 2,664,300
Propery Damage Only Crashes	681	$ 7,400	$ 5,039,400
			$ 15,962,700

Comprehensive cost of crashes in Euclid based on 2004 crash data.

Injury or Crash Type	Number of Injuries/PDO crashes	Multiplier	Estimated Cost
Fatalities	3	$ 3,760,000	$ 11,280,000
Incapacitating Injuries	38	$ 188,000	$ 7,144,000
Non-incapacitating Injuries	140	$ 48,200	$ 6,748,000
Possible injuries	249	$ 22,900	$ 5,702,100
Propery Damage Only Crashes	681	$ 2,100	$ 1,430,100
			$ 32,304,200

Data Sources: Year: 2004

*Ohio Department of Public Safety. *Traffic Crash Facts* . 2004
**National Safety Council, *Injury Facts* , 2004
***Rainbow Babies & Children's Hospital, 2005

Fairview Park

Economic cost of crashes in Fairview Park in 2004

Injury or Crash Type	Number of Injuries/PDO crashes	Estimated Multiplier	Estimated Cost
Fatalities	0	$ 1,130,000	$ -
Incapacitating injuries	10	$ 58,500	$ 585,000
Non-incapacitating injuries	37	$ 18,900	$ 699,300
Possible injuries	51	$ 10,700	$ 545,700
Propery Damage Only Crashes	187	$ 7,400	$ 1,383,800
			$ 3,213,800

Comprehensive cost of crashes in Fairview Park based on 2004 crash data.

Injury or Crash Type	Number of Injuries/PDO crashes	Multiplier	Estimated Cost
Fatalities	0	$ 3,760,000	$ -
Incapacitating Injuries	10	$ 188,000	$ 1,880,000
Non-incapacitating Injuries	37	$ 48,200	$ 1,783,400
Possible injuries	51	$ 22,900	$ 1,167,900
Propery Damage Only Crashes	187	$ 2,100	$ 392,700
			$ 5,224,000

Data Sources: Year: 2004

*Ohio Department of Public Safety. *Traffic Crash Facts* . 2004
**National Safety Council, *Injury Facts* , 2004
***Rainbow Babies & Children's Hospital, 2005

Garfield Heights

Economic cost of crashes in Garfield Heights in 2004

Injury or Crash Type	Number of Injuries/PDO crashes	Estimated Multiplier	Estimated Cost
Fatalities	1	$ 1,130,000	$ 1,130,000
Incapacitating injuries	25	$ 58,500	$ 1,462,500
Non-incapacitating injuries	111	$ 18,900	$ 2,097,900
Possible injuries	225	$ 10,700	$ 2,407,500
Propery Damage Only Crashes	761	$ 7,400	$ 5,631,400
			$ 12,729,300

Comprehensive cost of crashes in Garfield Heights based on 2004 crash data.

Injury or Crash Type	Number of Injuries/PDO crashes	Multiplier	Estimated Cost
Fatalities	1	$ 3,760,000	$ 3,760,000
Incapacitating Injuries	25	$ 188,000	$ 4,700,000
Non-incapacitating Injuries	111	$ 48,200	$ 5,350,200
Possible injuries	225	$ 22,900	$ 5,152,500
Propery Damage Only Crashes	761	$ 2,100	$ 1,598,100
			$ 20,560,800

Data Sources: Year: 2004

*Ohio Department of Public Safety. *Traffic Crash Facts* . 2004
**National Safety Council, *Injury Facts* , 2004
***Rainbow Babies & Children's Hospital, 2005

Gates Mills

Economic cost of crashes in Gates Mills in 2004

Injury or Crash Type	Number of Injuries/PDO crashes	Estimated Multiplier	Estimated Cost
Fatalities	1	$ 1,130,000	$ 1,130,000
Incapacitating injuries	5	$ 58,500	$ 292,500
Non-incapacitating injuries	22	$ 18,900	$ 415,800
Possible injuries	23	$ 10,700	$ 246,100
Propery Damage Only Crashes	89	$ 7,400	$ 658,600
			$ 2,743,000

Comprehensive cost of crashes in Gates Mills based on 2004 crash data.

Injury or Crash Type	Number of Injuries/PDO crashes	Multiplier	Estimated Cost
Fatalities	1	$ 3,760,000	$ 3,760,000
Incapacitating Injuries	5	$ 188,000	$ 940,000
Non-incapacitating Injuries	22	$ 48,200	$ 1,060,400
Possible injuries	23	$ 22,900	$ 526,700
Propery Damage Only Crashes	89	$ 2,100	$ 186,900
			$ 6,474,000

Data Sources: Year: 2004

*Ohio Department of Public Safety. *Traffic Crash Facts* . 2004
**National Safety Council, *Injury Facts* , 2004
***Rainbow Babies & Children's Hospital, 2005

Glenwillow

Economic cost of crashes in Glenwillow in 2004

Injury or Crash Type	Number of Injuries/PDO crashes	Estimated Multiplier	Estimated Cost
Fatalities	0	$ 1,130,000	$ -
Incapacitating injuries	2	$ 58,500	$ 117,000
Non-incapacitating injuries	4	$ 18,900	$ 75,600
Possible injuries	3	$ 10,700	$ 32,100
Propery Damage Only Crashes	21	$ 7,400	$ 155,400
			$ 380,100

Comprehensive cost of crashes in Glenwillow based on 2004 crash data.

Injury or Crash Type	Number of Injuries/PDO crashes	Multiplier	Estimated Cost
Fatalities	0	$ 3,760,000	$ -
Incapacitating Injuries	2	$ 188,000	$ 376,000
Non-incapacitating Injuries	4	$ 48,200	$ 192,800
Possible injuries	3	$ 22,900	$ 68,700
Propery Damage Only Crashes	21	$ 2,100	$ 44,100
			$ 681,600

Data Sources: Year: 2004

*Ohio Department of Public Safety. *Traffic Crash Facts* . 2004
**National Safety Council, *Injury Facts* , 2004
***Rainbow Babies & Children's Hospital, 2005

Highland Heights

Economic cost of crashes in Highland Heights in 2004

Injury or Crash Type	Number of Injuries/PDO crashes	Estimated Multiplier	Estimated Cost
Fatalities	0	$ 1,130,000	$ -
Incapacitating injuries	5	$ 58,500	$ 292,500
Non-incapacitating injuries	20	$ 18,900	$ 378,000
Possible injuries	52	$ 10,700	$ 556,400
Propery Damage Only Crashes	169	$ 7,400	$ 1,250,600
			$ 2,477,500

Comprehensive cost of crashes in Highland Heights based on 2004 crash data.

Injury or Crash Type	Number of Injuries/PDO crashes	Multiplier	Estimated Cost
Fatalities	0	$ 3,760,000	$ -
Incapacitating Injuries	5	$ 188,000	$ 940,000
Non-incapacitating Injuries	20	$ 48,200	$ 964,000
Possible injuries	52	$ 22,900	$ 1,190,800
Propery Damage Only Crashes	169	$ 2,100	$ 354,900
			$ 3,449,700

Data Sources: Year: 2004

*Ohio Department of Public Safety. *Traffic Crash Facts* . 2004
**National Safety Council, *Injury Facts* , 2004
***Rainbow Babies & Children's Hospital, 2005

Highland Hills

Economic cost of crashes in Highland Hills in 2004

Injury or Crash Type	Number of Injuries/PDO crashes	Estimated Multiplier	Estimated Cost
Fatalities	0	$ 1,130,000	$ -
Incapacitating injuries	1	$ 58,500	$ 58,500
Non-incapacitating injuries	2	$ 18,900	$ 37,800
Possible injuries	29	$ 10,700	$ 310,300
Propery Damage Only Crashes	44	$ 7,400	$ 325,600
			$ 732,200

Comprehensive cost of crashes in Highland Hills based on 2004 crash data.

Injury or Crash Type	Number of Injuries/PDO crashes	Multiplier	Estimated Cost
Fatalities	0	$ 3,760,000	$ -
Incapacitating Injuries	1	$ 188,000	$ 188,000
Non-incapacitating Injuries	2	$ 48,200	$ 96,400
Possible injuries	29	$ 22,900	$ 664,100
Propery Damage Only Crashes	44	$ 2,100	$ 92,400
			$ 1,040,900

Data Sources: Year: 2004

*Ohio Department of Public Safety. *Traffic Crash Facts* . 2004
**National Safety Council, *Injury Facts* , 2004
***Rainbow Babies & Children's Hospital, 2005

Hunting Valley

Economic cost of crashes in Hunting Valley in 2004

Injury or Crash Type	Number of Injuries/PDO crashes	Estimated Multiplier	Estimated Cost
Fatalities	0	$ 1,130,000	$ -
Incapacitating injuries	2	$ 58,500	$ 117,000
Non-incapacitating injuries	2	$ 18,900	$ 37,800
Possible injuries	6	$ 10,700	$ 64,200
Propery Damage Only Crashes	32	$ 7,400	$ 236,800
			$ 455,800

Comprehensive cost of crashes in Hunting Valley based on 2004 crash data.

Injury or Crash Type	Number of Injuries/PDO crashes	Multiplier	Estimated Cost
Fatalities	0	$ 3,760,000	$ -
Incapacitating Injuries	2	$ 188,000	$ 376,000
Non-incapacitating Injuries	2	$ 48,200	$ 96,400
Possible injuries	6	$ 22,900	$ 137,400
Propery Damage Only Crashes	32	$ 2,100	$ 67,200
			$ 677,000

Data Sources: Year: 2004

*Ohio Department of Public Safety. *Traffic Crash Facts* . 2004
**National Safety Council, *Injury Facts* , 2004
***Rainbow Babies & Children's Hospital, 2005

Independence

Economic cost of crashes in Independence in 2004

Injury or Crash Type	Number of Injuries/PDO crashes	Estimated Multiplier	Estimated Cost
Fatalities	1	$ 1,130,000	$ 1,130,000
Incapacitating injuries	17	$ 58,500	$ 994,500
Non-incapacitating injuries	49	$ 18,900	$ 926,100
Possible injuries	105	$ 10,700	$ 1,123,500
Propery Damage Only Crashes	488	$ 7,400	$ 3,611,200
			$ 7,785,300

Comprehensive cost of crashes in Independence based on 2004 crash data.

Injury or Crash Type	Number of Injuries/PDO crashes	Multiplier	Estimated Cost
Fatalities	1	$ 3,760,000	$ 3,760,000
Incapacitating Injuries	17	$ 188,000	$ 3,196,000
Non-incapacitating Injuries	49	$ 48,200	$ 2,361,800
Possible injuries	105	$ 22,900	$ 2,404,500
Propery Damage Only Crashes	488	$ 2,100	$ 1,024,800
			$ 12,747,100

Data Sources: Year: 2004

*Ohio Department of Public Safety. *Traffic Crash Facts* . 2004
**National Safety Council, *Injury Facts* , 2004
***Rainbow Babies & Children's Hospital, 2005

Lakewood

Economic cost of crashes in Lakewood in 2004

Injury or Crash Type	Number of Injuries/PDO crashes	Estimated Multiplier	Estimated Cost
Fatalities	1	$ 1,130,000	$ 1,130,000
Incapacitating injuries	12	$ 58,500	$ 702,000
Non-incapacitating injuries	123	$ 18,900	$ 2,324,700
Possible injuries	123	$ 10,700	$ 1,316,100
Propery Damage Only Crashes	532	$ 7,400	$ 3,936,800
			$ 9,409,600

Comprehensive cost of crashes in Lakewood based on 2004 crash data.

Injury or Crash Type	Number of Injuries/PDO crashes	Multiplier	Estimated Cost
Fatalities	1	$ 3,760,000	$ 3,760,000
Incapacitating Injuries	12	$ 188,000	$ 2,256,000
Non-incapacitating Injuries	123	$ 48,200	$ 5,928,600
Possible injuries	123	$ 22,900	$ 2,816,700
Propery Damage Only Crashes	532	$ 2,100	$ 1,117,200
			$ 15,878,500

Data Sources: Year: 2004

*Ohio Department of Public Safety. *Traffic Crash Facts* . 2004
**National Safety Council, *Injury Facts* , 2004
***Rainbow Babies & Children's Hospital, 2005

Linndale

Economic cost of crashes in Linndale in 2004

Injury or Crash Type	Number of Injuries/PDO crashes	Estimated Multiplier	Estimated Cost
Fatalities	0	$ 1,130,000	$ -
Incapacitating injuries	0	$ 58,500	$ -
Non-incapacitating injuries	0	$ 18,900	$ -
Possible injuries	0	$ 10,700	$ -
Propery Damage Only Crashes	8	$ 7,400	$ 59,200
			$ 59,200

Comprehensive cost of crashes in Linndale based on 2004 crash data.

Injury or Crash Type	Number of Injuries/PDO crashes	Multiplier	Estimated Cost
Fatalities	0	$ 3,760,000	$ -
Incapacitating Injuries	0	$ 188,000	$ -
Non-incapacitating Injuries	0	$ 48,200	$ -
Possible injuries	0	$ 22,900	$ -
Propery Damage Only Crashes	8	$ 2,100	$ 16,800
			$ 16,800

Data Sources: Year: 2004

*Ohio Department of Public Safety. *Traffic Crash Facts* . 2004
**National Safety Council, *Injury Facts* , 2004
***Rainbow Babies & Children's Hospital, 2005

Lyndhurst

Economic cost of crashes in Lyndhurst in 2004

Injury or Crash Type	Number of Injuries/PDO crashes	Estimated Multiplier	Estimated Cost
Fatalities	1	$ 1,130,000	$ 1,130,000
Incapacitating injuries	6	$ 58,500	$ 351,000
Non-incapacitating injuries	44	$ 18,900	$ 831,600
Possible injuries	193	$ 10,700	$ 2,065,100
Propery Damage Only Crashes	285	$ 7,400	$ 2,109,000
			$ 6,486,700

Comprehensive cost of crashes in Lyndhurst based on 2004 crash data.

Injury or Crash Type	Number of Injuries/PDO crashes	Multiplier	Estimated Cost
Fatalities	1	$ 3,760,000	$ 3,760,000
Incapacitating Injuries	6	$ 188,000	$ 1,128,000
Non-incapacitating Injuries	44	$ 48,200	$ 2,120,800
Possible injuries	193	$ 22,900	$ 4,419,700
Propery Damage Only Crashes	285	$ 2,100	$ 598,500
			$ 12,027,000

Data Sources: Year: 2004

*Ohio Department of Public Safety. *Traffic Crash Facts* . 2004
**National Safety Council, *Injury Facts* , 2004
***Rainbow Babies & Children's Hospital, 2005

Maple Heights

Economic cost of crashes in Maple Heights in 2004

Injury or Crash Type	Number of Injuries/PDO crashes	Estimated Multiplier	Estimated Cost
Fatalities	1	$ 1,130,000	$ 1,130,000
Incapacitating injuries	8	$ 58,500	$ 468,000
Non-incapacitating injuries	39	$ 18,900	$ 737,100
Possible injuries	130	$ 10,700	$ 1,391,000
Propery Damage Only Crashes	306	$ 7,400	$ 2,264,400
			$ 5,990,500

Comprehensive cost of crashes in Maple Heights based on 2004 crash data.

Injury or Crash Type	Number of Injuries/PDO crashes	Multiplier	Estimated Cost
Fatalities	1	$ 3,760,000	$ 3,760,000
Incapacitating Injuries	8	$ 188,000	$ 1,504,000
Non-incapacitating Injuries	39	$ 48,200	$ 1,879,800
Possible injuries	130	$ 22,900	$ 2,977,000
Propery Damage Only Crashes	306	$ 2,100	$ 642,600
			$ 10,763,400

Data Sources: Year: 2004

*Ohio Department of Public Safety. *Traffic Crash Facts* . 2004
**National Safety Council, *Injury Facts* , 2004
***Rainbow Babies & Children's Hospital, 2005

Mayfield

Economic cost of crashes in Mayfield in 2004

Injury or Crash Type	Number of Injuries/PDO crashes	Estimated Multiplier	Estimated Cost
Fatalities	0	$ 1,130,000	$ -
Incapacitating injuries	5	$ 58,500	$ 292,500
Non-incapacitating injuries	17	$ 18,900	$ 321,300
Possible injuries	27	$ 10,700	$ 288,900
Propery Damage Only Crashes	165	$ 7,400	$ 1,221,000
			$ 2,123,700

Comprehensive cost of crashes in Mayfield based on 2004 crash data.

Injury or Crash Type	Number of Injuries/PDO crashes	Multiplier	Estimated Cost
Fatalities	0	$ 3,760,000	$ -
Incapacitating Injuries	5	$ 188,000	$ 940,000
Non-incapacitating Injuries	17	$ 48,200	$ 819,400
Possible injuries	27	$ 22,900	$ 618,300
Propery Damage Only Crashes	165	$ 2,100	$ 346,500
			$ 2,724,200

Data Sources: Year: 2004

*Ohio Department of Public Safety. *Traffic Crash Facts* . 2004
**National Safety Council, *Injury Facts* , 2004
***Rainbow Babies & Children's Hospital, 2005

Mayfield Heights

Economic cost of crashes in Mayfield Heights in 2004

Injury or Crash Type	Number of Injuries/PDO crashes	Estimated Multiplier	Estimated Cost
Fatalities	0	$ 1,130,000	$ -
Incapacitating injuries	6	$ 58,500	$ 351,000
Non-incapacitating injuries	70	$ 18,900	$ 1,323,000
Possible injuries	85	$ 10,700	$ 909,500
Propery Damage Only Crashes	462	$ 7,400	$ 3,418,800
			$ 6,002,300

Comprehensive cost of crashes in Mayfield Heights based on 2004 crash data.

Injury or Crash Type	Number of Injuries/PDO crashes	Multiplier	Estimated Cost
Fatalities	0	$ 3,760,000	$ -
Incapacitating Injuries	6	$ 188,000	$ 1,128,000
Non-incapacitating Injuries	70	$ 48,200	$ 3,374,000
Possible injuries	85	$ 22,900	$ 1,946,500
Propery Damage Only Crashes	462	$ 2,100	$ 970,200
			$ 7,418,700

Data Sources: Year: 2004

*Ohio Department of Public Safety. *Traffic Crash Facts* . 2004
**National Safety Council, *Injury Facts* , 2004
***Rainbow Babies & Children's Hospital, 2005

Middleburg Heights

Economic cost of crashes in Middleburg Heights in 2004

Injury or Crash Type	Number of Injuries/PDO crashes	Estimated Multiplier	Estimated Cost
Fatalities	0	$ 1,130,000	$ -
Incapacitating injuries	6	$ 58,500	$ 351,000
Non-incapacitating injuries	61	$ 18,900	$ 1,152,900
Possible injuries	183	$ 10,700	$ 1,958,100
Propery Damage Only Crashes	565	$ 7,400	$ 4,181,000
			$ 7,643,000

Comprehensive cost of crashes in Middleburg Heights based on 2004 crash data.

Injury or Crash Type	Number of Injuries/PDO crashes	Multiplier	Estimated Cost
Fatalities	0	$ 3,760,000	$ -
Incapacitating Injuries	6	$ 188,000	$ 1,128,000
Non-incapacitating Injuries	61	$ 48,200	$ 2,940,200
Possible injuries	183	$ 22,900	$ 4,190,700
Propery Damage Only Crashes	565	$ 2,100	$ 1,186,500
			$ 9,445,400

Data Sources: Year: 2004

*Ohio Department of Public Safety. *Traffic Crash Facts* . 2004
**National Safety Council, *Injury Facts* , 2004
***Rainbow Babies & Children's Hospital, 2005

Moreland Hills

Economic cost of crashes in Moreland Hills in 2004

Injury or Crash Type	Number of Injuries/PDO crashes	Estimated Multiplier	Estimated Cost
Fatalities	0	$ 1,130,000	$ -
Incapacitating injuries	1	$ 58,500	$ 58,500
Non-incapacitating injuries	4	$ 18,900	$ 75,600
Possible injuries	8	$ 10,700	$ 85,600
Propery Damage Only Crashes	31	$ 7,400	$ 229,400
			$ 449,100

Comprehensive cost of crashes in Moreland Hills based on 2004 crash data.

Injury or Crash Type	Number of Injuries/PDO crashes	Multiplier	Estimated Cost
Fatalities	0	$ 3,760,000	$ -
Incapacitating Injuries	1	$ 188,000	$ 188,000
Non-incapacitating Injuries	4	$ 48,200	$ 192,800
Possible injuries	8	$ 22,900	$ 183,200
Propery Damage Only Crashes	31	$ 2,100	$ 65,100
			$ 629,100

Data Sources: Year: 2004

*Ohio Department of Public Safety. *Traffic Crash Facts* . 2004
**National Safety Council, *Injury Facts* , 2004
***Rainbow Babies & Children's Hospital, 2005

Newburgh Heights

Economic cost of crashes in Newburgh Heights in 2004

Injury or Crash Type	Number of Injuries/PDO crashes	Estimated Multiplier	Estimated Cost
Fatalities	0	$ 1,130,000	$ -
Incapacitating injuries	3	$ 58,500	$ 175,500
Non-incapacitating injuries	4	$ 18,900	$ 75,600
Possible injuries	9	$ 10,700	$ 96,300
Propery Damage Only Crashes	59	$ 7,400	$ 436,600
			$ 784,000

Comprehensive cost of crashes in Newburgh Heights based on 2004 crash data.

Injury or Crash Type	Number of Injuries/PDO crashes	Multiplier	Estimated Cost
Fatalities	0	$ 3,760,000	$ -
Incapacitating Injuries	3	$ 188,000	$ 564,000
Non-incapacitating Injuries	4	$ 48,200	$ 192,800
Possible injuries	9	$ 22,900	$ 206,100
Propery Damage Only Crashes	59	$ 2,100	$ 123,900
			$ 1,086,800

Data Sources: Year: 2004

*Ohio Department of Public Safety. *Traffic Crash Facts* . 2004
**National Safety Council, *Injury Facts* , 2004
***Rainbow Babies & Children's Hospital, 2005

North Olmsted

Economic cost of crashes in North Olmsted in 2004

Injury or Crash Type	Number of Injuries/PDO crashes	Estimated Multiplier	Estimated Cost
Fatalities	1	$ 1,130,000	$ 1,130,000
Incapacitating injuries	16	$ 58,500	$ 936,000
Non-incapacitating injuries	90	$ 18,900	$ 1,701,000
Possible injuries	235	$ 10,700	$ 2,514,500
Propery Damage Only Crashes	622	$ 7,400	$ 4,602,800
			$ 10,884,300

Comprehensive cost of crashes in North Olmsted based on 2004 crash data.

Injury or Crash Type	Number of Injuries/PDO crashes	Multiplier	Estimated Cost
Fatalities	1	$ 3,760,000	$ 3,760,000
Incapacitating Injuries	16	$ 188,000	$ 3,008,000
Non-incapacitating Injuries	90	$ 48,200	$ 4,338,000
Possible injuries	235	$ 22,900	$ 5,381,500
Propery Damage Only Crashes	622	$ 2,100	$ 1,306,200
			$ 17,793,700

Data Sources: Year: 2004

*Ohio Department of Public Safety. *Traffic Crash Facts* . 2004
**National Safety Council, *Injury Facts* , 2004
***Rainbow Babies & Children's Hospital, 2005

North Randall

Economic cost of crashes in North Randall in 2004

Injury or Crash Type	Number of Injuries/PDO crashes	Estimated Multiplier	Estimated Cost
Fatalities	0	$ 1,130,000	$ -
Incapacitating injuries	3	$ 58,500	$ 175,500
Non-incapacitating injuries	3	$ 18,900	$ 56,700
Possible injuries	24	$ 10,700	$ 256,800
Propery Damage Only Crashes	42	$ 7,400	$ 310,800
			$ 799,800

Comprehensive cost of crashes in North Randall based on 2004 crash data.

Injury or Crash Type	Number of Injuries/PDO crashes	Multiplier	Estimated Cost
Fatalities	0	$ 3,760,000	$ -
Incapacitating Injuries	3	$ 188,000	$ 564,000
Non-incapacitating Injuries	3	$ 48,200	$ 144,600
Possible injuries	24	$ 22,900	$ 549,600
Propery Damage Only Crashes	42	$ 2,100	$ 88,200
			$ 1,346,400

Data Sources: Year: 2004

*Ohio Department of Public Safety. *Traffic Crash Facts* . 2004
**National Safety Council, *Injury Facts* , 2004
***Rainbow Babies & Children's Hospital, 2005

North Royalton

Economic cost of crashes in North Royalton in 2004

Injury or Crash Type	Number of Injuries/PDO crashes	Estimated Multiplier	Estimated Cost
Fatalities	0	$ 1,130,000	$ -
Incapacitating injuries	17	$ 58,500	$ 994,500
Non-incapacitating injuries	86	$ 18,900	$ 1,625,400
Possible injuries	143	$ 10,700	$ 1,530,100
Propery Damage Only Crashes	513	$ 7,400	$ 3,796,200
			$ 7,946,200

Comprehensive cost of crashes in North Royalton based on 2004 crash data.

Injury or Crash Type	Number of Injuries/PDO crashes	Multiplier	Estimated Cost
Fatalities	0	$ 3,760,000	$ -
Incapacitating Injuries	17	$ 188,000	$ 3,196,000
Non-incapacitating Injuries	86	$ 48,200	$ 4,145,200
Possible injuries	143	$ 22,900	$ 3,274,700
Propery Damage Only Crashes	513	$ 2,100	$ 1,077,300
			$ 11,693,200

Data Sources: Year: 2004

*Ohio Department of Public Safety. *Traffic Crash Facts* . 2004
**National Safety Council, *Injury Facts* , 2004
***Rainbow Babies & Children's Hospital, 2005

Oakwood

Economic cost of crashes in Oakwood in 2004

Injury or Crash Type	Number of Injuries/PDO crashes	Estimated Multiplier	Estimated Cost
Fatalities	0	$ 1,130,000	$ -
Incapacitating injuries	8	$ 58,500	$ 468,000
Non-incapacitating injuries	19	$ 18,900	$ 359,100
Possible injuries	52	$ 10,700	$ 556,400
Propery Damage Only Crashes	171	$ 7,400	$ 1,265,400
			$ 2,648,900

Comprehensive cost of crashes in Oakwood based on 2004 crash data.

Injury or Crash Type	Number of Injuries/PDO crashes	Multiplier	Estimated Cost
Fatalities	0	$ 3,760,000	$ -
Incapacitating Injuries	8	$ 188,000	$ 1,504,000
Non-incapacitating Injuries	19	$ 48,200	$ 915,800
Possible injuries	52	$ 22,900	$ 1,190,800
Propery Damage Only Crashes	171	$ 2,100	$ 359,100
			$ 3,969,700

Data Sources: Year: 2004

*Ohio Department of Public Safety. *Traffic Crash Facts* . 2004
**National Safety Council, *Injury Facts* , 2004
***Rainbow Babies & Children's Hospital, 2005

Olmsted Township

Economic cost of crashes in Olmsted Township in 2004

Injury or Crash Type	Number of Injuries/PDO crashes	Estimated Multiplier	Estimated Cost
Fatalities	0	$ 1,130,000	$ -
Incapacitating injuries	1	$ 58,500	$ 58,500
Non-incapacitating injuries	20	$ 18,900	$ 378,000
Possible injuries	33	$ 10,700	$ 353,100
Propery Damage Only Crashes	104	$ 7,400	$ 769,600
			$ 1,559,200

Comprehensive cost of crashes in Olmsted Township based on 2004 crash data.

Injury or Crash Type	Number of Injuries/PDO crashes	Multiplier	Estimated Cost
Fatalities	0	$ 3,760,000	$ -
Incapacitating Injuries	1	$ 188,000	$ 188,000
Non-incapacitating Injuries	20	$ 48,200	$ 964,000
Possible injuries	33	$ 22,900	$ 755,700
Propery Damage Only Crashes	104	$ 2,100	$ 218,400
			$ 2,126,100

Data Sources: Year: 2004

*Ohio Department of Public Safety. *Traffic Crash Facts* . 2004
**National Safety Council, *Injury Facts* , 2004
***Rainbow Babies & Children's Hospital, 2005

Olmsted Falls

Economic cost of crashes in Olmsted Falls in 2004

Injury or Crash Type	Number of Injuries/PDO crashes	Estimated Multiplier	Estimated Cost
Fatalities	0	$ 1,130,000	$ -
Incapacitating injuries	4	$ 58,500	$ 234,000
Non-incapacitating injuries	10	$ 18,900	$ 189,000
Possible injuries	28	$ 10,700	$ 299,600
Propery Damage Only Crashes	105	$ 7,400	$ 777,000
			$ 1,499,600

Comprehensive cost of crashes in Olmsted Falls based on 2004 crash data.

Injury or Crash Type	Number of Injuries/PDO crashes	Multiplier	Estimated Cost
Fatalities	0	$ 3,760,000	$ -
Incapacitating Injuries	4	$ 188,000	$ 752,000
Non-incapacitating Injuries	10	$ 48,200	$ 482,000
Possible injuries	28	$ 22,900	$ 641,200
Propery Damage Only Crashes	105	$ 2,100	$ 220,500
			$ 2,095,700

Data Sources: Year: 2004

*Ohio Department of Public Safety. *Traffic Crash Facts* . 2004
**National Safety Council, *Injury Facts* , 2004
***Rainbow Babies & Children's Hospital, 2005

Orange

Economic cost of crashes in Orange in 2004

Injury or Crash Type	Number of Injuries/PDO crashes	Estimated Multiplier	Estimated Cost
Fatalities	0	$ 1,130,000	$ -
Incapacitating injuries	0	$ 58,500	$ -
Non-incapacitating injuries	13	$ 18,900	$ 245,700
Possible injuries	15	$ 10,700	$ 160,500
Propery Damage Only Crashes	96	$ 7,400	$ 710,400
			$ 1,116,600

Comprehensive cost of crashes in Orange based on 2004 crash data.

Injury or Crash Type	Number of Injuries/PDO crashes	Multiplier	Estimated Cost
Fatalities	0	$ 3,760,000	$ -
Incapacitating Injuries	0	$ 188,000	$ -
Non-incapacitating Injuries	13	$ 48,200	$ 626,600
Possible injuries	15	$ 22,900	$ 343,500
Propery Damage Only Crashes	96	$ 2,100	$ 201,600
			$ 1,171,700

Data Sources: Year: 2004

*Ohio Department of Public Safety. *Traffic Crash Facts* . 2004
**National Safety Council, *Injury Facts* , 2004
***Rainbow Babies & Children's Hospital, 2005

Parma

Economic cost of crashes in Parma in 2004

Injury or Crash Type	Number of Injuries/PDO crashes	Estimated Multiplier	Estimated Cost
Fatalities	3	$ 1,130,000	$ 3,390,000
Incapacitating injuries	66	$ 58,500	$ 3,861,000
Non-incapacitating injuries	264	$ 18,900	$ 4,989,600
Possible injuries	368	$ 10,700	$ 3,937,600
Propery Damage Only Crashes	741	$ 7,400	$ 5,483,400
			$ 21,661,600

Comprehensive cost of crashes in Parma based on 2004 crash data.

Injury or Crash Type	Number of Injuries/PDO crashes	Multiplier	Estimated Cost
Fatalities	3	$ 3,760,000	$ 11,280,000
Incapacitating Injuries	66	$ 188,000	$ 12,408,000
Non-incapacitating Injuries	264	$ 48,200	$ 12,724,800
Possible injuries	368	$ 22,900	$ 8,427,200
Propery Damage Only Crashes	741	$ 2,100	$ 1,556,100
			$ 46,396,100

Data Sources: Year: 2004

*Ohio Department of Public Safety. *Traffic Crash Facts* . 2004
**National Safety Council, *Injury Facts* , 2004
***Rainbow Babies & Children's Hospital, 2005

Parma Heights

Economic cost of crashes in Parma Heights in 2004

Injury or Crash Type	Number of Injuries/PDO crashes	Estimated Multiplier	Estimated Cost
Fatalities	1	$ 1,130,000	$ 1,130,000
Incapacitating injuries	4	$ 58,500	$ 234,000
Non-incapacitating injuries	60	$ 18,900	$ 1,134,000
Possible injuries	117	$ 10,700	$ 1,251,900
Propery Damage Only Crashes	335	$ 7,400	$ 2,479,000
			$ 6,228,900

Comprehensive cost of crashes in Parma Heights based on 2004 crash data.

Injury or Crash Type	Number of Injuries/PDO crashes	Multiplier	Estimated Cost
Fatalities	1	$ 3,760,000	$ 3,760,000
Incapacitating Injuries	4	$ 188,000	$ 752,000
Non-incapacitating Injuries	60	$ 48,200	$ 2,892,000
Possible injuries	117	$ 22,900	$ 2,679,300
Propery Damage Only Crashes	335	$ 2,100	$ 703,500
			$ 10,786,800

Data Sources: Year: 2004

*Ohio Department of Public Safety. *Traffic Crash Facts* . 2004
**National Safety Council, *Injury Facts* , 2004
***Rainbow Babies & Children's Hospital, 2005

Pepper Pike

Economic cost of crashes in Pepper Pike in 2004

Injury or Crash Type	Number of Injuries/PDO crashes	Estimated Multiplier	Estimated Cost
Fatalities	0	$ 1,130,000	$ -
Incapacitating injuries	7	$ 58,500	$ 409,500
Non-incapacitating injuries	51	$ 18,900	$ 963,900
Possible injuries	43	$ 10,700	$ 460,100
Propery Damage Only Crashes	225	$ 7,400	$ 1,665,000
			$ 3,498,500

Comprehensive cost of crashes in Pepper Pike based on 2004 crash data.

Injury or Crash Type	Number of Injuries/PDO crashes	Multiplier	Estimated Cost
Fatalities	0	$ 3,760,000	$ -
Incapacitating Injuries	7	$ 188,000	$ 1,316,000
Non-incapacitating Injuries	51	$ 48,200	$ 2,458,200
Possible injuries	43	$ 22,900	$ 984,700
Propery Damage Only Crashes	225	$ 2,100	$ 472,500
			$ 5,231,400

Data Sources: Year: 2004

*Ohio Department of Public Safety. *Traffic Crash Facts* . 2004
**National Safety Council, *Injury Facts* , 2004
***Rainbow Babies & Children's Hospital, 2005

Richmond Heights

Economic cost of crashes in Richmond Heights in 2004

Injury or Crash Type	Number of Injuries/PDO crashes	Estimated Multiplier	Estimated Cost
Fatalities	0	$ 1,130,000	$ -
Incapacitating injuries	6	$ 58,500	$ 351,000
Non-incapacitating injuries	19	$ 18,900	$ 359,100
Possible injuries	36	$ 10,700	$ 385,200
Propery Damage Only Crashes	143	$ 7,400	$ 1,058,200
			$ 2,153,500

Comprehensive cost of crashes in Richmond Heights based on 2004 crash data.

Injury or Crash Type	Number of Injuries/PDO crashes	Multiplier	Estimated Cost
Fatalities	0	$ 3,760,000	$ -
Incapacitating Injuries	6	$ 188,000	$ 1,128,000
Non-incapacitating Injuries	19	$ 48,200	$ 915,800
Possible injuries	36	$ 22,900	$ 824,400
Propery Damage Only Crashes	143	$ 2,100	$ 300,300
			$ 3,168,500

Data Sources: Year: 2004

*Ohio Department of Public Safety. *Traffic Crash Facts* . 2004
**National Safety Council, *Injury Facts* , 2004
***Rainbow Babies & Children's Hospital, 2005

Rocky River

Economic cost of crashes in Rocky River in 2004

Injury or Crash Type	Number of Injuries/PDO crashes	Estimated Multiplier	Estimated Cost
Fatalities	1	$ 1,130,000	$ 1,130,000
Incapacitating injuries	8	$ 58,500	$ 468,000
Non-incapacitating injuries	41	$ 18,900	$ 774,900
Possible injuries	69	$ 10,700	$ 738,300
Propery Damage Only Crashes	238	$ 7,400	$ 1,761,200
			$ 4,872,400

Comprehensive cost of crashes in Rocky River based on 2004 crash data.

Injury or Crash Type	Number of Injuries/PDO crashes	Multiplier	Estimated Cost
Fatalities	1	$ 3,760,000	$ 3,760,000
Incapacitating Injuries	8	$ 188,000	$ 1,504,000
Non-incapacitating Injuries	41	$ 48,200	$ 1,976,200
Possible injuries	69	$ 22,900	$ 1,580,100
Propery Damage Only Crashes	238	$ 2,100	$ 499,800
			$ 9,320,100

Data Sources: Year: 2004

*Ohio Department of Public Safety. *Traffic Crash Facts* . 2004
**National Safety Council, *Injury Facts* , 2004
***Rainbow Babies & Children's Hospital, 2005

Seven Hills

Economic cost of crashes in Seven Hills in 2004

Injury or Crash Type	Number of Injuries/PDO crashes	Estimated Multiplier	Estimated Cost
Fatalities	0	$ 1,130,000	$ -
Incapacitating injuries	0	$ 58,500	$ -
Non-incapacitating injuries	14	$ 18,900	$ 264,600
Possible injuries	18	$ 10,700	$ 192,600
Propery Damage Only Crashes	93	$ 7,400	$ 688,200
			$ 1,145,400

Comprehensive cost of crashes in Seven Hills based on 2004 crash data.

Injury or Crash Type	Number of Injuries/PDO crashes	Multiplier	Estimated Cost
Fatalities	0	$ 3,760,000	$ -
Incapacitating Injuries	0	$ 188,000	$ -
Non-incapacitating Injuries	14	$ 48,200	$ 674,800
Possible injuries	18	$ 22,900	$ 412,200
Propery Damage Only Crashes	93	$ 2,100	$ 195,300
			$ 1,282,300

Data Sources: Year: 2004

*Ohio Department of Public Safety. *Traffic Crash Facts* . 2004
**National Safety Council, *Injury Facts* , 2004
***Rainbow Babies & Children's Hospital, 2005

Shaker Heights

Economic cost of crashes in Shaker Heights in 2004

Injury or Crash Type	Number of Injuries/PDO crashes	Estimated Multiplier	Estimated Cost
Fatalities	0	$ 1,130,000	$ -
Incapacitating injuries	14	$ 58,500	$ 819,000
Non-incapacitating injuries	55	$ 18,900	$ 1,039,500
Possible injuries	161	$ 10,700	$ 1,722,700
Propery Damage Only Crashes	785	$ 7,400	$ 5,809,000
			$ 9,390,200

Comprehensive cost of crashes in Shaker Heights based on 2004 crash data.

Injury or Crash Type	Number of Injuries/PDO crashes	Multiplier	Estimated Cost
Fatalities	0	$ 3,760,000	$ -
Incapacitating Injuries	14	$ 188,000	$ 2,632,000
Non-incapacitating Injuries	55	$ 48,200	$ 2,651,000
Possible injuries	161	$ 22,900	$ 3,686,900
Propery Damage Only Crashes	785	$ 2,100	$ 1,648,500
			$ 10,618,400

Data Sources: Year: 2004

*Ohio Department of Public Safety. *Traffic Crash Facts* . 2004
**National Safety Council, *Injury Facts* , 2004
***Rainbow Babies & Children's Hospital, 2005

Solon

Economic cost of crashes in Solon in 2004

Injury or Crash Type	Number of Injuries/PDO crashes	Estimated Multiplier	Estimated Cost
Fatalities	2	$ 1,130,000	$ 2,260,000
Incapacitating injuries	11	$ 58,500	$ 643,500
Non-incapacitating injuries	55	$ 18,900	$ 1,039,500
Possible injuries	147	$ 10,700	$ 1,572,900
Propery Damage Only Crashes	449	$ 7,400	$ 3,322,600
			$ 8,838,500

Comprehensive cost of crashes in Solon based on 2004 crash data.

Injury or Crash Type	Number of Injuries/PDO crashes	Multiplier	Estimated Cost
Fatalities	2	$ 3,760,000	$ 7,520,000
Incapacitating Injuries	11	$ 188,000	$ 2,068,000
Non-incapacitating Injuries	55	$ 48,200	$ 2,651,000
Possible injuries	147	$ 22,900	$ 3,366,300
Propery Damage Only Crashes	449	$ 2,100	$ 942,900
			$ 16,548,200

Data Sources: Year: 2004

*Ohio Department of Public Safety. *Traffic Crash Facts* . 2004
**National Safety Council, *Injury Facts* , 2004
***Rainbow Babies & Children's Hospital, 2005

South Euclid

Economic cost of crashes in South Euclid in 2004

Injury or Crash Type	Number of Injuries/PDO crashes	Estimated Multiplier	Estimated Cost
Fatalities	1	$ 1,130,000	$ 1,130,000
Incapacitating injuries	15	$ 58,500	$ 877,500
Non-incapacitating injuries	60	$ 18,900	$ 1,134,000
Possible injuries	99	$ 10,700	$ 1,059,300
Propery Damage Only Crashes	379	$ 7,400	$ 2,804,600
			$ 7,005,400

Comprehensive cost of crashes in South Euclid based on 2004 crash data.

Injury or Crash Type	Number of Injuries/PDO crashes	Multiplier	Estimated Cost
Fatalities	1	$ 3,760,000	$ 3,760,000
Incapacitating Injuries	15	$ 188,000	$ 2,820,000
Non-incapacitating Injuries	60	$ 48,200	$ 2,892,000
Possible injuries	99	$ 22,900	$ 2,267,100
Propery Damage Only Crashes	379	$ 2,100	$ 795,900
			$ 12,535,000

Data Sources: Year: 2004

*Ohio Department of Public Safety. *Traffic Crash Facts* . 2004
**National Safety Council, *Injury Facts* , 2004
***Rainbow Babies & Children's Hospital, 2005

Strongsville

Economic cost of crashes in Strongsville in 2004

Injury or Crash Type	Number of Injuries/PDO crashes	Estimated Multiplier	Estimated Cost
Fatalities	2	$ 1,130,000	$ 2,260,000
Incapacitating injuries	22	$ 58,500	$ 1,287,000
Non-incapacitating injuries	131	$ 18,900	$ 2,475,900
Possible injuries	274	$ 10,700	$ 2,931,800
Propery Damage Only Crashes	924	$ 7,400	$ 6,837,600
			$ 15,792,300

Comprehensive cost of crashes in Strongsville based on 2004 crash data.

Injury or Crash Type	Number of Injuries/PDO crashes	Multiplier	Estimated Cost
Fatalities	2	$ 3,760,000	$ 7,520,000
Incapacitating Injuries	22	$ 188,000	$ 4,136,000
Non-incapacitating Injuries	131	$ 48,200	$ 6,314,200
Possible injuries	274	$ 22,900	$ 6,274,600
Propery Damage Only Crashes	924	$ 2,100	$ 1,940,400
			$ 26,185,200

Data Sources: Year: 2004

*Ohio Department of Public Safety. *Traffic Crash Facts* . 2004
**National Safety Council, *Injury Facts* , 2004
***Rainbow Babies & Children's Hospital, 2005

University Heights

Economic cost of crashes in University Heights in 2004

Injury or Crash Type	Number of Injuries/PDO crashes	Estimated Multiplier	Estimated Cost
Fatalities	0	$ 1,130,000	$ -
Incapacitating injuries	3	$ 58,500	$ 175,500
Non-incapacitating injuries	26	$ 18,900	$ 491,400
Possible injuries	54	$ 10,700	$ 577,800
Propery Damage Only Crashes	192	$ 7,400	$ 1,420,800
			$ 2,665,500

Comprehensive cost of crashes in University Heights based on 2004 crash data.

Injury or Crash Type	Number of Injuries/PDO crashes	Multiplier	Estimated Cost
Fatalities	0	$ 3,760,000	$ -
Incapacitating Injuries	3	$ 188,000	$ 564,000
Non-incapacitating Injuries	26	$ 48,200	$ 1,253,200
Possible injuries	54	$ 22,900	$ 1,236,600
Propery Damage Only Crashes	192	$ 2,100	$ 403,200
			$ 3,457,000

Data Sources: Year: 2004

*Ohio Department of Public Safety. *Traffic Crash Facts* . 2004
**National Safety Council, *Injury Facts* , 2004
***Rainbow Babies & Children's Hospital, 2005

Valley View

Economic cost of crashes in Valley View in 2004

Injury or Crash Type	Number of Injuries/PDO crashes	Estimated Multiplier	Estimated Cost
Fatalities	0	$ 1,130,000	$ -
Incapacitating injuries	12	$ 58,500	$ 702,000
Non-incapacitating injuries	32	$ 18,900	$ 604,800
Possible injuries	32	$ 10,700	$ 342,400
Propery Damage Only Crashes	178	$ 7,400	$ 1,317,200
			$ 2,966,400

Comprehensive cost of crashes in Valley View based on 2004 crash data.

Injury or Crash Type	Number of Injuries/PDO crashes	Multiplier	Estimated Cost
Fatalities	0	$ 3,760,000	$ -
Incapacitating Injuries	12	$ 188,000	$ 2,256,000
Non-incapacitating Injuries	32	$ 48,200	$ 1,542,400
Possible injuries	32	$ 22,900	$ 732,800
Propery Damage Only Crashes	178	$ 2,100	$ 373,800
			$ 4,905,000

Data Sources: Year: 2004

*Ohio Department of Public Safety. *Traffic Crash Facts* . 2004
**National Safety Council, *Injury Facts* , 2004
***Rainbow Babies & Children's Hospital, 2005

Walton Hills

Economic cost of crashes in Walton Hills in 2004

Injury or Crash Type	Number of Injuries/PDO crashes	Estimated Multiplier	Estimated Cost
Fatalities	1	$ 1,130,000	$ 1,130,000
Incapacitating injuries	1	$ 58,500	$ 58,500
Non-incapacitating injuries	4	$ 18,900	$ 75,600
Possible injuries	16	$ 10,700	$ 171,200
Propery Damage Only Crashes	77	$ 7,400	$ 569,800
			$ 2,005,100

Comprehensive cost of crashes in Walton Hills based on 2004 crash data.

Injury or Crash Type	Number of Injuries/PDO crashes	Multiplier	Estimated Cost
Fatalities	1	$ 3,760,000	$ 3,760,000
Incapacitating Injuries	1	$ 188,000	$ 188,000
Non-incapacitating Injuries	4	$ 48,200	$ 192,800
Possible injuries	16	$ 22,900	$ 366,400
Propery Damage Only Crashes	77	$ 2,100	$ 161,700
			$ 4,668,900

Data Sources: Year: 2004

*Ohio Department of Public Safety. *Traffic Crash Facts* . 2004
**National Safety Council, *Injury Facts* , 2004
***Rainbow Babies & Children's Hospital, 2005

Warrensville Heights

Economic cost of crashes in Warrensville Heights in 2004

Injury or Crash Type	Number of Injuries/PDO crashes	Estimated Multiplier	Estimated Cost
Fatalities	2	$ 1,130,000	$ 2,260,000
Incapacitating injuries	33	$ 58,500	$ 1,930,500
Non-incapacitating injuries	59	$ 18,900	$ 1,115,100
Possible injuries	118	$ 10,700	$ 1,262,600
Propery Damage Only Crashes	369	$ 7,400	$ 2,730,600
			$ 9,298,800

Comprehensive cost of crashes in Warrensville Heights based on 2004 crash data.

Injury or Crash Type	Number of Injuries/PDO crashes	Multiplier	Estimated Cost
Fatalities	2	$ 3,760,000	$ 7,520,000
Incapacitating Injuries	33	$ 188,000	$ 6,204,000
Non-incapacitating Injuries	59	$ 48,200	$ 2,843,800
Possible injuries	118	$ 22,900	$ 2,702,200
Propery Damage Only Crashes	369	$ 2,100	$ 774,900
			$ 20,044,900

Data Sources: Year: 2004

*Ohio Department of Public Safety. *Traffic Crash Facts* . 2004
**National Safety Council, *Injury Facts* , 2004
***Rainbow Babies & Children's Hospital, 2005

Westlake

Economic cost of crashes in Westlake in 2004

Injury or Crash Type	Number of Injuries/PDO crashes	Estimated Multiplier	Estimated Cost
Fatalities	2	$ 1,130,000	$ 2,260,000
Incapacitating injuries	19	$ 58,500	$ 1,111,500
Non-incapacitating injuries	83	$ 18,900	$ 1,568,700
Possible injuries	161	$ 10,700	$ 1,722,700
Propery Damage Only Crashes	546	$ 7,400	$ 4,040,400
			$ 10,703,300

Comprehensive cost of crashes in Westlake based on 2004 crash data.

Injury or Crash Type	Number of Injuries/PDO crashes	Multiplier	Estimated Cost
Fatalities	2	$ 3,760,000	$ 7,520,000
Incapacitating Injuries	19	$ 188,000	$ 3,572,000
Non-incapacitating Injuries	83	$ 48,200	$ 4,000,600
Possible injuries	161	$ 22,900	$ 3,686,900
Propery Damage Only Crashes	546	$ 2,100	$ 1,146,600
			$ 19,926,100

Data Sources: Year: 2004

*Ohio Department of Public Safety. *Traffic Crash Facts* . 2004
**National Safety Council, *Injury Facts* , 2004
***Rainbow Babies & Children's Hospital, 2005

Woodmere

Economic cost of crashes in Woodmere in 2004

Injury or Crash Type	Number of Injuries/PDO crashes	Estimated Multiplier	Estimated Cost
Fatalities	0	$ 1,130,000	$ -
Incapacitating injuries	0	$ 58,500	$ -
Non-incapacitating injuries	3	$ 18,900	$ 56,700
Possible injuries	7	$ 10,700	$ 74,900
Propery Damage Only Crashes	47	$ 7,400	$ 347,800
			$ 479,400

Comprehensive cost of crashes in Woodmere based on 2004 crash data.

Injury or Crash Type	Number of Injuries/PDO crashes	Multiplier	Estimated Cost
Fatalities	0	$ 3,760,000	$ -
Incapacitating Injuries	0	$ 188,000	$ -
Non-incapacitating Injuries	3	$ 48,200	$ 144,600
Possible injuries	7	$ 22,900	$ 160,300
Propery Damage Only Crashes	47	$ 2,100	$ 98,700
			$ 403,600

Data Sources: Year: 2004

*Ohio Department of Public Safety. *Traffic Crash Facts* . 2004
**National Safety Council, *Injury Facts* , 2004
***Rainbow Babies & Children's Hospital, 2005

CITY	PDO crashes	No Injury	Possible Injury	Non-incapacitating injury	Incapacitating Injury	Fatal Injury	Unknown
BAY VILLAGE	107	322	23	25	13	0	7
BEACHWOOD	431	1306	147	70	19	2	12
BEDFORD	265	604	85	53	7	1	15
BEDFORD HEIGHTS	257	720	81	35	13	1	37
BENTLEYVILLE	11	19	6	4	1	0	2
BEREA	278	670	49	39	10	1	32
BRATENAHL	101	293	50	20	9	0	25
BRECKSVILLE	242	576	56	45	5	0	16
BROADVIEW HEIGHTS	354	895	97	32	8	0	16
BROOK PARK	297	833	100	77	18	0	32
BROOKLYN	213	545	106	41	10	1	27
BROOKLYN HEIGHTS	61	153	19	12	1	1	2
CHAGRIN FALLS	75	180	9	6	1	0	10
CLEVELAND	10732	26476	5471	2012	363	36	6691
CLEVELAND HEIGHTS	684	2092	235	55	19	0	137
CUYAHOGA HEIGHTS	100	230	34	10	3	0	33
EAST CLEVELAND	462	1101	156	46	20	1	185
EUCLID	681	1457	249	140	38	3	72
FAIRVIEW PARK	187	552	51	37	10	0	16
GARFIELD HEIGHTS	761	2271	225	111	25	1	101
GATES MILLS	89	225	23	22	5	1	3
GLENWILLOW	21	55	3	4	2	0	1
HIGHLAND HEIGHTS	169	467	52	20	5	0	8
HIGHLAND HILLS	44	147	29	2	1	0	10
HUNTING VALLEY	32	75	6	2	2	0	0
INDEPENDENCE	488	1068	105	49	17	1	28
LAKEWOOD	532	1155	123	123	12	1	22
LINNDALE	8	18	0	0	0	0	1
LYNDHURST	285	1035	193	44	6	1	29
MAPLE HEIGHTS	306	783	130	39	8	1	30
MAYFIELD	165	463	27	17	5	0	2
MAYFIELD HEIGHTS	462	1287	85	70	6	0	54
MIDDLEBURG HEIGHTS	565	1589	183	61	6	0	26
MORELAND HILLS	31	80	8	4	1	0	3
NEWBURGH HEIGHTS	59	128	9	4	3	0	17
NORTH OLMSTED	622	1881	235	90	16	1	60
NORTH RANDALL	42	156	24	3	3	0	16
NORTH ROYALTON	513	1495	143	86	17	0	27
OAKWOOD	171	467	52	19	8	0	7
OLMSTED	104	290	33	20	1	0	15
OLMSTED FALLS	105	297	28	10	4	0	7
ORANGE	96	238	15	13	0	0	10
PARMA	741	2721	368	264	66	3	72
PARMA HEIGHTS	335	1033	117	60	4	1	23
PEPPER PIKE	225	637	43	51	7	0	11
RICHMOND HEIGHTS	143	306	36	19	6	0	10
ROCKY RIVER	238	661	69	41	8	1	26
SEVEN HILLS	93	276	18	14	0	0	12
SHAKER HEIGHTS	785	1985	161	55	14	0	134

SOLON	449	1364	147	55	11	2	13
SOUTH EUCLID	379	875	99	60	15	1	37
STRONGSVILLE	924	2269	274	131	22	2	44
UNIVERSITY HEIGHTS	192	579	54	26	3	0	13
VALLEY VIEW	178	401	32	32	12	0	28
WALTON HILLS	77	196	16	4	1	1	6
WARRENSVILLE HEIGHTS	369	863	118	59	33	2	30
WESTLAKE	546	1796	161	83	19	2	23
WOODMERE	47	134	7	3	0	0	14

OBSERVATIONAL SURVEYS

Why do I need this?

Observational surveys are conducted to gather baseline data on safety belt usage, bicycle helmet usage and occupant restraint usage. It is strongly recommended that you conduct safety belt surveys to gather information on the use of safety belts in your community. Nonuse of safety belts is an important contributing factor to motor vehicle injury. Bicycle helmet usage surveys can also be performed in your community if you have found bicycle injuries to be one of the "Big 3" injuries in your community. Finally, if you want to conduct child safety restraint surveys in your community seek the assistance of a trained child safety technician.

What do I collect?

This section includes the following surveys:

Safety Belt (2)
Bicycle Helmet Use
Child Safety Restraint (2)

How can I use it?

The directions for each survey are given. There are two uses for this information; the first use is to establish a baseline of safety equipment usage. This allows you to appropriately target your intervention. The second use of this data is to track the effectiveness of your interventions annually. **"Did you make a difference"?**

What are my best sources?

- http://www.nhtsa.dot.gov (Child Passenger Safety Link)
- American Automobile Association

Safety Belt Surveys

Getting a baseline survey of your community's safety belt use rate is the first step in determining the effectiveness of any safety belt use program and in understanding safety belt use as a contributing factor to non-fatal and fatal injuries. The following suggested steps are guidelines for undertaking a successful safety belt use observational survey.

1. Solicit volunteers to conduct the surveys. The following list should be considered just a starting place to look for volunteers:

- Safe Community coalition members
- traffic safety advocacy groups
- church/religious groups
- sororities/fraternities
- colleges/universities
- public health/medical institutions
- minority advocacy groups

2. Conduct a survey to establish a baseline number so you can measure your progress and success.

3. Select locations for data collection near your proposed areas of enforcement or safety checkpoints. Observations should be focused on driver safety belt use from traffic corners with signals or stop signs. Include neighborhoods with minority populations. Repeated observations should duplicate each other in terms of exact location, day of week and time of day. This is necessary to provide comparable data.

4. The survey should be conducted during daylight hours and on weekdays and weekends. There is no "right" or "wrong" way to proceed, but you should observe at least 100 vehicles at a few locations in your community.

5. Assign staff or volunteers to serve as data collectors and instruct them on how to collect the data efficiently. Provide an ample supply of pens, pencils, forms, and clipboards. Decide if every car will be observed, or if a random selection will be used. Check "yes" or "no" on the safety belt survey form (provided).

6. Collect, tabulate and examine the data. Determine the percentage of drivers who were observed using a safety belt. This informal observational survey data can be used to evaluate a safety belt use program or to compare the current use rate in your community with safety belt use rates in other communities, the state or the nation.

Driver Safety Belt Observation Form

Observation Date: _____ Time: _____

Agency: _____

Observation Location: _____

Officer Name: _____

Indicate belted or unbelted driver by checking the appropriate block (Yes/No) that corresponds to the number of the vehicle observed. The observation applies to the driver only of passenger vehicles and light/small trucks. (Observation results of 100 vehicles per location). It is not necessary to count each vehicle passing your observation point. If you are not sure if the driver is buckled up, do not count that vehicle.

	Driver			Driver			Driver			Driver	
	Belted	Not Belted		Belted	Not Belted		Belted	Not Belted		Belted	Not Belted
1			26			51			76		
2			27			52			77		
3			28			53			78		
4			29			54			79		
5			30			55			80		
6			31			56			81		
7			32			57			82		
8			33			58			83		
9			34			59			84		
10			35			60			85		
11			36			61			86		
12			37			62			87		
13			38			63			88		
14			39			64			89		
15			40			65			90		
16			41			66			91		
17			42			67			92		
18			43			68			93		
19			44			69			94		
20			45			70			95		
21			46			71			96		
22			47			72			97		
23			48			73			98		
24			49			74			99		
25			50			75			100		
TOTAL NUMBER OF DRIVERS WEARING SAFETY BELTS											

Vehicle Speed Survey Form

Observation Date: _____ Time: _____

Agency: _____

Observation Location: _____

Officer Name: _____

Posted Speed Limit: _____

Indicate the observed speed in the block that corresponds to the number of the vehicle observed. It is not necessary to count each vehicle passing your observation point. If you are not sure of the speed, do not count that vehicle.

	Speed		Speed		Speed		Speed
1		26		51		76	
2		27		52		77	
3		28		53		78	
4		29		54		79	
5		30		55		80	
6		31		56		81	
7		32		57		82	
8		33		58		83	
9		34		59		84	
10		35		60		85	
11		36		61		86	
12		37		62		87	
13		38		63		88	
14		39		64		89	
15		40		65		90	
16		41		66		91	
17		42		67		92	
18		43		68		93	
19		44		69		94	
20		45		70		95	
21		46		71		96	
22		47		72		97	
23		48		73		98	
24		49		74		99	
25		50		75		100	
Average Speed = Sum of observed speeds/100							

This calculator can be used to test two seat belt surveys to see if there is a statistically significant difference.
You can use this in one of two scenarios:
(1) to test before-after changes in seat belt use at the same location
(2) to test differences between different locations at the same point in time.

Directions:
Enter the results of each survey in column B. Enter the number of observations recorded at each site in column C. The spreadsheet will then calculate whether the difference between the two is statistically signficant or not. If the Z statistic > |1.96| the results are significant.

A	B	C
	proportion belted enter as a decimal (ex. 0.75)	number of observations
First Survey	0.500	100
Second Survey	0.500	100

Z = 0.000

NO, there is not a statistically significant difference between these proportions

Determining the effectiveness of any safety belt use program and in understanding safety belt use as a contributing factor to non-fatal and fatal injuries. The following suggested steps are guidelines for undertaking a successful safety belt use observational survey.

Solicit volunteers to conduct the surveys. The following list should be considered just a starting place to look for volunteers:

- Safe Community coalition members
- traffic safety advocacy groups
- church/religious groups
- sororities/fraternities
- colleges/universities
- public health/medical institutions
- minority advocacy groups

Conduct a survey to establish a baseline number so you can measure your progress and success.

Select locations for data collection near your proposed areas of enforcement or safety checkpoints. Observations should be focused on driver safety belt use from traffic corners with signals or stop signs. Include neighborhoods with minority populations.

The survey should be conducted during daylight hours and on weekdays and weekends. There is no "right" or "wrong" way to proceed, but you should observe at least 100 vehicles at a few locations in your community.

Assign staff or volunteers to serve as data collectors and instruct them on how to collect the data efficiently. Provide an ample supply of pens, pencils, forms, and clipboards. Decide if every car will be observed, or if a random selection will be used. Check "yes" or "no" on the safety belt survey form (provided).

Collect, tabulate and examine the data. Determine the percentage of drivers who were observed using a safety belt. This informal observational survey data can be used to evaluate a safety belt use program or to compare the current use rate in your community with safety belt use rates in other communities, the state or the nation.

SAFETY BELT OBSERVATION FORM

OBSERVER: _____ **LOCATION:** _____

(STREET/CROSS STREET)

STRATUM _____ **ID#** _____ **COUNTY:** _____ _____ **SITE#** _____

DIRECTION OF TRAFFIC FLOW: _____ _____

DAY: _____ _____
START: _____ _____
END: _____ _____

WEATHER CONDITIONS (CIRCLE ONE)
1 = CLEAR/SUNNY **4 = FOG**
2 = LIGHT RAIN **5 = CLEAR BUT WET**

DATE: _____

TOTAL NUMBER OF ELIGIBLE VEHICLES PASSING DURING OBSERVATION: _____

NOTE: SITE LOCATION, DIRECTION OF TRAFFIC FLOW, DAY, START AND END TIME MUST BE FOLLOWED EXACTLY. OBSERVER SHOULD CIRCLE DATE AND WEATHER, AND INDICATE TOTAL NUMBER OF ELIGIBLE VEHICLES.

	DRIVER					PASSENGER			
Vehicle #	**Race** 1 = W 2 = NW 9 = N/S	**Sex** 1 = M 2 = F 9 = N/S	**Use** 0 = No 1 = Yes 9 = N/S	**Veh. Type** 1 = Car 2 = Truck 3 = Van		**Vehicle #**	**Race** 1 = W 2 = NW 9 = N/S	**Sex** 1 = M 2 = F 9 = N/S	**Use** 0 = No 1 = Yes 9 = N/S
1.						1.			
2.						2.			
3.						3.			
4.						4.			
5.						5.			
6.						6.			
7.						7.			
8.						8.			
9.						9.			
10.						10.			
11.						11.			
12.						12.			
13.						13.			
14.						14.			
15.						15.			
16.						16.			
17.						17.			
18.						18.			
19.						19.			
20.						20.			
21.						21.			
22.						22.			
23.						23.			
24.						24.			
25.						25.			

Safety Belt Survey

Survey Date: _____ Time: _____ AM / PM

Survey Location: _____

Name of Group Conducting Survey: _____

Indicate a belted or unbelted driver by checking the appropriate block (YES or NO) that correspondes to the vehicle surveyed. Only observational surveys that visually count drivers wearing a safety belt will be accepted.

Driver Safety Belt Use			Driver Safety Belt Use			Driver Safety Belt Use		
	YES	NO		YES	NO		YES	NO
1			34			67		
2			35			68		
3			36			69		
4			37			70		
5			38			71		
6			39			72		
7			40			73		
8			41			74		
9			42			75		
10			43			76		
11			44			77		
12			45			78		
13			46			79		
14			47			80		
15			48			81		
16			49			82		
17			50			83		
18			51			84		
19			52			85		
20			53			86		
21			54			87		
22			55			88		
23			56			89		
24			57			90		
25			58			91		
26			59			92		
27			60			93		
28			61			94		
29			62			95		
30			63			96		
31			64			97		
32			65			98		
33			66			99		
						100		

Bicycle Helmet Use Survey

A bicycle helmet observation session is the period of time when you are at one particular location observing bicyclists and coding (writing down) data about helmet use. For different locations, there are different guidelines. Below are general suggestions for conducting a bicycle helmet use observational survey, using the coding form provided.

1. Do not go onto school grounds to observe student bicyclists. Observe these riders on the main residential road leading to and from the school. Observe either in the morning or the afternoon at a school but not both. A morning observation session should be accomplished 20-30 minutes before classes begin. An afternoon observation session should begin at the time classes end for the day and continue until the students have left the school grounds.
2. Weekends may be the best times to observe bicyclists on bike trails, at parks and at beaches.
3. To avoid counting the same bicyclists twice, count cyclists going in the same direction counting from a fixed location. Concentrate on making a full and accurate entry for one cyclist at a time, even if you must miss collecting data on other bicyclists to do so.
4. Coding definitions:

   Date: This is the month/day (March 8 or 3/8, for example) that you worked a particular observation site.

   Start Time, End Time: These are the times you began and finished a particular observation session. Write down the times.

   Weather Conditions When Observation Began:
   Sunny -- When there is hardly a cloud in the sky and the sun is shining bright and strong.
   Partly Cloudy – When there are a lot of clouds in the sky, but not so many as to completely block out the sun.
   Cloudy – When the clouds completely block out the sun, like when it is about to rain.
   Calm – When there is little to no wind blowing. Light breezes count as being calm.
   Windy – This can be anything from a fairly steady and strong breeze to an obviously strong and gusty wind.

   Estimated Temperature: How hot or cool do you estimate it to be outside at the time you begin an observation session?

Bike Lane Present: If you are observing bicyclists riding on or near a standard residential street, and if that street has a clearly designated and marked bike lane, then put a check mark in this box. By "clearly designated and marked" we mean that roadway signs and/or roadway stripes indicate that one or the other shoulder of the road is reserved for bicyclists' use.

Wearing Helmet: *This is the most important issue.* If the person is wearing a bicycle helmet, please put a check mark in this space. If not, then just leave this blank. Carrying a helmet does not count here. It must be on the person's head.

Helmet Properly Worn: If the person wearing the helmet is wearing it properly, put a check mark in this space. If not, then just leave this blank. Look for gross or really obvious examples of improper bike helmet use. Any finer distinction than that is not possible, since you will be trying to determine proper helmet use at a glance.

A cyclist IS wearing the helmet properly, if:

- The bike helmet appears at a glance to be sitting fairly level on the person's head and the cyclist has fastened the chinstraps.
- That approximately a two-finger-width space of the cyclist's forehead appears at a glance to be showing beneath the helmet.

A cyclist is *NOT* wearing the helmet properly, if:

- The helmet is obviously tilted to either the left or right side.
- The helmet's chinstraps are not fastened (dangling free), or they are obviously loosely fastened.

White, Black, Hispanic, Other: This is a standard demographic question. Answer as best you can.

This next set of coding definitions applies ***only*** to standard, residential roads. For example, it would apply to schoolchildren you might be observing, but not to cyclists riding on a designed and recognized bike trail or on the beach.

On Road: Is the cyclist riding on a road, like a residential street near a school that might be your assigned observation site? If so, put a check mark here. If not, then you can just leave this blank.

Bike Lane: Is the cyclist riding in a designated bike lane to one side or the other of the road? If so, check; if not, leaves blank. The curb or road shoulder does not count as a bike lane. This entry is only for those parts of a road that a city, county or state government has purposely and clearly marked as a bike lane.

Sidewalk: Is the cyclist riding on the sidewalk? If so, check; if not, leave blank.

Against Traffic: Is the cyclist riding "against" vehicular traffic? If so, check mark; if not, leave blank. For example, if a road runs north and south, and say you observe a cyclist who is riding south in the northbound lane. That rider is going *against traffic* and would get a check mark here.

Comments: Use this section to make a quick note of anything you observed about a particular bicyclist, which is not covered by any of the coding-form entries. In particular, use this section to note whether a bicyclist is carrying a passenger, how that passenger is riding on the bike e.g., on the handlebars or in a child seat), and if that passenger is wearing a bike helmet.

For Observing at Colleges and/or Universities

- Observe at colleges or universities either in the mornings (from 8-10 a.m.), or around noontime (11a.m. -1 p.m.). Typically, it is in the mornings when the largest number of students arrives for classes, and it is around lunchtime that a sizable number of them leave campus.
- Observe bicyclists going in one direction only. For example, in the mornings, code only those cyclists you see arriving at campus; around the noon hour; code only those cyclists you see leaving campus.
- Observe bicyclists from a fixed location. For example, one of the main entrances to the campus might be good, as would any other entrance that, in your best judgment, will afford you the largest number of cyclists for your observation time.

Just as a reminder, a bicycle helmet is just that, a helmet. It is not a baseball cap or any other kind of hat kids wear for fashion. A bike helmet basically can be described as protective headgear for a bicyclist that has a hard outer shell and a cushioned inner shell, and contains chin straps for fastening the helmet to the head.

In trying to determine if a cyclist is wearing his or her helmet properly, ask yourself:

- At a glance, does the helmet appear to be fairly level on the bicyclist's head?
- At a glance, are the chinstraps fastened?
- At a glance, does it appear that about a two-finger-width space of the helmeted cyclist's forehead is obviously visible beneath the helmet?

Draft

BICYCLE HELMET USE & BEHAVIOR SURVEY CODING FORM

County Code _____ Observer's Name _____

Observation Site Code _____ Start Time _____ End Time _____

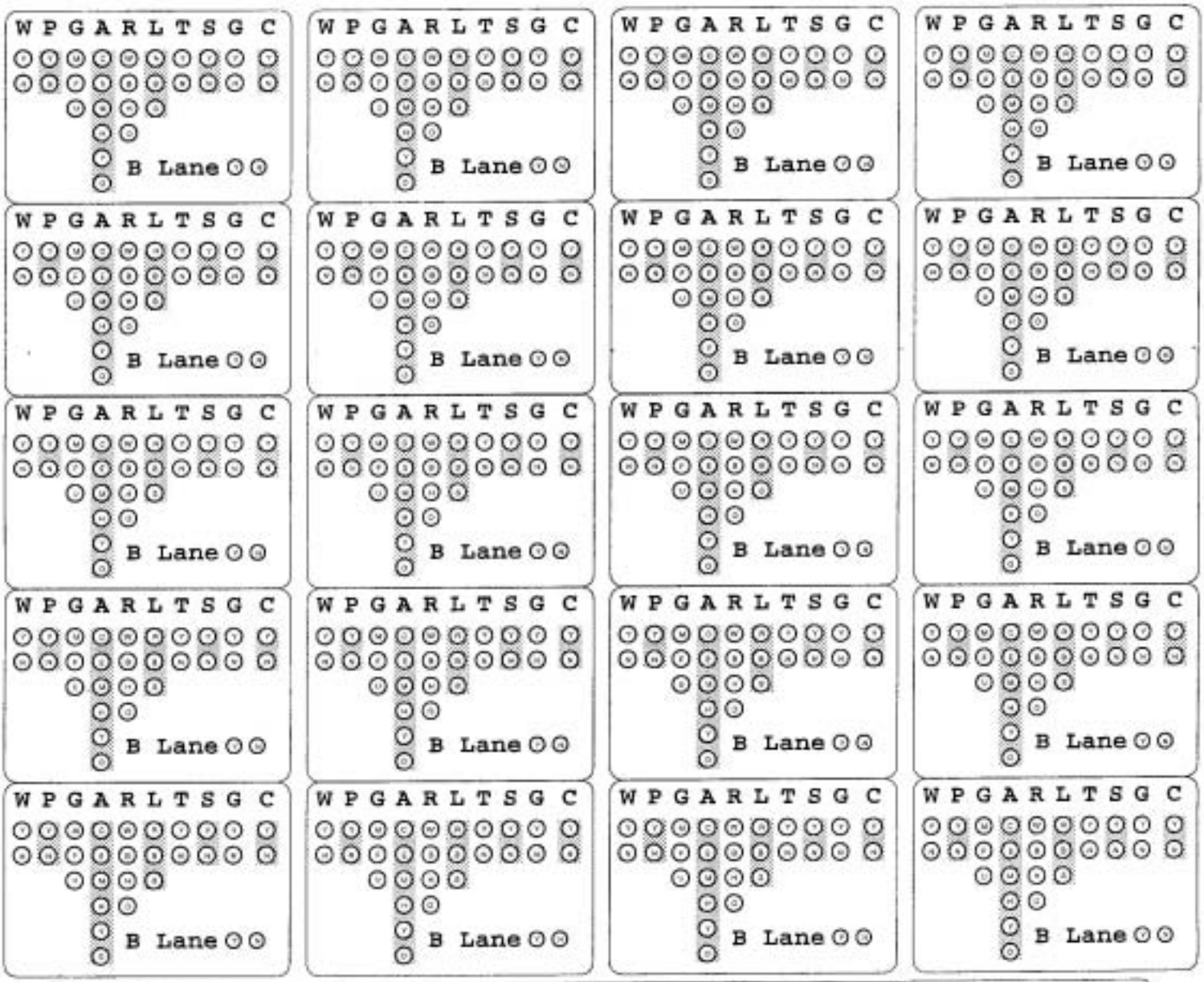
WC
- ○ Sunny
- ○ Partly Cloudy
- ○ Cloudy

WC2
- ○ Calm
- ○ Windy

Estimated Temp _____

Age Ranges:

Child = <5	High School = 14-17
Elementary = 5-10	Young Adult = 18-30
Middle = 11-13	Older Adult = 30+



Wearing Helmet	Proper	Gender	Race	Location	Against Traffic	Scan	Signal	Clothes (Bright)
Yes	Yes	Male	White	Road	Yes	Yes	Yes	Yes
No	No	Female	Black	Bike Lane	No	No	No	No
			Hispanic	Sidewalk				
			Other					

Child Safety Restraint Survey

It is important to conduct child safety restraint surveys to determine if children are being properly restrained while riding in motor vehicles. This is an important contributing factor for non-fatal and fatal injuries for children. The following guidelines will help you conduct child safety restraint observational surveys throughout your community.

1. Determine the age of the child. For coding purposes the following designations are usual: infants are considered to be one year of age or less; toddlers are considered to be 1-3 years old; children are considered to be 4-5 years old. Hints for determining ages of infants/toddlers/children: normally, only children under 20-22 pounds are in infant seats. These children are usually less than one year of age. Children over three years of age will probably not be holding a bottle. Booster seats will probably be used for children four years or older. Normally, five-year-olds are the youngest children in a lap/shoulder belt.
2. An infant seat is used for infants up to 20-22 pounds. The child is in a semi-reclining position. For proper use, the child faces the rear of the car. Harness straps fit over shoulders and are “snug”.
3. Convertible seats that can face to the rear or forward facing are often used by infants over 20-22 pounds until they have reached one year of age and then are placed forward facing until the child is 4 years of age and 40 pounds.
4. A booster seat is intended for older children at least 40 pounds. There are several varieties, some with harnesses, for use with children over 1 year of age and over 20 pounds up to 4 years and 40 pounds. Older children sit in booster seats and use the vehicle safety belts instead of the harness.
5. Children may legally ride in a vehicle secured by a lap/shoulder belt only if they are big enough for the belt to fit properly. For proper use, the shoulder belt should lie across the child’s chest. The lap belt should be securely in place over the hips. If the shoulder belt rides high over the child’s torso or face, it is being used improperly. Also, if the shoulder belt is behind the back, this is improper use.
6. For coding purposes, specify what type of restraint is being used, if any, and then specify if the restraint is misused. Misuse should be obvious. The most common types of misuse are wrong restraint for the age/weight of the child, restraint is altered in some way (behind the back, behind the headrest, etc.), child is facing the wrong way, and straps are not tightly secured.
7. Observe at day care centers, schools, playgrounds, parks, or other places where children must be transported in motor vehicles. Only code vehicles that are stopped or are moving very slowly. Coding occupants of cars that are moving rather quickly usually favors the ‘using belt’ category for safety belt surveys.

8. Code children under five years of age first if a combination safety belt/child restraint observational survey is being conducted. The order of priority is children under 5 in the front seat first, children under 5 in the rear seat second, and all other front seat passengers regardless of age last. Code as many children in each car as possible, if there is more than one.

Examples

The following examples are included to provide you with ideas about how the data you have collected can be presented. These examples are not in any way intended to limit your own creativity when designing your own presentations. These examples are from real Safe Communities and include their actual data. These are just a few of the many ways in which the data can be organized into effective and persuasive presentations

In order to keep the length of this document manageable; two presentation slides have been presented on some single pages. This would not be a recommended presentation format – each graph or slide should probably have it's own page. Some data is presented using two different techniques, e.g. pie chart and bar chart. You would not duplicate your data presentation slides in this way. Once again, these examples are only to show you how different presentation styles would look using the same data.

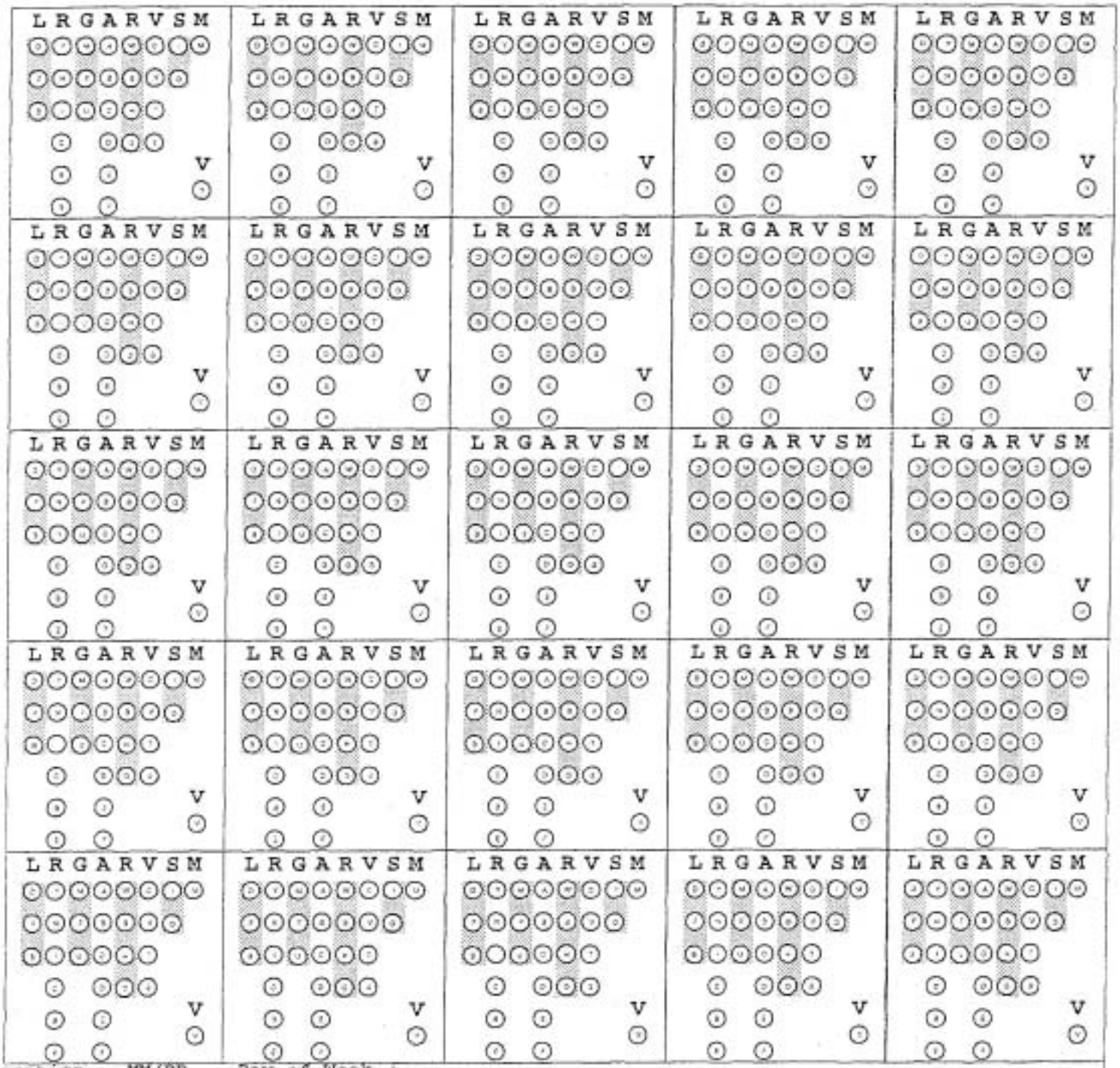
How was this done?

Each of three maps was produced similarly to placing pins into a roadmap for each event plotted. In this case, computer software (ArcView 3.2) was used to process the data. By using the computer to create this Geographical Information System (G.I.S.), we could get a more comprehensive picture of our injury and fatality problems. The maps show us the types of streets and locations of cluster of events. Initial map information involved placing layers of shapes on top of each other. The Department of Transportation was able to provide motor vehicle crash information geocoded (matched to the address) to the location of the event. By placing the layers together on the computer, a picture or map, of where the crashes were occurring was created.

Additional information on the creation of Geographical Information Systems can be found in the Journal of Public Health Management and Practice, July 1999, Volume 5, Number 4.

5248

OCCUPANT RESTRAINT CODING FORM



Location

MM/DD

Day of Week

- ○ Sun
- ○ Mon
- ○ Tue
- ○ Wed
- ○ Thu
- ○ Fri
- ○ Sat

Location
D = Driver
F = Front Rider
B = Back Rider

State
I = In State
O = Out of State

Restraint
Y = Yes
N = No
I = Infant
C = Convertible
B = Booster
E = Else

Gender
M = Male
F = Female
U = Unknown

Misuse
M = Misuse
Void
V = Void

Age
A = <1
B = 1-3
C = 4-5
D = 6-15
E = 16-59
F = 60+

Race
W = White
B = Black
H = Hispanic
O = Other

Vehicle
C = Car
V = Van
T = Truck/Jeep
S = SUV

Time

○ 7am-9:59am ○ 10am-12:59pm ○ 1pm-3:59pm ○ 4pm-6:59pm

Observer's Name

Page ____ of Pages ____

CHILD SAFETY SEAT OBSERVATION FORM

OBSERVER: _____ **LOCATION:** _____
(CENTER NAME) *(ADDRESS)*

STRATUM: ____ **ID#** **COUNTY:** _____ _____ **SITE #** _____

0=DAYCARE/1=SHOPPING: 0

DAY: _____ _____
START: _____ _____
END: _____ _____

WEATHER CONDITIONS (CIRCLE ONE)
1 = CLEAR/SUNNY **4 = FOG**
2 = LIGHT RAIN **5 = CLEAR BUT WET**

DATE: _____

TOTAL NUMBER OF ELIGIBLE VEHICLES PASSING DURING OBSERVATION: _____

NOTE: SITE LOCATION, DIRECTION OF TRAFFIC FLOW, DAY, START AND END TIME MUST BE FOLLOWED EXACTLY. OBSERVER SHOULD CIRCLE DATE AND WEATHER, AND INDICATE TOTAL NUMBER OF ELIGIBLE VEHICLES.

CHILD UNDER FIVE

Vehicle #	Use 0 = No 1 = Yes 9 = N/S	Seat 1 = Front 2 = Rear 9 = N/S
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		
17.		
18.		
19.		
20.		
21.		
22.		
23.		
24.		
25.		

DRIVER

Vehicle #	Race 1 = W 2 = NW 9 = N/S	Sex 1 = M 2 = F 9 = N/S	Use 0 = No 1 = Yes 9 = N/S	Vehicle Type 1 = Car 2 = Truck 3 = Van
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				

GLOSSARY OF TERMS

Assessment: the collection and organization of data from various sources that will guide planning and intervention efforts.

Baseline: any information used as a starting point for comparison purposes to determine any changes in the community associated with program efforts.

Community Profile: a method for collecting important identifying information such as the population, environment, business, culture and resources for a defined area.

Countermeasure: an injury prevention strategy; may be used singly or in combination with each other and may include public education and information, enforcement and legislative initiatives, engineering and technology, and economic incentives.

E-code: a standardized numbering system developed by the World Health Organization for the International Classification of Diseases (ICD) coding system; the number assigned to a specific cause of injury. The E-code indicates how an injury occurred.

Injury: intentional or unintentional damage to the body resulting from agents of energy transmission in a permissive environment exceeding tolerable limits for the host.

Intentional Injuries: Injuries that are purposefully inflicted either by persons to themselves or to others. Includes suicide, homicide, and assaults.

Intervention: a specific prevention measure, activity, or effort designed to meet a program objective.

Template: a generalized pattern used as a guide; may be used repeatedly.

Timeframe: a specific period of time used to collect or analyze data or to launch a program.

Unintentional injuries: injuries that are not inflicted on purpose.

Years of Potential Life Lost (YPLL): a measure calculated by subtracting a person's age at death from a predetermined life expectancy, usually age 65.

RESOURCES

Documents

Copies of the following publications can be ordered through the:
Safe Communities Service Center, 819 Taylor Street, Rm 8A38, Fort Worth TX 76102
Phone: 817.978.3653 Fax: 817.978.8339
Safe.Communities@nhtsa.dot.gov

Are You Living in a Safe Community Sign-Up Card - 5P0249, 1999

It Wouldn't Hurt to Live in a Safe Community - 5P0003, 1996

Living in a Safe Community Doesn't Happen By Accident - 5P0004, 1996

Safe Communities Folios - 5P0026, 1999

Safe Communities: The First Six Months Handbook– 5P0276

Safe Communities 1999– Report to Congress– 5P0030

Injury Prevention: Meeting the Challenge, National Committee for Injury Prevention and Control, Oxford University Press, New York, 1989

Folio Inserts Available Individually:

- Safe Communities– An Approach to Reduce Traffic Injuries– 5P0215
- Safe Communities Getting Started Overview– 5P0212
- Establishing a Self-Sufficient Safe Communities Program-5P0026
- Safe Communities– A Look at the Data-5P0214
- Evaluating & Monitoring Safe Communities Programs-5P0218
- Safe Communities– Tips for Coalition Building-5P0213
- Safe Communities– Working With Citizens to Set Priorities & Move Forward Fact Sheet– 5P0216

RESOURCES

Agencies

DOT's Bureau of Transportation Statistics

Websites

Safe Communities Service Center: Safe Communities@nhtsa.dot.gov
http://www.nhtsa.dot.gov/safecommunities

Building Safe Communities Newsletter - available at: www.edc.org/HHD/csn/bsc/

WISQUARS-pronounced "whiskers" is the Centers for Disease Control and Prevention's (CDC) new Web-based Injury Statistics Query and Reporting System. It is an interactive system that provides injury-related mortality data and is available at: www.cdc.gov/ncipc/wisqars

WONDER - (Wide ranging Online Data for Epidemiological Research) is similar to WISQARS's Injury Mortality Reports but has different characteristics. In addition to having a variety of data sources, its mortality data differs from WISQARS. It is available at: http://wonder.cdc.gov/

Tool Kit CD's are available from the Regional Safe Communities Injury Control Program Manager.

Region I - Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont
Region II - New York, New Jersey, Puerto Rico, US Virgin Islands
Region III - Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, West Virginia
Region IV - Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee
Region V - Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin
Region VI - Texas, Arkansas, Louisiana, Oklahoma, New Mexico, Indian Nations
Region VII - Iowa, Kansas, Missouri, Nebraska
Region VIII - Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming
Region IX - American Samoa, Arizona, California, Guam, Hawaii, Nevada, North Marianas
Region X - Alaska, Idaho, Oregon, Washington

REFERENCES

Injuries Can Be Prevented. CSN National Injury and Violence Prevention Resource Center. <http://www.edc.org/HHD/csn/ecodes/ecodefaq.html> [2000, February 8].

McKenzie, J.F. & Pinger, R.R. (1997). An Introduction to Community Health: Web Enhanced Edition. London: Jones and Bartlett Publishers International.

National Highway Traffic Safety Administration. (1996). Getting Started: A Guide to Developing Safe Communities. (NHTSA Publication No. 1996-411- 724 / 50402). Washington, D.C: U.S. Government Printing Office.

U.S. Department of Health and Human Services. (1989). International Classification of Diseases, 9th Revision. Washington, D.C.: U.S. Government Printing Office.

Vira, C. (1999). The Data Smart Manual: Use and analysis of data for local highway and traffic safety programs. (DOT HS 808 862). Washington, D.C: U.S. Department of Transportation, National Highway Traffic Safety Administration.

INSTRUCTIONS & COMMENTS

AUTOMATED SAFE COMMUNITIES TOOL KIT TEMPLATES

1. Certain **CELLS** on each sheet are 'locked' or protected to prevent inadvertent overwriting of key formulas and/or formats. To unlock **CELLS**, chose **Protection** under the **Tools** menu and enter the password "safe" (in lower case letters). Re-protect sheet when done with this password or one of your own choosing.
2. Demographic Sheets: When **CELLS** are formatted as:

56789	56%	45678	37%

this indicates that the computer program has compared these figures to the overall population figures entered on the first community profile worksheet, and has determined that this segment of the category population exceeds the percentage of the total population by 4% or more. You should look more closely at any demographic category that is highlighted in this way because it means that this segment of the population is over represented regarding this injury problem. It is recommended to wait until all numerical data is entered for each appropriate category, as percentages will change throughout the entry process.
3. The various sheets can be accessed using the "Arrow" icons at the lower left corner of the screen.
4. The various **CELLS** where numerical or text data are to be entered can be accessed using the **TAB** key, the **ARROW** key, or the mouse pointer.
5. The size of the sheet view on the monitor can be adjusted using the **"% SIZE"** adjustment box at the upper right hand corner of the screen.
6. Printout control can be accessed through **PAGE SET-UP** or **PAGE PREVIEW** under the **FILE** menu.

CREATING CHARTS FROM YOUR DATA:

After filling in the template, you can start creating charts by clicking on the chart wizard icon on the top tool bar (this icon is a picture of a small, simple, colored bar chart). This icon is also available on the drop down menu under the heading "Insert." When you click on the chart wizard icon, EXCEL will walk you through the four steps necessary to create a chart. Step One allows you to choose your chart type. Step Two allows you to choose what data to include in your chart. Step Three allows you to customize your chart. Step Four allows you to place your chart in a presentation.