

# *Multinational Injury Surveillance Pilot Project*



*Agenda March 27<sup>th</sup> – 9:00am-9:30am*

*Trainer of Trainers Workshop  
Nairobi, Kenya  
March 27<sup>th</sup>-30<sup>th</sup>, 2006*

# Multinational Injury Surveillance Pilot Project

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Summary of Modules in:

Espitia-Hardeman V, Paulozzi L. *Injury Surveillance Training Manual*. Atlanta (GA): Centers for Disease Control and Prevention, National Center for Injury Prevention and Control; 2005.

# Multinational Injury Surveillance Study

## Steps to Develop and Maintain an Injury Surveillance System

1. Understand the conceptual framework of injury prevention

Definition and typology of unintentional and violent injuries

2. Assess injury data sources and describe the injury problem

Identifying strengths and weakness of injury data sources and size the problem

3. Build a coalition to support the injury surveillance system and prevention strategies

Identify the partners to include in a coalition to support the injury surveillance system

4. Determine the appropriate methodology for the surveillance system

Determine events, data elements, type of surveillance and data collection instruments

7. Define an evaluation plan for the surveillance system and monitor prevention strategies

Apply the criteria to evaluate the surveillance system

6. Use injury surveillance data

Use data to identify preventable injuries, high-risk groups and most appropriate interventions

5. Define and develop an analysis plan for the surveillance data

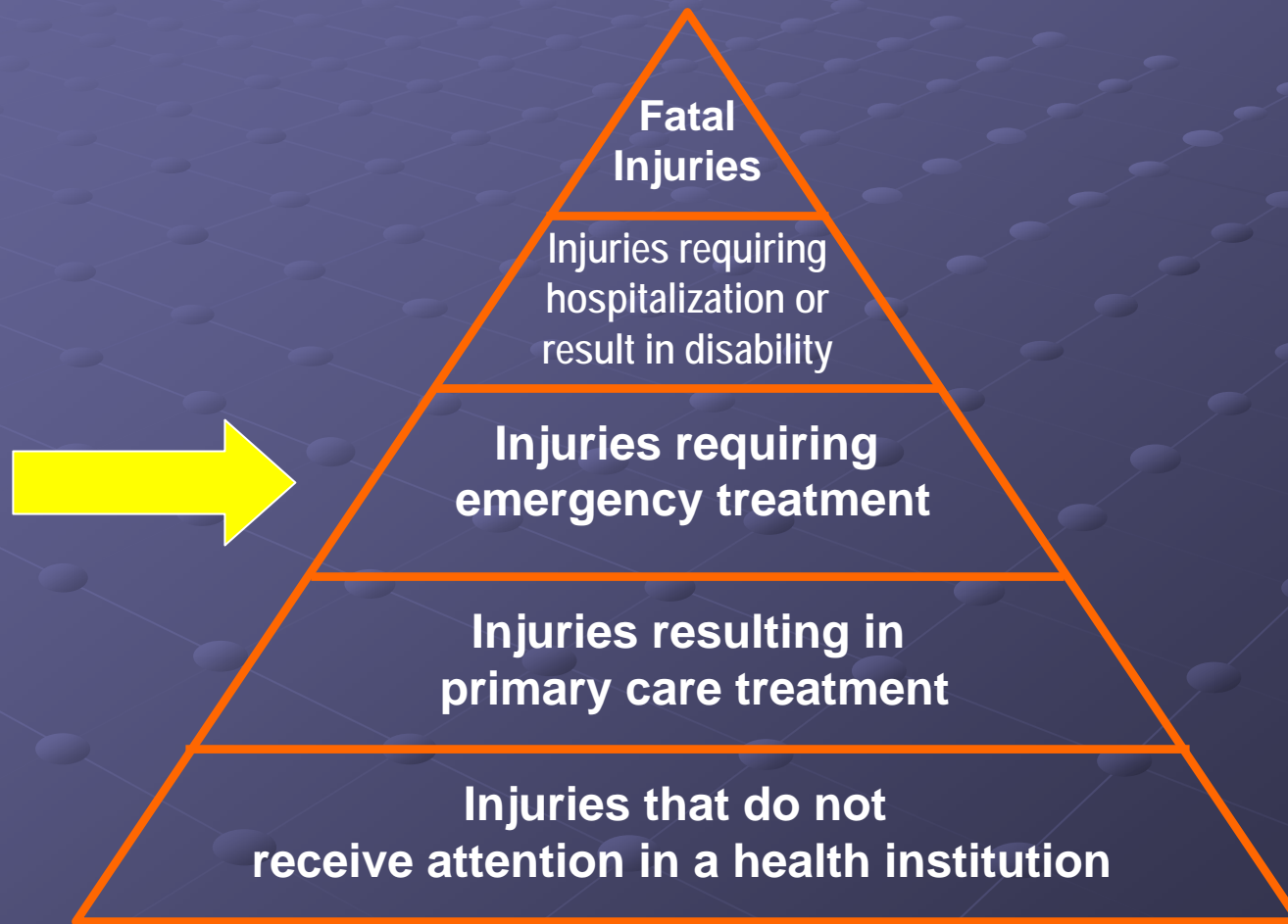
Calculate indicators, demographic and environmental characteristics

# Injury Surveillance

“...the ongoing systematic collection, analysis, and interpretation of injury data for use in planning, implementation, and evaluation.

Injury prevention programs use surveillance data to assess the need for new policies or programs and to evaluate the effectiveness of those that already exist.”

# The Injury Pyramid



# Injury Classification by Intent

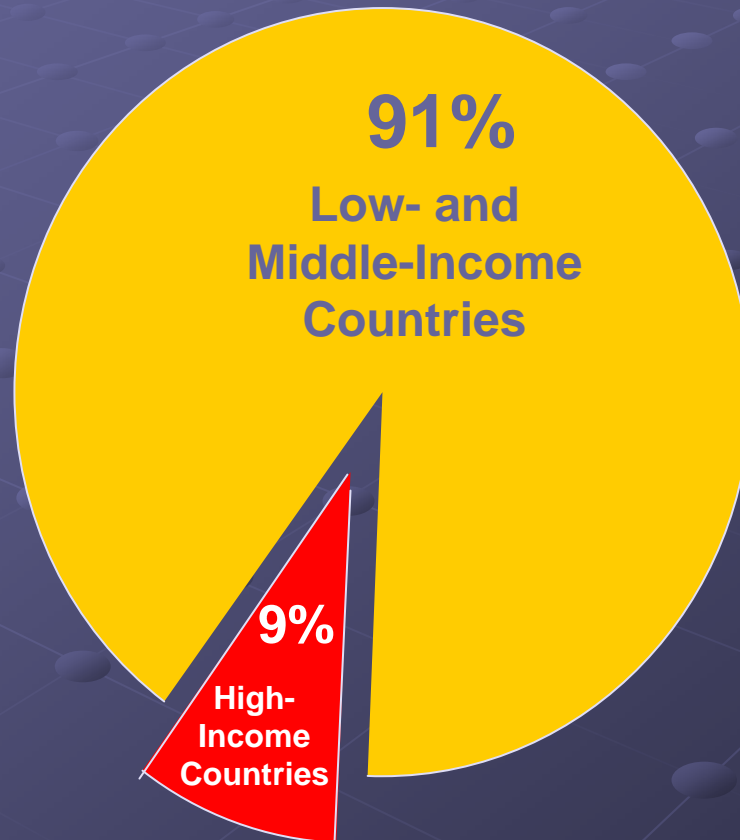
1. **Unintentional injuries** include all injuries related to transportation and traffic incidents or occurring at home, in the work place, in public places, and in natural disasters.
2. **Violence-related injuries** (also called “intentional injuries”) include injuries related to interpersonal, collective, terror-related actions, and self-inflicted violence.

# Violence

“The intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community, that either results in or has a high likelihood of resulting in injury, death, psychological harm, maldevelopment or deprivation.”

World Health Organization

# Proportion of Violence-Related Deaths in the World





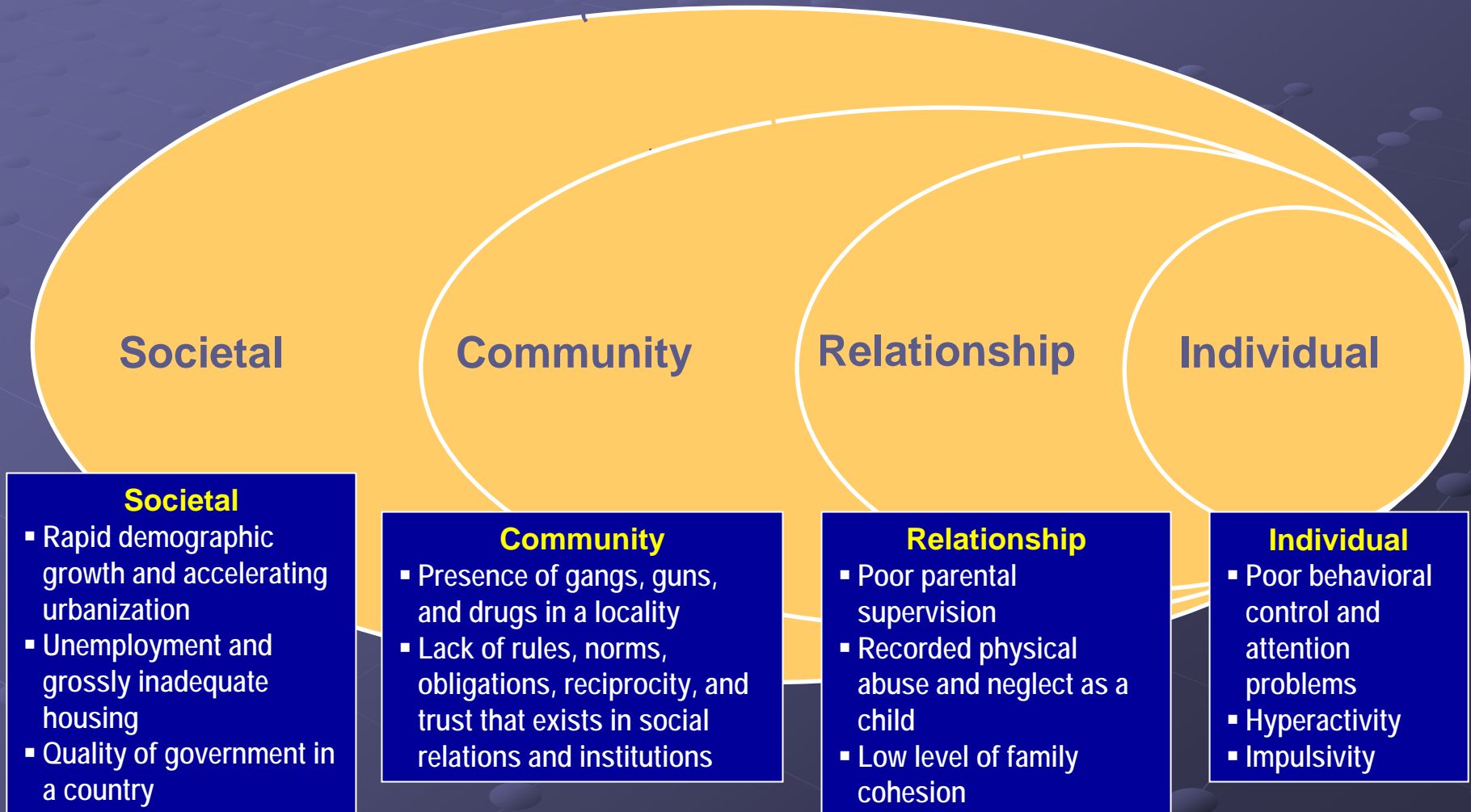
# Injury-Related Mortality Worldwide, 1998

Injury Deaths	Number of Deaths	Mortality Rate (per 100,000 population)	Percentage
Unintentional			
Road Traffic Injuries	1,170,694	19.9	20.3
Drowning	495,463	8.4	8.5
Falls	315,633	5.4	5.4
Burning	282,178	4.8	4.8
Poisoning	251,881	4.3	4.3
Other Unintentional Deaths	977,259	16.6	16.9
Violence-Related			
Suicide	947,697	16.1	16.4
Homicide	735,972	12.5	12.7
War	588,050	10.0	10.2
<b>Total</b>	<b>5,764,825</b>	<b>97.9</b>	<b>100.0</b>

# Ecological Model for Understanding Violence

## Risk Factors for Youth Violence

### Module 1

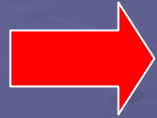


# **Describe the Magnitude of the Injury Problem**

- The availability of reliable health statistics generally reflects the country's level of development.
- In some countries, reliable data about the local status of health conditions, or about the leading causes of death, are not available.
- Preliminary estimates of basic indicators (i.e., number and percentage of injuries) will begin to give you an idea about the problem of injuries in the region.

# Data Sources for an Injury Surveillance System

## Strengths?



- Health Sector
- Police Department
- Forensic Medicine
- Community
- Nongovernmental offices
- District Attorney
- Transportation office
- Media

## Weaknesses?

# Injury Death Process in Cali, Colombia

**Victim in  
scene of  
death**



Police are the first authority on the scene and collect preliminary data about victim and context.

District attorney is on the scene collecting information about circumstances, victim, aggressor, etc., and transporting the body to the forensic office.

**Victim in Forensic  
Medicine**



Pathologists conduct the autopsy, determine the cause of death, and prepare the death certificate.

**National  
Statistics  
Office**

A public health office receives and systematizes the death certificate and assigns the ICD codes, and send the death certificates to the National Statistics Office

Victim is buried  
by family and  
relatives.

**Module 2**

## Module 2

# Probable Data Sources

Data Sources								
Events	District Attorney	Police Office	Forensic Medicine	Public Health	Transport Office	Family Community	Non-government Offices	Media
Fatal Injuries								
Homicide								
Suicide								
Transport - Related deaths								
Other Unintentional Deaths								
Nonfatal Injuries								
Homicide Attempt								
Suicide Attempt								
Transport-Related Injuries								
Other Unintentional Injuries								
Domestic Violence								
Child Maltreatment								
Elderly Abuse								

# Number of Homicides in Cities of Colombia — 1999

City	Forensic Medicine	Police Department	Diff
Palmira	185	95	90
Buga	106	81	25
Tulua	166	87	79
Cartago	210	83	127
Buenaventura	312	131	182
Roldanillo	94	85	9
Zarzal	65	63	2

# Data Elements to Include in Surveillance System

- **Variables:** Demographics, place, time, circumstances, other
- **Codes:** CIE- 10, CIE-9-CM, ICECI
- **Case Definition:** CIE-10, FBI, police, transportation, other



# Variables Included in Injury Surveillance Systems

WHO Guidelines		PAHO Guidelines	Fatal Injury Surveillance System Cali, Colombia
Core	Optional		
DEMOGRAPHIC VARIABLES			
Identifier			Name
Age		Age	Age
Sex		Sex	Sex
		Marital status	
Activity		Employment	Employment (only in cases of suicide and other unintentional deaths)
		Socioeconomic status (SES)	SES
		Education level	
	Other psychoactive substances	Alcohol level	Alcohol level
	Race/Ethnicity		
TIME VARIABLES			
	Date of injury	Date of act	Date of event
	Time of injury		Time of occurrence
PLACE VARIABLES			
		Neighborhood	Place of occurrence – Neighborhood and SES
Place of occurrence	Place of residence	Location of the act	Place of residence – Neighborhood and SES
CHARACTERISTICS			
Mechanism of injury		Type of weapon	Mechanism of injury
		Motive for the act	Context
		Relationship victim/aggressor	Aggressor known / unknown
		Special category of people or risk group	Special category of people or risk group
Intention			Intention (homicide, suicide, transport-related, other unintentional deaths)
Nature of injury	ICD codes, Severity, Disposition		
			For motor vehicle-related injuries: mode of transport, type of victim, and vehicle involved

# Example

## A Typology of Violence Using ICD Codes

Nature of violence	Self directed		Interpersonal					Collective		
			Family / partner			Community				
	Suicidal behavior	Selfabuse	Child	Partner	Elder	Acquai ntance	Strange r	Socia l	Politi cal	Econ omic
Physical	F10-F19 Mental and behavioral disorders due to psychoactive substance use	X60-X84 Intentional self-harm Y 87.0 Sequelae of intentional self-harm	Y07 Other maltreat- ment syndrome s P04.2-4	Y07.0 Other maltreat- ment syndromes	Y07 Other maltreat- ment syndrome s	X85-Y09 Assault Y 87.1 Sequelae of assault Y 08 Assault by other specified means Y 09 Assault by unspecified means		Y35-Y36 Legal intervention and operations of war		
Sexual			Y07 Other maltreat- ment syndrome s	Y05 Sexual assault by bodily force	Y07 Other maltreat- ment syndrome s	Y 05 Sexual assault by bodily force. Includes rape (attempted), sodomy (attempted)				
Psychologic al		F10-F19 Mental and behavioral disorders due to psychoactive substance use	Y07 Other maltreat- ment syndrome s	Y07 Other maltreat- ment syndromes	Y07 Other maltreat- ment syndrome s					
Deprivation or neglect			Y06 Neglect and abandonment: by spouse or partner, by parent, by acquaintance or friend, by other specified persons, by unspecified person							

# Other Public Health Classifications

**ICECI:** International Classification of External Causes of Injury is a related classification in the World Health Organization's Family of International Classification of Diseases and Related Health Problems.

**ICD-9-CM:** ICD-9-Clinical Modification is widely used to code external cause of injury for visits in hospitals, emergency departments, and ambulatory care settings across the United States.

# Case Definition for Violent Injuries: Public Health vs. Law Enforcement in the United States

Public Health (ICD-10)	Law Enforcement
<b>Assault (X85–Y09):</b> Includes homicide and injuries inflicted by another person with intent to injure or kill, by any means.  Excludes: Legal intervention and operations of war. Assaults are classified by mechanism	<b>Criminal Homicide:</b> Murder and no negligent manslaughter: the willful killing of one human being by another. <b>Aggravated Assault:</b> An unlawful attack by one person upon another for the purpose of inflicting severe or aggravated bodily injury. <b>Other Assaults:</b> Assaults and attempted assaults in which no weapons are used and do not result in serious or aggravated injury to the victim.
<b>Legal Intervention (Y35):</b> Includes legal intervention according to the mechanism	<b>Justifiable Homicide (Not a Crime):</b> Killing of a felon by a law enforcement officer in the line of duty. The killing of a felon, during the commission of a felony, by a private citizen.
<b>Neglect and Abandonment (Y06):</b> Classified according to the perpetrator: Spouse or partner, parent, acquaintance or friend, other specified persons, unspecified person.	<b>Manslaughter by Negligence:</b> The killing of another person through gross negligence.
<b>Operations of War (Y36):</b> Includes: injuries to military personnel and civilians caused by war and civil insurrection and injuries due to operations of war occurring after cessation of hostilities	

# Frequency of Data Collection

How often can the data be collected?

How often must data be analyzed and disseminated?

- Daily – weekly
- Monthly
- Every year

**Active collection:** Injured people are interviewed, with follow-up.

**Passive collection:** Relevant information is collected while performing other routine tasks.

# Database Structure Software: Epi Info

## System Maintenance

→ Reduces errors

→ Improves system scope and services

- Clearly written procedures are needed for (1) securing physical and electronic records and (2) controlling access to and production of records.
- Only one person should have the authority to access the system and to assign and change passwords.



# Core Staff

**Program manager:** Organizes and supervises the process of data collection. Acts as spokesperson.

**Data manager**

**Research analyst**

**Coordinator**



# Key Personnel for System Operation

## Advisory Board

→ Provide technical advice, strategic planning, and support for success of the reporting system →

Law enforcement  
Coroner/medical examiner  
Vital registrars  
Health care  
Policy makers  
Business  
Community organizations  
Researchers/educators

## Stakeholders

→ Define activities and strategies to prevent injuries: government, health sector, law enforcement, transportation offices



# DATA ANALYSIS

The analysis and interpretation of surveillance data establishes the foundation for many observational studies, placing surveillance at the forefront of the spectrum of descriptive epidemiology.

If analyses are implemented as part of a routine surveillance program, results can be monitored as the initial data are updated with subsequent reports.

# Recommendations

- Knowledge of day-to-day strengths and weaknesses of data collection methods and reporting processes can provide a “real-world” sense of emerging trends.
- Although surveillance data are collected individually, part of the analysis is to have a global image of the problem under surveillance.
- Proceed from the simplest to the most complex analysis. Begin with questions such as:
  - ✓ “What is the percentage of injury deaths among all mortality causes?”
  - ✓ “How many injuries occurred according to intention?”

# Analysis Process

- **First step:** To describe the size of the injury problem, determine the frequency and percentage of events.
- **Second step:** Calculate crude, specific, and adjusted rates for each type of injury.
- **Third step:** Determine trends of the injury events, if these data are available.

# Injury Mortality in El Salvador and Cali, Colombia, 2000

Cause of Death	El Salvador		Cali	
	Number	Percentage	Number	Percentage
<b>Unintentional Deaths</b>				
Motor Vehicle-Related	1,629	26.8 %	467	17.9 %
Other Unintentional Deaths	933	15.4 %	104	3.9 %
<b>Violence-Related Deaths</b>				
Homicides	2,696	44.3 %	1,961	74.9 %
Suicides	815	13.5 %	85	3.3 %
Total	6,073	100 %	2,617	100 %

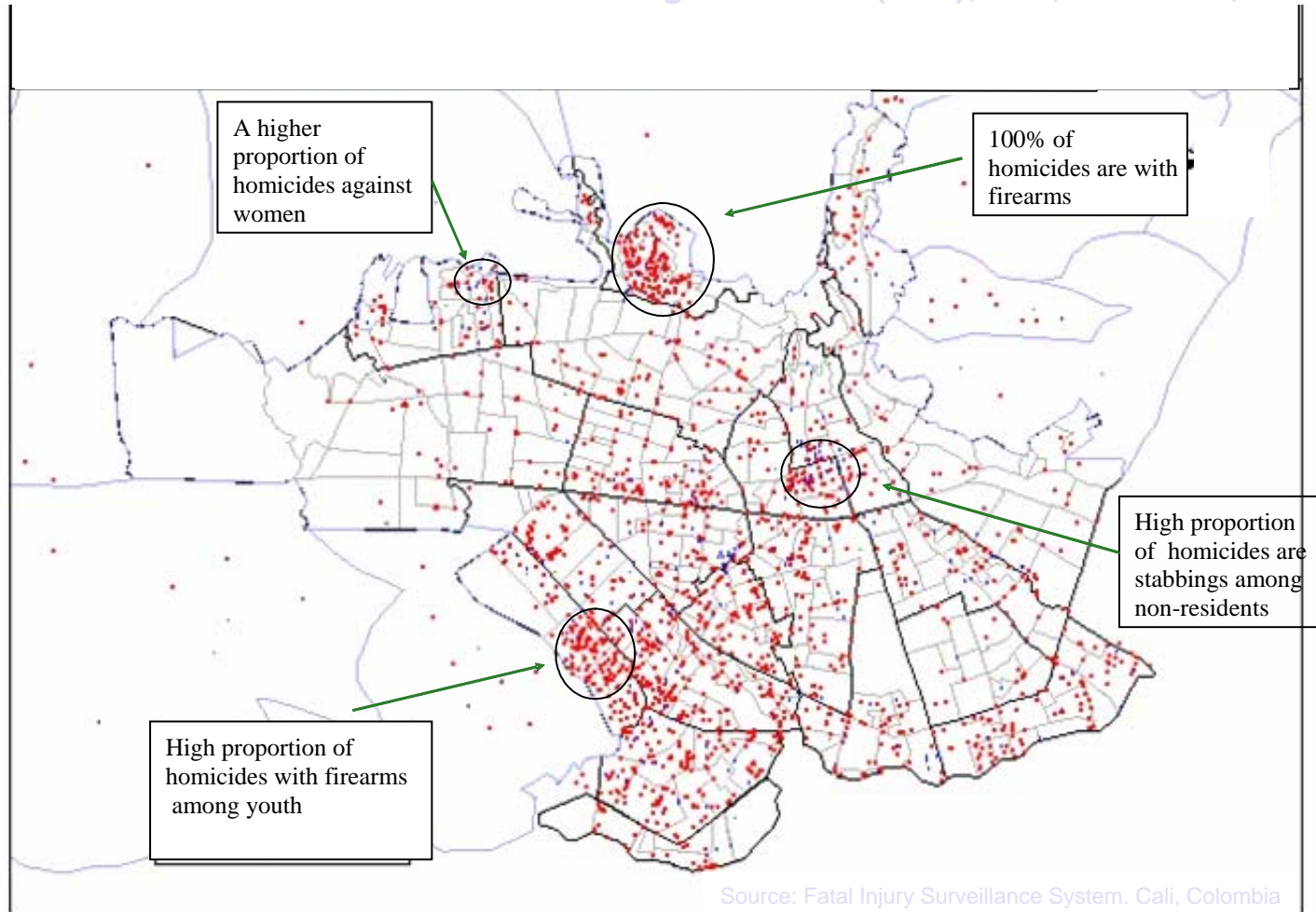
# Geographical Analysis of Data

Maps are the graphic representation of data using location and geographic coordinates.

- Spot map
- Area map (chloropleth, shaded)
- Black spots

# Spot Map

Homicides tend to occur in low- SES neighborhoods (70%); Cali, Colombia; 2001

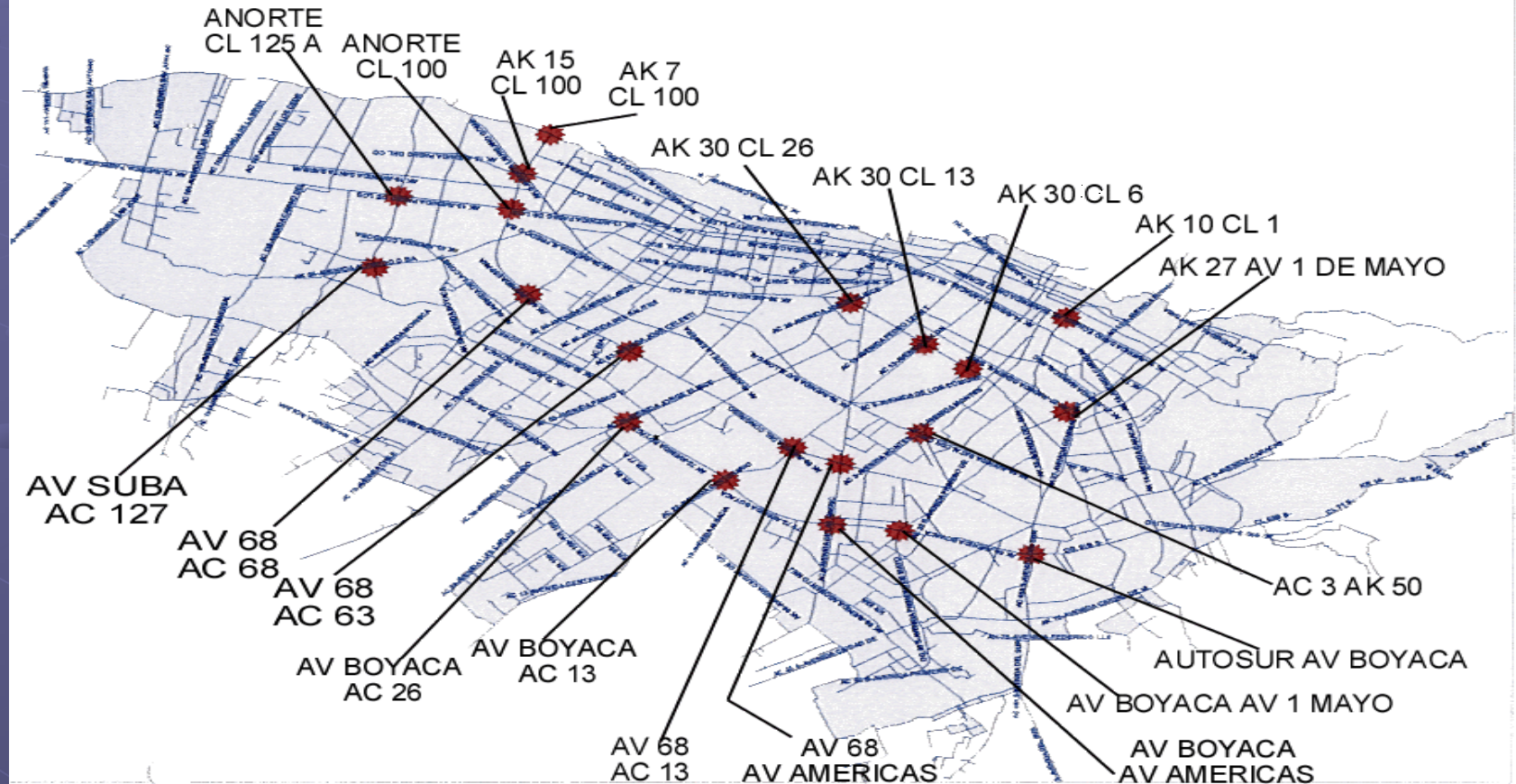




# Example

## Module 5

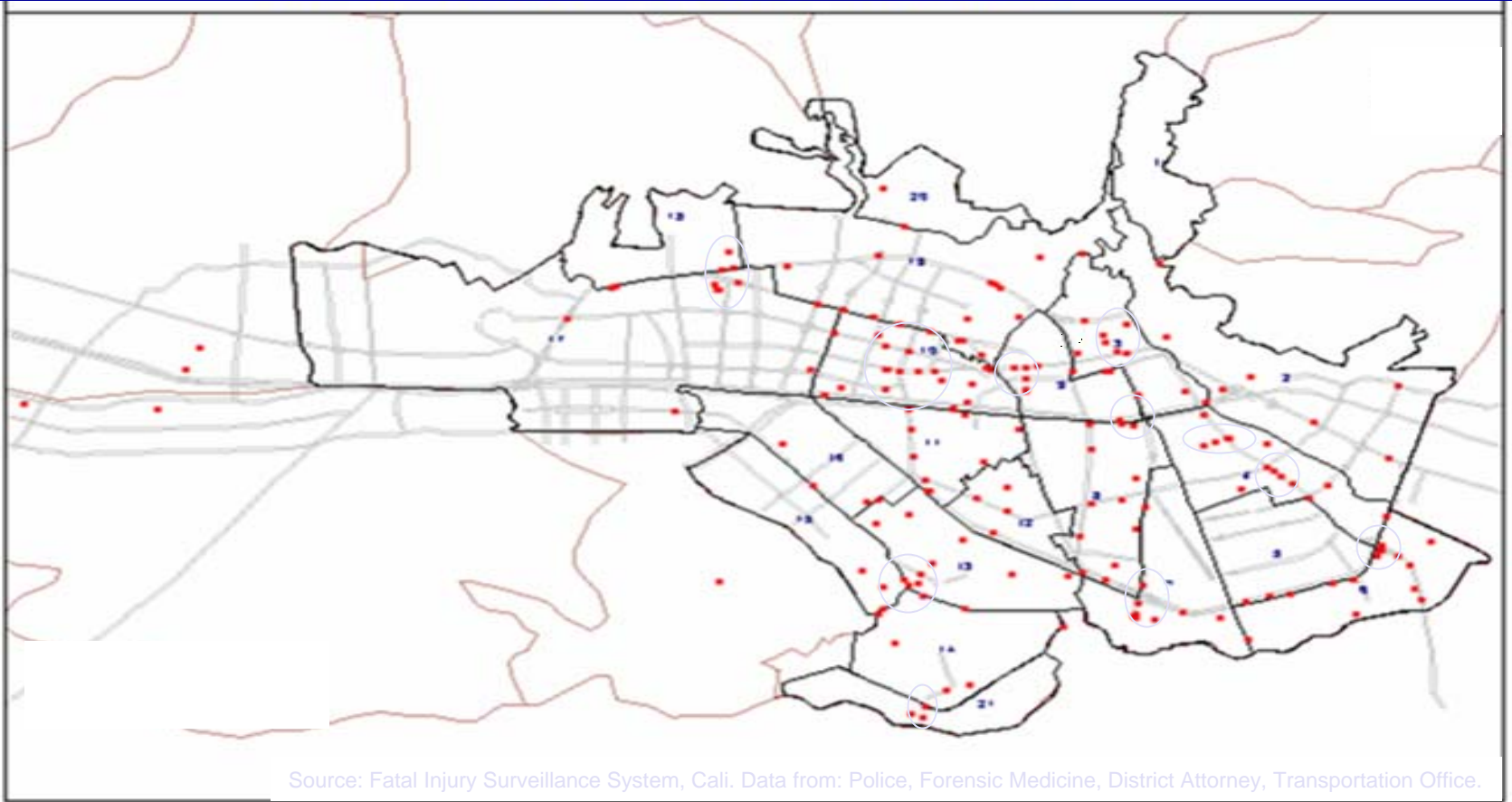
# Black Spots Map for Road Traffic Injuries Bogotá, Colombia, 2000



Source: Sistema Unificado de Información de Violencia y Delincuencia (SUIVD); Bogotá, Colombia

## *Exercise*

### Pedestrian Deaths in Cali, Colombia; 2001 Place of Occurrence





# Plan to Disseminate the Results

- Prepare the message.
- Define the audience.
- Select the channel.
- Market the message.
- Evaluate the impact.

# Plan to Disseminate the Results

- Present data to the public in an appealing format.
- Use language the public understands (professional versus public language).
- Keep it simple. Provide only the most important facts.

# Sample Outline for an Injury Surveillance System Report

- I. **Introduction:** Brief description of the injury surveillance system, the purpose, related prevention activities, and the objective of the report
- II. **Leading causes of death:** Frequency, percentage, and rank of injuries among all causes of death
- III. **Leading causes of injury mortality and morbidity:** Frequency, percentage, and crude rates, emphasizing the highest indicators
- IV. **Years of potential life lost (YPLL)**
- V. **Cost of injuries, comparing local data if available**
- VI. **Priority injuries identified in the region**
- VII. **Recommendations for prevention strategies**

# Recipients

- Stakeholders
- Institutions that are data sources: police, forensic medicine, transportation
- Hospitals, emergency rooms
- Health professionals, researchers
- Personnel working in surveillance system
- Mass media directors
- Grassroots organizations

# Means of Delivery

- Health department newsletter
- Public service announcements
- Press releases
- Scientific journals
- Flyers
- Periodical reports
- Meetings: scientific/stakeholders
- Annual report
- Website
- Newspaper



## *Examples*

- The injury surveillance system from Bogotá publishes a monthly bulletin. The bulletin includes data analyses, recommendations, and evaluations of strategies that have been implemented.
- Cisalva Institute in Cali prepare a report every three months, based on data from fatal injury surveillance system. This report is sent to mass media and stakeholders in the city.
- The Injury Surveillance System in Emergency Rooms in El Salvador produces a weekly bulletin.
- In Nicaragua, articles have been published using data from the system.

# Surveillance Systems and Prevention Activities Operate in a Social, Political, and Legal Framework

## Social

Is it acceptable to carry firearms?

## Political

Does the mayor know what injury information the police have?

## Legal

Is there an age limit to buy liquor?

# Identify Organizations Working in Injury Prevention and Control

- **Local:** Health care providers, police, educators, social workers, government officials, and community organizations
- **National:** Government (Health, Justice, Labor), nongovernmental offices, etc.
- **International:** International donors, bilateral programs, religious organizations (examples: World Bank, United Nations, Red Cross, Inter-American Development Bank)



# COALITION

A **coalition** is an alliance of organizations working together to achieve a common purpose.



# Keys to a Successful Coalition

- Commitment of lead agency
- Planned recruitment of coalition members
- Effective core planning group
- Ownership and commitment by coalition members
- Successful implementation of a pilot project
- Respected leadership
- Recognition of coalition members

# Potential Coalition Partners

Sector	Institutions	Participants
<b>Health</b>	Ministry of Health Hospitals Health Centers Health Posts	Epidemiologists, doctors, nurses, health educators, health promoters, paramedics, and other health workers
<b>Justice</b>	Forensic Medicine Offices (Coroner/Medical Examiner) Courts Public Defenders' Offices Prosecutors' Offices Family Services or Counseling	Forensic pathologists, judges, public defenders, prosecutors or their assistants, directors or professional staff of family services or family counseling
<b>Security</b>	Police (Homicide Investigation Office) Security Companies	Regional or local police chiefs, statistical officers
<b>Transportation</b>	Transportation Departments and Offices	Department directors or traffic police, statistical officers
<b>Administration</b>	Planning Departments National and Provincial Statistical Departments	Statisticians, geographers
<b>Education</b>	Universities Colleges Schools	Researchers, professors, and student leaders
<b>Community</b>	Community Organizations Youth and Mothers' Organizations	Community leaders, youth leaders, community groups
<b>Private Organizations</b>	Nongovernmental Organizations Human Rights Groups Insurance Agencies	Spokespersons and leaders of private organizations, statisticians
<b>Political</b>	National, Regional, and Local Authorities	Staff in the president's, governor's, or mayor's offices
<b>Media</b>	Television, Radio, Newspapers	Journalists and personnel working in mass media

# **Stakeholders Meeting**

- **Describe what is known and not known about the problem of injuries in your city or community.**
- **Discuss the opportunities an injury surveillance system offers to combat myths and misunderstandings; to learn about the size of the problem; and to define, develop, and monitor prevention strategies.**
- **Describe potential challenges, obstacles to success, and key contacts and resources.**
- **Establish a list of next steps for participants, including the development of an advisory board.**

# Criteria for Prioritizing Health Events

- Magnitude
- Severity
- YPLL - DALYs
- Trend
- Vulnerability
- Local, national, and international interest to prevent the problem
- Cost

# Criteria for Prioritizing Health Events

Prevention and Control Capacity (possibilities for controlling, local interests, and other sectors' interests)		Event Importance (magnitude, severity, trend, cost)	
		HIGH	LOW
	HIGH	High importance and good control and prevention capacity = High priority for prevention and control	Low importance and good control and prevention capacity = Low priority for prevention and control
	LOW	High importance and low control and prevention capacity = High priority for research	Low importance and low control and prevention capacity = Not a priority

# Information Necessary to Apply Indicators

## General Information

- Leading causes of death
- Frequency, proportion, and crude and adjusted rates
- YPLL
- Trend

## Specific Information

- Homicides
- Motor vehicle-related deaths
- Leading causes of injury morbidity



# Information Necessary to Apply Indicators

## Costs

- Direct
- Indirect
- Economic and human

**DALYs** (if the information to calculate this indicator is available)

# Use the Ecological Model to Identify Etiological Factors for Violence-related Injuries

The Ecological Model helps to identify and organize multiple levels of influence that affect behavior. Violence is considered the product of interactions at multiple levels:

- Individual
- Relationship
- Community
- Societal

To explain the Ecological Model, an example will be presented and a work group will perform an exercise using local data.

## *Example*

### **Ecological Model of Factors Associated with Intimate Partner Violence**

Level	Etiological Factors
<b>Individual perpetrator</b>	<b>Being male</b> ; witnessing marital violence as a child; absent or rejecting father; being abused as a child; alcohol or drug use
<b>Individual Victim</b>	<b>Being female</b> ; lack of full-time employment; physical abuse after report of earlier abuse
<b>Relationship</b>	Marital conflict; male control of wealth and decision-making in the family
<b>Community</b>	Poverty; low socioeconomic status; unemployment; associating with delinquent peers; isolation of women and family; inadequate legal protections
<b>Society</b>	Norms granting men control over female behavior; acceptance of violence as a way to resolve conflict

# Ecological Model of Factors Associated with Youth Violence

Level	Etiological Factors
<b>Individual</b>	Psychological and personality factors Impulsiveness
<b>Relationship</b>	Peers involve in crime Poor parenting practices
<b>Community</b>	Concentration of poverty Local illicit drug trade
<b>Society</b>	Inequalities of gender, economics, access to health care, education Weak police/criminal justice system

# Proven or Promising Strategies to Prevent Road Traffic Injuries

## Module 6

### To Increase the Use of Child Safety Seats

Intervention	Recommendation
Child safety seat use laws	Recommended (strong evidence)
Community-wide information + enhanced enforcement campaigns	Recommended (sufficient evidence)
Distribution + education programs	Recommended (strong evidence)
Incentive + education programs	Recommended (sufficient evidence)
Education-only programs	Insufficient evidence to determine effectiveness

# Proven or Promising Strategies to Prevent Road Traffic Injuries

## Module 6

### To Increase the Use of Safety Belts

Intervention	Recommendation
Seat belt use laws	Recommended (strong evidence)
Primary enforcement laws (versus secondary enforcement laws)	Recommended (strong evidence)
Enhanced enforcement programs	Recommended (strong evidence)



# Proven or Promising Strategies to Prevent Road Traffic Injuries

## Module 6

### To Reduce Alcohol-Impaired Driving

Intervention	Recommendation
0.08 % blood alcohol concentration (BAC) laws	Recommended (strong evidence)
Lower BAC laws for young or inexperienced drivers	Recommended (sufficient evidence)
Minimum legal drinking age laws	Recommended (strong evidence)
Sobriety checkpoints	Recommended (strong evidence)
Server intervention training programs (face-to-face instruction with management support)	Recommended (sufficient evidence)



# Proven or Promising Programs to Prevent Violence

## Module 6

### To Reduce Child Abuse and Neglect

Intervention	Recommendation
Home visits to new mothers	Promising strategy: It appears that visits by nurses are more effective
School-based programs to prevent child sexual abuse	One recent meta-analysis concluded that programs to prevent victimization were fairly effective in teaching children concepts and skills related to protection against sexual abuse

# Proven or Promising Programs to Prevent Violence

## Module 6

### To Reduce Antisocial and Aggressive Behavior in Children and Adolescents

Intervention	Recommendation
Improving competency and social skills with peers; promoting positive, friendly, and cooperative behavior	Demonstrated to be effective in reducing youth violence or risk factors for youth violence
Warm and supportive relationship with a positive adult role model: mentoring programs	Is thought to be a protective factor for youth violence

# Proven or Promising Programs to Prevent Violence

## Module 6

### To Reduce Abuse between Intimate Partners

#### Intervention

Training health workers to identify and respond to abuse between intimate partners

#### Recommendation

Active screening for abuse and questioning patients about their possible histories of suffering violence by intimate partners is generally considered good practice in this field.

However, little systematic evaluation has been carried out to determine whether screening for abuse can improve the safety of women.

# **Use Surveillance Data to Inform Injury Prevention**

1. **Use surveillance data to identify priority injuries in the region.**
2. **Identify potential etiological factors of priority injuries.**
3. **Review successful interventions for injury prevention.**
4. **Identify the most appropriate intervention for the injuries in your region.**

# Step 1. Engage Stakeholders in the Evaluation

Coalition partners and other stakeholders are important users of the injury surveillance results. Involve them in the evaluation process.

This group includes:

- Local government
- Public health officers
- Representatives of affected communities
- Nongovernment offices
- Mass media

## Step 2. Describe the Surveillance System to be Evaluated

Describe the public health importance of the injury event under surveillance. Use measures such as:

- Frequency: Number, incidence, mortality rates, YPLL
- Indices of severity
- Associated disparities or inequities
- Associated costs
- Preventability
- Public interest

Describe the purpose and operation of the system.

## Step 3. Focus the Evaluation Design

The evaluation process must be planned to ensure that time and resources are used efficiently.

- State the purpose of the evaluation.
- Identify stakeholders who will receive the evaluation results.
- State what questions will be answered by the evaluation.
- State how the results will be used.
- Define the standards that will be used to assess the system.



## Step 4. Gather Credible Evidence About the Surveillance System Performance

**Simplicity:** System structure; ease of operation. A chart showing the flow of data and the lines of response can help.

**Flexibility:** How a system has responded to a new demand.

**Data Quality:** Percentage of “unknown” or “blank” responses to items or wrong coding easily measures this attribute.

**Acceptability:** The willingness of people and organizations to participate in the surveillance system.

**Sensitivity:** Percentage of injuries detected by the surveillance system. A “gold standard” is required.

# Example

## Calculation of Sensitivity: Surveillance System in Emergency Department; 2002

Injury Patients registered by Injury Surveillance System	Injury Patients registered by the “Gold standard”		
	Yes	No	
Yes	<b>True Positives</b> 26,991 Injury patients correctly registered by the surveillance system <b>A</b>	<b>False Positives</b> 491 Patients incorrectly registered by the surveillance system as injury patients <b>B</b>	<b>A+B</b> 27,482
No	<b>False Negatives</b> 1,320 Injury patients incorrectly not registered by the surveillance system <b>C</b>	<b>True Negatives</b> 68,680 Patients correctly not registered by the system, because the cause was different than injury <b>D</b>	<b>C+D</b> 70,000
	<b>A+C</b> 28,311	<b>B+D</b> 69,171	<b>A+B+C+D</b> 97,482

## **Step 5. Justify and State Conclusions; Make Recommendations**

**Evaluation conclusions are reached through good judgment and methods:**

- Analysis
- Synthesis
- Interpretation

**Recommendations should address:**

- Modification or continuation of the surveillance system

## **Step 6. Use Evaluation Findings and Share Lessons Learned**

**Prepare a strategy for communicating evaluation findings and recommendations.**

**Tailor materials:**

- **To those who provide evaluation data**
- **To personnel who operate the system**
- **To stakeholders**

- *World Report on Violence and Health* (WHO 2002)
- *World Report on Violence and Health* (summary) (WHO 2002)
- *Handbook for the Documentation of Interpersonal Violence Prevention Programs* (WHO 2004)
- *The Economic Dimensions of Interpersonal Violence* (WHO, 2004)
- *World Report on Road Traffic Injury Prevention* (WHO and World Bank, 2004)
- *Guía Didáctica para Municipios: Prevención de la Delincuencia y la Violencia a Nivel Comunitario en las Ciudades de América Latina* (World Bank 2003)
- *Violence in Latin America and the Caribbean: A Framework for Action* (IADB 1999)
- *Violence Against Women: The Health Sector Responds* (PAHO 2003)

# Internet Resources

- [www.prevencionviolencia.org.co](http://www.prevencionviolencia.org.co)
- [www.cdc.gov/ncipc](http://www.cdc.gov/ncipc)
- [www.surgeongeneral.gov/library/youthviolence](http://www.surgeongeneral.gov/library/youthviolence)
- [www.thecommunityguide.org](http://www.thecommunityguide.org)
- [www.cdc.gov/mmwr](http://www.cdc.gov/mmwr)
- [www.hwysafety.org](http://www.hwysafety.org)
- <http://depts.washington.edu/hiprc>

# Internet Resources

- [www.cpsc.gov](http://www.cpsc.gov)
- [www.aap.org/family/tippmain.htm](http://www.aap.org/family/tippmain.htm)
- [www.alaska-ipc.org/](http://www.alaska-ipc.org/)
- [www.iadb.org](http://www.iadb.org)
- [www.who.org](http://www.who.org)
- [www.paho.org](http://www.paho.org)
- [www.worldbank.org](http://www.worldbank.org)



- *World Report on Violence and Health* (WHO 2002)
- *World Report on Violence and Health* (summary) (WHO 2002)
- *Handbook for the Documentation of Interpersonal Violence Prevention Programs* (WHO 2004)
- *The Economic Dimensions of Interpersonal Violence* (WHO, 2004)
- *World Report on Road Traffic Injury Prevention* (WHO and World Bank, 2004)
- *Guía Didáctica para Municipios: Prevención de la Delincuencia y la Violencia a Nivel Comunitario en las Ciudades de América Latina* (World Bank 2003)
- *Violence in Latin America and the Caribbean: A Framework for Action* (IADB 1999)
- *Violence Against Women: The Health Sector Responds* (PAHO 2003)

# Internet Resources

- [www.prevencionviolencia.org.co](http://www.prevencionviolencia.org.co)
- [www.cdc.gov/ncipc](http://www.cdc.gov/ncipc)
- [www.surgeongeneral.gov/library/youthviolence](http://www.surgeongeneral.gov/library/youthviolence)
- [www.thecommunityguide.org](http://www.thecommunityguide.org)
- [www.cdc.gov/mmwr](http://www.cdc.gov/mmwr)
- [www.hwysafety.org](http://www.hwysafety.org)
- <http://depts.washington.edu/hiprc>

# Internet Resources

- [www.cpsc.gov](http://www.cpsc.gov)
- [www.aap.org/family/tippmain.htm](http://www.aap.org/family/tippmain.htm)
- [www.alaska-ipc.org/](http://www.alaska-ipc.org/)
- [www.iadb.org](http://www.iadb.org)
- [www.who.org](http://www.who.org)
- [www.paho.org](http://www.paho.org)
- [www.worldbank.org](http://www.worldbank.org)