# Planning Community Pedestrian Safety Programs

An Agenda for Action







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# Introduction

Never doubt that a small group of thoughtful, committed citizens can change the world; indeed, it's the only thing that ever has."

Margaret Mead

Each year in the United States, about 7,000 pedestrians die and 110,000 more are injured in traffic accidents, primarily on city streets. Most of these deaths and injuries occur among young children, the elderly, and young adults. And, according to the national Fatal Accident Reporting System (FARS) data for 1988, about 50 percent of pedestrian fatalities involved the use of alcohol. The annual cost of pedestrian accidents is estimated to exceed 3.5 billion dollars.

Research shows that pedestrian accidents are not random, unrelated events. They are situations that occur over and over—situations in which the driver, the pedestrian, or both, make errors that threaten the pedestrian's life and safety. These are risky situations that could be avoided. For example, the following recurring events account for the majority of pedestrian accidents:

- ▲ Darting out—usually between parked cars.
- ▲ Dashing across an intersection—usually too late for a driver to stop.
- ▲ Turning, merging, or backing up of a vehicle—usually the driver concentrates on maneuvering the car and doesn't see the pedestrian.

- ▲ Stopped bus—when the pedestrian walks in front of the bus and is hidden just before walking into oncoming traffic.
- ▲ Multiple threat—usually one vehicle stops for a pedestrian and blocks the pedestrian from view of other oncoming traffic.

Traditionally, there are four general types of traffic safety measures: Regulations/Laws; Enforcement; Traffic Engineering/Physical Facilities Improvements; and Educational Programs for both drivers and pedestrians. When these programs become part of a Master Transportation Plan, integrated with other programs (e.g., local commerce programs and the recreational "walking for health" programs) or within an overall traffic safety plan, supported by organizations and promoted through the media, pedestrian safety can become institutionalized in the community. This should, in turn, modify the behaviors of drivers and pedestrians and lead to a reduction in the number of pedestrianvehicle collisions.

Historically, the most effective pedestrian accident countermeasures have been instituted at the local level rather than the State or Federal level. The



leadership and other members of the community have the ability to reduce the risks of death and injury to pedestrians. It can be done by systematically involving all segments of the community in strategies designed to take into account the unique values and needs of the community.

Community-based traffic safety programs have become a popular and effective way to involve and implement traffic safety programs that meet the specific local demands and needs. By targeting specific problems, communities have been able to effect changes in traffic injury and fatality rates and secure a long-term approach to addressing local problems.

Recently, communities have utilized the community traffic safety program (CTSP) approach in the development and implementation of traffic safety programs. This approach enables communities to define specific traffic safety problems, develop programs to target those problems, and then implement the programs. This long-term approach allows communities to periodically reassess their problems and activities or add new components, such as a pedestrian safety program, so that they continue to meet changing traffic safety needs.

Despite local involvement and commitment, many communities may not have

an ongoing CTSP. Nonetheless, community leaders may still develop and implement a pedestrian safety program. This method requires organization, commitment, planning, and the cooperation of many individuals and groups.

This planning guide can assist communities in utilizing either approach: integration of a pedestrian safety component into an existing community traffic safety program OR develop and implement an independent pedestrian safety program where no community traffic safety program exists. Although the former is preferred, the latter is an acceptable way in which communities with a pedestrian safety problem can develop and implement an effective pedestrian safety program that targets the pedestrian problem in that community.

Changes will not occur overnight. There is no simple solution, nor any simple answer. Change must be built into ongoing programs that will remain in place. To have a long-term and sustained effect on the community, this comprehensive, integrated effort will require that pedestrian safety leadership involve city planners, law enforcement personnel, teachers, business people, parents, members of civic organizations, traffic safety professionals, and many others.

# Components of Community Programs

This manual is a resource for individuals and groups seeking to develop a comprehensive approach for improving pedestrian safety within their community. No single guide can adequately capture and convey the rich array of skills and resources that contribute to a successful strategy for change. However, this manual does describe the principles of comprehensive planning and coordination, problem analysis, and community assessment.

Pedestrian safety, in the past, has been conducted by traditional traffic safety organizations (e.g., police, traffic engineers, and schools). They have generally led the way in developing local programs. In addition, there have been individuals and some civic organizations who also felt that pedestrian safety should receive specific and direct attention. While a number of these organizations have individual programs in place, rarely have they come together for a truly concerted effort. The impact of these efforts has been fragmented.

A community pedestrian safety program is a more focused effort. It includes a wide variety of community organizations that develop and implement a combination of countermeasure strategies—public information and education programs, law enforcement, the adjudication of cases involving pedestrians and motorists, traffic engineering changes, passing ordinances and legislation, and an evaluation plan. The ultimate goal is to establish a long-term, comprehensive, self-sustaining pedestrian safety program. A community pedestrian safety program

A community pedestrian safety program must have several essential characteristics:

- ▲ An assessment of pedestrian problems.
- ▲ A focal point (person, office, agency) for managing the program.
- A concept of operation that makes maximum use of people and material resources.
- ▲ A goal that permits the measurement of ultimate project success.
- ▲ Specific quantified objectives for each target group.

# Benefits of a Community Program

- ▲ Increased visibility for the issue.
- ▲ Cross-agency collaboration enhances cost-effectiveness.
- Political support.
- ▲ Diminished "turf" or territory issues.
- ▲ Access to new audience delivery systems.
- Increased technical assistance.

- ▲ Avoidance of duplication and/or contradictory actions.
- ▲ More rapid progress on achieving goals.
- ▲ Institutionalization of pedestrian safety programs into the community.
- ▲ Shared success.

- - An assessment of resources.
  - ▲ Service integration among a wide range of organizations.

## Problem Assessment

The identification of the problem to be addressed and the assessment of existing resources may be the most important steps in the process of organizing community action. If the problem is defined with sufficient precision and if the application of existing resources to the problem is well understood, a feasible plan of coordinated action will be much more readily developed.

In one study, Pedestrian Safety: The Identification of Precipitating Factors and Possible Countermeasures, NHTSA PB-17749/ 50, 1971, the U.S. Department of Transportation reviewed over 12,000 pedestrian accident reports from 13 cities and from rural areas in six States, and conducted interviews with drivers, pedestrians, and witnesses. The study showed that the majority of these accidents fit into 31 specific accident types (e.g., children darting out into traffic, exiting a school bus, etc.). Seven of these types accounted for more than half of the total. (See the Pedestrian Safety Assessment forms in the back of this manual.)

The study also shows that a jurisdiction with a population of 50,000 can expect between 15 and 90 pedestrian injuries annually. Communities of 100,000 will experience between 40 and 150 injuries and those with populations of 250,000 will have from 100 to 400 pedestrians injured each year. From 2 to 5 percent of the victims will die as a direct result of the accidents. The rest of the victims are likely to be injured seriously.

While this study reviews the seriousness of the problem, it was also optimistic in indicating that something can be done. It shows that most accidents are not random, unrelated incidents. The injuries and deaths resulting from the 31 identifiable accident types stem from failures in the "safety sequence" of specific steps which should be taken by pedestrians and motorists.

Working with community organizations to participate in this problem and resource assessment is an important step toward traffic accident prevention. This assessment will help responsible community

## Safety Sequence Steps

- ▲ **Search:** Both driver and pedestrian scan their environment for potential hazards.
- ▲ **Detection:** Each perceives the other.
- ▲ Evaluation: Each recognizes the threat of a collision and the need for action to avoid it.
- Decision: Each determines what action to take in order to avoid a collision.
- **Action:** Successful performance of the appropriate action by either pedestrian or driver, or both.
- Vehicle Response: A factor for the driver is the response of his vehicle to the action taken.



officials face and address these problems and issues that they may not have known existed.

The assessment process will help organize the information in a clear and unambiguous way in one document for community organizations to study. This will serve as the basis for bringing community organizations up to the state-of-the-knowledge about pedestrian safety in the community.

It will also point out existing pedestrian safety programs and activities being conducted in the area and identify resources that can be combined with the work of other organizations to make a real impact on the problem.

Most of the data for a satisfactory problem analysis and resource assessment can be obtained by

- Contacting key community organizations.
  - State department of transportation
  - Police department
  - Local American Automobile Association
  - Public works or traffic engineering departments
  - School officials
  - Hospital administrators

- Public health officials
- Emergency medical officials
- Neighborhood associations
- Parent-teacher associations
- Chamber of Commerce
- Reviewing citizen and organization complaints.
- ▲ Reviewing existing accident records.
- Analyzing high accident locations.

## Focal Point

A pedestrian safety program must have a unit of operation in the community to plan, manage, and coordinate the numerous activities that are involved in conducting such a program. Early in the effort, this might consist of a core group of dedicated individuals. Eventually, a larger committee or a Task Force should be formed.

The Task Force will provide the basis for the operation through which the member organizations cooperatively identify the pedestrian safety problems and then plan, conduct, and evaluate programs and activities. This can be done at the level of the city, the county, or a regional area within the State. The team consists of a local coordinator, the Task Force, and

## Benefits of the Pedestrian Safety Assessment

- ▲ Collect data, information and opinions.
- ▲ Help reach a consensus about problems and solutions.
- Start to build a community pedestrian safety team.
- ▲ Show broad-based community support.
- Rally support for change within the community, through media attention, private sector involvement and civic group interest.
- ▲ Reduce competition among allies for limited resources.



representatives from various community groups.

- ▲ Local Coordinator—The local coordinator is a person who will have primary responsibility for coordinating the activities of the core group (i.e., Task Force). The major priorities for the coordinator will be
  - To serve as a spokesperson for the Task Force.
  - To provide, through his/her organization, sufficient administrative support and facilities.
  - To preside at all meetings.
  - To develop local advocates and volunteers who will start and maintain program activities.
  - To train those advocates and volunteers in their program areas of interest.
  - To encourage continued volunteer participation.
- ▲ The Task Force—The Task Force is a core group of community members who come together to make a long-term commitment to the pedestrian safety effort. The Task Force should consist of at least three to six people who are willing to address pedestrian safety issues in their own organizations and areas of the community. The duties will be
  - To assist the coordinator with program administrative functions.
  - To help conduct the initial Pedestrian Safety Assessment.
  - To help to identify the resources necessary to accomplish the program's objectives.
  - To assist in carrying out major components of the program.

A significant number of Task Force workshops or group meetings will be needed to achieve the necessary commitment from advocates and volunteers. The Task Force should have the potential for remaining in existence long enough to see programs in place and, ideally, to institutionalize pedestrian safety and its activities in the community.

# Concept of Operation

The operation of a community program starts with the idea that by bringing together a group of people who represent key community organizations, it is possible to improve pedestrian safety. These individuals would then organize and give more structure to the group by forming a committee or Task Force as described above. By conducting an assessment of the problem, they would collectively see the scope and magnitude of the problem (e.g., the number of high-risk intersections that exist, the school safety programs which need to be improved, and the laws and ordinances which have to be passed). If the assessment is conducted by those same people who will eventually help solve the problem, they should be more motivated to act.

Following the needs assessment, a resource assessment should be conducted which will identify existing and additional resources needed to impact the pedestrian safety problem. All of the organizations' respective capabilities and roles can then be matched with the programmatic needs that exist. Eventually, pedestrian safety will become an integral part of the community's Master Transportation Plan for long-term support and funding.



## Goal

The goal of a community pedestrian safety program is to increase pedestrian safety for all citizens by reducing the incidence of vehicle-pedestrian collisions.

# **Target Groups**

There are a variety of target groups in a community that can be identified as the focus of pedestrian safety activities. Some of the target audiences are particular groups of pedestrians known to engage in high-risk behaviors more often than the general population (e.g., children, older adults, and intoxicated pedestrians, etc.). Some are intermediary organizations or individuals who are in a position to reach and influence members of the high-risk population (e.g., parents can reach children, corporations effectively reach employees, liquor establishments can target intoxicated customers, etc.). Other target groups are government agencies (e.g., enforcement agencies that can arrest violators of pedestrian safety laws, or traffic engineers who can adjust the crossing signal time for older adults), private sector organizations, and other community groups and leaders who can act as change agents in the community.

The selection of target groups for the community pedestrian safety programs will take place after the Pedestrian Safety Assessment is completed and a full analysis is conducted. In turn, specific programs or activities will be designed based on this analysis and other traffic safety data. Pedestrian safety calls for comprehensive, multifaceted action, backed by intensive local analysis, planning, and implementation.

### Resource Assessment

Before the Task Force can mobilize community resources—people, organizations, materials, or money—to improve pedestrian safety, make a careful assessment of potential resources. First identify those factors that will contribute to achieving the goal. Assess positive and negative forces.

## Suggested Pedestrian Safety Target Groups

- ▲ Alcohol-impaired pedestrians
- ▲ Drivers
- ▲ Community pedestrian safety committees
- ▲ Utility workers
- ▲ Media
- ▲ Health care providers
- ▲ Pre-school children
- ▲ Elementary school children (grades K-3)
- ▲ Elementary school children (grades 4-6)
- ▲ Junior high school children

- ▲ High school students
- ▲ Schools
- Adults
- Parents
- ▲ Rural pedestrians
- ▲ Older adults
- ▲ Liquor establishments
- ▲ Enforcement agencies
- ▲ Traffic engineers
- Businesses



### ▲ Positive forces

- —A recent pedestrian accident occurred in the community involving an inebriated pedestrian—this may be an opportunity to begin putting pedestrian safety on the public agenda.
- A city council member has publicly expressed concerns about pedestrian safety for children walking to and from school.
- —The local senior citizens organization is always looking for special projects to do in the community.

### ▲ Negative forces

On the other side of the ledger there are forces that work against the program. They might include

- The local police department does not have the personnel to station officers at busy intersections.
- Recent budget restraints have eliminated funds previously earmarked for additional traffic lights.

Use a worksheet to list both.

In comparing the two lists, are there "positive forces" that will help to offset the negative ones? In our example, the city council member might be asked to exert influence to reallocate or seek addi-

tional funds for installing traffic signals and for increasing the number of police enforcing traffic regulations.

Now, based on the results of the resource assessment, assess the additional resources needed to develop a pedestrian safety program in the community. The list might include such items as: 1) New data on pedestrian accident rates in the community: where and under what circumstances such accidents occur; 2) Media support of goals; 3) Support of the city council and the mayor's office; and 4) Examples of successful pedestrian safety programs from other communities.

List the needed resources on a "Resource Shopping List."

There are four key steps to the assessment process.

- 1. Assemble all the information about the problem and the resource assessment.
- 2. Examine all resources.
  - Resources that can be strengthened in their implementation.
  - Resources that can be redirected to increase effectiveness.
  - Efforts that are contradictory or duplicative.
- 3. Identify areas where resources seem to be insufficient.

Resource Assessment Work Sheet Identify the "forces" that offset each other.									
Positive Forces	Negative Forces								
1. 2.	1. 2.								
3.	3								



4. Determine what additional resources are needed.

Assess the prospective pedestrian safety efforts of each of the potential participating organizations listed on page 11.

# **Program Integration**

A community program will benefit from integrating pedestrian safety with other programs and countermeasure efforts affecting pedestrians. By doing this, it is possible to combine resources, support services, and countermeasure efforts with other complementary pedestrian activities, such as

- ▲ Integrate pedestrian safety with consistent traffic law enforcement efforts to include assistance to disabled motorists and emphasis on offenses such as exceeding the speed limit, intersection violations (e.g., right turn on red, failure to yield, failure to obey traffic signs or signals), violations concerning the use of alcohol and other drugs, and violations for passing a school bus when the stop signal is activated.
- ▲ Integrate pedestrian safety programs with widely popular causes such as

the environment (e.g., clean air through less use of cars and more walking). Integrate pedestrian safety programs with business and commerce programs (e.g., "rediscover the downtown shops"). Integrate pedestrian safety with walking safely for health programs (e.g., "lunch time walk for physical fitness").

- ▲ Integrate pedestrian safety with other forms of transportation (e.g., getting safely to and through the parking garage after exiting a bus or train, safe waiting areas). Transportation providers should play a major role in pedestrian safety issues in the area.
- ▲ Integrate pedestrian safety with the existence of pedestrian walkways around construction sites. Work with architects and builders to contract for convenient and safe passageways. Ask local artists to design and paint the structure to complement the environment.
- ▲ Integrate pedestrian safety with other social and business issues (e.g., alcohol server responsibilities).
- ▲ Integrate pedestrian safety activities with other programs. For example, ask PTA volunteers to help traffic engineering conduct pedestrian crossing

Resource Sh	opping List
Expertise in specific subject areas	Equipment and supplies (e.g., videotapes, projectors)
Contacts with specific agencies, organizations	Other assistance (such as media exposure funding, etc.)



counts at high-risk intersections or develop interagency prevention programs (e.g., officer speaking in a school prevention program).

▲ Integrate pedestrian safety with a combination media campaign and enforcement blitz of a new pedestrian right-of-way ordinance. For example, ask local media to donate public

service time for one week to promote program.

When a pedestrian safety program is integrated with other programs, it enhances and broadens the effort for the limited funding and resources available. It spreads the problems and solutions across more organizations for additional impact.



## Suggested List of Participating Organizations

### State government

Governor Governor's Highway Safety Office State Regulatory Commission Department of Transportation Motor Vehicle Administration Department of Education Department of Public Safety State law enforcement agencies Legislators

### Local government

City/county council
Traffic court judges
Traffic engineering department
Law enforcement agencies

### **Educational institutions**

Administrators
Primary/secondary department heads
School bus supervisors
Local/district school boards
Parent/teacher associations

### **Businesses**

Chamber of Commerce Insurance companies Motor vehicle dealers Transportation companies Retail malls Local bar associations Local leading industries

### Associations

State/local safety councils Women/youth highway safety leaders associations Citizens for Highway Safety International Association of Chiefs of Police State Driver Education Association
Local American Automobile
Association (AAA)
Highway Users Federation
Other state/local highway safety groups

### Community groups

Clubs and service organizations

- Jaycees, Rotary, Lions, Kiwanis, American Legion Posts, VFW, etc.
- Mothers Against Drunk Driving
- National Extension Home Makers Council
- Neighborhood associations (e.g., WATCH)
- Sororities and fraternities

### Youth groups

- Scouts
- 4-H clubs
- Future Farmers of America
- Boys Clubs
- Student councils
- Students Against Driving Drunk

### Recreational organizations

- YMCA/YWCA
- Community health centers
- Health clubs

### Older adult clubs

### Walking/jogging organizations

- Health
- Environmentalists

### City programs

- City design programs
- Revitalize downtown programs

### Media

- Print
- Radio
- Television

# Developing the Plan of Action

# Conducting Strategy Work Sessions

The strategy for the pedestrian safety plan may be conducted by the Task Force in about three work sessions. Some of the objectives of these sessions include

- Work Session I—Develop and implement a survey to assess the severity of the problems and existing countermeasure programs.
- ▲ Work Session II—Review the findings of the Pedestrian Safety Assessment and select problems for which to develop the first response. Complete a resource assessment of existing programs, funding, and other forms of assistance.
- ▲ Work Session III—Develop an implementation plan for a community pedestrian safety program involving countermeasure organizations, the city/county, and the public. Develop

strategies for integrating pedestrian safety into the Master Transportation Plan and other pedestrian programs. Begin to identify ways to make pedestrian safety an ongoing institution in the area with long-term funding and a program review and implementation process.

Work session agendas are designed to make efficient use of top community officials' time, help guarantee a proper Task Force atmosphere conducive to hearing various points of view, and develop an appropriate decisionmaking process.

The foundation of the program is the planning process. The resulting planning document will help to solve major problems through the collective thinking of Task Force members, and help the pedestrian program survive, even flourish, with modest resources.

# Purposes of a Pedestrian Safety Plan

- ▲ Identifies and describes the activities to be performed by specific organizations and groups in the community.
- Establishes milestones for completion of those activities.
- ▲ Identifies individuals and organizations who will conduct those activities.
- Serves as a sales tool for obtaining the commitment of funds from community, county, State agency, or other organizations involved in developing the Master Transportation Plan.
- ▲ Serves as the primary vehicle for gaining support from community leaders.



# Developing a Draft Plan

After the community assessment is completed, a draft plan for the community program should be developed.

It is absolutely essential to get a firm commitment of support for programs from top community official(s), i.e., the mayor, the city or town council, or the county executive. They can lay the groundwork for obtaining the cooperation and assistance of other community officials such as those in the education, health, and enforcement agencies.

# Components of a Program Plan

Although outlines for program plans will vary, the following key elements are usually addressed:

### ▲ Program Summary

Contains the program title, cost summary, project start and end dates, and signatures of authorizing officials. Frequently contains a brief overview of the programs and its purpose.

### Problem Statement

Describes the specific problem being addressed by the program activity which supports or suggests the proposed program. Usually contains specific data on the pedestrian accident problem and the pedestrian safety program activity in the local area. Should summarize the inventory of pedestrian safety programs completed in the community assessment.

▲ Objectives/Performance Indicators
Sets forth in quantified terms (where possible) what is planned to be accomplished and the time frames involved in each activity. The program performance indicators stated for each objective are the planned results of project expenditures for such items as training, personnel, and equipment.

### ▲ Program Description

Enumerates who does what, when, where, and how. Clearly identifies the target groups to receive or benefit from the proposed program. Also explains the concept of operation for the program by which maximum use will be made of people and material resources.

▲ Key Program Tasks and Milestones
Lists the major operational tasks to be
accomplished in the program and the
timing of those tasks required to meet
operational and reporting deadlines.
A milestone chart is a common form
for presenting this information.

### ▲ Program Evaluation

Describes the major administrative and impact evaluation questions to be answered by the program. Often describes the evaluation design and identifies the personnel or group responsible for conducting the evaluation.

### Budget

Describes the project expenditures, usually by categories such as personnel services, contractual services, commodities and equipment, other direct costs, and indirect costs. Local, State, and Federal Government and other resources and contributions need to be clearly identified. It is usually important to make certain the



pedestrian safety program is an integral part of the Master Transportation Plan for funding purposes (and for integrated countermeasure support). At times, an existing program may not need, or may not have, outside funds to operate. A budget can still be developed by showing how donated in-kind services and other integrated countermeasure support resources are used in the program. Show how pedestrian safety programs can be combined with other transportation, safety, health, and environmental programs to further reduce costs while still achieving objectives.

# Preparing the Formal Plan of Action

The final step in planning is to rewrite the program plan reflecting the comments of the various persons, organizations, and agencies which have reviewed the draft. When this is done, the Task Force will be well on its way toward implementing a program in the community that can significantly contribute to improvements in pedestrian safety.

# Key Program Tasks and Milestones

	1991												1992				
Activity	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
Meet with Core Group											3-2 3-2-7			dige	JAN L		
Appoint Coordinator																h	
Form Task Force/Recruit Participants																	300
Set Initial Goals and Objectives							-										
Conduct Assessments											375		5	=17	5		
Conduct Subcommittee Meetings																	
Review and Publish Results													= 1				
Conduct Program(s)/Campaign(s)			1												1.5	100	
Conduct Evaluation(s)								150									

# **Program Evaluation**

An evaluation plan should be prepared at the onset of the project along with the program plan and its development. There are two aspects of an evaluation of pedestrian safety programs and they are an administrative evaluation and an effectiveness evaluation. An administrative evaluation assesses the value or worth of the program based on comparisons of actual versus planned accomplishments. An effectiveness (impact) evaluation determines the extent to which the program components and activities have resulted in a desired outcome (e.g., reduction in accidents or modified street-crossing behavior).

The following are key evaluation questions that will need to be answered. The first group of questions addresses administrative evaluation issues (planned vs. actual). Some typical questions might include

- ▲ Was the project actually conducted as planned?
- ▲ How many students received the programs developed for the schools? How many class sessions were conducted?
- ▲ What was the air time for the radio spots (when, how long)? Were the news releases carried in the local and regional newspapers?

The second group of questions addresses impact evaluation issues. Of course, one obvious measure is to conduct the Pedestrian Safety Assessment each year to determine if reductions in injuries and fatalities have occurred. Note that many

of these questions already appear on the assessment.

- ▲ What was the public knowledge or perception of the program?
- ▲ Was there a significant increase in pedestrian safety as a result of the program that stressed an incentive approach?
- ▲ Was there a significant increase in pedestrian safety practices, and in which groups?

The third group of questions addresses catalytic effects of the program in generating additional activities.

- ▲ Did the organizational workshop result in the formation of a pedestrian safety committee that will assist in community activity and help decide program emphasis?
- ▲ How many action programs resulted from the two workshops designed to educate and inform health care professionals, educators, and law enforcement personnel?
- ▲ Did the program help to make pedestrian safety an institution in the area?

In addition to conducting a Pedestrian Safety Assessment each year, a well-designed observational survey would provide additional direct measurement of pedestrian safety in a community, and is an integral part of program evaluation. Over the first 24 months of a pedestrian safety program, a minimum of four separate observational surveys should be considered.

The first survey must be conducted during the baseline or pre-project period. This provides the basis for measuring the progress of the program. The second, third, and fourth surveys should be conducted during the first and second years of program operations, at approximately 9, 18, and 24 months, respectively, after the baseline survey. Additional surveys

▲ Surveys attract the attention of the public, both pedestrians and drivers, who observe the survey being conducted.

might be considered at convenient times

during the program, simply to take ad-

vantage of the fact that surveys have

desirable side effects:

- ▲ Surveys attract the attention of the media who are interested in both the conduct of the survey and its findings.
- ▲ Surveys motivate volunteers and other participants because they refocus their attention on the program's objective, as well as provide them with a sense of accomplishment and involvement in something important.

The same sampling plan (similar to the assessment) used for the baseline survey must be used in all following surveys to ensure consistency and comparability of the data collected from one time to the next. The actual sampling plan to be used for the survey will probably vary from one community to another, depending on the characteristics of each community. Finally, when developing the plan for conducting observational surveys, assistance from a person with a background in statistics or sampling is extremely desirable. This assistance can usually be found either at a local university or within the local, county, or State government. For more information on how to conduct an observational survey, contact professional organizations in the area for assistance.

# Monitoring and Evaluating Programs

A systematic planning process is likely to lead to the continual revision of existing programs, policies, practices, and procedures and to the implementation of new efforts. Early on, questions will naturally arise concerning how well these changes are working. "Is it working?" can mean a number of things:

- ▲ Does the new approach meet the needs of the organization implementing the program (e.g., school)?
- ▲ Does the new approach meet the needs of the ultimate target population (students)?
- ▲ Is the effort on its way to accomplishing its goals?

Information about these questions is often obtained through interactions with various organizations and other informal methods. However, the accuracy and usefulness of impressions gathered in this way can be greatly enhanced by more systematic monitoring and assessment.

Program monitoring and evaluation can be as simple as an exercise in counting, e.g., number of school children affected or education programs conducted. In fact, it may be very similar to the initial Pedestrian Safety Assessment done earlier.

Most monitoring and evaluation programs include an analytic examination of program operations in their totality. Information may be gathered



which is not really necessary for realistic decisionmaking about a specific pedestrian safety problem. If extra resources are available, more ambitious evaluations can be undertaken. However, for the purposes of the pedestrian safety program, simple assessment and monitoring are sufficient, at least in the early stages.

# **Monitoring Systems**

Monitoring information can provide useful information for program management and improvement. It can also provide positive feedback to participating organizations which may help to maintain program momentum.

Ongoing monitoring systems most often rely on basic data collection and self reports, such as

- ▲ How many pedestrian engineering changes were made last year?
- ▲ How many education events were carried out?
- ▲ What were the target groups served?
- ▲ What areas of the community (e.g., schools, organizations, street locations) received the most or least services?

Some form of assessment of program participants' satisfaction can be valuable in fine-tuning the services offered. Such information can often be collated very easily. For example, teachers at a presentation to third grade students could be asked to fill out a brief questionnaire. These kinds of surveys are common and easily administered.

Participant surveys can ask for general satisfaction information to determine, for example, pedestrian safety enforcement at a particular location. Additional infor-

mation in more specific areas can also be collated. For example, one could carry out a survey to determine what sort of parking restrictions are necessary to protect pedestrians during a special event.

There should be an implementation analysis. Often there is considerable discrepancy between how a program, policy, practice, or procedure appears and how effective it is in actual practice. Unfortunately, many program models and other promising efforts have been abandoned as ineffective when, in fact, they were never actually implemented as designed. Once an effort has been initiated, it is very important to assess whether or not it is taking place, whether it is following prescribed processes, and whether these processes need to be revised.

The ongoing monitoring system described earlier can be helpful in analyzing implementation. For example, if a pedestrian safety program is being conducted in a school, the monitoring system can determine how many students are enrolled, how many events take place, and how many people attended these events. In this way, it is possible to determine whether the program is really viable or whether it exists only on paper. Observation and interviews can enhance the picture portrayed by monitoring data. In the case of the school program, an interview with some of the students can indicate whether they find the activities engaging and satisfying. Observations of events or interviews can indicate whether students are aware of the activities and whether they respond to them positively.

# Recommended Resources

### Pedestrian Accident Reduction Guide

A manual which provides guidelines for a successful pedestrian safety program. Available from

DOT/NHTSA Office of Alcohol and State Programs 400 7th Street, S.W. Washington, D.C. 20590 (202) 366-1739

### Walk Alert Program Guide

This guide provides detailed information on planning a community-based pedestrian safety program with emphasis on education, engineering, and enforcement. Available from

National Safety Council 444 North Michigan Avenue Chicago, Illinois 60611 (312) 527-4800

Model Pedestrian Safety Program: User's Guide

Model Pedestrian Safety Program: User's Guide Supplement

The Guide and Supplement outline a six-step process in planning and creating a safe traffic environment for pedestrians. Available from

National Technical Information Service Springfield, Virginia 22161 (703) 487-4650 Order # 88246467/AS for Guide Order # 89113575/AS for Supplement

Older Adult Pedestrian Safety

A booklet that offers guidelines for developing pedestrian programs to meet the needs of older adults. Available from the local AAA clubs and AAA Headquarters.

AAA Headquarters Traffic Safety Department 10000 AAA Drive Heathrow, Florida 32746-5063

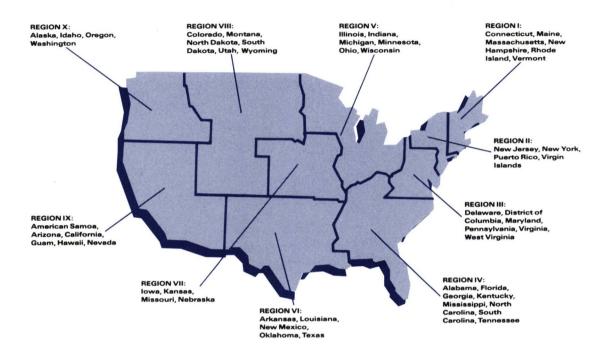
Safe Street Crossing for Kids—A Program
That Works

Safe Street Crossing for Kids—A Planning Guide

These publications provide planners with information on starting a children's pedestrian safety program. Includes background information, program components, step-by-step guidelines, and reference information. Available from

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# NHTSA Regional Offices



Regional Administrator NHTSA, Region I Transportation Systems Center Kendall Square - Code 903 Cambridge, MA 02142 (617) 494-3427

Regional Administrator NHTSA, Region II 222 Mamaroneck Ave., Suite 204 White Plains, NY 10605 (914) 683-9690

Regional Administrator NHTSA, Region III BWI Commerce Park 7526 Connelley Drive, Suite L Hanover, MD 21076-1699 (301) 768-7111 Regional Administrator NHTSA, Region IV 1720 Peachtree Road, N.W. Suite 501 Atlanta, GA 30309 (404) 347-4537

Regional Administrator NHTSA, Region V 18209 Dixie Highway, Suite A Homewood, IL 60430 (312) 799-6067

Regional Administrator NHTSA, Region VI 819 Taylor Street, Room 8A38 Fort Worth, TX 76102-6177 (817) 334-4300



Regional Administrator NHTSA, Region VII P.O. Box 412515 Kansas City, MO 64141 (816) 926-7887

Regional Administrator NHTSA, Region VIII 555 Zang Street, Fourth Floor Denver, CO 80228 (303) 236-3444 Regional Administrator NHTSA, Region IX 211 Main Street, Suite 1000 San Francisco, CA 94105 (415) 974-9840 Regional Administrator NHTSA, Region X 3140 Jackson Federal Building 915 Second Avenue Seattle, WA 98174 (206) 442-5934

# Pedestrian Safety Assessment Reporting Period For 19\_\_\_\_\*

Answer all questions a	s completely and	d accurately a	as possible.	
Use estimates only wh	en accurate figu	res aren't ava	ilable.	
Find information by co local American Automodepartments; school of emergency medical off	obile Association fficials; hospital	; public work	s or traffic engineerin	)g
Publish data after the in different degrees of Information sharing is	specificity for th	e organizatio	ns with whom you wi	II work.
Official submitting report	Title			Date
City	Estimated (	population	City area in square miles	
Area Characteristics (check all	applicable)			
☐ Urban** ☐ Rura	I 🗆 Ind	dustrial	☐ Suburban	☐ College
☐ Seasonal ☐ Trave	ersed by major hi	ighways		
Summary Data***	19 (Current Year)	19 (Previous Ye		19 (Previous Year)
Pedestrians killed in traffic				
Pedestrians injured in traffic non-fatal)				
Fotal persons killed in traffic including pedestrians)				
Fotal persons injured in traffic non-fatal, including pedestrians)				

<sup>\*</sup> Last full calendar year where complete data are available. All data should be from the same year for more accurate comparison purposes.

<sup>\*\*</sup> Urban area is the territory contiguous to and including any street built up with structures devoted to business, industry, or dwelling houses situated at intervals of less than 100 feet for a distance of a quarter of a mile or more (Uniform Vehicle Code).

<sup>\*\*\*</sup> Deaths and injuries resulting from bicycle accidents should not be included in pedestrian accident totals.

			Killed							
Age	Day†	Night	Male	Female	Total	Day†	Night	Male	Female	Total
0-4										
5-9					<del></del>					
10-14										
15-19										
20-24										
25-34										
35-44										
42-54										
55-64										
65-74										
75-+										
Not stated										
TOTALS										

## Pedestrian Deaths and Injuries at Intersection

Vehicle Action	Killed	Injured	Pedestrian Action	Killed	Injured
Going Straight			With Signal		
Turning Right			Against Signal		
Turning Left			No Signal		
Backing			Diagonally	· .	
Others			Others		
Not Stated			Not Stated		
TOTALS			TOTALS		

## Pedestrian Deaths and Injuries by Location and Age

Crossing or Entering Roadway at Intersection Killed		5-9	10-14	15-19	20-24	25-34	35-44	42-54	55-64	65+	75+	N-S	Total
At Other Locations in Roadway	0-4	5-9	10-14	15-19	20-24	25-34	35-44	42-54	55-64	65+	<i>75</i> +	N-S	Total
Killed													
Injured													

# Pedestrian Deaths and Injuries by Accident Type and Age

		Age													
Accident Type*	0-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65 +	N-S	Number Injured	Number Killed		
Backing Up †															
Commercial Bus Stop Related †															
Dart-Out †															
Disabled Vehicle Related															
Driverless Vehicle											:				
Driver Violation															
Emergency/Police Vehicle Related															
Exiting From/Enter- ing Parked Vehicle															
Expressway Crossing															
Hitchhiking															
Hot Pursuit															
lce Cream Vendor Related †															
Intersection Dash †															
Mailbox Related															
Multiple Threat †												-			
Pedestrian Not In Roadway															
Pedestrian Walks Into Vehicle															
Playing In Roadway								:							
Play Vehicle Related															
School Bus															
Trapped															
Vehicle Turn-Merge †															
Walking Along Roadway															
Working On Road										-					

<sup>†</sup> One of the seven most common accidents.

### **Accident Type Definitions**

**Backing Up.** Pedestrian, who is likely to be working normally at the time, is struck by vehicle backing up.

**Commercial Bus Stop Related.** Pedestrian crosses in front of stopped bus, which screens pedestrian from view of driver of overtaking vehicle.

Dart-Out. Pedestrian appears suddenly, usually from between parked cars.

**Disabled Vehicle Related.** Pedestrian is struck while working on, standing next to, or walking to or from disabled vehicle stopped where parking would not be allowed or would be injudicious.

**Driverless Vehicle.** Pedestrian is struck by vehicle moving without driver at the controls. Child may have set vehicle in motion.

**Driver Violation.** Driver seems to have committed one or more of these violations: careless driving, failure to obey traffic signal or sign, speeding, driving while intoxicated driving under influence of alcohol.

**Emergency/Police Vehicle Related.** Pedestrian is near active police or emergency vehicle, such as firetruck or ambulance, when struck.

**Exiting From/Entering Parking Vehicle.** Pedestrian is in traffic lane next to stopped vehicle, either entering or leaving it.

**Expressway Crossing.** Pedestrian is struck while crossing limited access expressway or expressway ramp.

Hitchhiking. Pedestrian is struck while hitchhiking, either while walking or stationary at side of road.

Hot Pursuit. Pedestrian is struck by vehicle on emergency or police mission, or by a vehicle being pursued by police.

**Ice Cream Vendor Related.** Pedestrian, usually a young child, is struck by passing vehicle while approaching or leaving truck.

Intersection Dash. Pedestrian runs across intersection, is seen too late by a driver, and is struck.

Mailbox Related. Pedestrian is struck going to or from mailbox or newspaper box, often located on other side of road.

**Multiple Threat.** Vehicle stops for pedestrian who is crossing and halted vehicle blocks pedestrian from view of driver of overtaking vehicle.

**Pedestrian Not in Roadway.** Pedestrian is struck when not on roadway, but in parking lot, driveway, private road, gas station, yard, or ballfield. Also include pedestrians standing on curb, waiting to cross road.

**Pedestrian Walks Into Vehicle.** Pedestrian does not appear suddenly in path of vehicle, but walks into side, or rear of it. This includes accidents at and away from intersections.

Playing In The Roadway. Pedestrian is struck while playing on foot in roadway.

**Play Vehicle Related.** Pedestrian is riding play vehicle, such as a wagon, sled, or skateboard, but not bicycle, tricycle, or "big wheel" toy, when struck.

**School Bus.** Pedestrian is struck while going to or from school bus or school bus stop.

**Trapped.** Pedestrian is caught in intersection when traffic light changes and traffic starts to move. This is distinguished from the **Multiple Threat** situation.

Vehicle Turn-Merge. Driver, concentrating on turning into or merging with traffic, fails to see pedestrian.

Walking Along Roadway. Pedestrian is struck while walking on edge or shoulder of road.

Working On The Road. Pedestrian working on roadway is struck by vehicle in, or on edge of, roadway.

# **Community Assessment**

Are pedestrian accident data brought to the attention of appropriate local government and non-government agencies?  Are hospitals and other medical reports utilized to identify pedestrian accident problems?  How many accidents do authorities estimate go unreported?  Enforcement  Number of traffic citiations and/or warnings written for:  Pedestrians crossing against signal?  Pedestrians crossing not at intersection and/or failing to yield right-of-way.  Drivers violating pedestrians' right-of-way.  Drivers parking in restricted school areas.  Is special attention given to the problem of alcohol and pedestrian safety?  Yes Is it a policy to perform Blood Alcohol Concentration (BAC) level tests on all adult pedestrians killed? Yes If Yes, how many pedestrians killed tested positive at any BAC level?	No No
How many accidents do authorities estimate go unreported?  Enforcement  Number of traffic citiations and/or warnings written for:  Pedestrians crossing against signal?  Pedestrians crossing not at intersection and/or failing to yield right-of-way.  Drivers violating pedestrians' right-of-way.  Drivers parking in restricted school areas.  Is special attention given to the problem of alcohol and pedestrian safety?  Yes  Is it a policy to perform Blood Alcohol Concentration (BAC) level tests on all adult pedestrians killed?	No
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Is special attention given to the problem of alcohol and pedestrian safety?  Yes Is it a policy to perform Blood Alcohol Concentration (BAC) level tests on all adult pedestrians killed?  Yes	+
• Is it a policy to perform Blood Alcohol Concentration (BAC) level tests on all adult pedestrians killed?	+
	T N.
If Yes, how many pedestrians killed tested positive at any BAC level?	No
**************************************	
• Is it a policy to conduct BAC tests on drivers who injure or kill pedestrians?	No
If Yes, how many tested positive?	
Are pedestrian rights and duties included in your police recruiting and in-service training programs?  Yes	No
If Yes, how many hours are devoted to pedestrian rights and duties in:	
Recruit training	
In-service training	
Does the program have access to a special pedestrian violators school?  Yes	No
If No, are pedestrian violators assigned to a traffic violators school?	No
Does the school's course of instruction include pedestrian safety regulations?  Yes	No
• Are there specific emphasis-enforcement programs targeted to pedestrians, as well as to drivers?	No
• Is police enforcement of pedestrian ordinances regarded as high priority?	No
<ul> <li>Do traffic police have written policies and procedures concerning pedestrian ordinance violators and motorists who violate rights of pedestrians?</li> </ul>	No
Are pedestrian information and education programs backed up with proper enforcement, prosecution, and court processes?  Yes	No
Jurisdictional Coordination	
Civic	
Does the area have a traffic safety organization, such as a safety council or mayor's task force/ coalition responsible for coordinating citizen traffic safety activities?  Yes	No
If Yes, organization's name:	•

□ Civic organizations

☐ Local government

☐ Business and industry

☐ Schools

Jurisdictional Coordination—Continued		
Are private citizens solicited for participation and involvement in this organization's activities?	Yes	No
Does this organization have a pedestrian safety subcommittee?	Yes	No
If No, are pedestrian activities studied by the committee as a whole?	Yes	No
<ul> <li>Are there established procedures for evaluating pedestrian accidents and pedestrian safety programs?</li> </ul>	Yes	No
Government  Name and title of local government official responsible for pedestrian safety:		
Name	-	
Title	-	
Does the area have provisions for safeguarding municipal employees who are required to work in traffic (public works, police, etc.)?	Yes	No
Legislation		
<ul> <li>Do laws and ordinances in effect in your community and State specify pedestrian duties and rights in traffic?</li> </ul>	Yes	No
Are they simple, clear and enforceable?	Yes	No
Public Information and Education		
Are print and broadcast media willing to inform citizens of:		
Pedestrian hazards and safe pedestrian practices?	Yes	No
Pedestrian regulations in effect in your area?	Yes	No
<ul> <li>Is there an organization that routinely distributes public information on pedestrian rights and duties in traffic?</li> </ul>	Yes	No
<ul> <li>Is there a cooperative relationship between local businesses and public agencies with responsibilities for pedestrian safety?</li> </ul>	Yes	No
School Traffic Safety		
Name and title of school person officially designated to supervise and coordinate safety education in	scho	ol:
Does this position require formal training in safety education or accident prevention?	Yes	No
Do your schools use pedestrian safety curriculum materials for:	<u> </u>	1
Pre-school?	Yes	No
K-3 grades?	Yes	No
4-7 grades?	Yes	No
Do school bus safety instructions include safe loading and unloading practices and emergency evacuation drills?	Yes	No
Do your schools help beginning students plan for their safest route home?	Yes	No

#### School Traffic Safety—Continued Does your police department work with schools in safety patrol, bus patrol or other safety Yes Nο programs? Do you have an official who is responsible for uniform application of school crossing protection Yes No measures? Traffic Engineering Does your area have a fulltime traffic engineer with a professional engineering license? Yes No If not fulltime, how many days of service of counsel did your area have from a licensed traffic engineer? Have any recent studies been conducted to improve high-accident locations? Yes No Pedestrian intersection accidents? Yes No Nighttime pedestrian accidents? Yes No Other pedestrian traffic problems? Yes No The Uniform Vehicle Code (UNV) guidelines for parallel parking near crosswalks at intersections recommend parking at least 20 feet from the crosswalk. How close to crosswalks are motorists permitted to park in your community? · Pedestrian traffic control facilities: Percentage of intersections with marked crosswalks that meet specified warrants for volume of pedestrians, vehicles, conflicts or special situations, etc. Percentage of total signalized intersections with warranted pedestrian "Walk/Don't Walk" signals. Percentage of total arterial street mileage with street lighting that meets IES (Illumination Engineering Society) standards.\* Percentage of total miles or urban streets with sidewalks on one or both sides of the street. What percent of the signs, signals and markings relating to pedestrians conform to the Manual on Uniform Traffic Control Devices for Streets and Highways? Does the area require off-street parking for new construction in residential areas? Yes No · Does the area require sidewalks in: New residential development? Yes No New commercial development? Yes No Areas around new school development? Yes No Have programs been initiated to improve the safety and mobility of physically disabled Yes No pedestrians? • Are pedestrian barriers installed at locations where it is unsafe to cross in order to channel Yes No pedestrians to a safe crossing location? Are bus stops located on the far side of intersections so as not to block the view of pedestrians Yes No crossing the intersection?

<sup>\*</sup> Illuminating Engineering Society standards relating to street lighting can be obtained from your local electric power company.

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Planning community									
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