

APPENDIX F
HEED THE SPEED GUIDE

This Appendix contains a draft of a Guide that can be used by communities to develop their own *Heed the Speed* program based on the principles researched during the present study. As discussed in Section 6, for best results the information in this Guide must be tailored to the local situation.

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DEVELOPING A PROGRAM
TO
HEED THE SPEED



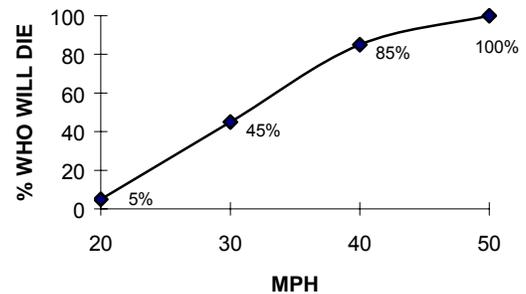
**U. S. Department of Transportation
National Highway Traffic Safety Administration**

INTRODUCTION

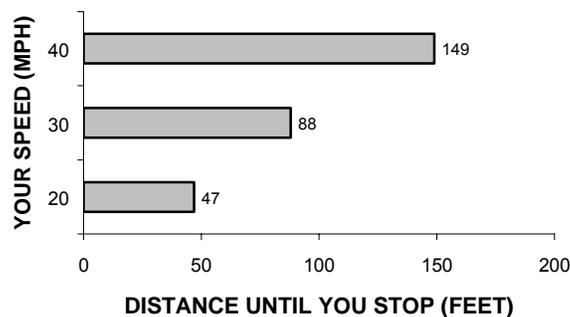
This Guide is designed to provide information to local communities that want to mount programs to decrease speeds in residential neighborhoods in order to reduce traffic crashes, particularly to pedestrians. The advice is based on research that successfully combined enforcement, engineering and education into action programs called *Heed the Speed* tailored to specific communities and road segments. The basic premise of *Heed the Speed* is that physical traffic calming – things such as vertical treatments (speed tables, speed humps, etc.) and roundabouts – cannot always be installed. Even when traffic calming is planned, it can take years to be implemented. By using enforcement, education and innovative approaches, *Heed the Speed* can improve the effects of traffic calming when it is installed and provide some of traffic calming’s speed reduction benefits when circumstances prevent it from being used.

The Speeding Problem

There is much evidence to support the fact that higher speeds are associated with more severe pedestrian injuries and death. Studies have reported that 5 percent of pedestrians will die if they are struck by a vehicle traveling at 20 miles per hour; 45 percent will die if the vehicle is traveling at 30 miles per hour; 85 percent will die if the vehicle is traveling at 40 miles per hour; and almost all will die if the vehicle is traveling at 50 miles per hour.



A motor vehicle needs time and space to stop. A vehicle traveling at 20 miles per hour will need 47 feet to stop. At 30 miles per hour, the distance almost doubles (88 feet), and at 40 miles per hour, it almost doubles again (149 feet). Thus, excess speed can be related both to an increase in crash likelihood and to a greatly elevated injury severity when a crash does occur.



The problems of speeding have been of concern to community residents as well as to government officials at all levels for many years. These concerns have resulted in the implementation of a variety of measures to reduce speeds. Past programs have typically focused on one of the primary ways to change speeding behavior – engineering (traffic calming), enforcement or education. Few programs combined all three “E’s” to try for maximum impact.

This guide describes how a community can use a multi-pronged approach to reduce motorist speeds in residential areas by adding education and enforcement to engineering in a *Heed the Speed* program. It contains the following steps:

- Cataloging local resources/recruiting support
- Establishing a working committee
- Reviewing the local problem
- Selecting study neighborhoods
- Designing the program
- Implementing the program
- Assessing program success

Examples are taken from the experience of the *Heed the Speed* implementations in Phoenix and Peoria, Arizona that were part of a NHTSA-funded research program.

Cataloging Local Resources

Many local safety programs begin with a lead group or agency that responds to an explicit or implicit need in the community. Others are catalyzed by a directive from a governmental body or city executive in response to citizen complaints or a tragic crash. Regardless of the underlying motivation for beginning an effort such as *Heed the Speed*, there will probably be an originating group or individual with the responsibility of putting together a program. It is important for that individual or group to begin the entire process with a catalog of local resources. While the ideal is for every relevant discipline to join willingly in *Heed the Speed* efforts, the reality is that local conditions will vary widely. As long as some involved group – enforcement, engineering, safety education, or active citizens – is eager to proceed, a successful *Heed the Speed* program is possible. Soliciting the help of all of the other participants, however, is clearly desirable, adds to the chances of program success and should be attempted. Once all of the players are identified and fully committed, the remaining steps in this Guide can be viewed in the proper context and adapted appropriately.

Establishing a Working Group

From the outset, a group, committee, or task force is needed to plan and manage a local *Heed the Speed* program. Tasks for this group include conducting an assessment of the speeding problem, identifying the specific neighborhood or neighborhoods that will participate in the program, planning the program to be conducted in each neighborhood, overseeing program activities to ensure that they are proceeding as planned, and collecting and analyzing any data needed to assess program success.

At a minimum the committee should try to have representation from the following groups:

- Traffic engineering – to select and oversee the installation of appropriate roadway treatments, signs, signals, and markings

- Police – to select and oversee the implementation of enforcement and related education activities above and beyond routine patrols
- Public information – to design and arrange for production and distribution of program education materials and local media publicity
- Local safety groups – to provide volunteer support

It is recognized, however, that it may not be possible to recruit actively involved members from each of these disciplines. When that happens, the working group must realistically acknowledge its own strengths and weaknesses and plan a *Heed the Speed* program accordingly.

Once the neighborhoods that will participate in the program have been identified, a representative from each neighborhood may be added to the committee. These individuals can assist in identifying specific problems that are encountered at the neighborhood level, in evaluating the acceptability of specific countermeasures to the neighborhood, in identifying neighborhood individuals or groups that need to be addressed, and in pulling together neighborhood resources that can be used to enhance the program. Having locals on board can help to ensure that the program runs smoothly at the neighborhood level. It also can spark a useful dialogue across neighborhoods to generate new ideas.

One committee member needs to be selected as the lead for the program. That person will assure that meetings of the committee are held on a regular basis throughout the program's tenure, that agendas are prepared for each meeting and that minutes of each meeting are prepared and distributed to coalition members. Meetings that are scheduled on a routine basis (such as once a month) can serve to keep all committee members apprised of program activities and progress and give them an opportunity to solve problems as they occur.

The choice of the frequency of meetings is important to the success of a *Heed the Speed* effort. If they are too close together, the time demands may become too great and participation will drop off. If they are too far apart the committee may not be able to react quickly enough to changes, and *Heed the Speed* can lose importance. A monthly timetable has worked well in some sites, but each committee should define a schedule based on the needs of its own members.

Reviewing the Local Problem

A *Heed the Speed* program should start with an assessment of the local speeding problem in order to identify neighborhoods to include. Although *Heed the Speed* programs are typically started at the city or county level, the focus is on speed reduction in individual neighborhoods that have a problem. Identifying neighborhoods is done with information generally available to local police and traffic engineering personnel. Citizen complaints about speeders, citizen requests for traffic calming, records of citations issued, crashes involving speeding and general police department/traffic engineering knowledge of the speeding problem in various areas of the community are all relevant. Actual speed data may be available for some neighborhoods from routine traffic counts. If necessary, special traffic counts/speed measurements can be taken. The result of this effort will be the development of a candidate set of neighborhoods that could benefit from a speed reduction effort.

Selecting Study Neighborhoods

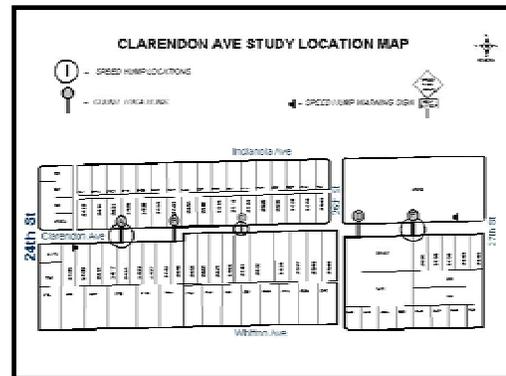
One or more neighborhoods can be selected for *Heed the Speed* implementations depending on the resources that are available for the program and the degree of local interest. The primary aim, of course, will be to have as large an impact as possible on the community speed problem. In most locales, there will be no shortage of neighborhoods desiring a reduction in vehicle speeds to improve safety and the quality of life, but there may be insufficient resources to give *Heed the Speed* to every neighborhood that wants it.

The first effort will be to develop a rank order for the neighborhoods that have been identified as candidate sites. The primary criteria will be twofold:

- The strength of the expressed desire on the part of neighborhood residents to participate in a speed reduction program as evidenced by their prior requests for traffic calming devices or requests of support from the police in dealing with speeders. Grass roots involvement in the affected neighborhoods, although not absolutely essential to a successful *Heed the Speed* program, is highly beneficial. It provides the eyes, ears, hands, and legs for the program on a day-to-day basis. Committed and involved local residents can help adapt and distribute educational materials and provide feedback on program progress.
- There is an actual speeding problem based on speed measurements or on police reports if no measured speed data are available. Sometimes people will perceive a speeding problem when it does not, in fact, exist. A *Heed the Speed* program can't afford to allocate resources to areas where speeding is not really a problem.

It is also important to identify any constraints or opportunities that might affect neighborhood selection. These might include:

- Is this a one-time effort where one or more neighborhoods will be selected for the program? Or, is the selection the first of a program that will continue indefinitely with other neighborhoods added or substituted from time to time?
- What is the program time frame? Will a neighborhood selection be restricted by a limited time frame and will it be reasonable to apply all proposed countermeasures in that time period? For example, is there time to ensure that any planned roadway treatments or proposed legislation will be in place at the start of the program or shortly after program start?
- What types of streets are in the area – neighborhood, collector, arterial? What roadway treatments, if any, could be used for each?
- What is the size of the area? Can it all be accommodated in the speed reduction program?



- What efforts are already planned for or actually in place in the area? For example, is traffic calming planned? Are new sidewalks going in? Are periodic traffic counts scheduled?
- What resources are located in or near the area that can affect traffic positively or negatively (e.g., schools, churches, businesses)? Will the program need special countermeasures addressed to these groups? For example, in one *Heed the Speed* city nearby car dealerships used adjacent neighborhoods for test drives and were therefore the subject of a special education piece requesting them to minimize such drives and to drive more slowly.
- Are there organized groups in or near the neighborhoods that can serve as resources for the distribution of program materials? For example, schools can act as distribution points for flyers directed to parents.
- Is there an established homeowner's association? If not, can one or more residents of the area be identified to serve as contact points for the community? If there is no homeowner's association and no contact can be identified, special attention must be paid to ensuring that the neighborhood residents receive program materials. Distribution by means of door hangers can be used as well as distributions by mail.
- Are there specific racial or ethnic groups in the community that need to be addressed? For example, are there large numbers of Hispanics that will need Spanish translations of education materials?

The final selection of neighborhoods must be based on the resources that the community and the neighborhood together can apply and the practicality of combining those resources into a coherent and ongoing *Heed the Speed* effort.

Designing the Program

A *Heed the Speed* program should try to include the three E's – education, enforcement, and engineering. It can also include changes in legislation if needed, but these changes can take time.

Education: Education as part of *Heed the Speed* should be focused on materials and activities to inform the public about the dangers of speeding, the existence of a problem, the increased risk of getting a ticket and the need to slow down. Examples of *Heed the Speed* education materials that have been used successfully include:

- Program logo
- Street traffic signs displaying the slogan and logo



- Lawn signs displaying the slogan and logo printed on bright yellow weatherproof material
- Homeowner's association meetings in which presentations were made by traffic engineering and police personnel to discuss the problem and the program
- Flyers for residents, parents, and high school drivers – reproduced in both English and Spanish
- Flyers for drivers with a traffic ticket facsimile on the reverse side
- A slim version of the above flyer minus the traffic ticket
- Flyers for car dealerships which encouraged them not to do test drives on neighborhood streets and to drive responsibly
- Press release announcing the program
- Live copy radio spots.



One strategy that has worked well is to distribute sample items done with desktop publishing on a CD-ROM. These can then be adapted as necessary for individual neighborhoods by the local participants. *Heed the Speed* education materials don't necessarily have to be "slick." They do have to be accurate and relevant to the local problem. They also have to be in a form that can be easily distributed. By providing examples that can be tailored or localized, factual information is provided, and local participants can apply their unique knowledge to making sure the information is relevant and receives widespread distribution.

Additional education items that have been successful include articles for insertion in neighborhood newsletters, outlines for television interviews, news releases to local newspapers, and radio spots.

Enforcement: Nothing gets the attention of speed violators better than enforcement. Police involvement does not, however, have to be limited to writing tickets. Presentations to homeowner's organizations and other local groups, training of local residents to conduct speed watches and deployment of speed trailers and other speed-related equipment are also potentially effective enforcement efforts. It is not surprising, however that the police effort noticed most and appreciated most by residents in *Heed the Speed* neighborhoods was added enforcement – both ticketing and warning stops.

Engineering: Engineering can make physical changes to the roadway to reduce speeds. These traditionally encompass virtually any traffic



calming technique used in the community, such as vertical treatments (speed humps and speed tables) and traffic circles, as well as new or changed traffic signs, signals and marking. Some innovative roadway markings have also been tried as part of *Heed the Speed*. A material that simulates speed tables and one that provides the appearance of a three-dimensional object in the roadway were tested in several neighborhoods. These pavement applications produced an immediate and quite significant reduction in speeds that seemed to remain for some time. It is not known what will happen over a long period of time when drivers become accustomed to them. It is hoped that they will continue to serve as a reminder of the *Heed the Speed* program because of their compelling appearance.

Legislation: Changes to existing laws and ordinances or the enactment of new ones can help to solve the speeding problem. For example, posted speeds can be reduced or fines can be doubled for speeding in selected high-speed areas. As with roadway alterations, legislative changes take time to effect and need to be planned long before program start. The debate over a legislative change or the fact that a new law has been passed can serve as a motivation to start a *Heed the Speed* activity and also provide good publicity.

Implementing the Program

Once activities and materials planned for the program are defined, the next step is to plan a program timeline. This will define when each activity must start and orders for materials must be placed. For example, changes to the roadway should preferably be in place when the program starts or at least in place within the first month of program activity. If they will not be available early, it may be better to delay the start of the program than to proceed without them if they are an integral part of the effort. The same holds true for any legislative changes that are included in the *Heed the Speed* program.

Issuing a news release announcing the program is often a good idea. In addition, it can help to have the mayor or other city official announce the start of the program with a press conference. This is an easy and often effective way to generate media coverage.

In addition to roadway treatments and legislative enactments, education materials and schedules for their release need to be available at program start. Schedules should also be available for all planned police activities.

It is advisable to have education and enforcement activities conducted throughout the life of the program. For education, this means creating a variety of materials/activities that can be distributed/conducted at different times throughout the program. Police activities should also be initiated at program start and continue throughout the life of the program. In addition, the public information member of the working committee should arrange for as much media attention throughout the program as possible.

Heed the Speed does not have to be a “one shot deal.” Research has shown that bad behavior such as speeding tends to return after programs such as *Heed the Speed* end. Reality, however, dictates that intense, focused efforts cannot be sustained forever. There simply are not enough resources in most communities. The best plan provides for an intensive *Heed the Speed* effort at the start that lasts as long as possible followed by as much continuing activity as

possible. Periodic enforcement visits and renewed educational distributions can revive or sustain a *Heed the Speed* program so that its results are not totally dissipated.

Assessing Program Success

Knowledge of results is an important and often overlooked step in taking action. It has two major benefits – providing feedback for program improvement and satisfying sponsors that their support produced results. There are two levels of evaluation that are of importance – program outcome and process.

Program outcome evaluation determines how the program changed speeds. This requires, as a minimum, a measurement of speeds before program start and after program completion. It's even better to take periodic measures as things go along. This will provide a more detailed look at how activities are influencing motorist behavior. Speed measurements can be made in several ways. For maximum precision, traffic counters can be placed on streets to record counts and speeds of all vehicles as they pass. If a simpler approach is needed, citizens can volunteer to use police-provided radar equipment or even stop watches to measure speeds of a sample of cars at selected locations and times in their neighborhoods. If no measurement of actual speeds is possible, neighborhood residents can be asked to give their opinions on whether or not speeds have been reduced, but this requires some type of survey data collection.

Process evaluation assesses how the program did its work. It generally examines actual achievements compared to plans for activities such as media distribution or police patrol hours. In addition to comparing actual versus planned expenditures of resources, a process evaluation can include a survey or focus groups directed at determining perceptions of effectiveness and recall of *Heed the Speed* activities. Both members of the working committee and local citizens can participate in this evaluation by answering such questions as the following:

- For each planned countermeasure, did it work? If yes, what made it work? If no, why didn't it work? Would you use the countermeasure again? How would you change it?
- Were there sufficient countermeasures available? Were they available on time? What others should have been included?
- How were publicity materials distributed? Did they reach their intended audience?
- Were the neighborhoods selected for the program appropriate for the countermeasures that were implemented? Was there something attributable to the neighborhood that ensured or prevented successful completion of the program?
- If you were to start over again, what changes would you make in the program?

Phoenix and Peoria used both outcome and process measures to evaluate their programs. Analysis of traffic counter measurements made before, during and after the program showed that speeds were reduced and provided insight on the relative effectiveness of different remedial approaches. A neighborhood survey provided information on whether or not residents felt that speeds had gone down and the extent to which they had been exposed to *Heed the Speed*

activities. In addition, focus groups were conducted with both the working committee and with representatives from the neighborhoods to obtain opinions on the program schedule and countermeasures.

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