

“Vital” strategies for highway safety

THE FHWA’s new, short-term (three to five years) business strategy—Vital Few—focuses attention and resources on three critical areas: highway safety, environmental stewardship and streamlining, and congestion mitigation.

Putting safety first

“First and foremost of the Vital Few is the safety of our nation’s highway system,” says Mary Peters, FHWA administrator. “We still lose far too many lives to crashes—more than 40,000 persons . . . every year—on the nation’s highway system.”

The success of the Vital Few initiative will be measured by lives saved.

Vital Few challenges

FHWA is committed to reducing highway fatalities by 10 percent by 2007. However, the Vital Few initiative faces a hefty challenge:

Even though death rates have been decreasing (while vehicle miles traveled have been increasing), the reduction of highway fatality and injury rates in recent years has hit a “plateau.” The figures below illustrate the leveling out of highway deaths and injuries.

Many of the efforts that could turn those numbers down again require more accurate data on fatalities and injuries, particularly on their location and cause. A key component in moving beyond the highway fatality plateau is improving the collection and

analysis of safety data and the linkage of information to other key roadway data.

Vital Few strategies

Vital Few focuses on three crash types that represent about 38, 20, and percent of all roadway fatalities, respectively:

- single-vehicle, run-off-the-road crashes
- intersection crashes
- bicycle/pedestrian crashes

Single-vehicle, run-off-the-road crashes.

Major FHWA strategies include

- improving pavement skid resistance
- increasing the visibility of signs and pavement markings
- increasing the use of rumble strips where appropriate
- upgrading roadside safety hardware (e.g., guardrail, crash barriers)
- improving design practices
- mitigating effects of utility poles and other roadside hazards

Intersections. Significant efforts include

- reducing red-light-running
- conducting road safety audits
- improving intersection design
- developing “intelligent” technologies with potential to address intersection crashes

Pedestrian/bicycle safety. Vital Few strategies focus on

- integrating pedestrian and bicyclist issues in facility planning and design
- providing engineering and ITS approaches to increase the safety of bicyclists and pedestrians
- accelerating the deployment of effective processes, tools, and technologies

Iowa’s strategies

Nationally, the highest fatality rates occur on two-lane and rural roads. The fatality rate on rural local roads is more than three times the rural interstate fatality rate and six times the

urban interstate rate. These statistics are sobering in Iowa, where most lane miles are two-lane and rural.

Single-vehicle, run-off-the-road crashes accounted for nearly 60 percent (15,905) of two-lane road fatalities in 2000 alone. Many of these fatalities were due to over-turns or striking roadside obstacles such as trees or poles.

The FHWA, Iowa Division, is focusing on engineering improvements that include

- adding milled-in rumble strips and paved shoulders on selected roadways
- placing brighter and more durable pavement markings
- redesigning intersections and retiming traffic signals
- installing roundabouts at certain appropriate locations

Iowa’s law enforcement agencies will play a major role as well. Traffic violations like passing in restricted zones, failure to yield right-of-way at intersections, failure to yield to pedestrians, driving while impaired by alcohol or drugs, and not wearing seat belts are major contributing factors to the types of crashes described above.

Resources for Iowans

The Iowa Safety Management System’s new Toolbox of Highway Safety Strategies describes dozens of practical strategies for improving safety in Iowa jurisdictions. The Toolbox is online, www.iowasms.org/toolbox.htm. Copies are still available; contact Mary Stahlhut, Iowa DOT, 515-239-1169, mary.stahlhut@dot.state.ia.us.

For assistance locating and interpreting Iowa crash data and other safety information, contact the Iowa Traffic Safety Data Service, housed at ISU’s Center for Transportation Research and Education, 515-292-5004, itsds@iastate.edu.

For more information

For details about the implications of FHWA’s Vital Few initiatives for local agencies, contact Jerry Roche, safety engineer, FHWA, Iowa Division, 515-233-7323, Jerry.Roche@fhwa.dot.gov. •

