

Building Safe Communities

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USING DATA TO BUILD A SAFE COMMUNITY

The use of multiple sources of local data is a cornerstone of the Safe Communities approach. This issue of BSC focuses on using data to identify and describe a community's traffic-related injury problem, assess the human and financial costs of that problem, choose strategies to prevent injuries, and measure the success of those efforts.

Community-based traffic safety programs have long used police records, including citation and crash reports, that contain information on the time and location of the crash, the age of those involved in the incident, the road conditions, and whether alcohol was involved. These data have been invaluable in helping communities understand their motor vehicle crash problem. But other types of data can be used with these reports to produce a more detailed description of an injury problem and design a focused

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USING DATA TO COMBAT DWI

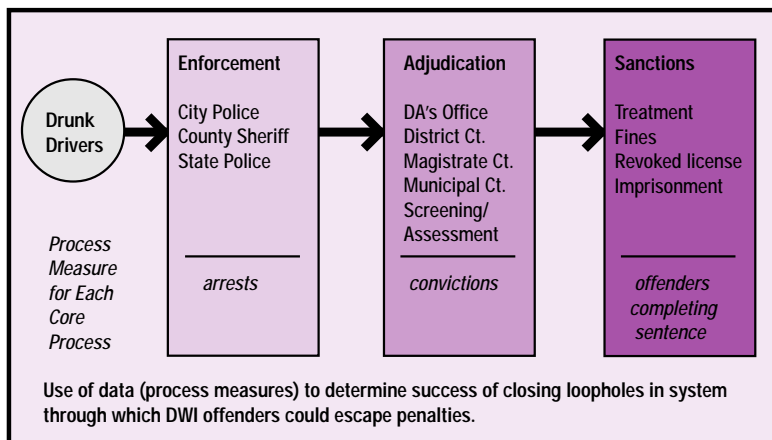
New Mexico has one of the country's highest rates of driving while intoxicated (DWI). Thus, it was no surprise when the Northern New Mexico Health Care Alliance (NNMHCA) chose this issue as the focus of its San Miguel County American Society for Quality/Institute for Healthcare Improvement (ASQ/IHI) Collaborative project. (The ASQ/IHI Collaborative on the Prevention of Motor Vehicle Injuries is described in the August/September 1997 issue of BSC). The NNMHCA team examined each step in the legal system (including enforcement, adjudication, penalty, and treatment) to define problems; implemented interventions targeting those problems; and identified process measures that used local data to evaluate changes in the system. Beth Leopold, NNMHCA director, describes how local data played a key role in this process:

New Mexico has very good data compared to some other states. But the problem with the state data is the problem everywhere: by the time we get state data, it's 12 to 18 months old. The state also reports means for the year, not the months, so they lose a lot of detail. We [San Miguel County] now collect data on a monthly basis so we can detect variations and target our interventions accordingly.

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COLLECTING DATA FOR BSC

Building Safe Communities would like to know what types of features, resources, and information can best help you develop and enhance your Safe Communities program. If you have any ideas for articles, suggestions for story topics, or issues with which you are struggling, we would like to hear about them. We hope that this will enable BSC to be even more responsive to the needs of Safe Communities programs. Write, fax, or e-mail us (using the contact information found in the masthead on this page) and let us know what we can do to better help you in your efforts to prevent motor vehicle, pedestrian, and bicycle injuries. Thank you.

USING DATA TO BUILD A SAFE COMMUNITY *(continued from page 1)*

strategy to prevent those injuries. Such types of data include emergency medical services data, emergency department and hospital discharge data, health department data, and insurance data, all of which contain information on the types and severity of injuries and the charges associated with treating those injuries.

This issue's feature, "Using Data to Combat DWI," demonstrates the power of arrest and adjudication records to provide valuable information on crashes in which alcohol is involved, and the ability of the criminal justice system to respond in ways that effectively reduce the rate of driving while intoxicated, as well as the crashes and injuries resulting from such behavior. Observational studies and surveys can provide information concerning human behavior that endangers (or protects) vehicle occupants, pedestrians, and bicyclists. Information from insurance companies and health care providers can (1) help a community measure the economic cost of traffic injuries, and (2) garner support for a community's investment in safety.

Data can be intimidating. The National Highway Traffic Safety Administration (NHTSA) has produced materials to help those who want to use multiple sources of local data to enhance their Safe Communities efforts. Information on these materials, together with other resources on using data, can be found on pages 3 and 6.



BUCKLE UP AMERICA THERE'S JUST TOO MUCH TO LOSE

Every hour, someone dies because of failing to buckle his or her seat belt. For a free Buckle Up America Campaign kit, containing materials for educating the public about seat belts, fax a request to NHTSA at (202) 493-2062 for Item 1P1063. More information on Buckle Up America can be found in the October/November 1997 issue of BSC and on the NHTSA Web site at <www.nhtsa.dot.gov/>.

NATIONAL PUBLIC HEALTH WEEK

The theme of this year's National Public Health Week (April 6-12, 1998) is "Healthy People in Healthy Communities." A *Planner's Guide*, developed by the Centers for Disease Control and Prevention (CDC) in cooperation with the National Public Health Week Steering Committee, is available to help agencies and organizations design successful Public Health Week events. The *Guide* can be found online at the CDC Web site at www.cdc.gov/od/phwphoto/index.htm or ordered from the National Public Health Information Coalition at (202) 789-5565.

USING DATA TO COMBAT DWI (continued from page 1)

We work very closely with our law enforcement agencies. They all use the same detention center. We receive the jail log every day, which includes the name of the offender and the offense. At the end of the month, we can count the number of DWI arrests and immediately know what is going on within our system. We can figure out why arrests have increased or decreased. For example, May had a high number of arrests due to graduations; it's also a holiday month. The state data would not tell us anything about this monthly variation. Local data enable us to plan interventions targeted to where and when problems are occurring.

A key quality-improvement principle is that decisions should be based on data. The data can show if a part of the process is not working. The data can locate system failures. The measures that we used were tied closely to our interventions. People often use readily available measures that are not really relevant to their processes or interventions. We selected measures related to adjudication and convictions. We looked at cases that did not resolve in conviction. We selected that measure because we believe that if arrests are being made properly—if the system is working—we should have very few arrests that don't result in convictions. Then we found that a major reason arrests didn't result in convictions was a lack of probable cause or insufficient evidence. In order to address that system failure, we now certify 100 percent of our officers in field sobriety testing.

We also used a technological intervention to improve the quality of evidence. We are adding video cameras to all of our police cars and to the detention center. Now we have a chain of evidence—a visual representation of the arrest from the time of the traffic stop through booking. When offenders see their behavior on videotape, they know it's not a matter of the offender's word against the officer's word, and they are more likely to plead guilty.

The state data provide a lot of information on convictions. But the data do not tell whether the offender actually serves time or pays the fine. Examination of the county detention center records showed that many offenders were not completing their sentences. It was up to the offender to pay the fine, but overburdened court staff could not follow up. There was often little or no sanction attached to a conviction. We would not have known this had we not dug into our local data to find loopholes in the system. The system fails to deter drunk driving if offenders go all the way through the system, get arrested, and get convicted, but they never pay their fines or they don't complete their community service or their jail sentences.

We took data about offenders who were not completing their sentences to the state and said that we wanted to use some of our budget to hire a supervisory probation officer to track offenders all the way through the system. New Mexico requires that everyone convicted of DWI be screened for alcohol abuse before sentencing. Many convicted offenders were not showing up for screening. They caught on that if they didn't go for screening, the report never came back to the judge and the sentence was never enforced. The probation officer now makes the appointment for screening before the offender leaves the courtroom. If the offender does not comply, the judge issues a bench warrant. This ensures swift and certain sanctions.

Another interesting thing about this process is its impact on other problems. We do a lot of work with SAFE KIDS on seat belt enforcement. The system for seat belt enforcement is the same as for DWI. We believe that once we get our enforcement and adjudication system straightened out, it will pay off in other areas, like seat belt enforcement and domestic violence. We're really looking forward to taking this process to other counties in New Mexico for DWI and using it within San Miguel County for other safety issues.

DATA LINKAGE

Linking conviction data to crash and injury data adds an understanding about the significance of DWI or the lack of enforcement of safety belt use that cannot be obtained from other sources. The severity of and treatment charges for injuries resulting from alcohol-related crashes or a failure to comply with seat belt mandates can be identified and compared with data for other groups. Information demonstrating that drivers violating DWI or seat belt laws are responsible for more than their expected share of the costs of medical treatment can galvanize community action to strengthen enforcement of and compliance with existing traffic safety laws.

— Sandy Johnson,
National Center for
Statistical Analysis

Information about data linkage can be obtained from Pat Nechodon, Utah CODES Project. Telephone: (801) 581-6401; fax: (801) 581-8686; e-mail: <pnechod@med.utah.edu>. An interview with Pat Nechodon appeared in the August/September 1997 issue of BSC.

Two NHTSA publications that provide a wealth of information on (1) using data linkage to define and describe motor vehicle injury problems and their costs, and (2) measuring the success of injury prevention strategies are *Why Link Data?* and *The Catalog of Types of Applications Implemented Using Linked State Data*. Both are available from the National Center for Statistical Analysis at (800) 934-8517 and on the NHTSA Web site at <www.nhtsa.dot.gov>.

Another valuable resource on data linkage is the CODES Peer-to-Peer Crash Data Linkage Project Web site at <www.asri.edu/codes/>.

NORTH CAROLINA SAFE COMMUNITIES NEEDS ASSESSMENT

In 1995, the North Carolina Department of Health and Human Services (DHHS) initiated a Safe Communities needs assessment in six high-risk counties. “We wanted to help counties gain a comprehensive picture of motor vehicle-related injuries, so we developed a community needs assessment matrix for counties to use in collecting and analyzing their data,” said Jeanne Givens, the project’s director. The project also developed a packet of tools to help counties implement the needs assessment.

The matrix (see below) looks at types of data (knowledge, attitudes, and beliefs; risks and contributing factors; fatal and nonfatal injury outcomes; and an inventory of local policies and activities) in terms of what specific information is needed, why it is important, and where the data can be located.

Each county’s multidisciplinary Safe Communities Coalition used the matrix to review and interpret its data. DHHS provided assistance in accessing Department of Transportation (DOT) data on fatal crashes, as well as on high crash intersections. Givens found that “the DOT data on high crash intersections have been the most compelling and have catalyzed immediate action.” Several counties prioritized the most dangerous intersections and brought them to the attention of the state DOT, which responded with its own review and, in many cases, improvements, including new signage, bridge repairs, better lighting, and elimination of passing lanes. Givens reports that “it was very exciting to see the power of the data as a convincing tool. It helped the counties make a strong case for these investigations and ultimately produced tangible changes that we hope will have an immediate impact on fatalities and injuries. We all believe that this project has been well worth the time and effort put into it.”

For more information on the North Carolina Safe Communities Assessment, contact Jeanne Givens, Injury Prevention Branch, North Carolina Department of Health and Human Services, P.O. Box 29605, Raleigh, NC 27626-0605. Telephone: (919) 715-6448; fax: (919) 733-9575; e-mail: <Jeanne_Givens@mail.ehnr.state.nc.us>.

North Carolina Community Needs Assessment Matrix

	Knowledge, Attitudes, & Beliefs	Risks & Contributing Factors	Fatal & Nonfatal Injury Outcomes	Inventory of Local Policies & Activities
What Information Is Needed	<ul style="list-style-type: none"> Public’s knowledge, attitudes, and beliefs about motor vehicle injuries Public’s knowledge and attitudes about traffic safety and policies Business/organizations’ attitudes about importance of traffic safety relative to other priorities Public’s attitudes and beliefs about effectiveness of enforcement, education, engineering Media knowledge, attitudes, and beliefs about traffic safety 	<ul style="list-style-type: none"> Occupant protection <ul style="list-style-type: none"> Safety belt use Child restraint use Alcohol involvement Speed/moving violations Road conditions Helmet use 	<ul style="list-style-type: none"> Type and severity of injury Causes of injury Demographics Time/location Type of vehicle/roadway 	<ul style="list-style-type: none"> Compilation of all traffic safety resources and activity in the community Local ordinances or other regulations/policies Community involvement in traffic safety Potential contributions from community
Why	<ul style="list-style-type: none"> To measure level of awareness of traffic safety issues To measure integration of motor vehicle injury control practices into various aspects of community life To understand community tolerance of traffic safety problems 	<ul style="list-style-type: none"> To measure change in known risk factors for motor vehicle injury To understand which risk/ contributing factors affect traffic safety in the community 	<ul style="list-style-type: none"> To measure change in rates of motor vehicle injury To understand the nature and extent of motor vehicle injuries in the community 	<ul style="list-style-type: none"> To identify resources for coalition building To identify and coordinate all traffic safety resources in the community
Where to Locate	<ul style="list-style-type: none"> Telephone surveys of community residents Community leader surveys (personal interviews) Focus groups Newspaper articles 	<ul style="list-style-type: none"> Observation Surveys <ul style="list-style-type: none"> Safety belts Child restraints Helmets DOT crash/injury data <ul style="list-style-type: none"> Alcohol involvement Speed/violations High crash rate intersections 	<ul style="list-style-type: none"> DOT (crash/injury) Medical Examiner Police Departments State Highway Patrol Sheriff’s Department Hospitals EMS 	<ul style="list-style-type: none"> Surveys of community leaders and organizations Newspaper articles Reports from coalition members

ASSESSMENT PROTOCOL FOR EXCELLENCE IN PUBLIC HEALTH

The Assessment Protocol for Excellence in Public Health (APEXPH) is a process for assessing and improving a community's health status. APEXPH was developed by the National Association of County and City Health Officials (NACCHO). Like Safe Communities, APEXPH relies on multiple sources of local data, a broad community partnership, and a comprehensive process from problem identification through evaluation. APEXPH is available as a workbook containing instructions, flowcharts, and worksheets. A second volume includes supplementary materials (such as suggestions for working with the media), as well as case studies of how APEXPH has been used.

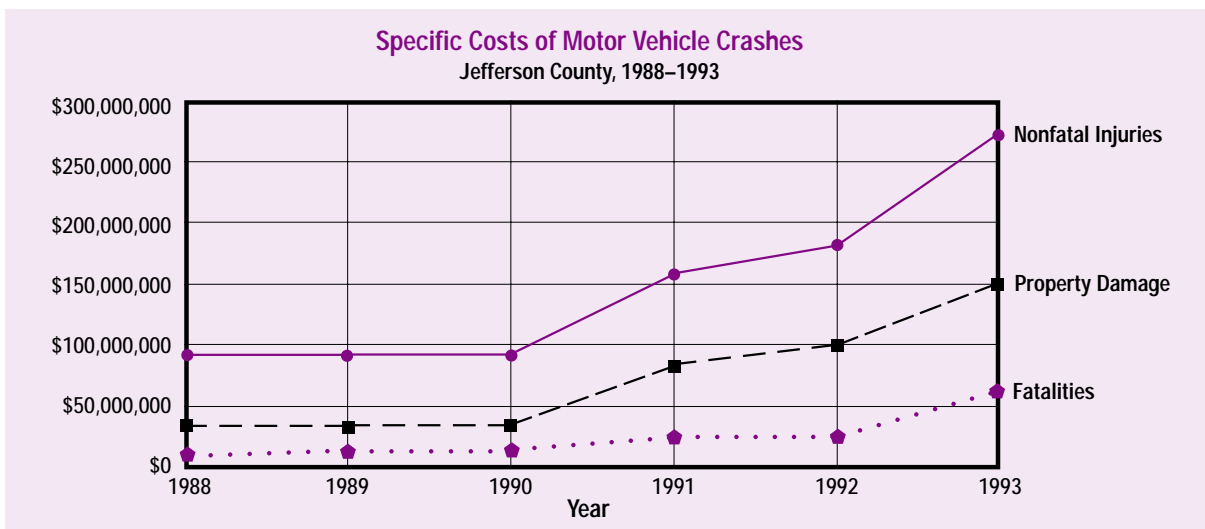


The Jefferson County (Kentucky) Board of Health established a committee that utilized APEXPH, along with other tools, to examine motor vehicle injuries and other indicators of health status. Terry Richardson, administrator of the Health Department's Office of Community Health Research and Epidemiology, explained that "the county was actually doing quite well. Jefferson County has lower rates of motor vehicle crash deaths than the state and the nation. The county had already met the related goals in *Healthy People 2000*. However, using a formula supplied by NHTSA, we found that the annual financial impact of motor vehicle crashes in Jefferson County was in the neighborhood of \$500 million."

The committee reviewed the assessment data, as well as the injury prevention literature, and made recommendations for reducing the rate of motor vehicle injuries. The Louisville and Jefferson County Board of Health supported the committee's three major recommendations: (1) graduated licensing for teen drivers, (2) zero tolerance for alcohol use by drivers under 21, and (3) primary enforcement of seat belt laws. These recommendations were advocated at the state level. Legislation was drafted and passed, bringing graduated licensing and zero tolerance to the entire state.

Richardson anticipates additional action on these issues, but only when it can be based on the data. "There has been some movement to modify these laws, but the Board of Health is resisting such changes until there is time to measure the impact of the current law. At this point, it is too soon to tell if these laws have had an effect."

NACCHO is developing APEXPH software, as well as an expanded version of the process called Assessment and Planning Excellence Through Community Partners for Health (APEXCPH). For information on APEXPH, including how to purchase it, contact Liza Centra, APEXPH Project Manager, NACCHO, 440 First Street NW, Washington, DC 20001. Telephone: (202) 783-5550; e-mail: <lcentra@naccho.org>. Information is also available on the World Wide Web at <www.naccho.org>.



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DATA RESOURCES

Information on data can be found in a number of Safe Communities publications, including the Folio series (notably, *A Look at the Data* and *Evaluating and Monitoring Your Safe Communities Programs*) and *Getting Started: A Guide to Developing Safe Communities*. These publications are available from the Safe Communities Service Center, which can be reached by telephone at (817) 978-3653 or by e-mail at <Safe.Communities@nhtsa.dot.gov>.

Another valuable NHTSA publication is *What Do Traffic Crashes Cost? Total Costs to Employers by State and Industry*, available from NHTSA at (202) 366-8933 or the Network of Employers for Traffic Safety at (202) 452-6005.

The National Center for Statistics and Analysis (NCSA), an office of NHTSA, is responsible for providing a wide range of analytical and statistical support to NHTSA and the highway safety community. For information on NCSA publications and services, visit its Web site at <www.nhtsa.dot.gov/people/ncsa/index.html>. NCSA can be reached by telephone at (800) 934-8517 or by e-mail at <ncsaweb@nhtsa.dot.gov>.

SAFE COMMUNITIES CALENDAR

The National Congress on Childhood Emergencies will be held March 22–24, 1998, in Washington, D.C. For a registration packet, contact Ken Allen, EMSC National Resource Center, by telephone at (619) 284-9707 or by e-mail at <kallen@emscnrc.com>.

Lifesavers 16 will be held March 29–April 1, 1998, in Cleveland. For information, contact Lifesavers, P.O. Box 30045, Alexandria, VA 22310. Telephone: (703) 922-7944; fax: (703) 922-7780.

Strengthening Safe Communities Conference, the annual Safe Communities pre-Lifesavers meeting, will be held March 28–29, 1998, in Cleveland. For more information, fax a request to Meeting Management, Inc., at (703) 922-7780 or visit the Safe Communities Web site at <www.nhtsa.gov/safecommunities>.

The 24th International Forum on Traffic Records and Highway Information Systems will be held July 26–29, 1998, in Minneapolis. For more information, contact Harold Thompson at the National Safety Council by telephone at (800) 621-7615, ext. 2383, or by fax at (630) 775-2185.