

Injury Prevention: Dayton's Health-Care Community Unites to Tackle a Pervasive Public Health Issue

by Mark Willis

The data is compelling. Preventable injuries in Montgomery County result in approximately 150,000 emergency department visits, 6,000 hospitalizations, and 500 deaths per year. There are 34.9 injury-related deaths per 100,000 population. By comparison, the Healthy People 2000 initiative hopes to reduce the national injury-related death rate to 29.3 per 100,000. In 1993, the leading causes of death resulting from traumatic injuries in Montgomery County were motor vehicle crashes (173 deaths, 34 percent), firearm violence (140 deaths, 28 percent), and falls (92 deaths, 18 percent).

To call such injuries and deaths “accidents” minimizes the seriousness of what many experts now consider a public health problem. “Injury is probably the most unrecognized public health problem facing the nation today,” the National Academy of Sciences reported in 1988. “The study of injury represents unparalleled opportunities for reducing morbidity, mortality and for realizing significant savings in both financial and human terms -- all in return for a relatively modest investment.”

A coalition of health care organizations in the Dayton area have united to develop a community-wide, public health approach to the injury problem here. They established the Injury Prevention Center (IPC) of the Greater Dayton Area in 1994. The IPC has already gained national acclaim for its model of community collaboration. The IPC was one of five innovative health care programs nationwide to receive the American Hospital Association's prestigious NOVA Award earlier this year. The NOVA Award recognizes collaborative efforts by hospitals and health-care systems that are designed to improve the health of their communities.

The IPC is a community partnership sponsored by the Greater Dayton Area Hospital Association, Children's Medical Center, Good Samaritan Hospital, Grandview Hospital, Kettering Medical Center, Miami Valley Hospital, St. Elizabeth Medical Center, United Health Care of Ohio, and Wright State University School of Medicine. Its mission is to reduce injuries and their impact on the people of the Miami Valley through activities in prevention, acute care, and rehabilitation. Its goals include 1) adopting community-wide goals for injury reduction; 2) establishing a greater Dayton area

injury registry; and 3) developing and implementing local, regional, and state initiatives to foster public policies in injury control.

“The development of the center is one more example of our members willingness to collaborate in the interests of the community,” says Joseph M. Krella, president of the Greater Dayton Area Hospital Association. “If we are going to be successful in meeting our objectives then we need to build partnerships in the community aimed at coordinating resources and facilitating information exchange.”

The idea for the Injury Prevention Center began with Mary McCarthy, M.D., professor of surgery at Wright State and director of the trauma center at Miami Valley Hospital. “I see the devastating results of traumatic injuries every day. I know that 30 to 40 percent of the traumas I treat could be prevented,” she says. “As doctors, we treat the consequences of injury, but the problem is really greater than any of us can address alone. The only way we’re going to reduce injuries is through a community-wide effort.”

Community education about injury prevention is part of the public health approach, according to DR. McCarthy. The approach also includes enforcement of safety laws and regulations, engineering research to develop new safety technologies, and epidemiological studies that can evaluate the effectiveness of local injury control programs.

The IPC’s injury registry now contains data on hospital admissions coded by type of injury (E-coding on patient charts). Dayton-area hospitals will expand E-coding to include injury-related outpatient visits in hospital emergency departments. The injury registry will include detailed data on “the whole spectrum of minor and major injuries,” according to Dr. McCarthy. The registry will be an epidemiological database of the whole community, not just a single institution.

After assessing community needs in the Dayton area, the IPC has identified four priorities for its injury control programs:

Bicycle safety -- In 1992, 97 injured bicyclists were admitted to area hospitals; 77 of them children. The IPC has targeted children and youth to increase the use of bicycle helmets, which can reduce the incidence of head injuries by 85 percent.

Older adult falls -- Hospital emergency departments logged 2,481 patient visits resulting

from falls in 1992; 80 percent of them were people over age 65. The IPC has initiated programs on exercise and home safety for older adults.

Teen trauma-- A seven-year study of teenagers involved in motor vehicle crashes found that 11.9 percent of 16-year-olds injured in crashes died; 25 percent of 16-to-18-year-olds and 49 percent of 19 year-olds injured in crashes were intoxicated. The IPC supports a number of local initiatives designed to help teenagers understand the dangers of drinking and driving.

Firearm safety -- In 1993, 70 percent of all homicides and suicides in Montgomery County involved guns. Between 1987 and 1993, the number of youths arrested for carrying concealed weapons or discharging a firearm increased by 603 percent. The IPC's community-wide initiatives include programs in the Dayton Public Schools on firearm safety and conflict resolution without violence.

According to Dr. McCarthy, practicing physicians in the Dayton area can join the public health effort by talking to their patients about injury prevention and safety issues. "Doctors can make a timely intervention and referral for a teenager with a drinking problem," she explains. "They can raise their patients awareness by inquiring about their home environments or gun safety. They should look for timely opportunities to underscore injury prevention messages during regular office visits."

(For more information, contact the Injury Prevention Center of the Greater Dayton Area at 513/228-1236).