

Title: PEDESTRIAN CRASHES AND TREATMENTS FROM AROUND THE WORLD

Presenting Author: Charles V. Zegeer

Authors: C.V. Zegeer 1;

Affiliation

1. UNC Highway Safety Research Center, USA,

Abstract:

Pedestrian crashes and related deaths and injuries continue to be a serious problem in industrialized and developing countries throughout the world. In some nations, up to half of all traffic fatalities involve pedestrians. A wide range of activities have been implemented in the past few decades in many countries to better understand the causes and potential solutions for these pedestrian crash problems. Agencies which have been most successful in pedestrian safety efforts are those that have developed and implemented comprehensive pedestrian safety plans, consisting of engineering, education, and enforcement activities targeted toward specific pedestrian crash problems. In addition to crash reduction, more emphasis is now being placed on encouraging more people to walk, to promote healthy lifestyles, reduce obesity and other health problems, and improve auto-emissions and vehicle congestion, among other benefits.

Examples of programs that help to promote more and safer walking include "Safe Routes to School" (SRTS) efforts, which started in Europe and has spread to the U.S. and more than 50 nations to date. The use of pedestrian-friendly street networks has been an on-going practice in many countries, such as Switzerland, Sweden, Denmark, Australia, New Zealand, the Netherlands, Germany, Japan and more recently in the U.S. A well-planned network of sidewalks and walkways and special crossing provisions at transit stops and along arterial corridors are essential ingredients in the creation of a safer pedestrian environment. Other measures include calming measures to slow vehicle speeds, restriction of motor-vehicle traffic movements, appropriate use of certain warning devices and pavement markings, well-marked crossings equipped with raised islands and/or advanced pedestrian signalization can also benefit pedestrians. Special provisions for older pedestrians and those with visual or mobility limitations are also important.

Pedestrian safety education programs, such as those used in Great Britain, Switzerland, Australia, and the U.S. have been used to supplement engineering measures, particularly messages and programs directed at child pedestrians, the general public, and those safety campaigns directed at drivers. Police enforcement programs must also be an integral part of any pedestrian safety effort, and some countries, such as in the U.K., Australia, and Switzerland are using automated speed and red light enforcement to supplement police officer efforts. Countries and cities which have particularly successful safety records for pedestrians include those that have policies directed at prioritizing walking and bicycling as transportation modes, creating livable neighborhoods, and creating a system of parks, trails and open space. Other helpful measures include connected pedestrian networks citywide, high-density development, appropriate zoning and land use, and pedestrian accommodations in suburban and rural areas.

A recent study conducted in Miami-Dade County in the U.S. has found that a comprehensive pedestrian safety program can result in significant reductions in pedestrian crashes. This eight-year demonstration study involved the implementation of 16 different types of education, engineering, and enforcement strategies targeted at specific ages of pedestrians, problem locations and ethnic groups in the county. Pedestrian crashes dropped significantly

Jerusalem, Israel, May 30-June 2, 2010

after the program was implemented, by approximately 10 %, or a total of about 180 fewer pedestrian crashes per year in the two-year after period, after accounting for different control groups. Corridors and zones where the countermeasures were targeted resulted in the greatest reductions in pedestrian crashes, particularly involving school-age children and adult pedestrians in the targeted zones.

Formal procedures for conducting an agency's pedestrian safety action plan (PSAP) have been developed in the U.S. and several European countries to improve pedestrian safety, mobility and access. Steps required in any successful PSAP include identifying problem locations and neighborhoods, conducting pedestrian safety audits, selecting cost-effective safety treatments, obtaining funding and implementing treatments, and conducting follow-up evaluations. A wealth of technical information and resources currently exists to address pedestrian safety concerns, such as from the U.S. DOT-sponsored Pedestrian and Bicycle Information Center (PBIC), as can be found at the following web site: www.pedbikeinfo.org.