INTRODUCTION

Injury is as significant a public health problem in San Francisco, as it is nationwide. In the U.S. injuries are responsible for more years of potential life lost than cancer and heart disease combined.\(^1\) Every year, injuries that require hospitalization for San Franciscans occur to one person in 140.\(^2\)

WHO GETS INJURED?

Age and Gender

Injury occurs in all ages, although the risk of injury is higher in young adult males. Reflecting nationwide patterns, the majority of Trauma Center admissions in San Francisco are males between the ages of 18 and 44.\(^3\) Injury is the leading cause of death for San Franciscans, ages 15-24. From 1990-1995, among San Francisco residents, traumatic injuries caused 75 percent of all deaths among 15-24 year olds and 43 percent of all deaths among 5-14 year olds.\(^4\) Over the last decade there has been a steady rise in critical injury admissions to SFGH among people over age 45.\(^5\) Falls are the leading cause of injury hospitalizations and deaths in San Francisco elderly residents.\(^6\)

Social Factors and the Risk of Injury

San Francisco’s population is one of the most ethnically diverse in the State of California: 50% of San Franciscans are Caucasian, 31% Asian, 14% African American and 8% are Hispanic.\(^7\) The following charts describe the distribution of ethnic groups in San Francisco and at the SFGH Trauma Center. While the charts appear to be similar, Figure C-2 (see below) indicates that injuries tend to be distributed disproportionately within the population.

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\(^3\) Shagoury, C. “San Francisco General Hospital Medical Center Trauma Registry Statistics for Calendar Year 2001.” 2002, San Francisco General Hospital: San Francisco.
MECHANISM OF INJURY

Blunt and Penetrating Injuries

As in most densely populated urban regions, San Francisco tends to have relatively higher rates of penetrating injury death, while the rates of blunt injury death tend to be lower than for suburban and rural areas. An informative comparison of San Francisco to other urban areas in California\(^8\) reveals what the injury death rates would have been in 1996 if Oakland, San Jose and Los Angeles each had a population identical to San Francisco’s. Oakland and Los Angeles would have had the highest firearm death rates; San Francisco had the highest falls death rate and the lowest motor vehicle traffic death rate.\(^9\)

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\(^9\) Ibid.
Penetrating Injury Incidence Decline. The incidence of penetrating injuries treated at San Francisco General has fallen steadily since 1993, and accounts for most of the decline in the annual trauma center admission rate during that time.10

Blunt Injuries are Leading Causes of Admissions. The three leading causes of admissions to the Trauma Center in 2000 were falls, motor vehicle crashes and auto vs. pedestrian injuries.11 Blunt injury admissions (vs. penetrating injury admissions) accounted for 77% of the total admissions to the trauma center that year. In 1998 among all hospitals in San Francisco, the leading cause of injury hospitalizations was falls. These occur primarily in the elderly, and account for lengthy hospital stays.12

Pedestrians and Motor Vehicles

Pedestrians in San Francisco were at a greater risk of dying from motor vehicle traffic crashes than vehicle occupants in nine out of the ten years from 1989-1998. In 1998, 53% of those killed in motor vehicle crashes were pedestrians. By contrast, nationwide, this number drops to 13%. Those at highest risk of injury and death due to motor vehicles are the elderly, followed by 15-24 year olds. The elderly are at highest risk for pedestrian injuries. Pedestrian injuries occur most frequently in congested downtown areas of San Francisco.13

Social Burden of Injury and SFGH’s Functional Recovery Programs

In a 1989 report to the U.S. Congress, a landmark study of economic and social costs of injury included a detailed case study description of the intangible impact of injury on the lives of 10 individuals, their families and communities in the San Francisco Bay Area.14 This section of the report revealed how the cost of severe injury “goes far beyond initial medical treatment and includes housing, disability-related equipment, long-term rehabilitation, education and vocational training”. More recent studies of trauma survivors reveal the significant impact of post-traumatic stress disorder, depression, and other measures of peri-traumatic stress and functional limitations, which delay ability to return to work and other social roles.15 With recent data from the U.S. Burden of

10 Shagoury, 2002. op. cit.
Injury Study\textsuperscript{16} showing traumatic injury DALYs (Disability-Adjusted Life-Year)\textsuperscript{17} exceeding those of all other diseases, including HIV, cancer and heart disease, the previously underestimated impact of long-term problems after injury in a primarily youthful population begins to be revealed.

SFGH Department of Psychiatry recently secured State funding for a three year Post-Traumatic Recovery Program that targets victims of accidents and violence. In this model program, a highly trained multilingual team addresses the psychological and social needs of trauma survivors and their families, dealing with permanent injuries, loss of family and jobs, and the emotional effects of serious trauma. The program gives special attention to trauma victims whose life-styles place them at risk for recurring traumatic injury. It is an innovation unique to San Francisco General, and is an outstanding resource in the Bay Area and nationally for the prevention of recurrent trauma and improvement of long-term outcomes.


\textsuperscript{17} Disability-Adjusted Life-Year: A summary measure of health developed by the Global Burden of Disease study group [43] [44] that makes it possible to estimate the burden of major diseases, injuries, and risk factors. The DALY measures the gap between the actual health of a population and a hypothetical norm; namely, a life expectancy of 82.5 years for women and 80 years for men. DALYs are calculated as the sum of the years of life lost due to premature mortality in the population and the years of healthy life lost due to disability.