ON THE RISK

EXECUTIVE SUMMARY

Homicide is a major mortality factor that needs to be carefully considered, as it is a widespread risk to health, safety and well-being. Rather than allowing popular culture to shape our view of it, we should take the topic out of the shadows and examine it in the light of relevant facts and data. This article will attempt to address such questions as: Who are homicide’s victims and offenders? Why is the US murder rate several times higher than that of other wealthy countries? Why are fewer homicide cases being solved? What significant factors correlate closely with murder rates? And what impact does homicide have on life insurance claims?

ANATOMY OF HOMICIDES – AN OVERVIEW

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The definition of intentional homicide (or murder) provided by the United Nations Office on Drugs and Crime is “unlawful death purposefully inflicted on a person by another person.” The US Federal Bureau of Investigation defines it more simply: “the willful killing of one human being by another.”

Why should the sad subject of homicide be considered, let alone analyzed? Several reasons: homicide is frequently in the news and portrayed in books, movies and TV shows; it is a major cause of death in certain age groups worldwide; and it is occurring in the US at a rate that is alarmingly higher than that of other wealthy countries.

It is also a topic that is not well understood, with important life insurance implications.

The goal of this article is to seek a greater understanding of the global scope and nature of homicide. It is a serious societal problem, as well as highly relevant to the insurance industry, and therefore will be analyzed as it pertains to life insurance claims.

Global Scope

Globally, the scope of homicide is considerable. In 2010, the UN estimated that world homicides totaled 468,000 – a global average of 6.9 per 100,000 – with 36% occurring in Africa, 31% in the Americas, 27% in Asia, 5% in Europe and 1% in Oceania.

There are substantial differences in homicide rates by global region and by country. In 2010, the highest regional homicide rates were in southern Africa, Central and South America, and the Caribbean. The lowest rates were in western and southern Europe and in eastern Asia. As for countries, the highest rate was for Honduras, with 82.1 murders per 100,000 population, and one of the lowest was Iceland, with a homicide rate of 0.3 per 100,000.

In the US, homicide ranks among the top five causes of death for people from age 1 to age 44. For Americans in the 15-24-year age group, homicide is the second leading cause of death. In 2012 there were 14,827 US homicides, a rate of 4.7 per 100,000 people. The rate is much higher than Canada’s 1.8 per 100,000, four to five times higher than Western Europe’s average of 1.0 per 100,000, and more than nine times higher than Austria and Japan’s 0.5 per 100,000.

There are also dramatic differences in homicide rates within the same country – differences by regions, cities, metropolitan areas and even by neighborhoods. In the US in 2012, the states with the highest homicide rates per 100,000 were Louisiana (10.8) and Alabama (7.4), while the lowest rates were in New Hampshire (1.1) and Vermont (1.3).

In the US, city size can have a strong impact on homicide rates. A US Department of Justice study of national homicide trends from 1980 to 2008 confirms a positive correlation of population density with...
homicide rates. During that time period, 57.7% of all homicides occurred in cities with populations greater than 100,000. For the single year 2008, homicide rates were 8.8 per 100,000 in cities with populations of 100,000 to 249,999, and 11.9 per 100,000 in cities with populations of more than one million.

Among US cities with populations of more than 150,000, some of the differences in 2012 in homicide rates per 100,000 were startling: Detroit (54.6) and New Orleans (53.2) at the high end, vs. Boise, Idaho (0.5), and Eugene, Oregon (0.0), at the low. Dramatically different rates are also seen in communities short distances apart within the same metropolitan area. In 2012, the city of St. Louis had a homicide rate of 35.5 per 100,000 while its bordering St. Louis County suburbs had a rate of only 0.8 per 100,000. In Cape Town, South Africa, in 2009-10, certain disadvantaged areas of the city recorded only 4% of the city’s property crime but 44% of the total homicides, vs. 1% of city homicides and 15% of property crimes in areas with better economic conditions.

Rates can also differ markedly in cities that are side-by-side. A fascinating example is that of Ciudad Juarez, Mexico, and El Paso, Texas – two cities nestled next to one another and separated only by the Rio Grande and the US-Mexico border. In 2010 Ciu-
dad Juarez had a homicide rate of 280 per 100,000, while its neighbor across the river, El Paso, had a rate of just 0.8 per 100,000. The mere act of crossing the Rio Grande bridge from El Paso to Ciudad Juarez increased a person’s risk of being a homicide victim by 350 times.

Historical Perspectives, Trends
Global trends related to homicide vary substantially across regions and time periods. Indeed, until the first known “modern” civilization arose in Sumer some 6,000 years ago, humans lived in small, nomadic groups. Life was, in the words of the philosopher Thomas Hobbes, “nasty, brutish and short,” and deadly violence quite common, based on the archeological evidence of excavated skeletons found with broken bones and bashed skulls. In medieval England, a person’s chances of being a homicide victim were 50 times greater than today. Then, in the 18th century, European homicide rates dipped sharply, and have continued declining ever since.

Modern-day trends in Eastern Europe show homicide incidence shrinking. From 2000 to 2008, the average rate in Poland, Hungary, Moldova, Romania and the Czech Republic dropped 61%, from 4.2 to 1.6 per 100,000.

In the US, the national homicide incidence rate has risen and then fallen over the past five decades. The US rate of 4.6 per 100,000 in 1962 rose to 9.7 by 1979, and from 1983 to 1993, gun homicide alone increased 39%. From 1993 to 2000, the national rate dropped sharply by 42%, from 9.5 to 5.5. From 2008 to 2012, the homicide rate declined a further 13% to 4.7 per 100,000–almost down to the rate of 50 years earlier.

In Central America and the Caribbean, homicides over the past decade have been on the rise. Central America experienced a steady decline in homicide rates from 1995 to 2005, but since 2007, Central American and Caribbean countries have seen sharp
increases in rates. Honduras, with the highest homicide rate in the world, saw its rate more than double from 2005 to 2010, while Mexico experienced a 65% increase in the same period.

A major reason Central America has been experiencing such sharp increases in homicide rates is its strategic location, between the lucrative cocaine consumer markets of North America and the South American coca-growing countries of Colombia, Peru and Bolivia. Changes in cocaine trafficking flows and increased competition and conflict over the illegal drug markets are all contributing factors. Traffickers in illegal drugs also engage in other organized criminal activities such as human trafficking, kidnapping and extortion, all of which can lead to homicides.

Prevalence rates and total numbers provide only an overview. To gain a deeper understanding, one must consider other conditions and circumstances as well.

**Victim/Offender Rates**
Most studies reveal disproportionate homicide rates among genders and age groupings. In the US, for example, from 1980 to 2008, males were about 90% of homicide offenders and 77% of victims. The male victim rate was 3.4 times higher than the female rate (11.6 per 100,000 males vs. 3.4 per 100,000 females), and the male offender rate almost nine times higher than the female rate (15.1 per 100,000 males vs. 1.7 per 100,000 females). US individuals ages 18 to 49 comprised 82.6% of homicide offenders and 75.9% of its victims, and almost half (49%) of these homicides were committed by individuals under age 25. Worldwide in 2008, males were 82% of all homicide victims and females were 18%.

Homicide distribution by age and sex in Mexico, Central and South America, and South Africa are similar to the US, but are not as skewed toward younger ages in Europe and Asia.

Disproportionate rates in the US are also evident by race. The US Department of Justice’s report, “Homicide Trends in the United States, 1980-2008,” found that in 2008, the victimization rate for blacks (19.6 per 100,000) was about six times higher than the rate for whites (3.3 per 100,000), and the offending rate of 24.7 per 100,000 for blacks was about seven times higher than that for whites (3.4 per 100,000). From 1980 to 2008, 65.6% of drug-related homicides in the US were committed by black offenders.

Interestingly, from 1980 to 2008, 78.1% of US homicide victims were known to their offenders. Only 21.9% of the victims were strangers, whereas 10% were spouses, 12.4% other family members, 6.3% boyfriend or girlfriend, and 49.4% were other acquaintances. Females were nine times more likely to be the homicide victim of a spouse or intimate partner than were males.

**Characteristics of Causal Circumstances**
It is difficult to determine, let alone explain, the root causes of homicide. What can be determined, however, are the factors and conditions that correlate closely with high homicide rates.

Certain causes stand out because of their frequency. In the US in 2012, the highest number of causes were: arguments, 3,233; felonies, 1,841 (led by robbery 652, narcotic drug laws 362, and burglary 92); and juvenile gang killings, 720. Gang violence in the US accounted for only 1% of homicides in 1980 but jumped to 6% in 2008.

Mass murderers are a whole separate category of homicide. The circumstances most often associated with mass murder events are: relationship breakups, family arguments, financial stress, and mental illness. Mass murderers also have a specific range of personal characteristics, which include male gender, youth, substance abuse, a paranoid worldview, hostility, difficulty controlling anger, fascination with weapons and, in some cases, a desire for fame or notoriety. Significant factors contributing to mass homicide commission include ineffective protective orders (in the case of family killings) and gaps in the mental health system (more frequently seen in public massacres).

Since 2006 over 200 mass homicides have occurred in the US. Overall, they represent only 1% of all US murders, but each mass public shooting received substantial media coverage. Rapid-firing, high-capacity, semi-automatic pistols and assault rifles, available to US residents in most states, make up a large share of the 77% total US mass killings committed by firearms. These weapons have made mass killers’ lethal objectives easier to achieve.

**Homicide Clearance Rates and Trends**
Law enforcement agencies are said to “clear” an offense when at least one person is identified, arrested, charged and turned over to court for prosecution, or an identified offender is either killed or commits suicide during apprehension. Clearing offenses improves public safety by reducing the number of murderers at large. Achieving a high clearance rate is also important, as it can be a deterrent to acts of criminal homicide.
There are wide differences in homicide clearance rates internationally. In recent years, Japan and Denmark have reported clearance rates as high as 95 - 100%. In Mexico, on the other hand, only about 20% of homicides result in an arrest. Indeed, in 2010, the Mexican state of Tlaxcala – a base for some of Mexico's notorious human trafficking gangs – had a drug-related homicide clearance rate of just 8%. In Canada from 2000 to 2010, only 56% of homicides committed with a firearm were cleared, which is much lower than the 88% of non-firearm homicides that were cleared.

In the US over the past 50 years, the number of unsolved homicides has skyrocketed. In 1961, 93% of all US homicides were solved, whereas today, fewer than 63% are solved. Experts say this trend is especially disturbing, given that detectives today have more scientific and technological tools (such as cameras and DNA testing) to provide evidence that can solve crimes. Possible reasons for lower clearance rates could include witness intimidation, the “no snitch” street culture and greater prevalence of firearms as murder weapons. Guns allow rapid killing at a distance, which makes drive-by shootings easier for an offender to commit and then escape detection.

Again, the relatively easy access to firearms, combined with comparatively lax gun regulation in the US, has been cited as a major reason the US has not only higher homicide rates, but also lower clearance rates than other wealthy nations. More causal factors could include the budget cuts in many cities which are impacting police departments, as well as a greater national focus on homeland security. It has been suggested that better training for homicide investigators and refocusing law enforcement efforts on criminal homicide instead of on terrorism could improve US homicide clearance rates.

Gangs and the Drug Trade
Homicide rates are high in environments where the distribution and sales of illegal drugs take place. In Bolivia, for example, homicides are more frequent in the regions with the highest cocaine seizures, and in Mexico in 2010, 14 mayors were assassinated by members of drug-trafficking groups.

Greater homicide rates also occur where drug-trafficking gangs are most active. Thus it is not surprising that Honduras’s remarkably high gang membership rate (500 per 100,000 people compared to Costa Rica’s 62 per 100,000) correlates with having the world’s highest recorded homicide rate.

Throughout the Americas, higher homicide rates have also been observed to correspond to higher population density. Cities provide a raft of targets for homicide and other crimes while lowering the perpetrator’s risk of being recognized and arrested. In US inner cities, homicides proliferate around all aspects of drug trafficking, from manufacture and sales to disputes over drugs, thefts of drugs or drug money, scams, bad drug deals and competition for drug markets.

Income Inequality, Poverty
Income inequality is increasingly becoming a condition conducive to homicide. Homicide rates plotted against the Gini index, which measures the degree of income disparity in a country or state (the higher the score, the more income inequality exists), show that countries with large income disparities among sectors of their populations have average homicide rates almost four times higher than in societies where income distribution is more equable. In a recent survey of 135 countries, the US finished 95th on equality of income distribution, which could partly account for its high homicide rate compared to other developed countries. That 46.2 million Americans (or 15.1% of the population) were living in poverty in 2010 could also be a contributing factor to the high US homicide rate.

Substance Abuse
Substance abuse plays a role in homicide. A US Justice Department survey found that 48% of males and 65% of females charged with homicide tested positive for drug and/or alcohol use at the time of arrest. Homicide offenders abuse alcohol and/or other substances at rates 1.8 to 8 times higher than the general population.

Weapons and Homicide
When considering circumstances that correlate with murder rates, one should not overlook the significance of the availability and lethality of potential weapons in circulation.

There are major differences in the types of instruments (weapons and non-weapons) used to commit homicides in various countries. In 2008, the main homicide instruments in the US were firearms (74%), sharp objects (16%) and other (including blunt objects and arson) (10%). In contrast, homicide instruments in Europe were 21% firearms, 36% sharp objects and 41% other.
In October 2013, *The American Journal of Medicine* published a research paper entitled “Gun Ownership and Firearm-Related Deaths.” The research, conducted in 27 developed countries, revealed that number of guns per capita was a strong predictor of the rate of firearm-related deaths. In a given country, as seen in Table 2, Japan had the lowest per-capita gun ownership of 0.6 guns per 100 people, and the lowest total firearm-related death rate (0.06 per 100,000).

At the extreme opposite end was the US, which has almost as many guns as it has people. The US has by far the highest gun ownership rate – 88.8 guns per 100 people – and the highest firearm-related death rate of 10.2 per 100,000 people. To put the US firearm-fatality situation in perspective: 2010 saw 31,672 total firearm deaths in the US, more than 4.6 times the 6,800 total number of US soldiers killed in combat in Iraq and Afghanistan from October 2001 to February 2014.

The major finding of the authors of the gun ownership research article was the significant positive correlation, as seen in Figure 5 (next page), between guns per capita and the firearm-related death rate, in its words, “debunking the widely quoted hypothesis that guns make a nation safer.”

A side note: Accidental death and suicide are frequent by-products of high per-capita firearm ownership rates. Use of a firearm is the most successful suicide method, and US states with high gun ownership levels are shown to have suicide rates nearly twice as high as states with low gun ownership levels. In the US in 2010, firearms were used in 236 justifiable homicides (self-defense or disruption of a crime) and 606 unintentional or accidental firearm deaths. A 1998 research paper published in the journal *Trauma* reported that “for every time a gun in the home was used in a self-defense or legally justifiable shooting, there were four unintentional shootings, seven criminal assaults or homicides, and 11 attempted or completed suicides.”

<table>
<thead>
<tr>
<th>Country</th>
<th>Guns per 100 people</th>
<th>Total firearm-related deaths per 100,000 population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>15.0</td>
<td>1.04</td>
</tr>
<tr>
<td>Canada</td>
<td>30.8</td>
<td>2.44</td>
</tr>
<tr>
<td>Netherlands</td>
<td>3.9</td>
<td>0.46</td>
</tr>
<tr>
<td>Belgium</td>
<td>17.2</td>
<td>2.43</td>
</tr>
<tr>
<td>Sweden</td>
<td>31.6</td>
<td>1.47</td>
</tr>
<tr>
<td>Finland</td>
<td>45.3</td>
<td>3.64</td>
</tr>
<tr>
<td>Italy</td>
<td>11.9</td>
<td>1.28</td>
</tr>
<tr>
<td>Switzerland</td>
<td>45.7</td>
<td>3.84</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>6.2</td>
<td>0.25</td>
</tr>
<tr>
<td>United States</td>
<td>88.8</td>
<td>10.20</td>
</tr>
</tbody>
</table>

*Source: The American Journal of Medicine, October 2013*
Media Depictions

Populations in urban areas are confronted daily with stories of homicides—both in news and in entertainment mediums. Over time, these stories desensitize listeners until they experience news of these acts of senseless violence as routine.

Frequent viewing of violence on television, in movies or video games has been shown to increase the idea as well as the commission of violent behavior, especially in young people, as it can provide a behavior model and lower the perception of social stigma attached to violence. A research article published in the November 2013 edition of the journal *Pediatrics* reported that gun violence in PG-13 rated films has more than tripled since 1985, and since 2009, has actually exceeded that in R-rated films.

Regrettably, the news media provides disproportionately large amounts of coverage to murders committed by those seeking such notoriety. Although terrorism in recent decades represents a tiny percentage of all homicides, terrorist acts receive enormous amounts of news media coverage. Heightened news media exposure rewards the perpetrators of terrorist acts with exactly the publicity and fear-spreading they seek.

Additionally, crime novels, movies and TV detective shows feature crimes of passion or mysterious crimes that a clever sleuth can solve by deductive reasoning and gathering the right clues—not at all how most crimes are committed or solved in the real world.

Reducing Homicides

US homicide rates have been trending downward over the past two decades, with one possible cause being the aging population. This has reduced the number of males in the prime homicide-commission age bracket of 13-30.

How can homicide rates be further reduced? In the US, this question has proven increasingly intractable.

Homicide levels, as discussed earlier in this paper, do correlate closely with income inequality and levels of poverty, so it might make sense to address this unhealthy imbalance. In the US between 1979 and 2007, the top fifth of the population in terms of household income saw a 10% increase in their share of after-tax income, with most of that going to the top 1% of the population. Meanwhile, 80% of the population saw their shares of income decline by 2% to 3%. This inequity is clearly demonstrated by the average compensation of chief executive officers of companies listed in the Standard & Poor’s 500 Index, which according to data compiled by Bloomberg in 2013 is 204 times that of rank-and-file workers. This ratio has increased steeply from the 20:1 ratio in the 1950s and 42:1 in 1980, and has risen 20% since 2009.

If substance abuse could somehow be reduced, the benefits would be many. Decreased demand for illegal drugs would reduce drug trafficking-related murders.
as well as crimes committed to obtain money to pay for drugs. There would also be reductions in drug overdose deaths, homicides committed under the influence of alcohol or drugs, and incidences of fatalities or accidents due to driving under the influence of alcohol or drugs.

The prevailing US gun culture might make it difficult to reduce the number of guns per capita. However, measures could be taken to reduce the access to firearms of criminals, the mentally ill and of children. It would also probably help if violence in movies, television programs and video games were to be reduced (or at least access by children better restricted).

If multiple-victim homicides received no more news media coverage than ordinary single-victim homicides, copycat incidents could be reduced.

**Homicides and Life Insurance Claims**

Given the thousands of homicides recorded annually in the US, homicide should be regarded as a serious risk factor when underwriting life insurance. A survey of RGA life insurance claims records revealed that homicides made up approximately 17% of total death claims at attained ages 16 to 25. The same study also showed that homicides were 6.34% to 8.25% of total life insurance claims at issue ages of 6 to 25 years old. Homicides as a percent of total claims by face amount and age group ranged from 9.2% to 15.15% at ages 0-30 with face amounts under $2 million. Another important finding was that homicide claim percentages were far higher in policies of short duration—especially policies in force 3 years or less.

**Underwriting for Homicide Risk**

Since homicide accounts for a significant number of life insurance claims, it should not be overlooked as a risk factor when underwriting life insurance applications. The movie *Arsenic and Old Lace* depicted two sweet elderly ladies who were poisoning lonely old men for what they thought were mercy reasons. In a true story, two Los Angeles women in their 70s befriended two homeless men on whom they took out 19 life insurance policies, and then filed claims worth over $2.2 million after the men mysteriously died in hit-and-run pedestrian accidents.

This example illustrates the fundamental importance of confirming that named beneficiaries have an insurable interest in the insured’s life, and that the total amount of life insurance coverage corresponds to the true financial loss that would be incurred should the policyholder die. By not over-insuring and making sure the life insurance application makes financial sense, insurance companies can lessen the chances of creating a motive or incentive for homicide.

**Conclusion**

Globally, homicide is a major source of premature loss of life and a serious ongoing scourge on society. Geographic differences in homicide rates and trends are sizeable between countries, cities and even neighborhoods in the same metropolitan area. Factors linked to homicide include low economic development, drug trafficking, gangs, high income inequality, poverty, substance abuse, exposure to violence, mental instability and more people in possession of weapons. According to “A Global Study on Homicide, 2011,” a

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**Figure 6**

Homicides as a Percent of Total Claims by Attained Age

*Source: RGA - U.S. Mortality claims for individual life from 1/1/1998 through 11/7/2013*
research report published in December 2012 by the United Nations, “firearm availability predominantly represents a risk factor rather than a protective factor for homicide.”

Studying homicides on the local and global scale provides examples and insight into what does and does not work to reduce this problem. Obviously, some countries are much better at limiting homicide than others. With greater knowledge of underlying conditions that foster homicide, we should be better able to improve those conditions and thereby make homicide much less prevalent.

References