



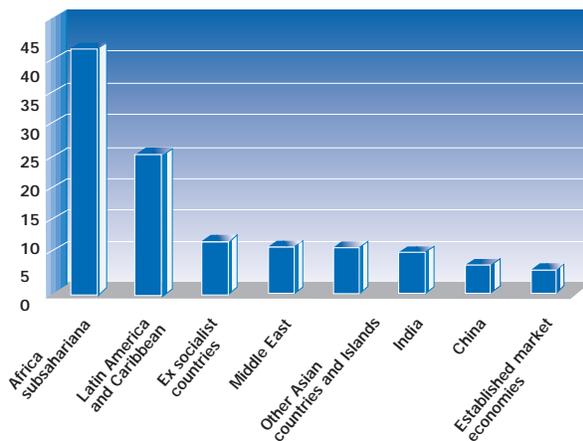
Magnitude

How is violence measured?¹

Defining the extent of violence is the first basic step toward fully comprehending the phenomenon. Although homicide is not the only indicator of violence, the homicide rate is the measure that is used most often to determine overall levels of violence in a city or country. This is because homicide constitutes the most serious and publicly visible of all violent acts and is usually reported more accurately in statistics on violent crime (Rubio, 1999; Sanjuán, 1997; Fundación Mexicana para la Salud, 1997).

The homicide rate in Latin America and the Caribbean is high compared to the rest of the world. Only Sub-Saharan Africa has a higher rate at more than 40 homicides per 100,000 people. The average rate in Latin America of 22.9 homicides per 100,000 people in 1990 was more than twice as high as the world average of 10.7 (Murray and Lopez, 1996).

Graph 1.
Homicide rates by Region 1990



Source: Murray and Lopez, 1996

In the Americas, homicide rates vary widely between countries and cities, ranging from a high of 248.0 homicides per 100,000 inhabitants (Medellin, Colombia) to 2.2 per 100,000 (Canada and Santiago, Chile) in 1990.

Table 1.
Crude death rates from homicides
circa 1990 (por 100.000)

Country	Year	Rate
Argentina	1990	5,2
Brazil	1989	19,6
Rio de Janeiro	1995	63,5
São Paulo	1995	48,5
Canada	1992	2,2
Chile	1989	2,9
Santiago de Chile	1995	2,2
Colombia	1990	74,4
Bogotá	1997	49,2
Cali	1995	112,0
Medellín	1995	248,0
Costa Rica	1990	4,4
Ecuador	1990	10,1
El Salvador	1995	95,4
San Salvador	1995	95,4
España	1993	0,5
Estados Unidos	1993	9,9
Guatemala		
Department of Guatemala	1996	101,0
México	1990	19,2
México City	1995	19,6
Nicaragua	1990	4,9
Panamá	1989	5,2
Perú		
Lima	1995	25,0
Uruguay	1990	4,4
Venezuela	1989	12,1
Caracas	1995	76,0

Source: For nationwide data: Camacho, 1994 and Drug, 1998. For municipal data: CISALVA, 1998; Sanjuán, 1997; Fundación Mexicana para la Salud, 1997; Piqueras, 1998; Paz Ciudadana, 1997; ONU, 1998; Franco, 1999; CEDEC, 1996; Rubio, 1999; Camacho and Camargo, 1998.

1. Mayra Buvinić and Andrew Morrison of the Division of Social Development, Department of Sustainable Development, IDB, are the authors of this technical note. They are partially based on documents prepared by consultants César Chelala and Ana María Sanjuán. Loreto Biehl and Ginya Truitt were collaborators as well. The governments of Finland and Norway provided grants for the development of these notes. These notes were translated from Spanish

Notwithstanding its obvious advantages, using homicide as the main measure of violence poses several difficulties:

- ▶ Although underreporting of homicides is unquestionably lower than it is for many other crimes, underreporting and inconsistencies between different sources of information on homicide are serious problems (Rubio, 1998; Sanjuán, 1997; Fundación Mexicana para la Salud, 1997).
- ▶ Several forms of violence are quite serious, both in terms of the percentage of the population affected by them as well as in terms of their socioeconomic impact, but frequently do not result in homicide. Domestic violence is a prime example.
- ▶ When homicide is used as the principal measure of violence, the importance of non-physical violence, such as psychological violence and intimidation, tends to be overlooked.

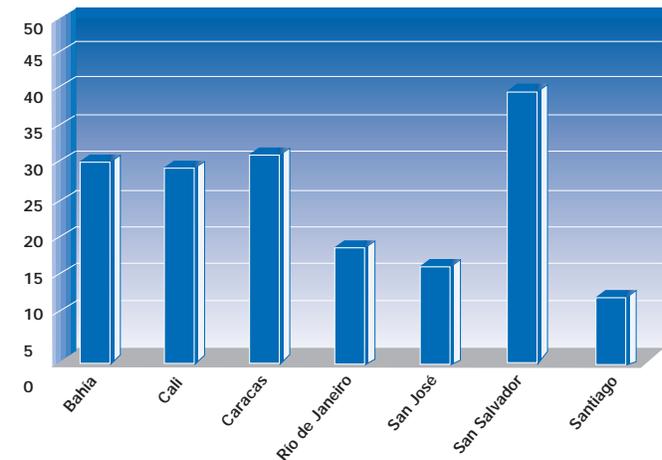
For these reasons, it is important to supplement the measure of homicide with other measures of violence.

Another way to measure violence is by conducting victimization surveys, which provide information on the percentage of the population that has been a victim of violent and other crimes. According to a Pan American Health Organization-sponsored study on the frequency of armed robbery in seven cities, the percentage of victims of this particular crime ranged from a low of 6.9% in Santiago, Chile, to a high of 22.1% in Bahia, Brazil. When other types of violence—such as threats of violence, death or extortion and assault and battery while armed with firearms or knives—were added to the crime of armed robbery in another survey question, the rates of victimization among the seven different cities ranged from 10.6% to 38.5% (see Graph 2). Another noteworthy fact is that in countries such as Colombia, Mexico or Venezuela, nearly one half of all crimes against property are committed with violence, while in other countries, such as France, this percentage is only 3% (Rubio, 1998).

Since victimization surveys have a lower rate of underreporting than do police or healthcare sector records, such surveys are an important tool for measuring violence. Moreover, comparing the number of crimes reported to police to the information produced by victimization surveys is an important indicator of the effectiveness of law enforcement and of the degree of public confidence in law enforcement agencies.

Graph 2.

Violence Victimization Rates in Seven Cities, 1998



Source: Cruz, 1999

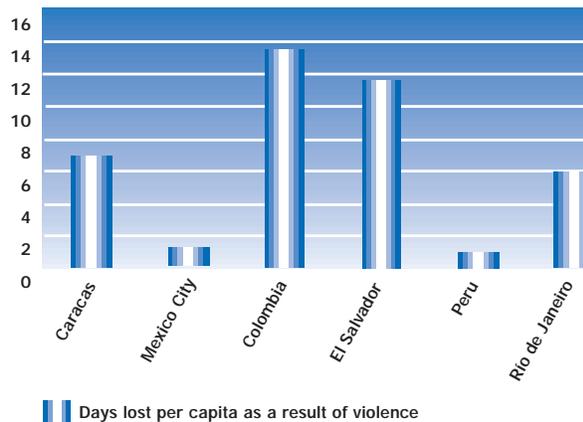
It is estimated that in Latin America 15% to 30% of all incidents of violence are reported (Rubio, 1998).

Violence victimization surveys are also a valuable tool for measuring the impact of police and judicial reforms, because they provide a means of comparing victimization rates before and after reforms are implemented. Nevertheless, for obvious reasons, victimization surveys are not the best tool to measure homicide rates. Another disadvantage is the cost involved in administering a survey to a representative sample of the population at periodic intervals.

Perhaps the most comprehensive and rigorous method used to determine the magnitude of violence is to calculate the number of healthy years of life lost as a result of violence. Unlike homicide rates, the advantage of this measure is that it not only takes deaths into account but also disability and morbidity resulting from violence. Calculating healthy years of life lost is significantly more complex and costly than simply using homicide rates and, therefore, statistics are only available for a few countries of the region (see graph 3).

Lastly, it is important to note that violence between family members who live together under the same roof is one of the most important manifestations of violence in the region. Domestic violence against women, children and the elderly can be physical, psychological or sexual.

Graph 3.
Healthy Days of Life Lost per Capita as a Result of Violence, 1995



The sources of this information are Cruz and Romano, 1997; Instituto Apoyo, 1997; ISER, 1998; Fundación Mexicana para la Salud, 1997; IESA, 1997; CISALVA, 1997; and United Nations, 1998. In Caracas, Colombia and El Salvador, disability was not included (only death). The figure for Rio de Janeiro includes suicides and self-inflicted injuries.

Types of Domestic Violence

The most obvious type of domestic violence is **physical violence**, which includes slapping, pushing, choking, kicking, beating, arm bending, intentionally burning, holding someone against their will or cutting someone with a knife or another object.

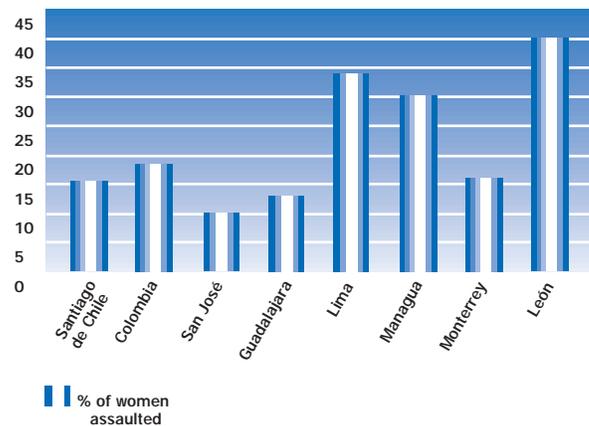
In the realm of domestic violence against women, **psychological violence** is more prevalent than physical violence; such violence occurs when a person is a frequent victim of insults, is threatened, her personal belongings are destroyed or threats or shouting are used by her partner as the predominant means of conflict resolution. Children, however, seem to be victims of physical abuse more often than psychological abuse.

Sexual violence occurs usually when a member of the family (usually the male partner) forces another member of the household (generally a female) to submit to sexual activity against her will or sexually abuses a child.

(Ellsberg Mary, Heise Lori and Shrader E., 1999)

Great strides have been made over the past few years in quantifying the extent of domestic violence. For example, it is known that between 10 and 40 percent of all women in the region have been subjected to physical violence at the hands of their partner (see graph 4). Studies show that between 30 and 75 percent of adult women in the region with male partners have been victims of psychological abuse (Buvinic, Morrison and Shifter, 1999), while approximately 10 to 20 percent have been sexually abused by their partner (Morrison and Orlando, 1999).

Graph 4.
Prevalence of Domestic Physical Violence against Women in Eight Cities, 1995-97



Sources: Buvinic, Morrison and Shifter, 1999; Morrison and Orlando, 1999; Gonzales de Olarte and Gavilano, 1999.

With regard to domestic violence against children, it is estimated that 6 million children in the region are severely abused, which includes abandonment and neglect, and 80,000 children per year die as a result of abuse at the hands of their parents. One of the few sample surveys conducted on this subject reveals the extent of the problem of domestic violence against children: according to a study based on a nationally representative sample of 1,533 children, 63% of eighth-graders in Chile reported experiencing physical violence at home. Among children suffering abuse, 34% stated they had been subjected to severe physical abuse. These figures seem to show that severe child abuse is as widespread or even more widespread than similar types of abuse against women (Larraín, Vega and Delgado, 1997).

Very little is known about the extent of domestic violence against the elderly in the region.

How Can Domestic Violence Be Measured?

Up until a relatively short time ago, the incidence of domestic violence was measured by counting the number of cases registered by the police, doctors, hospitals or other service providers. Since the vast majority of cases are not reported to the authorities, however, this form of measurement cannot reveal the full extent of the problem.

Recently, random sample surveys have begun to be used to estimate the prevalence of domestic violence with greater accuracy. The use of surveys, nonetheless, also poses some challenges. For example, the safety of both the interviewee as well as the interviewer must be taken into consideration and interviewees must be informed of the services that are available to them if they have been victims of domestic violence. These surveys must be carried out with the utmost caution so as not to jeopardize women's safety (Ellsberg, Heise and Shrader, 1999).

Violence trends in the Region

The growing trend of violence in the region over the last years is troubling. Although studies conducted in certain cities show that overall crime rates have been falling (Guzman, 1993), the rate of violent crime, particularly homicide and carjackings, has increased at an alarming rate. Similarly, the rates of life-threatening crimes have significantly risen and there has been an escalation of crimes against property using violence (Fundación Mexicana para la Salud, 1997; Guzman, 1993; Rubio, 1999; Sanjuan, 1997).

- ▶ In Mexico City, muggings tripled between 1990 and 1996. In 1990, one violent robbery took place for every two non-violent robberies; 1996, 55% of all robberies were violent and 45% were non-violent (Lozano, 1999).
- ▶ According to police statistics for Mexico City, 157 automobiles were stolen per day in 1996, while only 40 per day were stolen in 1990. The percentage of auto thefts involving carjacking has risen from 23% to 32% of all thefts, and the number of carjackers perpetrating the crime per carjacking has increased from 1.5 to 1.9 (Fundación Mexicana para la Salud, 1997).
- ▶ In Colombia, as the homicide rate rose between 1985 and 1995 (Franco, 1999), the incident of

violent robberies doubled over the same period (Rubio, 1998).

In the region as a whole, the homicide rate increased by more than 44% between 1984 and 1994 (Pan American Health Organization, Division of Health and Human Development). Country-specific statistics are only available for the period of 1980 to 1990. It is worthy of note that, during this period, the homicide rate rose in 12 of the 15 countries for which data are available. Costa Rica, Nicaragua and Paraguay were the only countries of the region whose homicide rates experienced a decrease. Among the countries whose homicide rate rose, the average increase was 121% (Ayres, 1998; Camacho, 1996).

Could the Increase in Violence Be Explained by Better Monitoring?

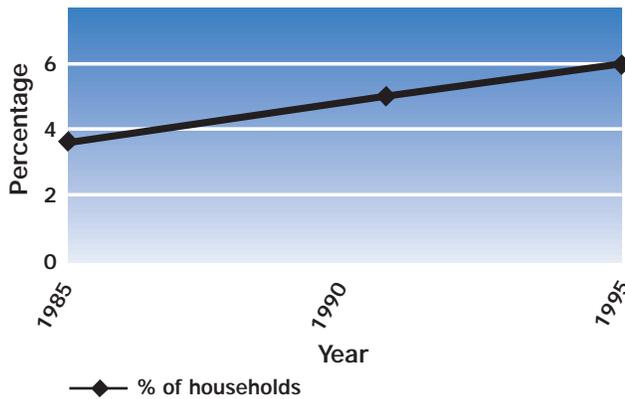
One of the major obstacles to determining the level of violence in a society is the quality and nature of violence statistics available. In many countries of the region, statistics are plagued by several problems, including extreme aggregation, as well as scarce and inconsistent alternative data sources. These factors affect the quality of statistics on violence.

Since the middle of the 1990's, the use of epidemiological surveillance systems by hospitals as well as medical examiners in some countries has made it possible to have more statistics on violence. While these systems do not permit estimation of the true extent and causes of the phenomenon, they have made a substantial contribution to gaining a deeper understanding of the circumstances surrounding violence and the profile of its victims and perpetrators. The logical corollary to improved identification and record-keeping systems would be a statistical increase in violence, which does not necessarily mean that violence has actually become more widespread throughout society. Nevertheless, murder rates in the region have risen so sharply that it is highly unlikely that improvements in data collection systems account totally or even for most of the observed increases.

By comparing violence victimization surveys from different years researchers can disentangle the contribution to increased levels of violence that is due to improved reporting systems and that due to actual increases in violence. Colombia is one of the few countries that has conducted violence victimization surveys over the past ten years. It is apparent from Graph 5 that

Colombia has undergone a steady increase in the percentage of households affected by robberies, i.e., violent attacks against property.

Graph 5.
Percentage of Households Affected by Violent Robberies in Colombia, 1985-1995.



Source: Calculations based on Rubio, 1999.

Geographic Concentration of Violence

Violence is geographically concentrated in at least two ways. The most obvious way is its concentration in a few countries of the region, which is apparent in regional statistics on homicides. Additionally, violence is often concentrated in certain areas of a country.

- ▶ In Guatemala, the cities with the highest murder rates in 1996 were Escuintla (165 per 100,000 inhabitants), Izabal (127), Jutiapa (114) and Santa Rosa (111) (United Nations, 1998).
- ▶ In Venezuela, Caracas had a homicide rate of 60 per 100,000 in 1995, while the national average (which is heavily affected by the data for Caracas) was 20.5 (Sanjuan, 1997).
- ▶ According to statistics from the National Police, the homicide rate in Lima (24.6) is more than two times higher than the national average (10.2) (Instituto Apoyo, 1997).

Violence is regarded as being largely an urban phenomenon. In the cases of Lima and Caracas, the homicide rate is significantly higher than the national average. In

some countries, however, the homicide rate in the capital city is lower than the national average, as is the case of Colombia (see Table 1) where rates of violence are higher in other cities or in rural areas than in the capital city.

Homicide and robbery rates have doubled or tripled between the 1980's and 1990's in major cities such as Medellin, Cali, Bogota, Caracas, Rio de Janeiro, Sao Paulo, Mexico City, Buenos Aires, Lima, San Salvador and Guatemala City, far outpacing rates of population growth (De Roux, 1995, Carrion, 1998). Due to the levels and characteristics of violence in the region, the issue has become one of the main concerns of citizens, a factor which determines the quality of life of the urban population, and one of the signs of the urban crisis (Carrion, 1998).

The forms that violence takes may vary from neighborhood to neighborhood. For example, one neighborhood may have a high rate of violent robberies, while having a relatively low homicide rate; another neighborhood in the same city may possess a high homicide rate and a low rate of violent robberies.

- ▶ In São Paulo, the areas that pose the highest risk of homicide for young adults between the ages of 20 and 24 years old in 1994 were not the same areas with the highest theft rates. The highest robbery and theft rates, as well as the highest risk of assault and battery and traffic accidents in this city, were found in the highest income areas; the highest homicide rates were found in the lowest income areas (CEDEC, 1996).
- ▶ In Colombia, most property-related crimes do not take place in cities where the lives of the residents are at greatest risk (Rubio, 1998), and the same principle applies to neighborhoods within cities (Guzman, 1993).

It is important to point out that in some countries of the region, (such as Colombia, El Salvador, Brazil and Guatemala), a significant number of homicides are committed in rural areas and in cities with populations under 20,000 people (Rubio, 1999; Cruz and Romano, 1997; Sant Ana, 1998).

A prime example of this phenomenon is Colombia where, between 1990 and 1995, 93% of all municipalities with dangerously high homicide rates were located in rural areas, while only 7% were located in urban areas (Rubio, 1999).

Recommended Action

It is recommended that the following actions be taken to develop reliable data on rates and trends of violence for the region:

- Develop complementary methods for measuring violence at the national and regional levels that capture homicide rates, as well as armed robbery and domestic violence (physical, psychological and sexual) against children, women and the elderly.
- Desaggregate data on violence by geographic location, since the causes of violence and policy responses to it are quite different in an urban as opposed to a rural setting.
- Conduct periodic violence victimization surveys that make it possible to determine the true breadth of the problem and the success of measures adopted to counteract it.

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