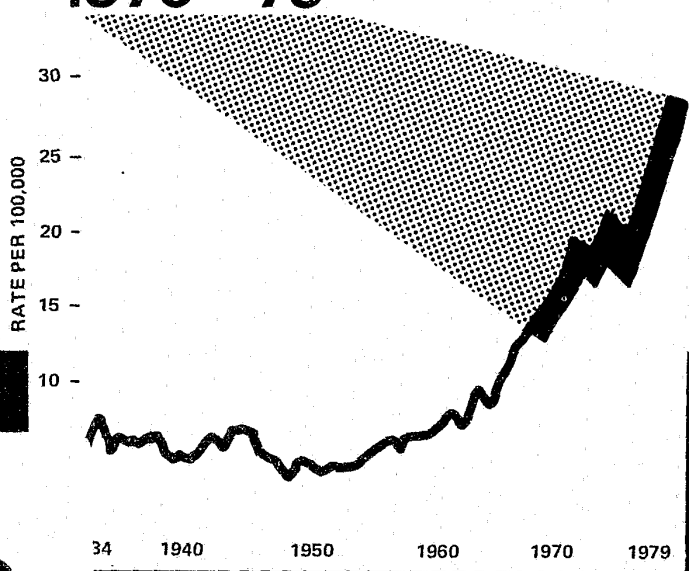
THE EPIDEMIOLOGY OF HOMICIDE IN THE CITY OF LOS ANGELES 1970–79



A Collaborative Study by
University of California at Los Angeles
and
the Centers for Disease Control

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
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CENTERS FOR DISEASE CONTROL
CENTER FOR HEALTH PROMOTION AND EDUCATION
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THE EPIDEMIOLOGY OF HOMICIDE IN THE CITY OF LOS ANGELES, 1970-79

A Collaborative Study by the University of California at Los Angeles and the Centers for Disease Control

University of California at Los Angeles (UCLA)

Fred Loya, Ph.D.[1]
Principal UCLA author
Nancy H. Allen, M.P.H.[1]
Luis A. Vargas, Ph.D.[1]

Centers for Disease Control (CDC)

James A. Mercy, Ph.D.[2]
Principal CDC author
Jack C. Smith, M.S.[2]
Richard A. Goodman, M.D., M.P.H.[3]
Mark L. Rosenberg, M.D., M.P.P.[2]

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[1]Neuropsychiatric Institute, UCLA, Los Angeles, CA 90024. (Dr. Vargas was a research associate at the UCLA Neuropsychiatric Institute while the research was in progress, but is currently at the Children's Psychiatric Hospital, University of New Mexico, Albuquerque, NM 87131.)

[2]Violence Epidemiology Branch, Center for Health Promotion and Education, CDC, Atlanta, GA 30333.

[3]Office of the Director, CDC, Atlanta, GA 30333. (Dr. Goodman was an adjunct assistant professor in the Division of Epidemiology, UCLA School of Public Health, and served as the liaison between CDC and the UCLA School of Public Health from 1983-85.)

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SUMMARY

We studied 4,950 cases of homicide that occurred in the city of Los Angeles from 1970 to 1979 in order to identify and describe:

- groups at greatest risk of homicide victimization,
- situational and interpersonal characteristics associated with homicide,
- changes in the risk of homicide victimization over time,
- patterns of alcohol and drug use by homicide victims, and
- potential approaches to homicide research and prevention.

Our study focused on criminal homicide, i.e., death due to injuries intentionally inflicted without legal justification or excuse. To characterize homicides, we used data from internal records of the Los Angeles Police Department and from the Los Angeles County Medical Examiner-Coroner's Office. To calculate rates, we used published and unpublished population estimates from the U.S. Bureau of the Census.

From 1970 to 1979, the homicide rate in Los Angeles almost doubled, increasing by 84.0% from 12.5 per 100,000 to 23.0 per 100,000. By 1980 homicide ranked as the 5th leading cause of death in the city of Los Angeles, while for the United States as a whole it ranked 11th. During the 1970's, males were almost four times more likely to be a homicide victim than females were. Age-specific homicide rates peaked in the 25- to 34-year-old age group. Blacks were 5.6 times and Hispanics were 2.3 times more likely than Anglos to become homicide victims. Black men between 25 and 34 years of age were at greatest risk of homicide victimization, with a rate of 143.0 per 100,000.

The patterns of homicide victimization for Hispanics and other race/ethnic groups were strikingly different: 1) the risk of homicide for Hispanics was midway between the risk for Blacks and for Anglos, 2) Hispanic victims tended to be younger than Black or Anglo victims, and 3) the risk of homicide for Hispanic males relative to Hispanic females was much greater than comparable relative risks by sex for Blacks or Anglos.

Homicides in Los Angeles were most likely to occur in a home, by means of a handgun, as a result of a verbal argument, and between persons who knew each other. Three groups had a particularly high risk of homicide victimization: Black males age 15 and older, Black females 15 to 44 years of age, and Hispanic males age 15 and older. Among Black victims, homicides were generally committed in a home, with a handgun, and were precipitated by verbal arguments. For Black males, the offender was most often a friend or acquaintance; for Black females, the offender was most often the woman's husband.

Among Hispanic males, homicides were generally precipitated by verbal arguments, physical fights, criminal activity, or gang warfare; offenders were usually friends, acquaintances, or strangers, not family members or intimates. Homicides were most likely to occur in the street, by means of handguns or cutting instruments. These different homicide patterns for

specific demographic groups suggest that homicide represents a common fatal outcome for situations and processes that are quite different for specific groups.

The increasing rate of homicide in Los Angeles was primarily attributable to increasing rates of homicide among Black and Hispanic males between the ages of 15 and 54. Rates increased more dramatically among Hispanic males than among Black males. However, Black males experienced the highest rates and greatest absolute increase in homicide rates.

Almost half of all victims had consumed alcohol shortly before death. Alcohol use was twice as common among male victims as among female victims and was most prevalent among Hispanic victims. Barbiturates, on the other hand, were detected in 7.9% of the victims tested. However, barbiturates were detected in female victims more often than in male victims and in Black victims more often than in Hispanics or Anglos.

Six dimensions of the homicide problem emerge as important foci for future research: 1) crime-related violence, 2) gang violence, 3) domestic violence, 4) friend/acquaintance violence, 5) alcohol use, and 6) firearm use.

This is a descriptive study designed to clarify patterns and important factors in homicide victimization. Analytic studies are now needed to uncover explanations for these patterns and identify risk factors. The next steps in homicide prevention must also include efforts to increase public awareness of the risks of interpersonal violence, coordinate efforts among appropriate agencies and institutions, and maintain a data base on interpersonal violence that can be used to help focus and evaluate prevention efforts.

CITY HALL
LOS ANGELES, CALIFORNIA 90012
(213) 485-3311

OFFICE OF THE MAYOR

TOM BRADLEY
MAYOR

March 20, 1985

Greetings:

This monograph represents an important step in helping reduce homicides in the City of Los Angeles through a joint effort of the academic community, law enforcement agencies and branches of government.

Problems surrounding homicide have been identified and realistic suggestions for future action have been given.

There is a need for a continuing multidisciplinary approach to reducing violence in our cities. This study could well be used as a model for other cities to consider as an approach to reducing homicide rates.

Sincerely,

Tom Bradley

TOM BRADLEY
Mayor

UNIVERSITY OF CALIFORNIA, LOS ANGELES UCLA

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DEPARTMENT OF PSYCHIATRY AND
BIOBEHAVIORAL SCIENCES
UCLA SCHOOL OF MEDICINE
760 WESTWOOD PLAZA
LOS ANGELES, CALIFORNIA 90024

The publication of this monograph represents the culmination of a major commitment to the concept that homicide is a public health problem. One aspect of this commitment has been a rigorous scientific pursuit and analysis of relevant data from the violent decade of the '70s. The impetus for this research began in 1972 with a substantial group of faculty researchers and educators at the University of California, Los Angeles. We hoped and expected to establish the first (and even now, in 1985, it would still have been the only) national center for the study and reduction of violence.

Unfortunately the center was never established because at the last minute promised funds were withdrawn. However, our preliminary studies illuminated the fact that the rates of homicide and other forms of violence in the United States were increasing at an alarming rate, more rapidly in California than the national average, and still more rapidly in Los Angeles. Therefore, even without the funding that had been expected to carry forward appropriate epidemiological studies, a number of colleagues (including two authors of this monograph) decided to undertake an assessment of homicide in the city of Los Angeles. They did so in the hope that meaningful patterns might be identified, and that interventive or even preventive strategies might be formulated and tested.

The UCLA investigators were joined later by scientists at the Center for Disease Control of the United States Public Health Service, who had also begun to examine the epidemiology of violence. The result of this collaborative effort is the present landmark monograph. It describes homicide victims and victim-perpetrator relationships. It identifies groups at greatest risk. It determines changes over time in the risk of victimization. It is timely work, elegant work, an exemplar of the best of its kind.

Why is this work so important? Is there really an epidemic of violence in America, or in Los Angeles? In 1960 the homicide rate in the United States was five times greater than the average of 19 other developed countries (including all other English-speaking countries, Western Europe and Japan). By 1980, while the homicide rates in these other countries had remained about the same, ours had doubled and was now ten times greater than the rest. During the same period of time, the homicide rate in Los Angeles increased by more than 300%.

Clearly, the epidemic of homicide is a tremendously important issue. Any study that increases our understanding of it will have great importance, not only for Los Angeles, but for our whole violence-plagued nation. This is such a study. It must be read.

Louis Jolyon West, M.D.
Professor and Chairman,
Department of Psychiatry and
Biobehavioral Sciences,
University of California,
Los Angeles

DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Centers for Disease Control
Atlanta, Georgia 30333

Interpersonal violence is a major public health problem in the United States. Because it extracts a staggering toll in injury and premature death--especially among young people--the prevention of homicide and assaultive behavior must be an important priority for public health professionals.

Ultimately, the prevention of homicide and assaultive behavior will require the input and cooperation of persons at all levels of society and in many different areas of scientific and applied research. This monograph is an important step in this direction for the Centers for Disease Control (CDC). Utilizing a collaborative approach to examining homicide information for an urban community, the research team that prepared this monograph drew upon the fields of psychology, epidemiology, sociology, medicine, health education, statistics, and public policy.

This activity in the area of violence represents a new and very important step for CDC in its role of assisting State and local agencies in health promotion and prevention of unnecessary injury and premature death. We urge you to read this report thoroughly, and we hope it will stimulate surveillance, research, and prevention activities in your own community.

Donald R. Hopkins, M.D.
Acting Director
Centers for Disease Control

Dennis D. Tolsma
Director
Center for Health Promotion and Education
Centers for Disease Control

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We are greatly indebted to Laura Leathers for the excellent job she did in editing and helping to organize all aspects of this monograph. We are also indebted to Donna Hiett for the tremendous work she did in typing, preparing figures, and attending to the many details involved in preparing this manuscript. We are grateful to Amy Bass for the many hours spent typing and retyping the text and tables of this monograph, Martha Cowart and Ann Van Horn for their help in preparing a data tape, and William Rokaw, M.P.H., for his assistance in preparing figures. We also wish to thank Colin Loftin, Ph.D. (University of Maryland, Institute of Criminal Justice and Criminology), Bernard Gropper, Ph.D. (U.S. Department of Justice, National Institute of Justice), and Judy Conn, M.S., for their comments on early drafts of this monograph.

Lastly, special appreciation to Louis Jolyon West, M.D., professor and chairman of the department of psychiatry and biobehavioral science of the UCLA School of Medicine and director of the UCLA Neuropsychiatric Institute, for his support and continued interest in this research.

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INTRODUCTION

Homicide is a public health problem, and this fact has three clear implications. First, public health professionals should address the problem of homicide. In the past, homicide in the United States has been considered the concern of the criminal justice system alone, and control strategies have relied almost exclusively on the capabilities and resources of law enforcement, judicial, and penal institutions. These strategies focus on deterrence through punishment and imprisonment, but have not succeeded in reducing homicide rates. In fact, the past 30 years have witnessed dramatic increases in homicide rates in the United States—in 1980, the homicide rate reached its highest recorded level of the century (*1*). We believe that public health, with its focus on epidemiologic analysis and prevention, can make a substantial contribution to solving the problem of homicide.

Second, the public health community should give high priority to working on this problem, because it exacts such a high toll in illness and death and detracts from the quality of life for everyone. As of 1980, homicide was the 11th leading cause of death in the United States and ranked as the 4th leading cause of premature mortality. For certain minority groups the burden of homicide is particularly great. For an American, the lifetime chance of becoming a homicide victim is about 1 in 240 for Whites and 1 in 47 for *Blacks* and other minorities (*2*).

Finally, defining homicide as a public health problem suggests that homicide is a concern to be addressed and remedied, not an inalterable fact of life.

The new public health approach to homicide prevention must be based on understanding the patterns and precursors of homicide. Homicide can be divided into different "types" based on characteristics such as the *offender-victim relationship*, setting, and circumstance. Each type of homicide may have different causes and manifestations. Furthermore, because the types of homicide cover such a wide range, from domestic disputes to gang warfare to robbery and other illegal activities, the incidence and character of homicide depend on the unique characteristics of local areas and their populations.

For several reasons, the city of Los Angeles is an ideal setting for an examination of homicide at the local level. First, homicide is a major social and public health problem in Los Angeles; in 1980, homicide was the fifth leading cause of death. Second, while national homicide rates have decreased recently, the risk of becoming a homicide victim in Los Angeles has increased dramatically in recent years; between 1970 and 1979 the homicide rate increased by 84.0%. Third, the diversity of the Los Angeles population makes it possible to identify and describe patterns of homicide among high-risk racial and ethnic groups.

This monograph presents an epidemiologic assessment of homicide victimization in Los Angeles. Epidemiology is that branch of science that examines patterns in human populations to clarify 1) the distribution, impact, and costs of morbidity and mortality from various causes (descriptive epidemiology); 2) the causes and consequences of morbidity and mortality (analytic epidemiology); and 3) effective measures for preventing diseases and controlling health problems (*3*). This monograph is representative of descriptive epidemiology. It presents our preliminary analyses of extensive information on 4,950 cases of homicide that occurred in Los Angeles and highlights important findings. More detailed analyses will be addressed in future reports.

We conducted this study in order to identify and describe:

- groups at greatest risk of homicide victimization,
- *situational* and *interpersonal characteristics* associated with homicide,
- changes in the risk of homicide victimization over time,
- patterns of alcohol and drug use by homicide victims, and
- potential approaches to homicide research and prevention.

Although our study concentrates on the characteristics of homicide victims, we do not mean to imply that homicide victims are responsible for their deaths or that the study of offenders is unimportant. We focused on homicide victims because legal constraints make data on homicide offenders much more difficult to obtain. We hope that the patterns described in this study will help in the development of new strategies for homicide prevention and that this study will serve as a model for analyzing social and public health implications of homicide in other communities.

PREVIOUS STUDIES OF HOMICIDE

Criminologists, social scientists, and other professionals have studied the rates, trends, and patterns associated with homicide in many contexts, especially in urban areas. This review of previous homicide studies emphasizes empirical findings from studies conducted in urban settings.

Our review is divided into four categories: 1) demographic patterns in the risk of homicide victimization, 2) situational and interpersonal characteristics of homicide, 3) trends in the risk of homicide victimization, and 4) alcohol and drug use by homicide victims.

Demographic Patterns in the Risk of Homicide Victimization

Young Black men are the group at greatest risk of becoming homicide victims in urban areas. In his classic study, Wolfgang (*4*) examined all criminal homicides that occurred in Philadelphia during 1948-52. He found that Blacks and males had higher victimization rates than Whites and females respectively, but that the difference in these homicide rates was greater between the races than between the sexes. Wolfgang also found that 25- to 39-year-olds had the highest rates of homicide and that Blacks became victims at younger ages than Whites.

In Houston, Pokorny (*5*) replicated Wolfgang's study by analyzing homicide cases for 1958-61. While his findings were very similar to Wolfgang's, Pokorny's study distinguished between *Hispanics* and *Anglos*. He found that the homicide rate for Blacks was six times as high as that for Anglos and two and a half times the rate for Hispanics.

Similar results have been obtained in other homicide studies of urban areas. Munford and colleagues (*6*) found Black males 20 to 39 years of age to be the group at greatest risk of homicide victimization in Atlanta. In Chicago (1965), Voss and Hepburn (*7*) reported that minority males had the highest homicide rate of any race-sex category. In another study of homicide in Chicago, Block and Zimring (*8*) found that Black males 15 to 24 had the greatest risk of homicide victimization for each year from 1965 to 1970.

Thus, researchers have consistently reported that in urban settings, Black males between the ages of 15 and 39 are at greatest risk of homicide victimization. However, few studies have examined the risk of victimization for Hispanics. Further research is needed to document and characterize patterns of homicide victimization among Hispanics more completely.

Situational and Interpersonal Characteristics of Homicide

The situational and interpersonal factors associated with homicide victimization refer to those factors that describe the homicide event itself. The most common examples of situational and interpersonal characteristics are the location of the event (i.e., geographic and physical location), the offender-victim relationship, the circumstances under which the event occurred (*crime circumstance*), and the type of weapon used to commit the homicide. Situational and interpersonal characteristics are important descriptors of homicide because they allow us to distinguish various forms of homicide. This distinction is important because different types of homicide may have different causes and manifestations and, therefore, may be susceptible to different preventive measures. For example, the interventions that might prevent a *husband* from murdering his *wife* in their home may be very different from the measures that could prevent a homicide involving two strangers in a convenience store during a robbery.

In his study of homicide in Houston, Bullock (*9*) found that 70% of offenders and victims lived less than 2 miles apart and 33% lived at the same address; 74% of the offenders and 87% of the victims lived less than 2 miles from the site of the homicide. Bullock noted that areas where homicide was most likely to be committed were characterized by marked deterioration of housing, a high concentration of minorities as compared with their actual proportion of the city's population, and low economic status of residents. In Cuyahoga County, Ohio, which encompasses the city of Cleveland, Bensing and Schroeder (*10*) found the highest homicide rates in areas with residents of the lowest socioeconomic status and with the most acute space and housing problems.

Bullock (*9*) reported that in Houston most homicide victims were killed indoors. Likewise, Voss and Hepburn (*7*) found that for every race-sex category, homicide was most commonly committed in a home. Munford et al. (*6*) found that during 1971-72 in Atlanta, 66% of homicides involving Black victims and 54% of homicides involving White victims occurred in a home. In Atlanta, homicides that occurred in a home during 1971-72 were also most likely to occur in census tracts whose residents were of low socioeconomic status (as measured by crowding and education). In Munford's study, about 40% of all homicides that were committed in a home and that involved a Black victim occurred within 10 census tracts, 7 of which were contiguous. In contrast, homicides committed in public were found to be more widely distributed geographically.

In his study of homicide in Houston, Pokorny (*5*) found that while 42% of all homicides occurred in homes, only 14% of homicides involving Hispanic victims occurred in a home. Wolfgang (*4*) found that 51% of the homicides occurring in Philadelphia during 1948-52 occurred in a home.

An important interpersonal factor considered in many studies of homicide in urban areas is the offender-victim relationship. In more than half the

cases for which the offender-victim relationship was known, Wolfgang (*4*) found that these relationships involved relatives (25%) and relatively close friends (28%). Acquaintances, strangers, and lovers accounted for 36% of all known relationships between offender and victim in the Philadelphia study. In Houston (1958-61), Pokorny (*5*) found that 51% of victims were killed by a relative or close friend, but only 13% of homicides were committed by acquaintances, strangers, or lovers.

Urban-homicide studies have also addressed the circumstances under which homicides occur. In his study of homicide in Philadelphia, Wolfgang (*4*) found that in 80% of the cases studied, the circumstances involved a dispute, a domestic quarrel, jealousy, an argument over money, or robbery. Voss and Hepburn (*7*) in their study of homicides in Chicago noted that the circumstances that precipitated these events typically appeared "trivial" (for example, an insult, a curse, a quarrel over liquor or money). Bullock (*9*) noted that the most frequently occurring circumstances associated with homicide in his study involved arguments, marital discord, or love triangles.

Block (*11*) has postulated two patterns of homicide in Chicago. One, altercation homicide, involves homicide originating in a domestic feud or an argument between friends. The other, robbery homicide, involves homicide committed during a robbery. He found that in 1973, 64% of the homicides in Chicago could be classified as altercation homicides and 19% as robbery homicides.

Firearms were the most frequently used means of committing homicide in all but one of the studies of urban areas reviewed. In Philadelphia during 1948-52, Wolfgang (*4*) found that 39% of homicide victims were stabbed and 33% were shot to death. Of the 33% who were shot to death, 85% were killed with handguns. Studies conducted in Houston using data for 1958-61, in Chicago for 1965-70, and in Atlanta for 1960-61 and 1970-71 all found firearms to be the principal means of committing homicide, accounting for anywhere from 50% to over 70% of homicide deaths. In each study specifying the type of firearm used, handguns were the firearms most often used in committing homicide.

Although these studies were conducted in different urban settings at different times, their findings are similar. In general, most homicides occurred in a home, involved victims and assailants who knew each other, were precipitated by an argument, and were committed with handguns. Few studies, however, have examined how the situational and interpersonal characteristics of homicide are related to the *demographic characteristics* of victims and offenders. No study has examined the situational and interpersonal patterns of homicide as they relate to Hispanics.

Trends in the Risk of Homicide Victimization

Studies of trends in homicide victimization in urban areas have revealed a variety of patterns. A CDC report presenting descriptive statistics on homicide victimization notes that between 1970 and 1978, homicide rates increased in 16 of the 25 largest *Standard Metropolitan Statistical Areas*

(SMSA's) (*12*). The homicide rate for the Los Angeles-Long Beach, California, SMSA increased from 9.8 per 100,000 to 18.7 over this time period. As a result, in 1978 the Los Angeles-Long Beach SMSA had the second highest homicide rate of these 25 SMSA's.

In a study of homicides in Cleveland, Hirsch et al. (*13*) found that the homicide rate increased only slightly between 1940 and 1960, but increased sharply from 1960 to 1970—rising from 18.4 in 1960 to 38.4 in 1970. In another study in Cleveland that focused on the years 1958-74, Rushforth et al. (*14*) noted a 320% rise in homicide rates for the city as compared with a 200% increase for the suburbs. Munford et al. (*6*) observed that in Atlanta between 1961-62 and 1971-72, homicide rates increased for both Whites (0.7 to 2.1) and Blacks (4.7 to 9.9). Block (*11*) determined that the homicide rate in Chicago doubled between 1965 and 1973; much of this rise was due to the increase in the homicide rate for Black men 15 to 24 years of age. Of these four studies, only the Atlanta-based study showed a large increase in the risk of homicide victimization for both Blacks and Whites. In the other urban areas, increases were generally limited to Blacks and other minorities.

Some studies have examined homicide trends in terms of situational factors such as type of weapon, crime circumstance, and site of occurrence. For example, Rushforth et al. (*14*) reported that in Cleveland the percentage of killings that involved firearms rose from 54% during 1958-62 to 81% during 1969-74 and that the percentage of homicides associated with the commission of other felonies (i.e., robbery, burglary, larceny, etc.) doubled over this time period. Block (*11*) found that the increase in the number of homicides committed in Chicago between 1965 and 1973 could be entirely attributed to an increase in the number of homicides committed by persons using guns. Munford et al. (*6*) found that in Atlanta, the rate for homicides committed in homes doubled between 1961-62 and 1971-72.

Most studies examining homicide trends in urban areas have focused on time periods when rates were increasing. Both the magnitude and the degree of change in these rates vary by locality despite the similarities in the demographic, situational, and interpersonal factors characterizing homicide across these areas. Documentation of temporal patterns in homicide rates is particularly important for the purpose of monitoring the impact of homicide and providing information useful for evaluating prevention efforts. In documenting homicide trends in urban areas, however, increased attention should be given to patterns for specific subgroups such as Hispanics.

Alcohol and Drug Use by Homicide Victims

Alcohol and drug use may be hypothesized to influence the risk of homicide victimization in a variety of ways. If alcohol and some other drugs affect the brain physiologically and reduce inhibitions against aggressive behavior, they may increase the likelihood of an individual precipitating a dispute that ends in his or her murder (*15*). In this way, alcohol and drug

use may play an important role in what has been termed *victim-precipitated homicide* (*4*). Alternatively, alcohol and drug use may be associated with homicide victimization, not because of their physiological effects, but because their use is associated with specific situations, environments, or activities that place individuals at high risk of victimization. For example, drinking alcohol in a bar places one at greater risk of victimization if bars attract people who are more likely than the average person to behave violently toward others. Moreover, individuals who take illicit drugs or deal with them, or do both, may have higher risks for homicide victimization because of the high profits and instability associated with drug dealing and not necessarily because these individuals use drugs.

Although a causal connection between alcohol consumption and homicide has not been established, studies conducted in many different settings show that about half of all offenders and victims had been drinking before the homicide (*4,7,16-19*). In addition, patterns of alcohol consumption vary by race, sex, and age of the victim. Some studies have relied on reports of alcohol consumption (by the offender, witnesses, or law enforcement personnel), while others have examined the level of alcohol in the victim's or offender's blood within a specified length of time after the homicide.

Wolfgang reported that in 53% of the victims and 54% of the offenders, there was evidence of alcohol use; moreover, for nearly 44% of all homicides, alcohol use had been reported for both victim and offender. He also noted that alcohol use was reported for 56% of male victims and 42% of female victims. Alcohol use (by victim or offender or both) was reported for 70% of homicides involving Black male victims, as compared with 50% of homicides involving White male victims.

In their study of homicide in Chicago, Voss and Hepburn (*7*) examined police records and reported findings similar to Wolfgang's. A history of alcohol use was associated with 54% of all homicides. Alcohol use was reported for 46% of White male victims, as compared with 54% of male victims of Black and other races. For females, 47% of White victims were reported to have used alcohol, as compared with 61% of victims of Black and other races.

Data based on biochemical testing for the presence of alcohol are generally consistent with the earlier findings reported by Wolfgang for history of alcohol use. Haberman and Baden (*16*) reported that, for a 12-month period in New York City during 1974-75, alcohol was detected in the blood of 42% of homicide victims who underwent toxicologic testing during autopsy; in addition, 27% had *blood alcohol levels* $\geq$ 100 mg% (the level of legal intoxication in most States). In Allegheny County, Pennsylvania (*17*), results of toxicologic testing of homicide victims who died during 1966-74 were used to evaluate the relationship between alcohol use and homicide. Alcohol was detected in the blood of 42.4% of the victims, while 31.8% had a blood alcohol level $\geq$ 100 mg%. In a more recent study in Erie County, New York (*18*), 32% of homicide victims had a blood alcohol concentration $\geq$ 100 mg% at the time of death, including 44% of those killed with guns, 36% with knives, and 17% with personal weapons (i.e., hands or feet).

Data for homicide suspects are more limited than data for homicide victims. Shupe (*19*) reported on alcohol detected in the urine of homicide suspects in Columbus, Ohio, who were arrested in 1951-53 "during or immediately after" the crime. Urine alcohol concentrations of $\geq$ 100 mg% were detected in 67% of suspects arrested for murder, 88% for stabbing, 79% for shooting, and 78% for other assaults.

Studies such as these on the relationship between alcohol and homicide have consistently demonstrated that a high percentage (about 50%) of victims and offenders ingest alcohol before the homicide takes place. However, many of the studies have been subject to certain methodologic constraints. One major constraint on studies that rely on history of alcohol use is that accounts given by witnesses may be unreliable and such information, at best, represents only a crude proxy for actual measurements of alcohol levels in the blood. A second constraint for studies relying on history of alcohol use or on biochemical determination of the presence of alcohol has been failure to characterize aspects of the homicide in terms of variables other than sex, race, age, and presence of alcohol (e.g., situational and interpersonal variables). Third, most of the studies directed at the relationship between alcohol and homicide have been based on unrepresentative samples rather than large *population-based samples* (*20*).

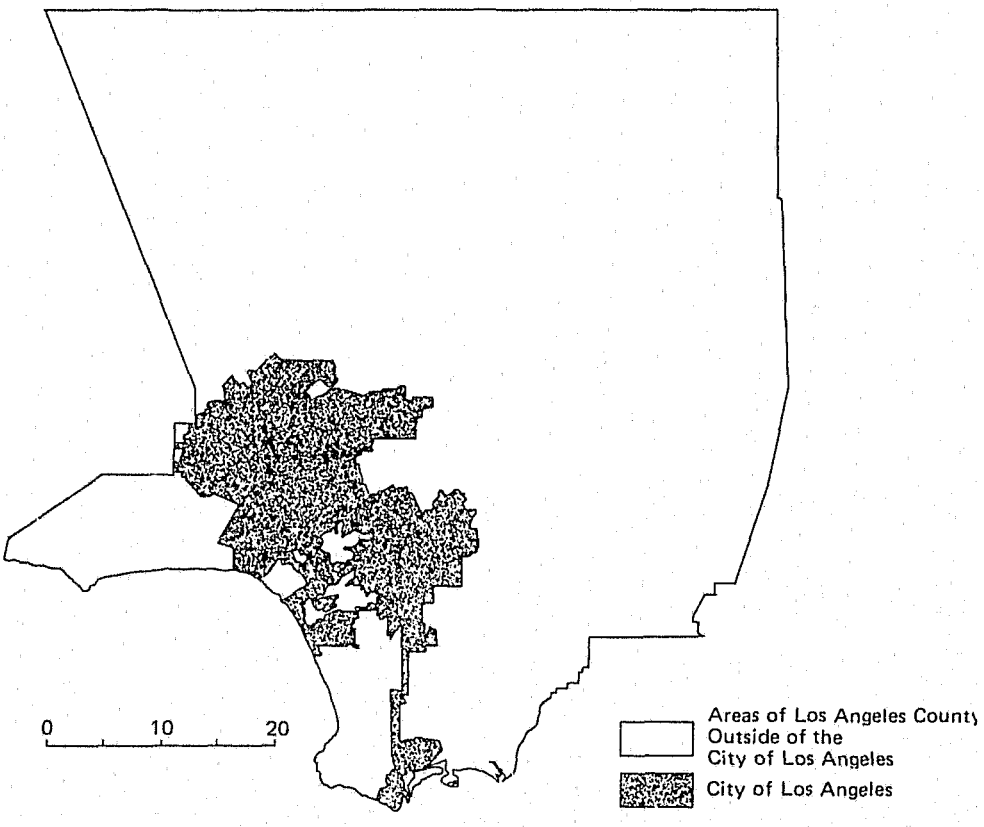
A causal association between homicide victimization and the use of drugs other than alcohol has not yet been established. Moreover, there is an almost total absence of even descriptive information characterizing the patterns of drug use among homicide victims, a limitation partly attributable to the limited screening by medical examiners for drugs in homicide victims. More information about these patterns is needed.

STUDY SETTING

The city of Los Angeles has three characteristics that combine to make it a unique setting for a study of homicide. First and foremost, homicide takes a heavy toll in the city. Homicide rates have risen dramatically in recent years and persist at unacceptably high levels.

Second, the city is heavily populated and this population is spread over a large geographic area. In 1980, the population of the city of Los Angeles was nearly 3 million, making it the third most populous city in the United States. The city occupies about 464 square miles in the county of Los Angeles which, as the most populous county in the United States, has a population of almost 7.5 million (figure 1). Because homicide is relatively rare, it is useful to examine this phenomenon in a population large enough to yield reliable and stable estimates of homicide patterns.

Figure 1. Area Boundaries of the City of Los Angeles and Los Angeles County



The third and perhaps most striking characteristic is the ethnic and cultural diversity of Los Angeles. The city has long been an international port of entry and a destination for immigrants worldwide. In 1980, Anglos accounted for 48% of the total population of Los Angeles, while Hispanics made up 28%, Blacks 17%, and Asian and Pacific Islanders 7% (*21*). Some of the ethnic groups included in the population are American Indians, Eskimos, Aleuts, Japanese, Chinese, Vietnamese, Hawaiians, Guamanians, Samoans, Filipinos, Indians (Asian), Mexicans, Puerto Ricans, Cubans, Salvadorans, Guatemalans, Colombians, Hondurans, Iranians, Lebanese, Israelis, and Armenians (*22*). Cultural factors may play an important role in influencing the proclivity and risk for homicide as well as the nature of the violence associated with homicide. The ethnic diversity of the Los Angeles population allows comparisons across race/ethnic groups and consideration of hypotheses about the role that cultural factors may play in influencing variations in patterns of homicide. Since preventive approaches may vary in relation to different types of homicide, it is important to establish the risk and character of homicide for different race/ethnic groups.

METHODS

We used an epidemiologic approach to describe patterns of homicide victimization in the city of Los Angeles. Consistent with this approach, descriptive statistics were used to analyze the distribution and incidence of homicide in relation to victim characteristics, annual trends, and characteristics of the homicide location and situation. In this section we describe the case definition for homicide, our method of case ascertainment, data sources, and data-collection procedures used in this study. In addition, we discuss issues pertaining to the reliability and validity of the data and our results.

Case Definition

Homicide is defined in the "International Classification of Diseases" (*23*) as death due to injuries inflicted by another person with intent to injure or kill, by any means. Homicides may be further classified as either criminal or justifiable homicide. Our investigation focused on criminal homicides, i.e., the illegal killing of one person by another. These homicides differ from justifiable homicides, which include killings committed by police officers in the line of duty and those committed by citizens in self-defense.

Case Ascertainment

Ascertainment of a case as a criminal homicide was based on the results of the investigation conducted by the Los Angeles Police Department. Typically, a team of homicide detectives investigates any death in which homicide cannot be ruled out. The detectives develop information about the potential homicide through observing the victim's wounds and physical evidence in the area and by taking statements from witnesses.

The medical examiner and the district attorney also assist in the investigation. In all cases of suspected homicide, the medical examiner performs an autopsy witnessed by the team of homicide detectives assigned to the case. On the basis of the autopsy results and information acquired at the crime scene and from witnesses, the medical examiner renders his or her professional opinion as to whether the death was due to homicide. The district attorney's office provides advice on issues involving evidence or other legal matters that may arise during an investigation.

In determining whether a criminal homicide has occurred, homicide detectives consider the results of their investigation, the opinion of the medical examiner, and the advice of the Los Angeles district attorney. In this study, we categorized each case according to the decision of the detectives involved in the investigation, regardless of judgments made later on in the criminal justice process (e.g., during prosecution or adjudication).

Data Sources

The homicide data for this study were obtained from internal records of the Los Angeles Police Department and from the Los Angeles County Medical Examiner-Coroner's Office. Data used to derive population estimates were obtained from published and unpublished statistics reported by the U.S. Bureau of the Census.

Los Angeles Police Department

Homicide case summaries, provided by the Los Angeles Police Department, were the principal source of data for the study. These summaries represent all homicides known to have occurred within the city of Los Angeles during 1970-79. Each case summary is a synopsis of the case file for that homicide investigation. These summaries are considered confidential because they contain case details and the police department's theory of the homicide before the case is adjudicated. Consequently, the summaries are used within the police department as brief, authoritative reviews of each case. (Examples of summaries are in appendix A.)

The format of each summary is uniform and includes the victim's name, sex, race, age, and date of death; the address at which the homicide occurred; police department case number and the medical examiner-coroner's office case number; the offender's name(s), sex, race, and age; the homicide weapon; the crime circumstance; the offender-victim relationship; and a brief summary of events or other information pertinent to the homicide.

The UCLA research team constructed a data-collection protocol by reviewing 50 case summaries randomly selected from all summaries for the 10-year study period, 1970 to 1979. The protocol was then pilot tested to evaluate interrater agreement for case-summary abstraction (see data-collection protocol in appendix B). A coding manual listed rules for making decisions about each item in the data-collection protocol. The manual also listed all applicable definitions.

Undergraduate students at UCLA served as data abstractors. Students enrolled in a course on field research and received credit for collecting data, completing a term paper, and attending a weekly seminar. Students were trained to abstract cases in both group and individual sessions and then received individual supervision for their first 50-100 cases. Twenty-five students assisted in producing the data base over an 18-month period.

Several advanced students were trained to serve as data-collection supervisors and to perform reliability checks on the case abstractors. Five percent of all cases were reabstracted by a data-collection supervisor and compared with the original case summaries. If a student abstractor could not achieve at least 85.0% agreement, he or she was replaced.

After all cases in the data base were abstracted, a final reliability check was performed. Several nonstudent research assistants were paid to draw another 5.0% sample and complete another data-collection protocol. Comparisons of this protocol with the original student-abstracted protocol resulted in a level of agreement exceeding 85.0%.

The homicide case summaries were relatively complete for all years except 1973. For that year about 30.0% of the summaries lacked basic demographic information on victims. These missing data were retrieved from death certificates provided by the Los Angeles medical examiner's office. Death certificates were also used to reconcile discrepancies in the case summaries. For example, if a victim was listed as both Hispanic and Black, the victim's correct race/ethnic category was determined by referring to the death certificate. (An example of a case summary with such a discrepancy is provided in example 2 of appendix A.)

Los Angeles Medical Examiner-Coroner's Office

The Los Angeles medical examiner provided access to toxicology reports on homicide victims. Student data-collection supervisors abstracted toxicology data from laboratory logs indexed by the medical-examiner case number. From 1970-79, blood alcohol and serum barbiturate levels were routinely determined for most homicide victims. For each case, forensic pathologists decided whether to perform additional drug screens. Because a wide range of drug screens were performed, we classified toxicologic substances into one of four groups: alcohol, barbiturates, narcotics, and other drugs. For the purposes of this study, specific blood alcohol levels were recorded; however, barbiturates, narcotics, and other drugs were recorded as present or absent in a victim's blood or tissues.

Population Data

Population data used to calculate rates in this report were generated by *linear interpolation* between the 1970 and 1980 census data for the population of the city of Los Angeles by age, race/ethnicity, and sex. Census data for 1970 were taken from published estimates of the resident population of the city of Los Angeles (*24,25*). However, for 1980, data for the resident population of the city were obtained from special census tabulations prepared by the California Data Center. A central issue related to the derivation of intercensal population data is the comparability of methods used by the U.S. census bureau to identify Hispanics in the 1970 and 1980 censuses. We used census data derived by identifying Hispanics through the Spanish-origin method, i.e., each respondent was asked if he or she was of Spanish descent (*21*). (A full discussion of the validity of population estimates used to calculate rates in this report is provided in appendix C.)

Data Issues

Three important caveats concerning the data used in this study are 1) the absence of information on the residential status of homicide victims, 2) constraints on the interpretation of location-, weapon-, circumstance-, and relationship-specific homicide rates, and 3) the discrepancy between the

total number of victims identified in our data and the total number reported by the Los Angeles Police Department to the Federal Bureau of Investigation's (FBI's) Uniform Crime Reporting (UCR) Program.

Residential Status of Homicide Victims

This study focuses on homicides that occurred within the city of Los Angeles. Therefore, homicide victims included both residents and nonresidents of the city. However, our data did not permit us to identify the residential status of victims. Since the numerator in rate calculations may have included both resident and nonresident victims, while denominators were based on estimates of the resident population of the city only, homicide rates reported in this study may not accurately represent the risk of homicide victimization for city residents.

Interpretation of Homicide Rates

In this study we present homicide rates that are specific for categories of location, weapon/method, crime circumstance, and offender-victim relationship. Because resident population estimates have been used as the denominator, these are crude rates and therefore do not reflect the true level of risk for homicide victimization faced by city residents in relation to these variable categories. For example, in regard to homicides committed by the spouse of the victim, use of the total resident population as the denominator clearly overestimates the size of the population at risk since the denominator includes single, divorced, or widowed persons who are obviously not at risk for this type of homicide.

These rates permit general comparisons of the contribution of various types of locations, weapons/methods, circumstances, and offender-victim relationships to the risk of homicide victimization. However, these rates should be interpreted with caution because of the constraints associated with using denominators based on the total resident population.

Study Data Compared with UCR Data

According to our study data (derived from case summaries), 4,950 criminal homicides were committed in Los Angeles during 1970-79. This number is 8.3% lower than the corresponding number of homicides reported to the UCR by the Los Angeles Police Department.* Year-to-year discrepancies between the UCR totals and our totals range from a low of 25 cases, or 4.7%, in 1975 to 107 cases, or 15.8%, in 1979 (table 1). (All tables are included in appendix D.)

To determine the reason for these discrepancies, we consulted the police department. According to their investigations and statistical staff, homicide investigations are typically initiated whenever homicide cannot be ruled out

*Comparisons of the study data with information from vital statistics were not included as part of this report because of differences between the definition of homicide used in this study and that used in vital records.

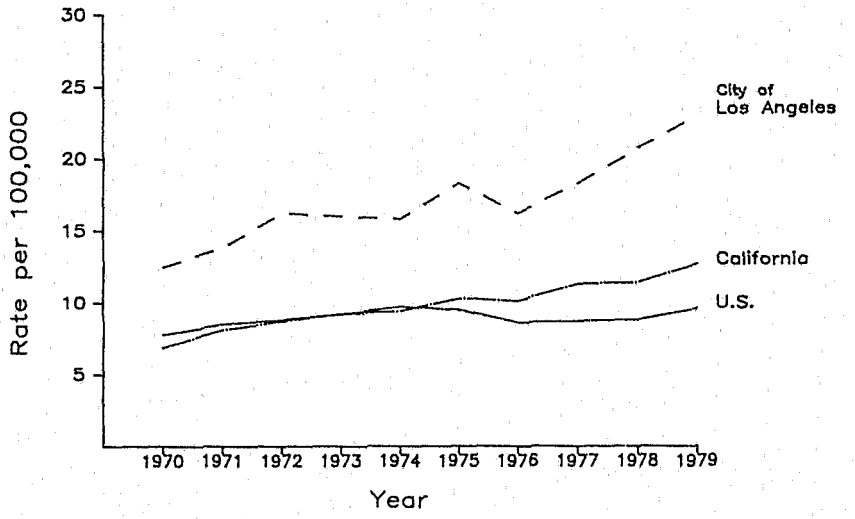
as the cause of death. Deaths initially treated as homicides for purposes of investigation often prove to be due to some other cause. However, such changes are rarely reflected in the monthly reports of crime totals for the city of Los Angeles submitted by the Los Angeles Police Department to the Bureau of Crime Statistics, California Department of Justice, and subsequently forwarded to the UCR. The police department official responsible for reporting to the Bureau of Crime Statistics has indicated that fewer than 10 changes a year are reported and forwarded. Thus, while LAPD homicide case summaries used in this study reflect adjustments in the status of a case, these changes are not always reported to the FBI. Consequently, UCR totals tend to overestimate the number of homicides committed in Los Angeles during 1970-79.

RESULTS

During the 10-year period 1970-79, the homicide rate for the city of Los Angeles increased by 84.0%, rising from 12.5 per 100,000 in 1970 to 23.0 in 1979. As a result, in 1970 the Los Angeles homicide rate was 60.3% higher than the national rate, but by 1979 had increased to 139.6% of the national rate. During this decade, a total of 4,950 criminal homicides occurred in the city for a 10-year rate of 17.1 per 100,000 population.

Homicide rates for California also increased during the decade, but State rates were consistently lower than those for Los Angeles. Although there was a general increase in the numbers and rates of homicide during the seventies for the city of Los Angeles and for California (figure 2, table 2), these patterns contrast with a relatively steady rate of homicide for the U.S. as a whole. However some year-to-year variation in the U.S. rate did occur.

Figure 2. Homicide Rate by Year of Death, City of Los Angeles, California and the U.S., 1970-79



Demographic Patterns in the Risk of Homicide Victimization

To identify the population groups at highest risk of homicide, we examined patterns in the distribution and rates of homicide by sex, age, and race/ethnicity of victims and by combinations of these variables.

Sex

During the 1970's, 77.7% of homicide victims in Los Angeles were male. Males had a homicide rate of 27.0 per 100,000 population as compared with a rate of 7.3 for females (table 3). Thus, a male was almost four times more likely to be a homicide victim than a female was.

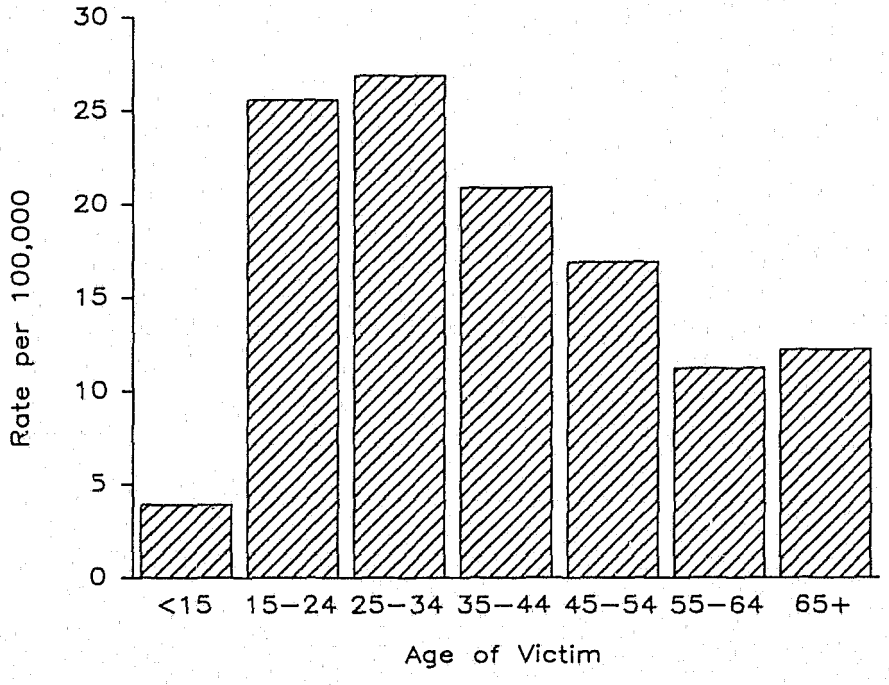
Age

Most victims were young; 15- to 44-year-olds accounted for 69.2% of homicide victims during this decade. The lowest age-specific homicide rate was 3.9 per 100,000 for persons less than age 15 (figure 3, table 3). Age-specific rates peaked at 26.9 per 100,000 population in the 25- to 34-year-old category. After age 34, the risk of homicide victimization declined, although rates for persons age 65 and older were slightly higher than those for 55- to 64-year-olds.

Race/Ethnicity

Most victims were minority group members; 47.4% were Black, 22.9% Hispanic, and 2.6% were of other race/ethnic groups, while 27.1% were Anglo. Blacks were at greatest risk of becoming a homicide victim and had a

Figure 3. Homicide Rate by Age of Victim, City of Los Angeles, 1970-79

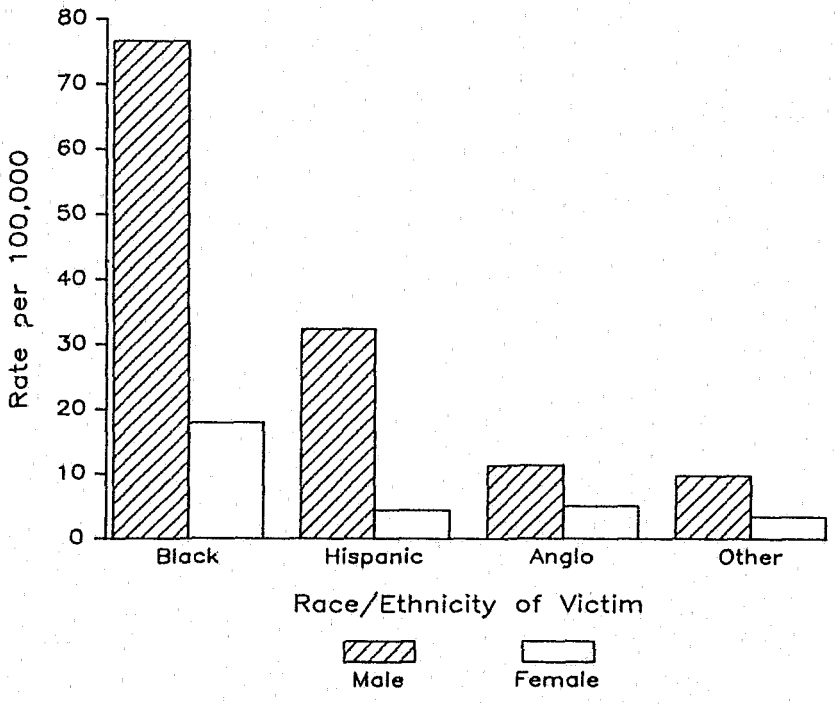


rate of 45.6 per 100,000 population (table 3). Hispanics had a rate of 18.3 and Anglos a rate of 8.1. For Blacks and Hispanics, the risk of homicide victimization was 5.6 and 2.3 times greater, respectively, than that for Anglos.

Sex and Race/Ethnicity

Black males, followed by Hispanic males and by Black females, had the greatest risk of homicide victimization for the 10 years 1970-79 (figure 4, table 4). Black and Hispanic males were at 6.8 and 2.9 times greater risk, respectively, of homicide victimization than Anglo males. Among females, the risk for Blacks was 4.1 and for Anglos 1.1 times greater than that for Hispanics. The risk of homicide victimization for males relative to females was much greater for Hispanics than for Blacks and Anglos. Hispanic males were at 7.3 times greater risk than Hispanic females, while Black and Anglo males were at 4.3 and 2.3 times greater risk than Black and Anglo females respectively.

Figure 4. Homicide Rate by Race/Ethnicity and Sex of Victim, City of Los Angeles, 1970-79

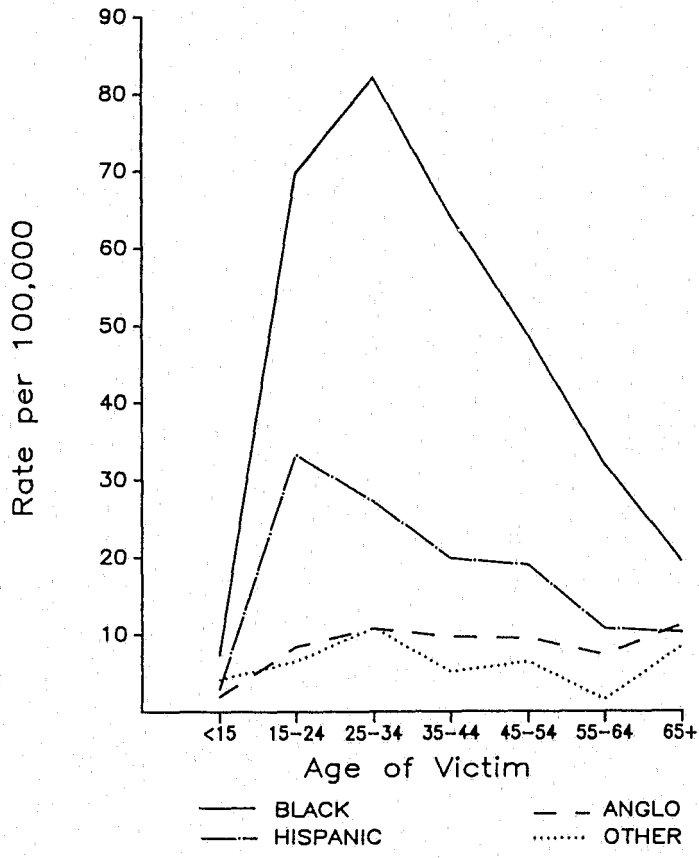


Age and Race/Ethnicity

Hispanic homicide victims were generally the youngest, followed by Black and Anglo victims. During 1970-79, 67.3% of Hispanic victims, 58.4% of Black victims, and 36.9% of Anglo victims were between the ages

of 15 and 34 (table 5). The median age of Hispanic victims was 25.3, as compared with 29.4 for Black victims and 40.3 for Anglo victims. Blacks had the highest homicide rates across all age categories (figure 5, table 6), but the differences in age-specific rates for Blacks compared with rates for other race/ethnic categories were greatest between the ages of 15 and 44. While age-specific homicide rates for Blacks were highest for 25- to 34-year-olds, the age group at highest risk among Hispanics was 15- to 24-year-olds and among Anglos those age 65 and older.

Figure 5. Homicide Rate by Age and Race/Ethnicity of Victim, City of Los Angeles, 1970-79

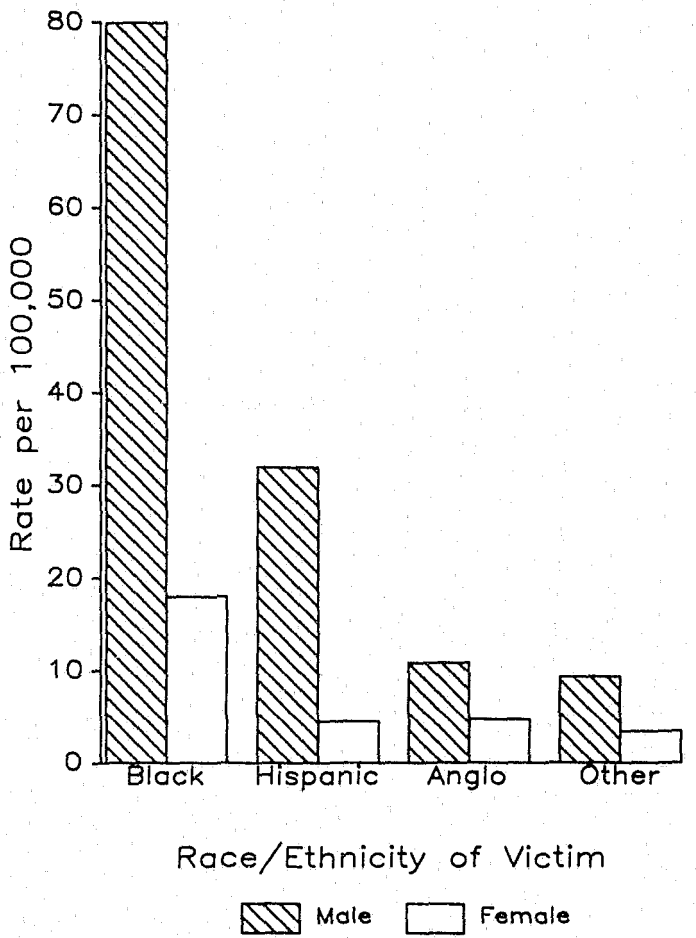


Sex, Age, and Race/Ethnicity

Blacks had the highest homicide rates across all age and sex categories, with the exception of females age 65 and older (table 7). Among Hispanics, males had relatively high homicide rates in all age categories, but females had rates slightly lower than those for Anglo females. For young Blacks, both males and females had a high risk of victimization, but for young Hispanics, only males had an elevated risk.

Differences in race- and sex-specific homicide rates persisted after we adjusted these rates for age.* Black males and Hispanic males had respective risks of homicide 7.4 and 3.0 times greater than that for Anglo males (figure 6). Black females had a risk 3.8 times greater than that for Anglo females, but Hispanic females faced a lower risk than Anglo females. Consequently, the age structure of race/ethnic groups in Los Angeles does not appear to have a great influence on race/ethnic differences in the risk of homicide victimization.

Figure 6. Age-Adjusted Homicide Rate by Race/Ethnicity and Sex of Victim, City of Los Angeles, 1970-79



*Age-adjusted rates per 100,000 population were computed by the direct method of standardization (we used the total U.S. population for 1980 as the standard population).

Situational and Interpersonal Characteristics of Homicide

This section describes patterns of homicide victimization in terms of the site of occurrence, the weapon or method used, crime circumstance, and the relationship of offender to victim. These patterns are discussed in greater detail for high-risk groups.

Site of Occurrence

In Los Angeles during 1970-79, homicides occurred in homes more often than at any other site. During this period, 48.4% of homicides occurred in a home, 23.1% in the street, 4.4% in a bar or restaurant, 5.3% at a business location, and 15.6% at other types of locations (table 8). In 3.2% of cases, the site of occurrence was not known because the victim was discovered at a site other than that at which he or she was killed.

Weapon or Method Used

The weapon most frequently used to commit homicide was the handgun. In 56.6% of homicides, victims were killed with some type of gun; in 79.3% of these cases, handguns were the weapon used (table 8). Cutting instruments were used in 23.3% of homicide cases, *bludgeoning* in 10.6% of homicides, strangulation or asphyxiation in 4.3%, and other weapons or methods in 5.3%.

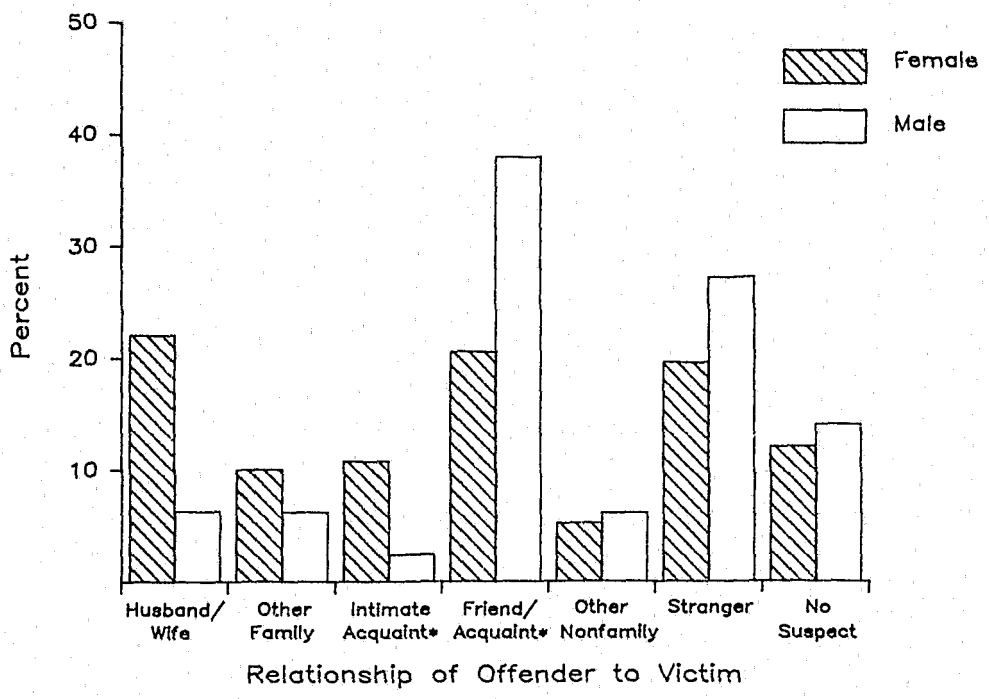
Crime Circumstance

Verbal arguments were the circumstance most commonly associated with homicide victimization, accounting for 32.7% of cases (table 8). *Crime-related* circumstances were noted in 26.0% of the cases, physical fights in 10.3%, *sex-related* circumstances in 4.9%, gang-related circumstances in 4.9%, *child abuse/neglect* in 2.1%, and *other circumstances* in 6.5%. Crime circumstance was not determinable for 12.6% of the cases.

Relationship of Offender to Victim

Most homicide victims in Los Angeles knew their assailants. In 61.2% of the cases, the offender was a member of the victim's family or a person otherwise acquainted with the victim (table 9). In 25.3% of the cases, the victim and offender were strangers. No offender was identified in 13.5% of the cases, so the relationship could not be determined. The distribution of offender-victim relationships was markedly different for men and women (figure 7, table 9). Among women, 42.7% were killed by a family member or *intimate acquaintance*, as compared with 14.9% of men. Women were most likely to be killed by their husbands, while men were most likely to be killed by a friend or acquaintance.

Figure 7. Percentage of Homicides by Sex of Victim and Relationship of Offender to Victim, City of Los Angeles, 1970-79



*"Acquaint" = Acquaintance.

Homicide Patterns in High-Risk Groups

To describe and characterize patterns of homicide that affect particular population groups, we determined homicide rates by site of occurrence, weapon, circumstance, and relationship of offender to victim. Our discussion focuses on those sex and age groups at highest risk of homicide victimization within the Black, Hispanic, and Anglo race/ethnic categories. We defined those within a particular sex, age, or race/ethnic category as at high risk if the homicide rate for that category exceeded the overall homicide rate in the city of Los Angeles for 1970-79 (17.1 per 100,000). According to this criterion, Black and Hispanic males age 15 and older and Black females 15 to 44 years of age were at high risk of homicide victimization during the study period. No age or sex category for Anglos exceeded this rate. However, we will discuss those Anglo sex and age categories that exceeded the overall rate for Anglos during the study period (8.1 per 100,000), in order to characterize and compare Anglo, Black, and Hispanic patterns of homicide. The homicide rates presented in this section are only valuable for making general comparisons of the impact or contribution of various types of locations, weapons, circumstances, and relationships to the risk for homicide victimization across sex, age, and race/ethnic groups.

Blacks

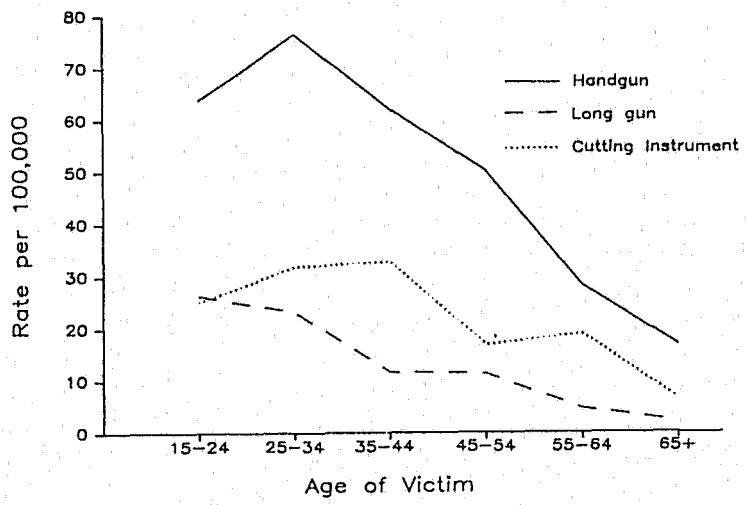
Among Blacks the age and sex groups at high risk of homicide (i.e., those with homicide rates exceeding 17.1 per 100,000, the overall homicide rate for the city of Los Angeles during the period 1970-79) include all males age 15 and older and females between 15 and 44 years of age (table 7).

Site of Occurrence: For high-risk Black males, the highest rates were associated with homicides occurring in a home. Rates for homicides occurring in a home peaked at 67.0 per 100,000 in the group that included Black males 25 to 34 years old (table 10). Rates for homicides occurring in the street ranked second among Black males, peaking at 35.0 per 100,000 among 15- to 24-year-olds and declining to 5.1 among those 65 years of age and older.

Among Black females 15 to 44 years old, homicide rates were also highest for homicides occurring in the home, followed distantly by the rate for homicides occurring in the street (table 10). As was the case with high-risk Black males, rates of homicide in the home and in the street generally declined with increasing age.

Weapon: In all of the high-risk categories for Blacks, the handgun was the weapon most likely to be used to commit a homicide. Among Black males, the rate of homicide involving a handgun rose from 63.9 per 100,000 among 15- to 24-year-olds to 76.5 among 25- to 34-year-olds; the rate then declined with age, dropping to 16.3 for those age 65 and older (figure 8, table 11). Among 15- to 24-year-olds, the rate for homicides involving a *long gun* ranked second to that for handguns, but then declined rapidly with age. The homicide rate associated with cutting instruments ranked second to that for handguns among Black males between the

Figure 8. Homicide Rate for Black Male Victims ≥ Age 15 by Weapon or Method Used, City of Los Angeles, 1970-79



This graph presents only those 3 categories generally associated with the highest homicide rates.

ages of 25 and 64. Among Black females in the high-risk categories, rates of homicide involving a handgun were consistently higher than those for any other weapon/method category; rates for cutting instruments were second (table 11).

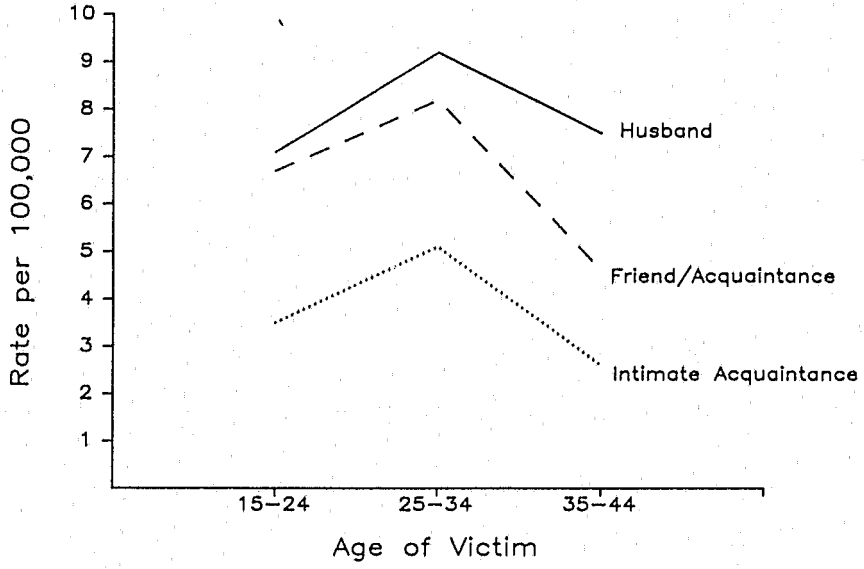
Circumstance: Verbal arguments were the circumstance associated with the highest rate of homicide for Black males between ages 15 and 54 and Black females 15 to 44 years of age (table 12). Among Black males, homicide rates for the verbal-argument circumstance increased from 49.4 per 100,000 among 15- to 24-year-olds to 62.4 among 25- to 34-year-olds. These rates then declined with age, dropping to 14.5 for those age 65 and older (table 12). For Black males age 55 and older, the circumstances most likely to precipitate homicide were related to crime. The homicide rate associated with verbal arguments relative to the rate for crime-related circumstances declined from 2.1 among 15- to 24-year-olds to 1.5 among 45- to 54-year-olds. However, among those age 55 and older, the risk of crime-related homicide was slightly higher than that for homicides related to verbal arguments. Homicides associated with gang violence were a significant risk only for Black males between ages 15 and 24 (the rate was 10.7 per 100,000).

Among Black females at high risk, a verbal argument was the circumstance most likely to precipitate homicide (table 12). Verbal arguments were associated with, by far, the highest homicide rates among 15- to 44-year-old Black females. In the cases for which circumstances could be determined, circumstances involving sex and crime were of secondary importance relative to verbal arguments.

Relationship of Offender to Victim: Homicide rates among Black males at high risk were generally highest in the friend/acquaintance category. These rates peaked among 25- to 34-year-olds, at 64.0 per 100,000; the rates then declined in each subsequent age category, dropping to 8.7 in the 65-and-older age category (table 13). Among those categories for which relationship could be determined, homicide rates for the stranger category ranked second to those for the friend/acquaintance category, with one exception. In the 55- to 64-year-old group, the stranger category was associated with the highest homicide rate.

High-risk Black females were more likely to be killed by their husbands than by someone in any other type of relationship category. For each age group whose members were between ages 15 and 44, homicide rates for the husband category were highest (figure 9, table 13). Homicide rates for the friend/acquaintance category consistently ranked second to those for the husband category, followed by those for the intimate acquaintance category.

Figure 9. Homicide Rates for Black Female Victims Ages 15-44 by Relationship of Offender to Victim, City of Los Angeles, 1970-79



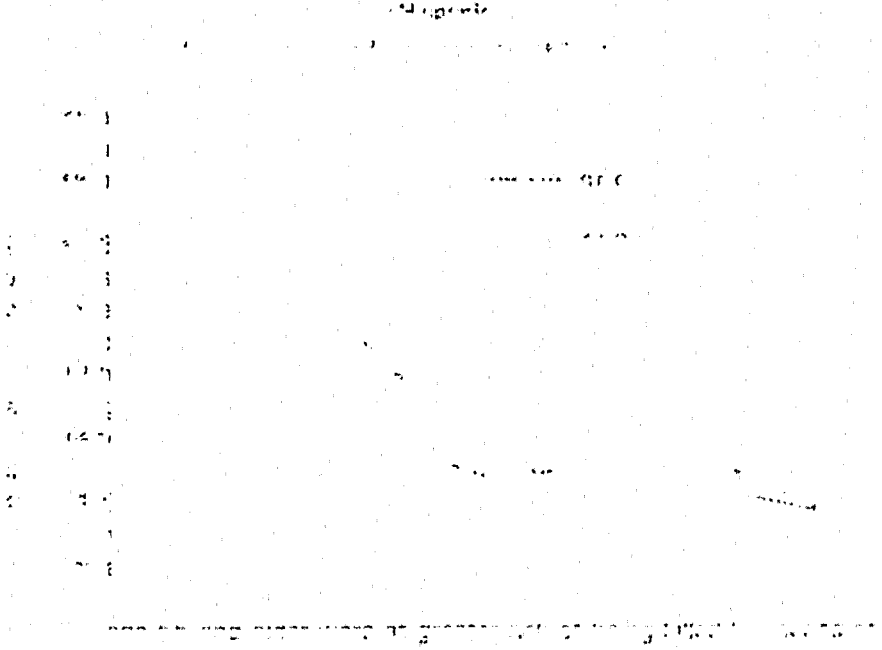
This graph presents only those 3 categories generally associated with the highest homicide rates.

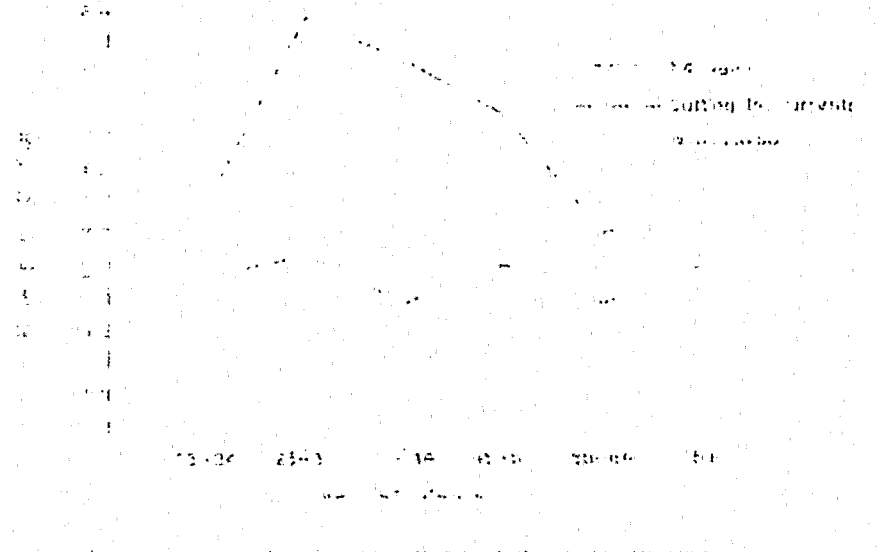
Hispanics

Among Hispanics, males age 15 and older met the criterion for high risk by having homicide rates exceeding 17.1 per 100,000 (the overall homicide rate for the city of Los Angeles during 1970-79). Rates for Hispanic females did not exceed this high-risk threshold (table 7).

Site of Occurrence: For Hispanic males in the high-risk categories, the street was the site of occurrence associated with the highest homicide rate, except for the 65-year-and-older age group (figure 10, table 14). Homes were the second most likely site of occurrence for the age groups whose members were from 15 to 64 years old and the most likely site for those age 65 and older. Rates for homicides occurring in the street declined with age among Hispanic males, dropping from 24.9 per 100,000 among 15- to 24-year-olds to 4.8 among those age 65 and older. There was a decline with age in rates for homicides occurring in homes, but not as dramatic a decline as that for homicides committed in the street.

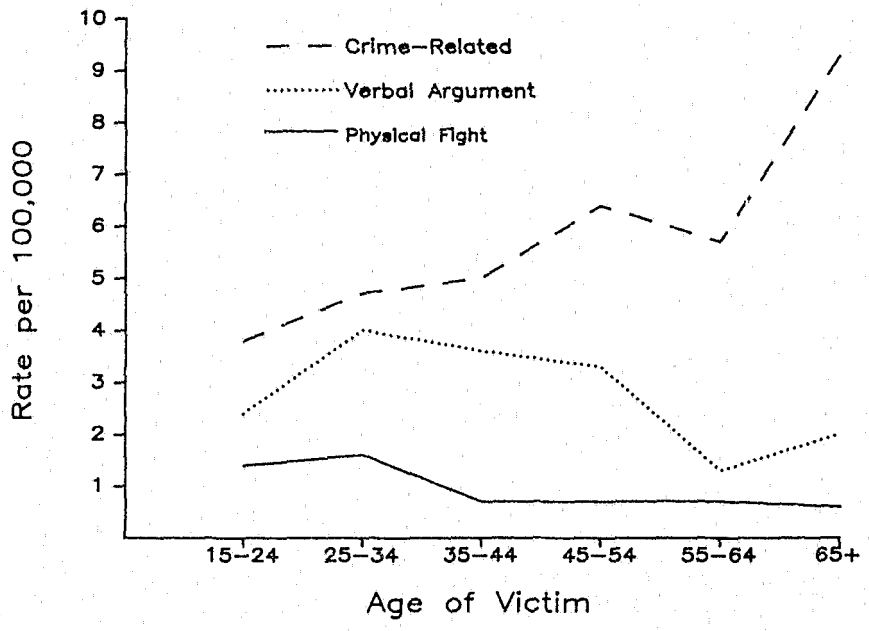
Weapon: Handguns were the weapon most commonly used to commit homicides involving Hispanic males at high risk, except for males 45 to 54 years old and those age 65 and older. The rate of homicides involving handguns declined from 28.9 per 100,000 among 15- to 24-year-olds to 3.9 among those age 65 and older (table 15). Rates for cutting instruments varied by age group, but were generally higher among young Hispanic men.





Circumstance: In those homicides for which circumstances could be determined, criminal activities such as robbery or burglary were associated with the highest homicide rates across all Anglo high-risk categories (figure 12, table 20). The rate for crime-related homicides among Anglo males increased as age increased, rising from 3.8 per 100,000 for 15- to 24-year-olds to 9.3 for Anglo males age 65 and older. For Anglo males, verbal arguments were the second most common precipitant of homicide. The homicide rate associated with crime-related circumstances relative to the rate associated with verbal arguments increased from 1.6 for 15- to 24-year-olds to 4.7 for those age 65 and older. For Anglo females 65 years of age and older, the highest rate by circumstance was 4.6 per 100,000 for crime-related circumstances, followed by 1.5 for sex-related circumstances such as rape.

Figure 12. Homicide Rate for Anglo Male Victims ≥ Age 15 by Crime Circumstance, City of Los Angeles, 1970-79



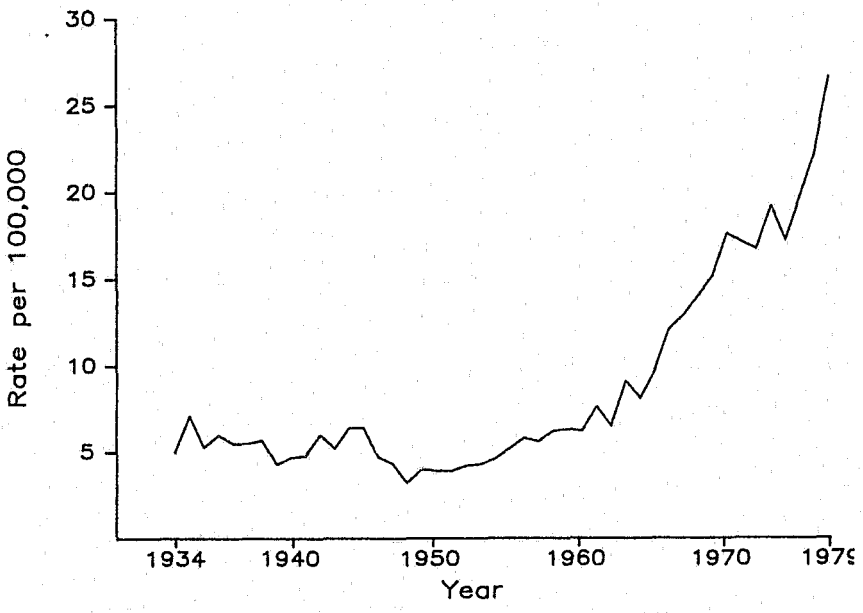
This graph presents only those categories generally associated with the highest homicide rates.

Relationship of Offender to Victim: The highest homicide rates were in the friend/acquaintance categories for Anglo high-risk males between 15 and 44 years of age; the "stranger" category had the second highest rates. However, in the categories for age 45 and above, rates for homicide committed by strangers were the highest (table 21). Less than 4.0% of all homicides involving high-risk male victims were committed by wives. Among Anglo females 65 years of age and older, homicide rates in the "stranger" category were the highest.

Trends in the Risk of Homicide Victimization

Homicide has long been a problem in the city of Los Angeles. Since the mid-1950's, the risk of homicide victimization has increased by sixfold, according to statistics compiled by the FBI (figure 13). However, the bulk of this increase occurred during the study period, 1970-79, when rates increased by 84.0%. Homicide rates jumped from 12.5 per 100,000 population in 1970 to 23.0 in 1979, with some year-to-year variation in the mid-1970's. In this section, we examine how the risk of homicide victimization has changed in terms of its demographic components.

Figure 13. Homicide Rate by Year of Death, City of Los Angeles, 1934-79



Source: Federal Bureau of Investigation. Uniform Crime Reports: 4th Quarterly Bulletin, 1934–1941; Annual Bulletin, 1942–1957, Crime in the U.S., 1957–1979. Washington, D.C.: U.S. Department of Justice.

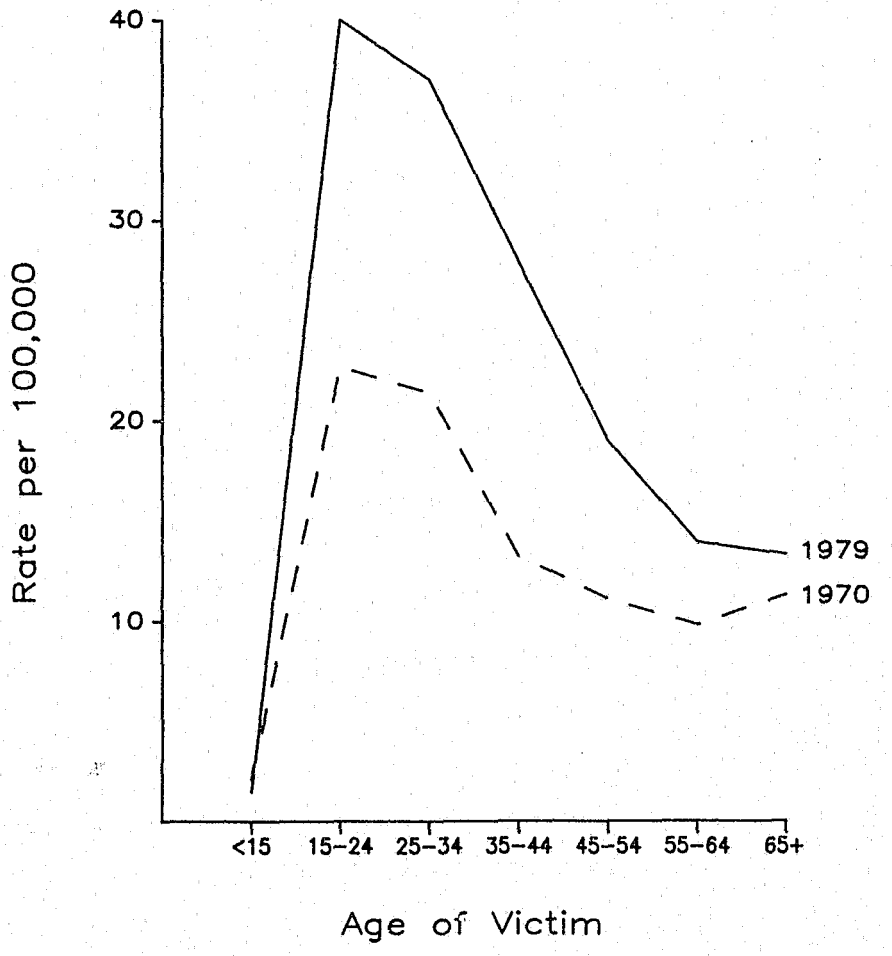
Sex

For each year from 1970 to 1979, over 70.0% of homicide victims wei male (table 22). The ratio of male to female homicide victims was abo 3.0:1 for most of the decade, but increased in 1978 and 1979 to 4.0:1 ar 5.7:1 respectively. The homicide rate for males more than doubled durir the decade, rising from 19.5 per 100,000 in 1970 to 39.7 in 1979 (tab 23). The rate for females rose from 6.0 to 6.6, with considerable yea to-year variation.

Age

From 1970 to 1979, the average age of homicide victims dropped. In 1970, 55.3% of victims were between the ages of 15 and 34; by 1979, this percentage had increased to 63.1% (table 24). In both 1970 and 1979, homicide rates were highest for the age groups between ages 15 and 44 (figure 14, table 25). Age-specific homicide rates increased from 1970 to 1979 in every age category (except for persons less than age 15). Homicide rates increased by more than 50.0% for each age group between 15 and 54 years of age from 1970 to 1979.

Figure 14. Homicide Rate by Age of Victim and Year of Death, City of Los Angeles, 1970 and 1979

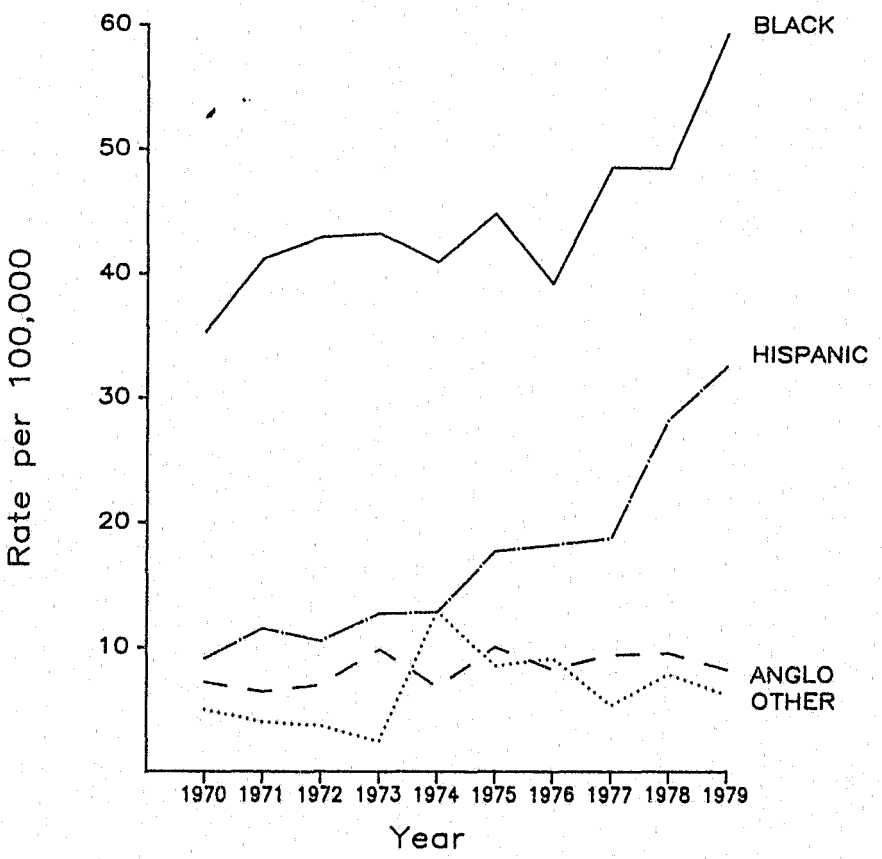


Race/Ethnicity

The numbers of Hispanic and Black victims increased markedly from 1970-79, but there was no meaningful increase in the number of Anglo victims. Throughout this period about half of all victims were Black, the proportion of Hispanic victims increased from 13.4% to 34.3%, and the percentage of victims who were Anglo decreased from 33.9% to 18.3% (table 26).

Blacks had the highest rates of homicide throughout the decade, but the most dramatic increase was in the homicide rate for Hispanics. This rate increased by 166.7%—from 11.1 in 1970 to 29.6 in 1979 (figure 15, table 27). Nevertheless, the absolute increase in Black rates (25.6 per 100,000) was greater than the absolute increase in Hispanic rates (18.5 per 100,000). The homicide rate for Blacks increased 71.7% (from 35.7 per 100,000 in 1970 to 61.3 in 1979). For Blacks relative to Anglos, the risk of becoming a homicide victim increased from 5.3 to 7.2 between 1970 and 1979; the risk for Blacks in relation to Hispanics declined from 3.2 to 2.1 over the same time period.

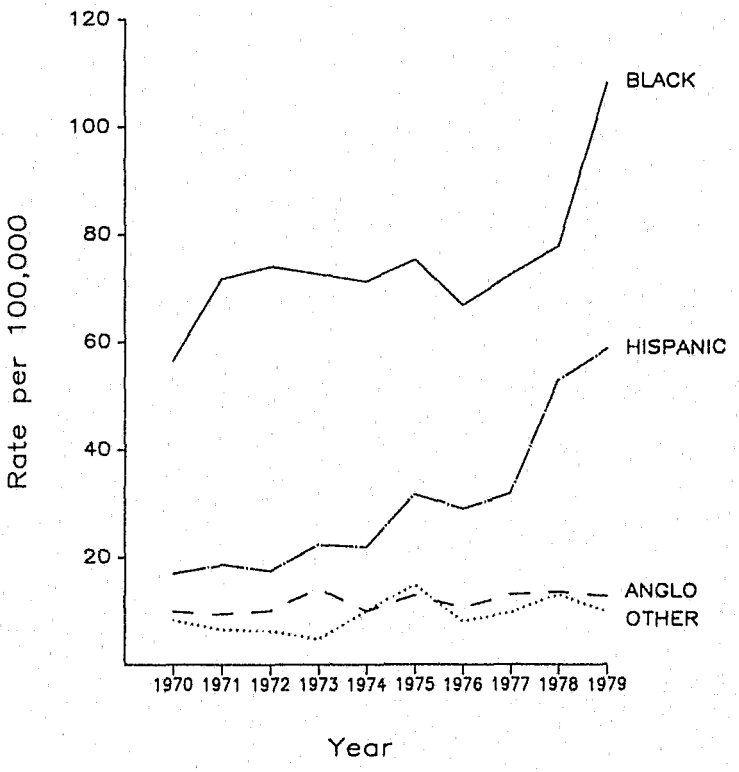
Figure 15. Homicide Rate by Race/Ethnicity of Victim and Year of Death, City of Los Angeles, 1970-79



Sex and Race/Ethnicity

Homicide rates for Black and Hispanic males increased substantially from 1970 to 1979 (figure 16, table 28, table 29). Rates for Anglo males fluctuated considerably from year to year, but rates in the latter half of the decade were higher than in the first half. The rates for Anglo, Black, and Hispanic females fluctuated from year to year and peaked in the middle of the decade (figure 17, table 29).

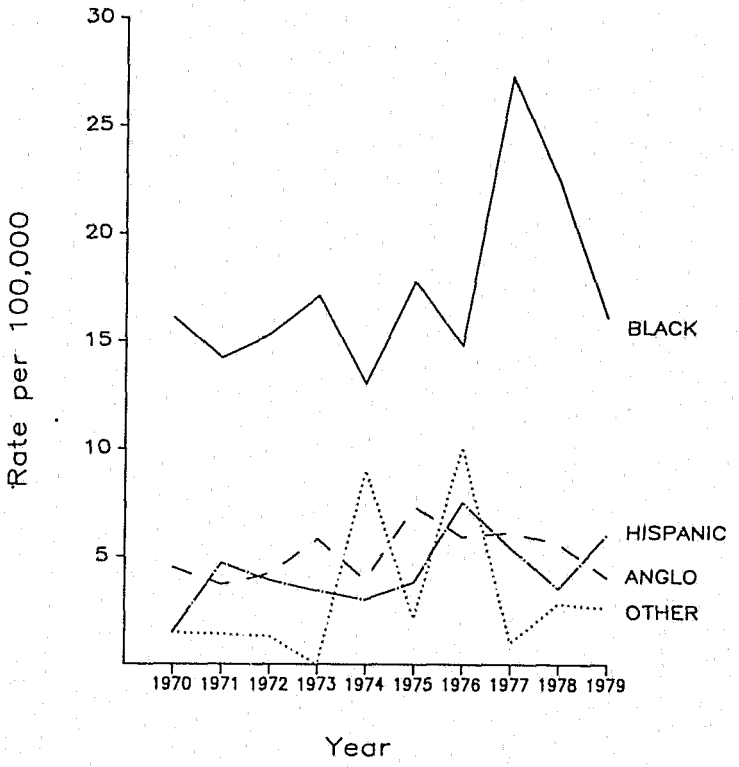
Figure 16. Homicide Rate for Male Victims by Race/Ethnicity and Year of Death, City of Los Angeles, 1970-79



Sex, Age, and Race/Ethnicity

Homicide rates for Black males were higher across all age categories than those for any other race/sex category in both 1970 and 1979 (table 30, table 31). However, the most dramatic increases in homicide rates over this decade occurred among Hispanic males between the ages of 15 and 44. In this age range, rates were over 100.0% higher in 1979 than in 1970. While rates rose faster among Hispanic males, the absolute increase in rates

Figure 17. Homicide Rate for Female Victims by Race/Ethnicity and Year of Death, City of Los Angeles, 1970-79



was greater among Black males. Among Black males the greatest increase occurred among those age 65 and older; rates increased by 315.8%, from 17.7 per 100,000 in 1970 to 73.6 in 1979. Rates for Anglo males increased in the 25-to-54 and 65-and-older age groups, but declined in all other categories. Among females, age-specific homicide rates for Anglos and Blacks did not indicate any trend, increasing in some categories but declining in others. Homicide rates for Hispanic females increased in all age categories, except that for 55- to 64-year-olds; however, these rates are based on small numbers.

Alcohol and Drug Use by Homicide Victims

From 1970-79, blood alcohol and serum barbiturate levels were routinely determined for homicide victims (table 32). Only 9.7% and 6.0% of homicide victims were tested for narcotics and other types of drugs, respectively. However, medical examiners screen for the presence of narcotics and other types of drugs in homicide victims only when they suspect that one or more

of these substances may be present. Therefore we limited our discussion of the results to alcohol and barbiturate use by homicide victims, because for these drugs we have information on enough victims to minimize selection bias.

Alcohol Use

The blood of 4,092 (82.7%) of the 4,950 victims was tested for alcohol. Assays were not performed for 858 (17.3%) of the victims for several reasons: 1) too much time had elapsed between infliction of the injury and death (e.g., a victim might die after prolonged hospitalization); 2) the corpse had decomposed too much; 3) the medical examiner rarely tested blood samples for alcohol when the victim was a child; or 4) the case was not classified as a homicide at the time of autopsy. When examined by sex or by race/ethnicity, the proportions of victims tested were comparable among subgroups; however, test status varied markedly by age grouping (table 32). Victims under age 15 and over age 65 were less likely to be tested than those between ages 15 and 65.

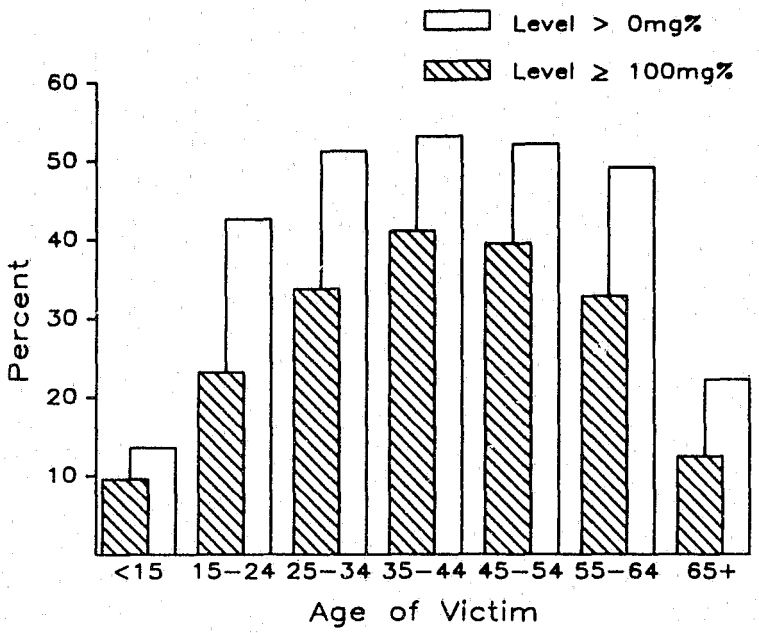
Alcohol was detected in 1,883 (46.0%) of the homicide victims who were tested; positive levels ranged from 1 mg of alcohol per 100 ml to 870 mg per 100 ml. Of the victims in whom alcohol was detected, 15.8% had levels of 1-99 mg%; however, in 30.2% of the victims, blood levels were $\geq$ 100 mg%, the level of legal intoxication in most States. In 1970, alcohol was present in 42.1% of victims tested, while in 1979 it was present in 50.3% of victims (table 33). The percentage of victims in whom alcohol was detected fluctuated from year to year, so that no clear trend was established during the study period.

Male homicide victims were almost twice as likely to have detectable levels of alcohol in their blood as females were. Detectable levels were found in 51.3% of males and 25.8% of females (table 34). Levels of $\geq$ 100 mg% were detected in 34.1% of males and in 14.9% of females.

Alcohol was least likely to be detected in victims at the extreme ends of the age distribution. Alcohol was detected in about half of victims tested who were between ages 15 and 64 (figure 18, table 35). However, among those victims younger than age 15 and older than age 64, alcohol was detected in only 13.6% and 22.3%, respectively, of victims tested. Over 30.0% of victims between ages 25 and 64 had blood alcohol levels $\geq$ 100 mg%.

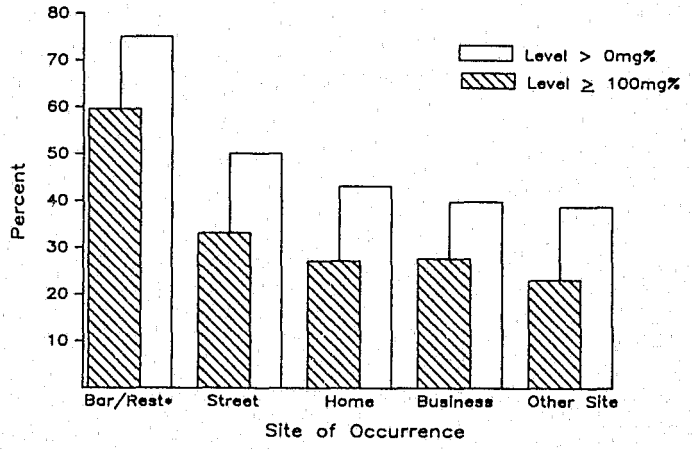
Blood alcohol levels varied markedly by race/ethnicity. Hispanic victims as a group were observed to have the highest proportions of victims with detectable blood levels of alcohol. Alcohol was detected in 57.0% of all Hispanic victims tested, 47.7% of Blacks, 34.5% of Anglos, and 33.7% of persons in other race/ethnic groups (table 36). Levels were $\geq$ 100 mg% in 38.2% of Hispanics, 31.8% of Blacks, 20.5% of Anglos, and 24.5% of victims in other race/ethnic groups.

Figure 18. Percentage of Homicide Victims Positive for Alcohol and with Levels ⩾100 mg% by Age, City of Los Angeles, 1970-79



Persons killed in bars or restaurants were more likely to have detectable blood alcohol levels than those killed at other types of sites. Alcohol was detected in 75.1% of those killed in bars or restaurants in contrast to 38.6% to 50.0% of those killed at other types of sites (figure 19, table 37). Blood alcohol levels were ⩾ 100 mg% for 59.6% of those killed in restaurants or bars, compared with 23.0% to 33.1% of those killed at other known sites.

Figure 19. Percentage of Homicide Victims Positive for Alcohol and with Levels ⩾100 mg% by Site of Occurrence, City of Los Angeles, 1970-79



*"Rest" = restaurant.

Evidence of alcohol use was greatest among victims of homicides involving physical or verbal conflicts. Alcohol was detected in 67.9% of victims involved in physical fights, 55.0% of those involved in verbal arguments, 48.3% of victims involved in gang violence, and about one-third of victims in other crime-circumstance categories (table 38). Blood alcohol levels were ≥ 100 mg% in 52.5% of victims involved in physical fights and 38.1% of victims in verbal arguments, but in only about one-fifth of victims in other types of crime circumstances.

Barbiturate Use

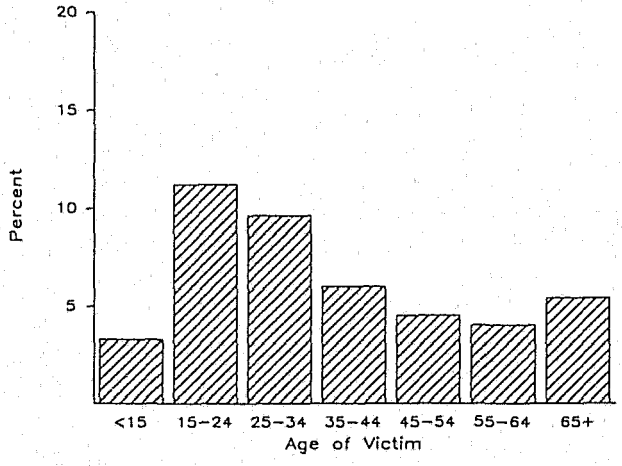
For 4,063 (82.1%) of the 4,950 victims of criminal homicide, blood or tissue was tested for the presence of barbiturates. Assays were not performed for 17.9% of the victims for the same reasons that blood alcohol assays were not performed for all victims. The proportions of victims tested were comparable among sex and race/ethnic subgroups, but varied somewhat by age grouping (table 39). Victims under age 15 were far less likely to be tested than those age 15 and older.

Barbiturates were detected in 323, or 7.9%, of the 4,063 victims tested. In 1970, barbiturates were present in 15.9% of victims, while in 1979 this percentage dropped to 4.4% (table 40). However, the percentage of victims in whom barbiturates were present fluctuated from year to year, so no clear trend was established during the study period.

Female victims were more likely than males to have detectable levels of barbiturates. Barbiturates were detected in 10.9% of female victims, compared with 7.1% of male victims (table 41).

When examined by age, homicide victims between ages 15 and 34 were the group most likely to have detectable levels of barbiturates. Barbiturates were present in 11.2% of victims in the 15- to 24-year age group, which represented the highest percentage for any age group (figure 20, table 42). This percentage then declined with age to 5.4% of victims in the 65-and-older age category.

Figure 20. Presence of Barbiturates in Homicide Victims by Age of Victim, City of Los Angeles, 1970-79



Black victims were more likely to have detectable levels of barbiturates than victims in any other race/ethnic group. Barbiturates were detected in 10.4% of Black victims, 6.0% of both Anglo and Hispanic victims, and 4.1% of victims in other race/ethnic categories (table 43).

Barbiturates were most commonly detected in victims killed in a home (9.2%) and least commonly detected in victims killed in bars or restaurants (2.5%) (table 44). By site of occurrence, there was not a great deal of variation overall in the proportion of victims whose blood or tissue tested positive for the presence of barbiturates.

Barbiturate use by homicide victims varied moderately with crime circumstance. As with alcohol use, barbiturates appeared to be most often present in those victims killed under circumstances stemming from physical or verbal conflict. Barbiturates were detected in 10.3% of victims involved in physical fights and 9.2% of victims involved in verbal arguments and sex-related circumstances (table 45).

DISCUSSION

Homicide is the outcome of complex social interactions that are, in turn, determined by a myriad of biological, cultural, social, and psychological factors. Our goal is to increase understanding of these interactions and their determinants, so that effective interventions can be devised.

In this discussion, we review our major findings, compare these with findings from previous homicide research, and focus on how our findings improve understanding of homicide in urban settings. During this discussion, some critical theoretical and methodological issues are highlighted. Finally, we review the implications of our findings for homicide research and prevention in Los Angeles and other communities.

Demographic Patterns in the Risk of Homicide Victimization

For at least 40 years, studies in American cities have consistently reported that minority group members, males, and persons 15 to 40 years old are at greatest risk of homicide victimization. Studies in Philadelphia, Houston, Chicago, and Atlanta have all shown that Black males between the ages of 15 and 40 have the greatest risk of homicide victimization (*4-7*). Our findings are comparable to those of these earlier reports. In the city of Los Angeles during 1970-79, Black men between 25 and 34 years of age were at greatest risk of victimization, with a homicide rate of 143.0 per 100,000.

These findings have been consistently reported from many different urban areas over a long period of time, which suggests that the determinants of these patterns are pervasive throughout society rather than associated with specific local environments or points in time. Three such plausible determinants of the high risk faced by Blacks and other minority groups are minority group status, poverty, and subculture of violence.

Minority group status may heighten the risk of homicide victimization because of the influence of factors that result in prolonged exposure to prejudice and institutional discrimination. Such exposure may contribute to frustrations that, in turn, influence the frequency of violence between individuals in the same minority group.

Poverty may increase the risk of homicide victimization by depriving individuals of legitimate means and resources for realizing culturally valued goals (*28-34*). Deprived of opportunities for meaningful employment and economic advancement, members of impoverished groups become frustrated and these frustrations may increase the frequency of violent interactions.

Finally, the high rate of homicide among Blacks and other minority groups has also been attributed to a subculture of violence (*35-39*). According to this theory, homicide is the result of learned, shared values, and of behavior specific to a given group and applied in recognizable situations.

The basic causes are the group's norms and values, transmitted across generations. Therefore, certain subgroups may exhibit higher rates of homicide because they are part of a subculture in which violence is a norm.

Explanations for the higher risks faced by males have focused primarily on cultural and biological factors. Cultural factors include many elements associated with the stereotypical male role in society, such as the belief that males are the dominant sex and that they should reflect this dominance in demonstrations of physical prowess, toughness, and other risk-taking behaviors (*36,39*). Biological factors that have been hypothesized to influence the likelihood of male victimization suggest that aggressive behavior may be linked to male sex hormones. For example, the level of testosterone in the blood may immediately influence aggressive behavior, or the level of circulating sex hormones may influence the development of the fetal brain in ways that determine later propensities for violence (*40*).

Explanations for the relatively high risk of homicide victimization in late adolescence and young adulthood have focused on the social position of youth as well as on biological differences. The social position of young people is distinguished by comparatively inferior employment and economic status (*41,42*). The deprivations associated with youth may contribute to a lifestyle that is both riskier and more frustrating than that of adults, increasing a young person's likelihood of becoming involved in a violent confrontation. One possible biological explanation is that manifestations of overt aggression diminish with age as a result of biological transformations associated with aging (*4*).

An important finding of this study was the differences in patterns of homicide victimization for Anglos, Blacks, and Hispanics. Particularly notewothy were differences in the 1) overall risk of victimization, 2) age-specific patterns of risk, and 3) risk for males relative to that for females.

Our finding that the crude homicide rate for Hispanics was 2.3 times that for Anglos is compatible with data from two other studies. Pokorny found rates for Hispanics to be 2.3 times greater than rates for Anglos in Houston, Texas, for 1958-61 (*5*), and Smith et al. found rates for Hispanics to be 2.6 times greater than rates for Anglos in the five southwestern States for 1976-80 (*43*). In addition, the risk of victimization for Blacks was 2.5 times that for Hispanics in the city of Los Angeles—a relative risk virtually identical to that Pokorny reported for Houston (*5*).

Hispanic victims in our study tended to be younger than both Black and Anglo victims. Homicide rates peaked in the 65-and-older age category for Anglos, the 25- to 34-year age category for Blacks, and the 15- to 24-year age category for Hispanics. Although previous studies have noted that Black homicide victims tend to be younger than White victims (*4-7*), our study is the first to provide evidence that Hispanic victims may be younger than Black or Anglo victims.

Finally, a finding not previously described is the striking difference in the race/ethnic patterns of homicide victimization for males relative to females.

Anglo males were at 2.3 times greater risk than Anglo females, while Black males were at 4.3 times greater risk than Black females. Hispanic males, however, were at 7.3 times greater risk than Hispanic females for homicide victimization.

These race/ethnic differences in the risk of homicide victimization are not adequately explained by current theories. Our understanding of these differences is complicated by many factors, including patterns of immigration to Los Angeles. Unlike Anglos and Blacks, many Hispanics in Los Angeles are recent immigrants to the United States. The cultural values and norms of such immigrants may influence the nature and frequency of violence among Hispanics. In addition, acculturation is stressful and may lead to violent behavior among immigrants. Recent immigrants may also be easy targets for assaultive crimes that end in homicide. Another factor in interpersonal violence may be competition between Hispanic immigrants and Blacks for limited living space and economic opportunities.

Situational and Interpersonal Characteristics of Homicide

Patterns in the situational and interpersonal characteristics of homicide for the city of Los Angeles resemble those described in other American cities during the past 40 years. For example, the home is consistently the most common site of occurrence (*4-7*). In Los Angeles, 48.4% of homicides occurred in the home.

Firearms were used to commit more than half of all homicides in Los Angeles. Handguns were used in 79.3% of homicides associated with firearms. Cutting or piercing instruments, the second most frequently used weapon in Los Angeles, accounted for death in 23.3% of homicide cases. According to "Crime in the United States—1980," 62.0% of all homicides involved a firearm and 19.0% of all homicides involved cutting instruments (*2*). Nearly 80.0% of firearm-related homicides involved handguns. Thus, the patterns of weapon/method used in Los Angeles are generally consistent with national patterns.

Firearms have been the principal means of committing homicide in all urban settings that have been studied, with one exception. In Wolfgang's study in Philadelphia, stabbings accounted for the highest proportion of cases (*4*). However, the Philadelphia study was conducted during 1948-52, while all of the other reports addressing firearm use were derived from studies initiated at least 10 years later.

Previous studies have noted that the crime circumstances precipitating homicides are often associated with vaguely defined altercations involving money, property, or domestic issues (*4,7,9*). In Los Angeles, 43.0% of homicides were associated with vaguely defined altercations, while 26.0% were crime related.

Descriptive information on the circumstances that precipitate or are associated with homicide is one of the least developed aspects of this problem. A thorough understanding of the events and circumstances preceding a homicide is necessary to develop effective intervention strategies. For this reason, future research should describe the situational components of homicide in much greater detail than has been done previously.

The classic finding that most homicide victims are acquainted with their assailants (*4,5*) held true in Los Angeles, where the assailant was either a family member or otherwise acquainted with the victim in 55.2% of cases. This finding, coupled with the fact that most homicides arise from arguments rather than criminal activities, has led the FBI to conclude that "homicide is primarily a societal problem over which law enforcement has little or no control" (*2*). The issue of the control or prevention of injuries inflicted by family members or close associates is complicated. It may be easier for individuals to protect themselves from potentially violent strangers than from the people with whom they regularly associate and interact.

In this study we have described the association of situational and interpersonal factors with homicide, giving special attention to high-risk groups in the city of Los Angeles. We defined the individuals in a particular sex, age, and race/ethnic category as at high risk if the homicide rate for that category exceeded the overall rate of 17.1 per 100,000 for 1970-79 in Los Angeles. These high-risk categories included Black and Hispanic males age 15 and older and Black females 15 to 44 years of age.

Homicides involving Black male victims were generally committed with a handgun, associated with verbal arguments, perpetrated by friends or acquaintances, and carried out in a home. Patterns were similar for Black female victims, except that husbands were most likely to perpetrate the homicide; friends or acquaintances were next most likely. Among Hispanic male victims, the patterns of homicide were more varied than among Black male or female victims. Homicides involving Hispanic male victims were usually committed with a handgun or cutting instrument and were generally associated with verbal arguments, physical fights, criminal activities, or gang violence. The offenders were usually friends, acquaintances, or strangers, and the homicide was most likely to have occurred in the street.

These findings indicate quite clearly that for different race/ethnic groups, homicides arise from markedly different circumstances and conditions. Cultural and socioeconomic distinctions among Anglos, Blacks, and Hispanics may account for some of the race/ethnic differences in these homicide patterns. However, research has primarily focused on explaining racial differences in the magnitude of homicide rates and not on race/ethnic differences in the forms in which homicide is manifested. Greater understanding of the factors associated with these race/ethnic differences is essential to understanding the causes of homicide.

Trends in the Risk of Homicide Victimization

Comparisons of homicide trends across different urban areas are not as congruous as comparisons of patterns in the demographic, situational, and interpersonal characteristics of homicide. As noted, the homicide rate in Los Angeles increased at a much greater pace than the national rate between 1970 and 1979. Moreover, between 1970 and 1978, the rate of increase in homicide rates for the 1970 Los Angeles/Long Beach SMSA was much greater than in any of the other 25 most populous SMSA's (based on 1970 population estimates) (*12*).

The increasing homicide rate in Los Angeles is primarily attributable to increasing rates of homicide among Black and Hispanic males between the ages of 15 and 44. This pattern may be related to changes occurring in Los Angeles from 1970 to 1979. During the 1970's, a large influx of poor Hispanic, primarily Mexican, immigrants arrived in Los Angeles. This immigration pattern could have influenced homicide rates in at least three ways. First, these immigrants may have brought with them cultural values (such as machismo and personal honor) that are conducive to violent behavior and the risk of becoming a homicide victim. Second, the influx of immigrants may have led Hispanics to develop certain adaptive, yet violent, strategies to cope with the new social structure, either in the form of a "conflict" subculture (*44*) or a "violent" subculture (*4,39*). Third, the influx of immigrants may have intensified economic and social competition within low socioeconomic groups where Blacks and Hispanics are overrepresented. The frustration associated with this competition for limited economic opportunities may have contributed to increasing rates of homicide among Black and Hispanic males.

Alcohol and Drug Use by Homicide Victims

Alcohol Use

Previous studies of the relationship between alcohol and violence have consistently demonstrated that substantial proportions of victims and/or offenders involved in homicide and other violent crimes consume alcohol before the crime is committed (*4,7,16-19,45*). Our study confirms this finding with respect to alcohol use by homicide victims and advances knowledge of the relationships between alcohol use and homicide in specific ways. First, we examined all homicides that occurred in a defined community during an extended time period. Second, results of laboratory testing for the presence of alcohol were linked to the data file of each homicide victim; this file included information about victims and suspects as well as details of the homicide. Finally, this study setting provided the opportunity to examine alcohol use for Hispanic homicide victims and to compare these findings directly with those for Anglos, Blacks, and other race/ethnic groups.

Alcohol use, while common among persons who were homicide victims in Los Angeles, varied markedly by the demographic characteristics of the victims. These patterns of alcohol consumption resemble those that have been reported for different population subgroups (*46-51*). Alcohol use was more common among male victims, especially young adults, than among female victims. Most striking, however, was the evidence for use among Hispanic victims. Although the prevalence of alcohol use among Hispanics is known to be high (*51*), when compared with that among Anglos and Blacks, the high proportion of Hispanic victims who used alcohol before death suggests that for Hispanics the association between alcohol and homicide warrants special attention.

The detection of alcohol in large proportions of victims in certain settings is consistent with patterns of alcohol consumption that might be expected in those settings. For example, in this study, over 75.0% of persons killed in bars or restaurants had consumed alcohol. Alcohol consumption in such settings may increase the risk of homicide victimization because of the associated likelihood that individuals will be in high-risk places or situations. An alternative hypothesis holds that aggression that occurs in a setting such as a bar may be a function of aversive stimuli present in the environment (*52*). Evaluation of these hypotheses requires estimates of blood alcohol concentrations in victims, offenders, and controls in different settings, but attempts to obtain these data have been frustrated (*53*).

The proportions of victims with detected blood alcohol differ strikingly by crime circumstance. For example, victims killed during physical fights and in crime-related situations differed dramatically by likelihood of being intoxicated: 52.5% of those in fights versus 19.8% of crime-related victims. This finding is compatible with hypotheses that posit a role for alcohol in promoting aggressive behavior and aversive interactions. In contrast, a comparatively diminished overall presence of alcohol might be expected in persons killed during the offender's commission of another crime; in this type of scenario, the victimization could be considered incidental.

For certain settings and types of fatal injuries, the causal role played by alcohol has been convincingly established, as illustrated by the clear association between fatal injury and driving while intoxicated (*54*). In contrast, basic methodological constraints have prevented researchers from establishing whether alcohol consumption increases an individual's risk for homicide victimization or perpetration. These constraints include difficulties in obtaining blood samples from offenders immediately after the homicide and problems in identifying and testing appropriate control groups. Without estimates for alcohol use by referent populations, the prevalence of alcohol in homicide victims may only reflect alcohol consumption patterns in individuals or groups who are at increased risk of homicide for other reasons. Ultimately, analytic epidemiologic approaches will be necessary to evaluate the causal significance of alcohol in homicide victimization.

Barbiturate Use

This study confirmed barbiturate use in 7.9% of homicide victims in Los Angeles. Barbiturates were detected in female victims more often than male victims and in Black victims more often than Hispanic or Anglo victims. Contrasting patterns were observed for alcohol use: alcohol was nearly twice as likely to be present in male victims as in female homicide victims; by race/ethnic group, alcohol use was most prevalent among Hispanics. Barbiturate use, like alcohol use among victims, peaked in the 15- to 34-year age group. Similar patterns of substance abuse have been found in surveys of the national population (*46*).

Most previous studies of the relationship between violent crime and use of barbiturates or other drugs have been restricted to offenders. Investigators using biochemical testing for barbiturates have detected the drug in varying proportions of members of these groups. For example, barbiturates were detected in 0.5% of all persons arrested and admitted to the Washington, D.C., superior court lockup between 1971 and 1975; the drug was detected in 0.1% of these persons who had committed violent crimes (*55*). In contrast, analysis of urine samples from Los Angeles County probationers for 1975-79 detected barbiturates in substantial proportions of persons tested: long-acting barbiturates were present in 19.3% of persons tested in 1975, though this proportion declined steadily to 7.2% in 1979; short-acting barbiturates were present in 10.9% in 1975, but in 3.0% in 1979 (*56*).

Barbiturates have also been commonly identified in medical examiner cases. For example, barbiturates were detected in nearly 12% of decedents who were autopsied in New York City during a 12-month period between 1974 and 1975, although this series of cases included drug overdoses and all other deaths investigated by the medical examiner and not just homicides (*16*).

In this study, the proportion of homicide victims who used barbiturates was greater than the proportion of the general population estimated to use barbiturates. A nationwide household survey conducted in 1974 found that 6% of adults reported having used prescribed barbiturate daytime sedatives for a medical purpose at least once during the preceding year; 4% had used prescribed barbiturate hypnotics during the preceding year (*57*). Only 5% and 1% had used prescribed daytime sedatives or hypnotics, respectively, in the month before the survey. Females were more likely than males to have used either type of drug (*57*). Experience with prescribed barbiturates was more prevalent among females than males and more common among older age groups. In contrast, nonmedical experience with any type of sedative, including barbiturates, was more common among younger than older adults, and only slightly more prevalent among males than females. A worldwide survey of nonmedical drug use among U.S. military personnel in 1980 revealed that overall, 6% had used barbiturates or other "downers" sometime in the preceding 12 months and 2% had in the past 30 days (*58*).

Limited data that describe use of specific drugs in Los Angeles indicate that only 1.3% of males and 5.3% of females had used medically prescribed barbiturates at some time during the 4-year period 1979-83. These individuals were interviewed as part of a population-based survey on depression (personal communication, C. Aneshensel, Ph.D., December, 1984). The same survey found that 6.9% of Blacks, 4.2% of Anglos, and 0.9% of Hispanics had used barbiturates in the preceding 4 years.

The descriptive data we used to examine the association between barbiturate use and homicide victimization do not permit us to ascribe causal significance to the role of barbiturates in homicide deaths. As with alcohol, the prevalence of barbiturates in homicide victims may only reflect patterns of use in individuals or groups that are at increased risk of homicide for other reasons. Ultimately, analytic epidemiologic approaches will be necessary to evaluate the causal significance of barbiturates and other drugs in homicide victimization.

Implications for Research and Prevention

The findings of this study have important implications for research efforts directed toward prevention. We have identified six areas of inquiry that should be pursued by researchers and policymakers: crime-related violence, gang violence, domestic violence, friend/acquaintance violence, alcohol use, and firearm use.

Crime-Related Violence

One of the most common types of homicide in Los Angeles was crime-related homicide. Crime-related homicide rates for Blacks were 3.8 and for Hispanics 2.6 times greater than those for Anglos. However, crime-related homicides accounted for a much greater proportion of cases among Anglos than among Blacks or Hispanics. In addition, crime-related homicides were notably prevalent among the middle aged and the elderly.

It would seem that crime-related homicides should be most amenable to prevention strategies currently used by law enforcement agencies. However, alternative approaches based on epidemiologic research may also be useful.

1. The lifestyle/exposure model of personal victimization may be useful in unifying research approaches to an understanding of crime-related homicide (*59*). This model postulates that an individual's likelihood of being victimized depends greatly on his or her lifestyle, including routine work and leisure-time activities. These activities are predictive of where and with whom individuals spend their time; these factors, in turn, are potentially related to an individual's risk of homicide victimization. Although past lifestyle research has generally focused on nonfatal, nonviolent victimizations, we believe that the lifestyle approach may have particular value for identifying routines that increase the risk of victimization for crime-related homicide. For example, it may be that persons who work in central cities during

nighttime hours are at high risk for homicide victimization. If such a lifestyle pattern is established, programs aimed specifically at reducing the risk of victimization in this group could be formulated.

2. The risk of crime-related homicide may also be related to the physical environment. In particular, physical characteristics of the environment, such as the difficulty of access or evasion within a structure, may influence a person's risk of being attacked and his or her capability for self-protection (*60*). Research is necessary to evaluate the relationship between homicide and factors related to physical environment.

3. An important facet of crime-related homicide relates to the illicit use, manufacture, or distribution of drugs. Neither this study nor official statistics collected by the criminal justice and health care systems link acts of criminal violence and resultant injuries to drug activity of victims or offenders. The term "drug activity" can apply to drug use by victims or offenders as well as the risky activities involved in distributing, buying, and selling drugs. Police in New York City examined this linkage and found that 24% of all homicides could be considered drug related in 1981 (New York City Police Department, internal document entitled "Crime Analysis—1981," 1983). Thus, existing data bases must be improved to enhance epidemiologic analysis of the associations between homicide and the illicit use, manufacture, or distribution of drugs.

Gang Violence

Gang-related homicides were most prevalent among Hispanics ages 15 to 24. Because of the large Hispanic population in Los Angeles, gang violence is a particularly important problem in this city. Since the numbers and risk of gang-related homicides in Los Angeles appear to be increasing, we offer the following suggestions for research related to the prevention of gang violence:

1. The manner in which cases of homicide and other violent crimes come to be classified as gang related should be closely examined. For example, it may be that gang-related homicides include all those deaths in which a gang member was either the victim or perpetrator rather than only those deaths that occurred during the course of gang warfare. There is a need for more complete descriptions of the situation and background of homicides and other violent crimes classified as gang related, so that interventions in this area can be based upon a clear understanding of the true nature and extent of gang violence.

2. Researchers must consider the functional aspects of gang behavior in addition to the negative consequences, such as gang violence. Certain noncriminal, nondelinquent aspects of gang activity may be beneficial and rewarding to the members as well as functional and stabilizing within the social structure of the community and the families of gang members. For

example, the gang may be a source of personal honor for Hispanic males (*61,62*) and provide a setting for the development of values such as courage, personal dignity, and brotherhood (*63*). If effective policies for preventing gang violence are to be developed, research findings and understanding of the role and function of gangs must be considered along with those concerning the causes of gang violence.

3. Gang behavior is prevalent among Black youths as well as Hispanic youths. However, notable differences exist among Hispanic, Black, and other race/ethnic gangs (*61,64*). For example, researchers examining Black gangs have noted that members share a socially marginal status in relation to the larger society and their own communities (*65,66*). In contrast, Chicano gangs have been reported to share many values with the larger society and to be well integrated into their own communities as well (*62*). These differences suggest that various strategies may be required to reduce gang-related violence among gangs of different race/ethnic makeup.

4. Various strategies have been formulated and adopted to reduce gang violence. Some use former or active gang members to mediate disputes (*67,68*); others employ behavioral methods to dissolve the gang or modify the use of violence by gang members (*69,70*). The effectiveness of these strategies in preventing gang-related violence should be evaluated.

Domestic Violence

Homicides involving family members and intimate acquaintances are an important dimension of the homicide problem in Los Angeles, particularly among Blacks. For example, our study showed that Black females were most likely to be killed by their husbands, while 10.1% of Black male homicide victims were killed by their wives.

Spouse abuse, child abuse, and the abuse of elderly relatives, once thought to be isolated events, are now known to be widespread problems (*71*). However, research in the area of domestic violence has been constrained by certain definitional and methodological problems (*72*). Attention to the following issues may help clarify understanding of domestic violence:

1. Estimates of the incidence and prevalence of domestic violence vary greatly, in part because there is no agreement on the definition of domestic violence (*71*). To collect useful data, definitions of the various dimensions of domestic violence must be refined and measurement instruments and data-collection strategies improved.

2. The natural history of family abuse must be better understood. Wife battering is characterized by recurrent injuries to and general medical complaints by the victim (*73-75*). However, what has come to be termed the "battering syndrome" has only been rudimentarily described. More attention should be given to questions such as whether the severity of physical assaults escalates in the family context, how frequently assaults occur, and

whether abuse of children and abuse of the elderly are associated with spouse abuse in families. In addition, more detailed information on how these victims seek help is needed. For example, how frequently do victims have prior contacts with criminal justice institutions, social service agencies, and health facilities for problems related to nonfatal abuse? What are the results of these contacts?

3. More attention must be paid to evaluation in developing and implementing programs intended to prevent domestic violence. The programs include shelters for battered women, mandatory arrest policies, and treatment programs for abusive husbands. There is very little evidence as to whether any of the current strategies for addressing domestic violence are effective in reducing the frequency, severity, or duration of violence.

Friend/Acquaintance Violence

Homicides among friends or acquaintances accounted for 33.7% of all homicides occurring in Los Angeles between 1970 and 1979—a larger proportion than any other relationship category. However, fatal and nonfatal violence among friends and acquaintances has received surprisingly little attention, and knowledge of the frequency and nature of violence between friends and acquaintances is extremely limited. The following methodological and research issues must be pursued:

1. Homicides among friends and acquaintances represent only part of the spectrum of interpersonal violence associated with this relationship category. For this relationship category, we have much better information on the extent and nature of fatal violence than on nonfatal violence. In fact, social pressures may militate against the reporting of violent assaults involving friends or acquaintances since they are often related to one another through common social circles. Moreover, within some social contexts acts of violence involving friends and acquaintances may not be viewed as deviant or abnormal, thus reducing the likelihood that such acts would come to official attention.

2. Young males who are members of minority groups appear to be particularly vulnerable to friend/acquaintance homicide. This fact suggests that the forces that account for racial discrepancies in homicide rates may have their greatest influence on violence between friends and acquaintances. Examination of the socioeconomic and cultural context in which friend/acquaintance violence occurs as well as the means of conflict resolution used by young, minority males may be a useful starting point for understanding race/ethnic differences underlying this phenomenon. We know, for example, that arguments are common precipitants of homicide among friends and acquaintances. However, are arguments more frequent among Black friends and acquaintances, or when an argument occurs, is the likelihood of a violent resolution greater? Do race/ethnic groups use different means of

conflict resolution and, if so, are these means related to the socioeconomic or cultural status of minority group members? Can high-risk populations be equipped with conflict-resolution skills through peer counseling or education?

Alcohol Use

Alcohol use was prevalent among homicide victims. While the descriptive approach used here cannot establish that alcohol is a risk factor for homicide, the results further document the strong relationship between patterns of alcohol use and specific victim characteristics. Related methodological and research issues include the following:

1. There is a crucial need for information on blood alcohol levels in referent populations or in persons who are not homicide victims. Although estimates for alcohol use by different population groups have been produced by various surveys, such information represents only a proxy for blood alcohol and may not be readily transformed into blood alcohol levels. Without such information about blood alcohol levels, it is not possible to determine if alcohol plays any causal role in homicide victimization. This type of data will allow us to apply analytic epidemiologic techniques that have been used effectively to examine other types of alcohol-associated morbidity and mortality.

2. In this study, we were able to determine only whether the homicide victim had recently consumed alcohol, but it was not possible to determine the patterns of alcohol consumption by homicide victims (e.g., chronic, intermittent, or binge); most other studies employing biochemical measurement of alcohol have also faced this constraint. Information about patterns of alcohol consumption is not routinely collected during police investigations and can only be indirectly inferred through autopsy findings. Future studies should try to characterize these patterns as well as frequency of drinking. If research shows that specific types of drinkers are at highest risk for homicide victimization, interventions can be targeted to these high-risk groups.

3. Patterns of alcohol use by violent offenders should receive greater attention from researchers. Alcohol use may play a greater role in influencing homicide perpetration than victimization.

Firearm Use

One of the most controversial issues in homicide research is the role of firearms. In Los Angeles, firearms were the primary means by which members of nearly all high-risk groups were killed. Although previous studies have also described the patterns of firearm use in homicide victimization, the implications of these patterns for prevention strategies remain unclear. Thus, potential research issues include the following:

1. The patterns of distribution and dissemination of firearms within the private sector should be better defined. In particular, we need to examine

how persons accused and/or convicted of homicide obtained firearms, and how firearms flow into and circulate among households and individuals in the United States (*76*). Careful empirical research in this area may help determine how reasonable, enforceable, and equitable public policies can reduce the possession of firearms by criminals and the use of firearms in the commission of homicides.

2. Despite controversy concerning the relationship between homicide and the general availability of firearms, there is little empirical evidence upon which to base firm conclusions (*76*). Studies designed to assess the relationship between the availability of firearms and the risk of injuries may help clarify whether strategies aimed at reducing the availability of firearms are likely to succeed.

3. Theoretical and empirical understanding of why firearms are used to commit crimes must be improved. For example, do criminals weigh the costs and benefits of using firearms in criminal activities? The answers to questions such as this will be useful in determining how public policy may be used to discourage the use of firearms in the commission of crimes.

4. Finally, the effects of public policy on the use of firearms and the occurrence of homicide should be examined. Approximately 20,000 "gun laws" have been enacted in the United States (*76*). These laws have different types of restrictions, penalties, incentives, and enforcement procedures. If practical and effective public policies are to be developed, then evidence for the efficacy of gun laws as a means of reducing homicide rates must be demonstrated.

CONCLUSION

Homicide should be addressed just as aggressively as other important causes of death have been. Homicide is an important public health problem that can be addressed and remedied, not an inalterable fact of life. This monograph will provide the foundation for an effort by residents and city officials to prevent homicide deaths in the city of Los Angeles. We have five recommendations for the focus and direction of a coordinated effort to prevent homicide:

1. Focus research and prevention on high-risk groups and, more specifically, on the weapons, relationships, and circumstances associated with homicide in these groups. In Los Angeles, the high-risk groups include Black and Hispanic males age 15 and above and Black females ages 15 to 44. For preventing homicides among members of these high-risk groups then, research and prevention should focus on crime-related violence, gang violence, domestic violence, friend/acquaintance violence, alcohol use, and firearm use.

2. Make the public more aware of the consequences of violent assaults. A public awareness campaign should have at least two goals. First, to make the residents of Los Angeles fully aware of their risk of victimization, the steps they can take to reduce their risk, and the resources available for dealing with problems associated with violence. Second, to increase the attention given to policies and resources for the prevention of interpersonal violence.

3. Establish an ongoing mechanism for coordinating the efforts of law enforcement, health, and social service agencies operating within the city. The first step might be to convene a conference among key city officials representing these agencies to disseminate the preliminary research findings of this study and to plan for the establishment and continuation of a coordinated approach.

4. Establish an ongoing data-collection system to monitor incidents involving interpersonal violence. This system should establish, as accurately as possible, the extent and nature of interpersonal violence so that researchers and policymakers can a) assess the impact of the problem, b) determine the quantity and type of resources needed to respond to the problem, and c) develop baseline data that can help track the effectiveness of existing as well as new prevention and intervention strategies. By linking cases of interpersonal violence with demographic, socioeconomic, and psychological information, this system will markedly improve understanding of homicide and the ability to prevent it.

5. Encourage the further participation of researchers at local colleges, universities, and other relevant institutions in activities focusing on problems related to interpersonal violence. Solicit participation from a wide range of disciplines and perspectives on this issue.

Appendix A:
Examples of Homicide Case Summaries

Homicide case summaries provided by the Los Angeles Police Department were the principal source of data for this study. The following are examples of case summaries. The names, addresses, and identification numbers have been changed to ensure confidentiality. Typographical errors and discrepancies have not been corrected:

Example #1

.38 Revolver — Liquor Store Holdup

John McGuire (Male, Caucasian, 32) Case #75-431 324
5239 S. Adair Central Division
12/16/73 Coroner #75-9890

Suspect: Unknown male Caucasian, approx. 20, brown hair, 180-190 lbs., no further description

Victim was clerk at Happy Jacks Liquors. Witness, a customer, saw suspect enter, demand money from victim behind counter. Witness hid behind shelves, heard shot and running feet. Witness says suspect wore Halloween mask. Victim was DOA at LA county-USC Medical Center. Straight rip-off, *no suspects* or leads

Case status: open

Investigators: J. Sterns 23141 and E. Dodge 5233, Northeast Investigators.

Example #2

Stone, John David (Male, Caucasian, 18) Case # 74-170-562
1039 Memorial Drive Northeast Division
6/18/73 0440 hours Coroner # 74-1010

Suspect: Juan Gomez, M, Latin, 28, 5it-in, 145 lbs., negro, brown hair.

Summary: Victim was seated on the second floor landing of an apartment house talking to Rosemary Flores, the mother of his infant child. Suspect approached victim from the rear and shot victim one time with a .22 caliber rifle causing his death.

Suspect was the ex-common law husband of Rosemary Flores and was angry because victim was talking to Flores.

Gomez arranged on felony warrant in Division 30, 1it, 187 P.C.

Case Status: cleared

Investigators: L. Delgado 5077 and N. Williams 1237, Northeast Investigators.

Example #3

Gunshot wound — 12 gauge shotgun —- argument

Jones, Michael (Male, White, 23) Case # 75-215-201
9981 Druid Drive #2 Wilshire Division
6/11/73 1215 Coroner #75-2469

Suspect: James White, male, negro, 23, 5ft-in, 141 lbs., brown hair.

Summary: Suspect resided with victim in an apartment which was used as a cocaine distribution point. Suspect shot and killed victim with a 12-gauge shotgun during an argument over disposition of furniture.

On 6-20-73 White was arraigned in Division 40 on 1 it., 187 P.C.

Case Status: cleared

Investigators: S. A. Lee 3016 and J. L. Martin 5070, Wilshire Investigators.

Appendix B: Data Collection Protocol

M/S _____

UCLA Neuropsychiatric Institute
Homicide Study
Data Collection Protocol

Homicide Booking Page No. _____
Homicide Booking Year _____

I. VICTIM
NAME: _____ DR: ____ - _____ _____
SEX: ____ RACE/ETHN: _____ AGE: ____ DIVISION: _____
DATE OF DEATH: _____ CORONER: ____ - _____
ADDRESS: _____

II. SUSPECT(S) (If more than two suspects, put information on reverse of this page).
NAME: _____ SEX: __ RACE/ETHN: ____ AGE: __
NAME: _____ SEX: __ RACE/ETHN: ____ AGE: __
AKAS: _____
NUMBER OF SUSPECTS _____
UNKNOWN _____
OFFICER INVOLVED SHOOTING _____

III. RELATIONSHIP OF VICTIM TO SUSPECT
STRANGER _____

FAMILY	specify victim	
1. ____	Common-Law	
2. ____	Husband-Wife	
3. ____	Ex-Husband/Ex-Wife	
4. ____	Brother-Brother	____ Step
5. ____	Sister-Sister	____ Step
6. ____	Brother-Sister	____ Step
7. ____	Parent-Child	____ Step
8. ____	Other/Explain	_____

_____

NON-FAMILY
1. ____ Friend
2. ____ Acquaintance
3. ____ Neighbor
4. ____ Employment Associate
5. ____ Boyfriend/Girlfriend living together
6. ____ Boyfriend/Girlfriend not living together
7. ____ Roommate
8. ____ Homosexual-living together
9. ____ Homosexual-not living together
10. ____ Other, specify _____

_____

IV. LOCATION

A. _____Home Specify whose _____
B. _____Street
C. _____Workplace (Occupational location)
D. _____Vehicle
E. _____Bar
F. _____Motel
G. _____Business
   ___1. Bank, Savings and Loan, etc.
   ___2. Market
   ___3. Pharmacy
   ___4. Liquor Store
   ___5. Restaurant
   ___6. Other, specify _____
H. _____ Other, specify _____

V. WEAPON

A. _____Gun
   1. _____Revolver — Caliber _____
   2. _____Automatic — Caliber _____
   3. _____Rifle — Caliber _____
   4. _____Shotgun — Caliber _____
   5. _____unspecified
B. _____Cutting or Piercing Instrument
   1. _____Knife
   2. _____Other, specify _____
C. _____Strangulations and Hanging
   Specify method (e.g., hands, cord, wire, etc.) _____
D. _____Vehicle
E. _____Bludgeon
   1. _____Blunt instrument, specify _____
   2. _____Fist, hands, feet, etc.
   3. _____Other, specify _____
F. _____Poison or drug substance, specify kind _____
   1. _____Ingestion
   2. _____Inhalation
   3. _____Injection
G. _____Pushing from a high place
H. _____Submersion
I. _____Other (e.g., fire, etc.), specify _____

VI. MOTIVE (Mark only one)

A. _____Self-defense
B. _____Verbal Argument
C. _____Physical Fight
D. _____Burglary
E. _____Robbery
F. _____Theft
G. _____Gang
H. _____Drug
I. _____Sex
   1. _____Prostitution
   2. _____Rape
   3. _____Homosexual
   4. _____Heterosexual
   5. _____Infidelity
   6. _____Promiscuity
   7. _____Child Molestation

VII. *REASON

_____Domestic Quarrel including all degrees of familial relations
_____Sour Business Deal
_____Revenge/Grudge
_____3rd person peacemaker specify relationship _____ and victim or suspect _____
_____Long-Term Dispute (e.g., family or gang feuds) _____
_____Love Triangle
_____Crime Related
_____Unspecified

J. _____Child Abuse/Child Neglect
K. _____Hired Murderer
L. _____Hostage
M. _____Random Bystander
N. _____Whodunits
0. _____Unknown
P. _____Abortion
Q. _____Despondency/Depression due to love rejection
R. _____Gambling Related
S. _____Other, specify _____

VIII. MURDER/SUICIDE _____

IX. REPRESSIBLE _____

X. CASE STATUS: OPEN _____ CLOSED _____

XI. CASE DISPOSITION
1. _____ Homicide 2. _____ Accident 3. _____ Suicide
4. _____ Self-Defense 5. _____ Natural

XII. BRIEF SUMMARY, IF NECESSARY, SHOULD BE WRITTEN ON THE BACK OF THIS SHEET.

Appendix C: Validity of Population Data

In this section, we discuss:

1) how different methods of identifying Hispanics affect population estimates for specific race/ethnic groups,

2) how incomplete coverage of the population of Los Angeles in the 1970 and 1980 censuses may affect population estimates for the city, and

3) why we assume that the population of Los Angeles increased at a uniform rate across all sex, age, and race/ethnic categories over the study period.

Before the 1980 census, the U.S. Bureau of the Census used several methods to identify Hispanics. These methods included identifying Hispanics by 1) surname, 2) birthplace of the individual and of his or her parents, 3) language spoken in the home in early childhood, and 4) self-identification, i.e., whether or not respondents considered themselves to be of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish origin (*24*). Each method has different implications for population estimates for specific race/ethnic groups. Because each method under- or overestimates the number of Hispanics in the population, the number of persons estimated for all race/ethnic categories will vary according to the method used.

During the 1970's, the census bureau extensively evaluated several questions designed to identify Hispanics. These questions varied considerably with regard to nonresponse and consistency of reporting. However, questions regarding Spanish origin produced the most valid results (Fernandez EW, McKenny N. Unpublished observations on "Identification of the Hispanic population; a review of census bureau experiences").

For several reasons, information on Spanish origin derived from the 1970 census is not strictly comparable to that derived from the 1980 census. First, in the 1970 census, only respondents in a 5% sample of the population were asked the Spanish-origin question; in the 1980 census, all respondents were asked this question. Therefore, the 1970 population data used to generate intercensal estimates are associated with some variation due to sampling error, while the 1980 population data are not.

Second, the 1980 Spanish-origin question was designed differently from the 1970 question. Changes included placing the category "No (not Spanish/Hispanic)" as the first category in the question rather than the last, deleting the "Central or South American" category because it was misinterpreted by some, and adding the designations "Mexican-American" and "Chicano" to the categories included in this question (*26*). At present, it is not possible to determine the extent to which these differences may have affected population estimates for the city of Los Angeles and, therefore, the intercensal estimates generated for this report.

Completeness of coverage for the 1970 and 1980 censuses affects population estimates for the city of Los Angeles. Although both censuses undercounted some demographic groups more than others, the 1980 census is more complete in its coverage than the 1970 census (27). It is estimated that the 1970 census undercounted Black males by 10.1% and Black females by 5.3%; males of White and other races and females of White and other races were undercounted by 2.1% and 0.9% respectively. The 1970 undercount was most pronounced among Black males under 5 years of age and 20 to 54 years of age (27). In the 1980 census, coverage improved. Black males were undercounted by 7.5% and Black females by 2.1%; males and females of White and other races were overcounted. As in 1970, undercounts were most pronounced among Black males under 5 years of age and 20 to 54 years of age.

If these national patterns in the coverage of the 1970 and 1980 censuses apply to the city of Los Angeles, then population estimates in this report are similarly biased. The bias may have the effect of artificially increasing homicide rates, particularly for Black males. Moreover, the improvement in coverage nationally for 1980 over 1970 may also affect trends in homicide rates. However, since the improvement in coverage was estimated to be uniform across all race/sex categories, the trends for any one category should not be affected more than the trends for any other.

Coverage of the 1970 and 1980 censuses may also be affected by the large number of undocumented immigrants living in the United States. Los Angeles, in particular, is a common destination for immigrants, particularly those emigrating from Mexico. However, estimates for undocumented residents are not nationally available, nor are they available for smaller geographic areas, such as the city of Los Angeles (27). Inadequate coverage of undocumented residents in Los Angeles probably has minimal impact on population estimates for Blacks and Anglos, but may have a considerable effect on estimates for Hispanics. Thus, population counts for Hispanic residents are likely to be underestimates, which would artificially increase homicide rates for Hispanics. However, it is not possible to assess the extent of this bias.

The final issue regarding population estimates used in this report concerns our assumption that the population of Los Angeles grew at a uniform rate across all sex, age, and race/ethnic categories over the study period. This assumption underlies the use of linear interpolation to generate intercensal population estimates. Because we have no evidence that population subgroups in the city of Los Angeles changed unevenly over the study period, we decided that linear interpolation would be the most convenient and statistically appropriate method of generating intercensal estimates.

Appendix D: List of Tables

TABLE 1
Number of Homicides by Year of Death and Data Source
City of Los Angeles, 1970-79

Year	Uniform Crime Reports[a] Number	UCLA/CDC Study Number	Percentage Difference
1970	395	353	11.9
1971	427	391	9.2
1972	501	462	8.4
1973	489	458	6.8
1974	481	454	5.9
1975	554	529	4.7
1976	501	470	6.6
1977	576	536	7.5
1978	651	607	7.2
1979	786	679	15.8
Total	**5,361**	**4,950[b]**	**8.3**

Notes:
The term "homicides" refers to criminal homicides.

[a]Source: Federal Bureau of Investigation. Uniform Crime Reports: Crime in the United States, 1970-1979. Washington, D.C.: United States Department of Justice.
[b]This total includes 11 homicides for which there were no data on year of death.

TABLE 2
Number and Rate of Homicide
City of Los Angeles, California, and the U.S., 1970-79

	Los Angeles		California[b]		United States[b]	
Year	Number[a]	Rate	Number	Rate	Number	Rate
1970	353	12.5	1,376	6.9	16,000	7.8
1971	391	13.8	1,642	8.1	17,780	8.6
1972	462	16.2	1,791	8.8	18,670	8.9
1973	458	16.0	1,862	9.6	19,640	9.3
1974	454	15.8	1,985	9.5	20,710	9.7
1975	529	18.3	2,209	10.4	20,510	9.5
1976	470	16.2	2,220	10.3	18,780	8.6
1977	536	18.3	2,515	11.5	19,120	8.7
1978	607	20.7	2,611	11.7	19,560	8.8
1979	679	23.0	2,952	13.0	21,460	9.6
Total	**4,939**	**17.1**	**21,163**	**9.8**	**192,230**	**9.0**

Notes:
Rates are per 100,000 population.
The term "homicide" refers to criminal homicide.
[a]Excluded are 11 homicides for which there were no data on year of death.
[b]Source: Graham A. Conversation with Conn J, October, 1984. (Federal Bureau of Investigation, Uniform Crime Reporting Program).

TABLE 3
Number, Percentage, and Rate of Homicide
City of Los Angeles, 1970-79

		Number	Percentage	Rate
Sex				
	Male	3,773	77.7	27.0
	Female	1,083	22.3	7.3
	Total	**4,856**	**100.0**	
Age				
	<15	258	5.4	3.9
	15-24	1,316	27.6	25.6
	25-34	1,264	26.5	26.9
	35-44	720	15.1	20.9
	45-54	546	11.4	16.9
	55-64	303	6.4	11.2
	65+	362	7.6	12.2
	Total	**4,769**	**100.0**	
Race/Ethnicity				
	Anglo	1,299	27.1	8.1
	Black	2,265	47.4	45.6
	Hispanic	1,096	22.9	18.3
	Other	122	2.6	6.9
	Total	**4,782**	**100.0**	

Notes:
Rates are per 100,000 population.
The term "homicide" refers to criminal homicide. Excluded are 94 homicides for which there were no data on the sex of victim, 181 for which there were no data on the age of victim, and 168 for which there were no data on the race/ethnicity of victim.

TABLE 4
Number and Rate of Homicide by Race/Ethnicity and Sex of Victim
City of Los Angeles, 1970-79

	Anglo		Black		Hispanic		Other	
Sex	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Male	884	11.3	1,788	76.6	959	32.3	86	9.7
Female	414	5.0	473	17.9	134	4.4	30	3.4

Notes:
Rates are per 100,000 population.
The term "homicide" refers to criminal homicide. Excluded are 182 homicides for which there were no data on the race/ethnicity or sex of victim.

TABLE 5
Number and Percentage of Homicides by Race/Ethnicity and Age of Victim
City of Los Angeles, 1970-79

Age	Anglo		Black		Hispanic		Other		Total	
Group	No.	%	No.	%	No.	%	No.	%	No.	%
<15	51	3.9	110	4.9	59	5.5	17	14.0	237	5.0
15-24	218	16.9	656	29.2	417	38.9	22	18.2	1,313	27.7
25-34	259	20.0	657	29.2	304	28.4	40	33.1	1,260	26.6
35-44	181	14.0	381	16.9	141	13.2	13	10.7	716	15.1
45-54	195	15.1	248	11.0	90	8.4	13	10.7	546	11.5
55-64	138	10.7	127	5.6	33	3.1	5	4.1	303	6.4
65+	250	19.3	71	3.2	27	2.5	11	9.1	359	7.6
Total	**1,292**	**100.0**	**2,250**	**100.0**	**1,071**	**100.0**	**121**	**100.0**	**4,734**	**100.0**

Notes:
The term "homicides" refers to criminal homicides. Excluded are 216 homicides for which there were no data on race/ethnicity or age of victim.

TABLE 6
Homicide Rate by Race/Ethnicity and Age of Victim
City of Los Angeles, 1970-79

Age Group	Anglo	Black	Hispanic	Other
<15	1.8	7.4	2.9	2.8
15-24	8.2	71.4	33.1	6.6
25-34	10.6	84.0	27.5	11.0
35-44	9.3	65.7	20.7	5.3
45-54	9.3	49.8	19.6	7.0
55-64	7.3	32.5	11.4	3.9
65+	11.2	19.8	10.5	8.5

Notes:
Rates are per 100,000 population.
The term "homicide" refers to criminal homicide. Excluded are 216 homicides for which there were no data on the race/ethnicity or age of victim.

TABLE 7
Number and Rate of Homicide by Race/Ethnicity, Sex, and Age of Victim
City of Los Angeles, 1970-79

	Male							
Age	Anglo		Black		Hispanic		Other	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate
<15	29	2.0	59	8.2	32	3.3	5	2.5
15-24	144	11.0	510	118.9	386	60.5	15	9.0
25-34	181	14.3	525	143.0	278	49.7	31	17.2
35-44	136	13.8	320	117.1	117	34.2	11	9.0
45-54	146	14.2	209	90.6	77	35.6	12	13.2
55-64	106	11.8	102	58.8	30	23.3	3	4.7
65+	136	15.9	53	38.4	18	17.3	8	12.7
	Female							
	Anglo		Black		Hispanic		Other	
Age	No.	Rate	No.	Rate	No.	Rate	No.	Rate
<15	22	1.6	48	6.7	24	2.5	6	3.2
15-24	73	5.5	146	29.8	31	5.0	7	4.2
25-34	78	6.6	131	31.7	26	4.8	9	4.9
35-44	45	4.7	61	19.9	24	7.1	2	1.6
45-54	49	4.6	39	14.6	13	5.4	1	1.1
55-64	32	3.2	25	11.5	3	1.9	2	3.1
65+	114	8.3	18	8.2	9	5.9	3	4.6

Notes:
Rates are per 100,000 population.
The term "homicide" refers to criminal homicide. Excluded are 230 homicides for which there were no data on the race/ethnicity, sex, or age of victim.

TABLE 8
Number and Percentage of Homicides by Site of Occurrence, Weapon or Method Used, and Crime Circumstance City of Los Angeles, 1970-79

	Number	Percentage
Site of Occurrence		
Home	2,175	48.4
Street	1,036	23.1
Bar/Restaurant	197	4.4
Business	239	5.3
Other Site	700	15.6
Site Not Known	145	3.2
Total	**4,492**	**100.0**
Weapon/Method Used		
Handgun	2,214	44.9
Long Gun	577	11.7
Cutting Instrument	1,148	23.3
Strangulation/Asphyxiation	210	4.3
Bludgeon	523	10.6
Other	261	5.3
Total	**4,933**	**100.0**
Crime Circumstance		
Physical Fight	509	10.3
Verbal Argument	1,614	32.7
Child Abuse/Neglect	104	2.1
Sex Related	244	4.9
Gang Violence	240	4.9
Crime Related	1,282	26.0
Other Circumstance	319	6.5
Circumstance Not Determinable	619	12.6
Total	**4,931**	**100.0**

Notes:
The term "homicide" refers to criminal homicide. See glossary for definition of terms. Excluded are 458 homicides for which there were no data on site of occurrence, 17 for which there were no data on weapon or method used, and 19 for which there were no data on crime circumstance.

TABLE 9
Number and Percentage of Homicides by Sex of Victim and Relationship of Offender to Victim
City of Los Angeles, 1970-79

	Male		Female		Total	
Relationship	No.	%	No.	%	No.	%
Husband/Wife	209	6.3	228	22.0	437	10.1
Other Family	206	6.2	104	10.0	310	7.1
Intimate Acquaintance	80	2.4	111	10.7	191	4.4
Friend/Acquaintance	1,254	37.9	212	20.5	1,466	33.7
Other Nonfamily	201	6.1	54	5.2	255	5.9
Stranger	595	27.1	202	19.5	1,100	25.3
No Suspect	464	14.0	124	12.0	588	13.5
Total	**3,312**	**100.0**	**1,035**	**100.0**	**4,347**	**100.0**

Notes:
The term "homicide" refers to criminal homicide. See glossary for definition of terms. Excluded are 603 homicides for which there were no data on sex of victim or relationship.

TABLE 10
Blacks—Number and Rate of Homicide, by Sex and Age of Victim and Site of Occurrence
City of Los Angeles, 1970-79

Site of Occurrence	Male															
	<15		15-24		25-34		35-44		45-54		55-64		65+		Total	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Home	44	6.1	170	39.6	246	67.0	150	54.9	97	42.0	39	22.5	32	23.2	778	33.3
Street	6	0.8	150	35.0	112	30.5	49	17.9	33	14.3	19	10.9	7	5.1	376	16.1
Bar/Restaurant	0	0.0	7	1.6	14	3.8	10	3.7	4	1.7	2	1.2	0	0.0	37	1.6
Business	2	0.3	25	5.8	19	5.2	13	4.8	13	5.6	6	3.5	0	0.0	78	3.3
Other Site	1	0.1	61	14.2	51	13.9	48	17.6	27	11.7	17	9.8	9	6.5	214	9.2
Site Not Known	4	0.6	16	3.7	21	5.7	17	6.2	6	2.6	2	1.2	1	0.7	67	2.9
	Female															
Site of Occurrence	<15		15-24		25-34		35-44		45-54		55-64		65+		Total	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Home	39	5.4	94	19.2	74	17.9	40	13.0	27	10.1	18	8.3	14	6.4	306	11.6
Street	3	0.4	19	3.9	15	3.6	9	2.9	4	1.5	1	0.5	2	0.9	53	2.0
Bar/Restaurant	1	0.1	0	0.0	2	0.5	1	0.3	0	0.0	0	0.0	0	0.0	4	0.2
Business	1	0.1	4	0.8	6	1.5	2	0.7	0	0.0	1	0.5	0	0.0	14	0.5
Other Site	0	0.0	13	2.7	11	2.7	4	1.3	3	1.1	4	1.8	2	0.9	37	1.4
Site Not Known	4	0.6	4	0.8	6	1.5	1	0.3	0	0.0	0	0.0	0	0.0	15	0.6

Notes:
Rates are per 100,000 population.
The term "homicide" refers to criminal homicide Excluded are 285 homicides for which there were no data on sex or age of victim or site of occurrence.

TABLE 11
Blacks—Number and Rate of Homicide, by Sex and Age of Victim and Weapon/Method Used
City of Los Angeles, 1970-79

Weapon/Method Used	Male															
	<15		15-24		25-34		35-44		45-54		55-64		65+		Total	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Handgun	14	1.9	274	63.9	281	76.5	170	62.2	116	50.3	49	28.2	23	16.7	927	39.7
Long Gun	2	0.3	113	26.3	85	23.2	32	11.7	26	11.3	8	4.6	3	2.2	269	11.5
Cutting Instrument	5	0.7	108	25.2	117	31.9	90	32.9	39	16.9	33	19.0	9	6.5	401	17.2
Strangulation/Asphyxiation	4	0.6	2	0.5	7	1.9	2	0.7	3	1.3	2	1.2	1	0.7	21	0.9
Bludgeon	17	2.4	11	2.6	25	6.8	22	8.0	20	8.7	5	2.9	13	9.4	113	4.8
Other	17	2.4	2	0.5	8	2.2	3	1.1	3	1.3	5	2.9	3	2.2	41	1.8
	Female															
Weapon/Method Used	<15		15-24		25-34		35-44		45-54		55-64		65+		Total	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Handgun	9	1.2	62	12.7	57	13.8	26	8.5	13	4.9	9	4.2	1	0.5	177	6.7
Long Gun	2	0.3	13	2.7	16	3.9	5	1.6	6	2.2	4	1.8	0	0.0	46	1.7
Cutting Instrument	5	0.7	35	7.1	27	6.5	14	4.6	10	3.7	3	1.4	6	2.7	100	3.8
Strangulation/Asphyxiation	2	0.3	18	3.7	13	3.1	2	0.7	3	1.1	4	1.8	4	1.8	46	1.7
Bludgeon	18	2.5	8	1.6	11	2.7	9	2.9	6	2.2	4	1.8	6	2.7	62	2.4
Other	12	1.7	9	1.8	6	1.5	5	1.6	1	0.4	1	0.5	1	0.5	35	1.3

Notes:
Rates are per 100,000 population.
The term "homicide" refers to criminal homicide. See glossary for definition of terms. Excluded are 27 homicides for which there were no data on sex or age of victim or the weapon/method used.

TABLE 12
Blacks—Number and Rate of Homicide, by Sex and Age of Victim and Crime Circumstance
City of Los Angeles, 1970-79

Crime Circumstance	Male													
	<15		15-24		25-34		35-44		45-54		55-64		65+		Total	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Physical Fight	4	0.6	60	14.0	65	17.7	41	15.0	18	7.8	9	5.2	2	1.5	199	8.5
Verbal Argument	8	1.1	212	49.4	229	62.4	146	53.4	85	36.8	38	21.9	20	14.5	738	31.6
Child Abuse/Neglect[a]	26	3.6	0	0.0	0	—	0	—	0	—	0	—	0	—	27	3.2
Sex Related	1	0.1	13	3.0	13	3.5	8	2.9	13	5.6	1	0.6	0	0.0	49	2.1
Gang Violence	2	0.3	47	11.0	4	1.1	3	1.1	4	1.7	0	0.0	0	0.0	60	2.6
Crime Related	5	0.7	103	24.0	125	34.0	71	26.0	58	25.1	44	25.4	21	15.2	427	18.3
Other Circumstance	6	0.8	31	7.2	35	9.5	18	6.6	8	3.5	3	1.7	2	1.5	103	4.4
Circumstance Not Determinable	7	1.0	40	9.3	52	14.2	31	11.3	23	10.0	7	4.0	7	5.1	137	5.9

Crime Circumstance	Female													
	<15		15-24		25-34		35-44		45-54		55-64		65+		Total	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Physical Fight	1	0.1	10	2.0	8	1.9	4	1.3	5	1.9	0	0.0	1	0.5	29	1.1
Verbal Argument	11	1.5	67	13.7	69	16.7	35	11.4	22	8.2	9	4.2	4	1.8	217	8.2
Child Abuse/Neglect[a]	22	3.0	1	0.7	0	—	0	—	0	—	0	—	0	—	23	2.6
Sex Related	3	0.4	24	4.9	11	2.7	7	2.3	2	0.7	4	1.8	3	1.4	54	2.0
Gang Violence	0	0.0	1	0.2	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0
Crime Related	1	0.1	12	2.4	14	3.4	4	1.3	2	0.7	6	2.8	8	3.6	47	1.8
Other Circumstance	4	0.6	10	2.0	7	1.7	4	1.3	3	1.1	0	0.0	0	0.0	28	1.1
Circumstance Not Determinable	6	0.8	20	4.1	22	5.3	7	2.3	4	1.5	6	2.8	2	0.9	67	2.5

Notes:
Rates are per 100,000 population.
The term "homicide" refers to criminal homicide. See glossary for definition of terms. Excluded are 30 homicides for which there were no data on sex or age of victim or crime circumstance.

[a] The rate presented for the "15-24" category is for 15- to 17-year-olds only; the total rate for the child abuse/neglect circumstance is only for persons <17 years old.

TABLE 13
Blacks—Number and Rate of Homicide, by Sex and Age of Victim and Relationship of Offender to Victim
City of Los Angeles, 1970-79

Relationship	Male															
	<15		15-24		25-34		35-44		45-54		55-64		65+		Total	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Wife	1	0.1	26	6.1	53	4.4	46	16.9	24	10.4	7	4.0	4	2.9	161	6.9
Other Family	31	4.3	22	5.1	21	5.7	15	5.5	15	6.5	3	1.7	6	4.4	113	4.8
Intimate Acquaintance	0	0.0	9	2.1	14	3.8	14	5.1	8	3.5	4	2.3	0	0.0	49	2.1
Friend/Acquaintance	11	1.5	236	55.0	235	64.0	104	38.0	68	29.5	31	17.9	12	8.7	697	29.9
Other Nonfamily	2	0.3	29	6.8	32	8.7	25	9.1	11	4.8	4	2.3	1	0.7	104	4.5
Stranger	9	1.2	70	16.3	76	20.7	51	18.7	47	20.4	34	19.6	11	8.0	298	12.8
No Suspect	0	0.0	35	8.2	58	15.8	38	13.9	20	8.7	12	6.9	12	8.7	175	7.5
	Female															
Relationship	<15		15-24		25-34		35-44		45-54		55-64		65+		Total	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Husband	1	0.1	35	7.1	38	9.2	23	7.5	9	3.4	5	2.3	1	0.5	112	4.2
Other Family	28	3.9	10	2.0	3	0.7	2	0.7	6	2.2	2	0.9	2	0.9	53	2.0
Intimate Acquaintance	0	0.0	17	3.5	21	5.1	8	2.6	5	1.9	4	1.8	0	0.0	55	2.1
Friend/Acquaintance	4	0.6	33	6.7	34	8.2	14	4.6	12	4.5	5	2.3	1	0.5	103	3.9
Other Nonfamily	4	0.6	9	1.8	7	1.7	1	0.3	4	1.5	2	0.9	1	0.5	28	1.1
Stranger	5	0.7	17	3.5	11	2.7	6	2.0	1	0.4	4	1.8	8	3.6	52	2.0
No Suspect	3	0.4	14	2.9	12	2.9	6	2.0	1	0.4	1	0.5	5	2.3	42	1.6

Notes:
Rates are per 100,000 population.
The term "homicide" refers to criminal homicide. See glossary for definition of terms. Excluded are 223 homicides for which there were no data on sex or age of victim or relationship.

TABLE 14
Hispanics—Number and Rate of Homicide, by Sex and Age of Victim and Site of Occurrence
City of Los Angeles, 1970-79

Site of Occurrence	Male															
	<15		15-24		25-34		35-44		45-54		55-64		65+		Total	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Home	18	1.8	66	10.3	62	11.1	28	8.2	19	8.8	9	7.0	7	6.7	209	7.0
Street	9	0.9	159	24.9	88	15.7	32	9.4	24	11.1	9	7.0	5	4.8	326	11.0
Bar/Restaurant	0	0.0	27	4.2	39	7.0	20	5.9	8	3.7	0	0.0	2	1.9	96	3.2
Business	1	0.1	6	0.9	13	2.3	2	0.6	4	1.8	3	2.3	0	0.0	29	1.0
Other Site	1	0.1	79	12.4	40	7.2	24	7.0	14	6.5	8	6.2	3	2.9	169	5.7
Site Not Known	1	0.1	10	1.6	11	2.0	2	0.6	2	0.9	0	0.0	0	0.0	26	0.9
	Female															
Site of Occurrence	<15		15-24		25-34		35-44		45-54		55-64		65+		Total	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Home	20	2.1	14	2.3	16	2.9	14	4.1	7	2.9	2	1.2	5	3.3	78	2.6
Street	2	0.2	5	0.8	3	0.5	2	0.6	3	1.2	0	0.0	3	2.0	18	0.6
Bar/Restaurant	0	0.0	0	0.0	1	0.2	1	0.3	0	0.0	0	0.0	0	0.0	2	0.1
Business	0	0.0	1	0.2	0	0.0	1	0.3	0	0.0	0	0.0	1	0.7	3	0.1
Other Site	2	0.2	5	0.8	2	0.4	5	1.5	2	0.8	1	0.6	0	0.0	17	0.6
Site Not Known	0	0.0	1	0.2	1	0.2	0	0.0	0	0.0	0	0.0	0	0.0	2	0.1

Notes:
Rates are per 100,000 population.
The term "homicide" refers to criminal homicide. Excluded are 121 homicides for which there were no data on sex or age of victim or site of occurrence.

TABLE 15
Hispanics—Number and Rate of Homicide, by Sex and Age of Victim and Weapon/Method Used
City of Los Angeles, 1970-79

Weapon/Method Used	Male															
	<15		15-24		25-34		35-44		45-54		55-64		65+		Total	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Handgun	8	0.8	184	28.9	126	22.5	56	16.4	24	11.1	15	11.6	4	3.9	417	14.0
Long Gun	3	0.3	62	9.7	33	5.9	12	3.5	7	3.2	2	1.6	0	0.0	119	4.0
Cutting Instrument	3	0.3	109	17.1	100	17.9	36	10.5	28	12.9	7	5.4	6	5.8	289	9.7
Strangulation/Asphyxiation	1	0.1	2	0.3	2	0.4	0	0.0	2	0.9	1	0.8	0	0.0	8	0.3
Bludgeon	6	0.6	16	2.5	10	1.8	9	2.6	13	6.0	3	2.3	7	6.7	64	2.2
Other	11	1.1	12	1.9	7	1.3	2	0.6	3	1.4	2	1.6	1	1.0	38	1.3
	Female															
Weapon/Method Used	<15		15-24		25-34		35-44		45-54		55-64		65+		Total	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Handgun	2	0.2	13	2.1	11	2.0	9	2.6	2	0.8	2	1.2	1	0.7	40	1.3
Long Gun	0	0.0	1	0.2	2	0.4	0	0.0	2	0.8	0	0.0	0	0.0	5	0.2
Cutting Instrument	0	0.0	7	1.1	5	0.9	6	1.8	1	0.4	0	0.0	1	0.7	20	0.7
Strangulation/Asphyxiation	2	0.2	4	0.6	1	0.2	3	0.9	2	0.8	0	0.0	1	0.7	13	0.4
Bludgeon	7	0.7	0	0.0	3	0.5	5	1.5	3	1.2	0	0.0	5	3.3	23	0.8
Other	13	1.4	5	0.8	4	0.7	1	0.3	3	1.2	1	0.6	1	0.7	28	0.9

Notes:
Rates are per 100,000 population.
The term "homicide" refers to criminal homicide. See glossary for definition of terms. Excluded are 32 homicides for which there were no data on sex or age of victim or the weapon/method used.

TABLE 16
Hispanics—Number and Rate of Homicide, by Sex and Age of Victim and Crime Circumstance
City of Los Angeles, 1970-79

Crime Circumstance	Male															
	<15		15-24		25-34		35-44		45-54		55-64		65+		Total	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Physical Fight	0	0.0	63	9.9	62	11.1	25	7.3	16	7.4	3	2.3	1	1.0	170	5.7
Verbal Argument	1	0.1	94	14.7	73	13.1	30	8.8	13	6.0	6	4.7	2	1.9	219	7.4
Child Abuse/Neglect[a]	14	1.4	0	0.0	0	—	0	—	0	—	0	—	0	—	14	1.2
Sex Related	1	0.1	4	0.6	5	0.9	2	0.6	1	0.5	0	0.0	0	0.0	13	0.4
Gang Violence	5	0.5	114	17.9	17	3.0	2	0.6	2	0.9	0	0.0	0	0.0	140	4.7
Crime Related	4	0.4	61	9.6	70	12.5	30	8.8	24	11.1	15	11.6	8	7.7	212	7.1
Other Circumstance	2	0.2	14	2.2	19	3.4	8	2.3	5	2.3	4	3.1	0	0.0	52	1.8
Circumstance Not Determinable	5	0.5	35	5.5	31	5.5	20	5.9	16	7.4	2	1.6	7	6.7	116	3.9

Crime Circumstance	Female															
	<15		15-24		25-34		35-44		45-54		55-64		65+		Total	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Physical Fight	0	0.0	1	0.2	1	0.2	1	0.3	1	0.4	0	0.0	1	0.7	5	0.2
Verbal Argument	0	0.0	7	1.1	14	2.6	13	3.8	3	1.2	1	0.6	2	1.3	40	1.3
Child Abuse/Neglect[a]	13	1.4	0	0.0	0	—	0	—	0	—	0	—	0	—	13	1.1
Sex Related	1	0.1	5	0.8	3	0.5	5	1.5	2	0.8	0	0.0	0	0.0	16	0.5
Gang Violence	1	0.1	1	0.2	0	0.0	1	0.3	0	0.0	0	0.0	0	0.0	3	0.1
Crime Related	0	0.0	5	0.8	5	0.9	1	0.3	4	1.7	1	0.6	6	3.9	22	0.7
Other Circumstance	2	0.2	3	0.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	5	0.2
Circumstance Not Determinable	7	0.7	9	1.5	3	0.5	3	0.9	3	1.2	1	0.6	0	0.0	26	0.9

Notes:
Rates are per 100,000 population.
The term "homicide" refers to criminal homicide. See glossary for definition of terms. Excluded are 30 homicides for which there were no data on sex or age of victim or crime circumstance.

[a] The rate presented for the "15-24" category is for 15- to 17-year-olds only; the total rate for the child abuse/neglect circumstance is only for children <17 years old.

TABLE 17
Hispanics—Number and Rate of Homicide, by Sex and Age of Victim and Relationship of Offender to Victim
City of Los Angeles, 1970-79

Relationship	Male															
	<15		15-24		25-34		35-44		45-54		55-64		65+		Total	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Wife	0	0.0	2	0.3	5	0.9	3	0.9	0	0.0	1	0.8	2	1.9	13	0.4
Other Family	13	1.3	10	1.6	6	1.1	2	0.6	4	1.8	2	1.6	1	1.0	38	1.3
Intimate Acquaintance	0	0.0	2	0.3	2	0.4	3	0.9	1	0.5	0	0.0	0	0.0	8	0.3
Friend/Acquaintance	4	0.4	117	18.3	98	17.5	49	14.3	18	8.3	8	6.2	1	1.0	295	9.9
Other Nonfamily	3	0.3	9	1.4	9	1.6	3	0.9	6	2.8	1	0.8	1	1.0	32	1.1
Stranger	1	0.1	65	10.2	79	14.1	30	8.8	25	11.6	16	12.4	8	7.7	224	7.5
No Suspect	5	0.5	50	7.8	39	7.0	16	4.7	14	6.5	0	0.0	4	3.9	128	4.3
	Female															
Relationship	<15		15-24		25-34		35-44		45-54		55-64		65+		Total	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Husband	0	0.0	4	0.6	9	1.6	4	1.2	3	1.2	1	0.6	0	0.0	20	0.7
Other Family	13	1.4	1	0.2	0	0.0	1	0.3	2	0.8	1	0.6	2	1.3	20	0.7
Intimate Acquaintance	0	0.0	1	0.2	5	0.9	6	1.8	0	0.0	0	0.0	0	0.0	12	0.4
Friend/Acquaintance	4	0.4	10	1.6	6	1.1	6	1.8	2	0.8	1	0.6	3	2.0	32	1.1
Other Nonfamily	0	0.0	2	0.3	1	0.2	0	0.0	0	0.0	0	0.0	0	0.0	3	0.1
Stranger	2	0.2	4	0.6	2	0.4	3	0.9	6	2.5	1	0.6	4	2.6	22	0.7
No Suspect	4	0.4	7	1.1	3	0.5	3	0.9	0	0.0	0	0.0	0	0.0	17	0.6

Notes:
Rates are per 100,000 population.
The term "homicide" refers to criminal homicide. See glossary for definition of terms. Excluded are 232 homicides for which there were no data on sex or age of victim or relationship.

TABLE 18
Anglos—Number and Rate of Homicide, by Sex and Age of Victim and Site of Occurrence
City of Los Angeles, 1970-79

Site of Occurrence	Male															
	<15		15-24		25-34		35-44		45-54		55-64		65+		Total	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Home	22	1.5	52	4.0	63	5.0	54	5.5	63	6.1	47	5.2	82	9.6	383	4.9
Street	2	0.1	29	2.2	47	3.7	17	1.7	25	2.4	15	1.7	17	2.0	152	1.9
Bar/Restaurant	0	0.0	5	0.4	13	1.0	6	0.6	6	0.6	2	0.2	1	0.1	33	0.4
Business	1	0.1	15	1.1	8	0.6	8	0.8	15	1.5	7	0.8	8	0.9	62	0.8
Other Site	1	0.1	32	2.4	37	2.9	31	3.2	30	2.9	23	2.6	21	2.5	175	2.2
Site Not Known	0	0.0	4	0.3	3	0.2	4	0.4	1	0.1	6	0.7	2	0.2	20	0.3
	Female															
Site of Occurrence	<15		15-24		25-34		35-44		45-54		55-64		65+		Total	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Home	16	1.1	36	2.7	55	4.6	29	3.0	38	3.6	19	1.9	88	6.4	281	3.4
Street	1	0.1	12	0.9	4	0.3	1	0.1	7	0.7	2	0.2	12	0.9	39	0.5
Bar/Restaurant	0	0.0	2	0.2	0	0.0	1	0.1	0	0.0	1	0.1	0	0.0	4	0.0
Business	0	0.0	7	0.5	3	0.3	1	0.1	0	0.0	4	0.4	2	0.1	17	0.2
Other Site	2	0.1	7	0.5	6	0.5	10	1.0	3	0.3	4	0.4	10	0.7	42	0.5
Site Not Known	1	0.1	4	0.3	4	0.3	2	0.2	0	0.0	0	0.0	1	0.1	12	0.1

Notes:
Rates are per 100,000 population.
The term "homicide" refers to criminal homicide. Excluded are 79 homicides for which there were no data on sex or age of victim or site of occurrence.

TABLE 19
Anglos—Number and Rate of Homicide, by Sex and Age of Victim and Weapon/Method Used
City of Los Angeles, 1970-79

Weapon/Method Used	Male															
	<15		15-24		25-34		35-44		45-54		55-64		65+		Total	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Handgun	8	0.5	59	4.5	100	7.9	70	7.1	63	6.1	35	3.9	37	4.3	372	4.8
Long Gun	0	0.0	25	1.9	22	1.7	13	1.3	5	0.5	5	0.6	7	0.8	77	1.0
Cutting Instrument	1	0.1	41	3.1	44	3.5	26	2.6	34	3.3	23	2.6	28	3.3	197	2.5
Strangulation/Asphyxiation	1	0.1	5	0.4	1	0.1	6	0.6	8	0.8	3	0.3	5	0.6	29	0.4
Bludgeon	10	0.7	7	0.5	8	0.6	13	1.3	26	2.5	27	3.0	42	4.9	133	1.7
Other	9	0.6	7	0.5	6	0.5	8	0.8	10	1.0	12	1.3	16	1.9	68	0.9
	Female															
Weapon/Method Used	<15		15-24		25-34		35-44		45-54		55-64		65+		Total	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Handgun	3	0.2	21	1.6	31	2.6	19	2.0	17	1.6	8	0.8	12	0.9	111	1.3
Long Gun	0	0.0	2	0.2	6	0.5	6	0.6	1	0.1	2	0.2	1	0.1	18	0.2
Cutting Instrument	0	0.0	17	1.3	19	1.6	4	0.4	7	0.7	6	0.6	23	1.7	76	0.9
Strangulation/Asphyxiation	4	0.3	18	1.4	10	0.8	6	0.6	4	0.4	8	0.8	30	2.2	80	1.0
Bludgeon	11	0.8	9	0.7	9	0.8	9	0.9	13	1.2	6	0.6	34	2.5	91	1.1
Other	4	0.3	6	0.5	3	0.3	1	0.1	7	0.7	2	0.2	13	0.9	36	0.4

Notes:
Rates are per 100,000 population.
The term "homicide" refers to criminal homicide. See glossary for definition of terms. Excluded are 11 homicides for which there were no data on sex or age of victim or the weapon/method used.

TABLE 20
Anglos—Number and Rate of Homicide, by Sex and Age of Victim and Crime Circumstance
City of Los Angeles, 1970-79

Crime Circumstance	Male															
	<15		15-24		25-34		35-44		45-54		55-64		65+		Total	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Physical Fight	0	0.0	18	1.4	20	1.6	7	0.7	7	0.7	6	0.7	5	0.6	63	0.8
Verbal Argument	3	0.2	32	2.4	51	4.0	35	3.6	34	3.3	12	1.3	17	2.0	184	2.4
Child Abuse/Neglect[a]	10	0.7	1	0.3	0	—	0	—	0	—	0	—	0	—	11	0.6
Sex Related	0	0.0	8	0.6	4	0.3	8	0.8	7	0.7	2	0.2	4	0.5	33	0.4
Gang Violence	0	0.0	6	0.5	6	0.5	0	0.0	1	0.1	0	0.0	1	0.1	14	0.2
Crime Related	3	0.2	50	3.8	59	4.7	49	5.0	66	6.4	51	5.7	80	9.3	358	4.6
Other Circumstance	6	0.4	13	1.0	11	0.9	11	1.1	11	1.1	7	0.8	10	1.2	69	0.9
Circumstance Not Determinable	6	0.4	16	1.2	28	2.2	25	2.5	20	1.9	28	3.1	19	2.2	142	1.8

Crime Circumstance	Female															
	<15		15-24		25-34		35-44		45-54		55-64		65+		Total	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Physical Fight	0	0.0	3	0.2	1	0.1	4	0.4	4	0.4	2	0.2	1	0.1	15	0.2
Verbal Argument	0	0.0	27	2.0	37	3.1	20	2.1	16	1.5	4	0.4	13	0.9	117	1.4
Child Abuse/Neglect[a]	13	0.9	0	0.0	0	—	0	—	0	—	0	—	0	—	13	0.7
Sex Related	2	0.1	11	0.8	15	1.3	5	0.5	5	0.5	6	0.6	21	1.5	65	0.8
Gang Violence	0	0.0	1	0.1	0	0.0	0	0.0	1	0.1	0	0.0	0	0.0	2	0.0
Crime Related	0	0.0	10	0.8	9	0.8	10	1.0	9	0.8	9	0.9	63	4.6	110	1.3
Other Circumstance	3	0.2	4	0.3	8	0.7	5	0.5	6	0.6	3	0.3	7	0.5	36	0.4
Circumstance Not Determinable	3	0.2	17	1.3	8	0.7	1	0.1	8	0.7	8	0.8	9	0.7	54	0.7

Notes:
Rates are per 100,000 population.
The term "homicide" refers to criminal homicide. See glossary for definition of terms. Excluded are 11 homicides for which there were no data on sex or age of victim or crime circumstance.

[a] The rate presented for the "15-24" category is for 15- to 17-year-olds only; the total rate for the child abuse/neglect circumstance category is only for children <17 years old.

TABLE 21
Anglos—Number and Rate of Homicide, by Sex and Age of Victim and Relationship of Offender to Victim
City of Los Angeles, 1970-79

Relationship	Male													
	<15		15-24		25-34		35-44		45-54		55-64		65+		Total	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Wife	1	0.1	1	0.1	8	0.6	7	0.7	8	0.8	1	0.1	3	0.4	29	0.4
Other Family	16	1.1	9	0.7	5	0.4	5	0.5	4	0.4	3	0.3	7	0.8	49	0.6
Intimate Acquaintance	0	0.0	5	0.4	3	0.2	3	0.3	8	0.8	1	0.1	0	0.0	20	0.3
Friend/Acquaintance	6	0.4	51	3.9	56	4.4	37	3.8	28	2.7	19	2.1	32	3.7	229	2.9
Other Nonfamily	2	0.1	5	0.4	16	1.3	15	1.5	9	0.9	9	1.0	1	0.1	57	0.7
Stranger	1	0.1	42	3.2	52	4.1	34	3.5	61	5.9	42	4.7	68	7.9	300	3.8
No Suspect	2	0.1	13	1.0	29	2.3	28	2.8	23	2.2	25	2.8	23	2.7	143	1.8
	Female													
Relationship	<15		15-24		25-34		35-44		45-54		55-64		65+		Total	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Husband	1	0.1	12	0.9	22	1.9	19	2.0	17	1.6	5	0.5	7	0.5	83	1.0
Other Family	15	1.1	1	0.1	3	0.3	0	0.0	2	0.2	2	0.2	6	0.4	29	0.3
Intimate Acquaintance	0	0.0	11	0.8	12	1.0	7	0.7	3	0.3	3	0.3	1	0.1	37	0.4
Friend/Acquaintance	0	0.0	15	1.1	13	1.1	8	0.8	8	0.7	6	0.6	8	0.6	58	0.7
Other Nonfamily	0	0.0	4	0.3	9	0.8	2	0.2	1	0.1	0	0.0	3	0.2	19	0.2
Stranger	1	0.1	13	1.0	6	0.5	5	0.5	9	0.8	12	1.2	67	4.9	113	1.4
No Suspect	4	0.3	12	0.9	8	0.7	4	0.4	8	0.7	4	0.4	20	1.5	60	0.7

Notes:
Rates are per 100,000 population.
The term "homicide" refers to criminal homicide. See glossary for definition of terms. Excluded are 73 homicides for which there were no data on sex or age of victim or relationship.

TABLE 22
Number and Percentage of Homicides by Sex of Victim and Year of Death
City of Los Angeles, 1970-79

Year	Male		Female		Total	
	No.	%	No.	%	No.	%
1970	264	75.2	87	24.8	351	100.0
1971	298	77.8	85	22.2	383	100.0
1972	330	77.5	96	22.5	426	100.0
1973	352	77.0	105	23.0	457	100.0
1974	333	77.8	95	22.2	428	100.0
1975	398	76.2	124	23.8	522	100.0
1976	343	73.3	125	26.7	468	100.0
1977	390	73.2	143	26.8	533	100.0
1978	484	80.1	120	19.9	604	100.0
1979	573	85.1	100	14.9	673	100.0
Total	**3,765**	**77.7**	**1,080**	**22.3**	**4,845**	**100.0**

Notes:
The term "homicides" refers to criminal homicides. Excluded are 105 homicides for which there were no data on the sex of the victim or year of death.

TABLE 23
Homicide Rate by Sex of Victim and Year of Death
City of Los Angeles, 1970-79

Year	Male	Female
1970	19.5	6.0
1971	21.8	5.8
1972	24.0	6.5
1973	25.4	7.1
1974	23.9	6.4
1975	28.3	8.3
1976	24.3	8.4
1977	27.4	9.5
1978	33.8	8.0
1979	39.7	6.6
1970-79	26.9	7.3

Notes:
Rates are per 100,000 population.
The term "homicide" refers to criminal homicide. Excluded are 105 homicides for which there were no data on the sex of victim or year of death.

TABLE 24
Number and Percentage of Homicides by Age of Victim and Year of Death City of Los Angeles, 1970 and 1979

Age	1970		1979	
	No.	%	No.	%
<15	15	4.3	9	1.3
15-24	108	30.9	220	33.0
25-34	85	24.4	201	30.1
35-44	45	12.9	98	14.7
45-54	38	10.9	58	8.7
55-64	26	7.4	39	5.8
65+	32	9.2	42	6.3
Total	**349**	**100.0**	**667**	**100.0**

Notes:
The term "homicides" refers to criminal homicides. Excluded are 16 homicides for which there were no data on the age of the victim or year of death.

TABLE 25
Homicide Rate by Age of Victim and Year of Death City of Los Angeles, 1970 and 1979

Age	1970	1979
<15	2.1	1.5
15-24	22.7	39.9
25-34	21.4	37.0
35-44	13.2	28.0
45-54	11.1	19.1
55-64	9.8	14.1
65+	11.3	13.5
1970-79	12.4	22.6

Notes:
Rates are per 100,000 population. The term "homicide" refers to criminal homicide. Excluded are 16 homicides for which there were no data on age of victim or year of death.

TABLE 26
Number and Percentage of Homicides
by Race/Ethnicity of Victim and Year of Death
City of Los Angeles, 1970-79

Year	Anglo		Black		Hispanic		Other		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
1970	119	33.9	178	50.7	47	13.4	7	2.0	351	100.0
1971	105	27.6	208	54.6	62	16.3	6	1.6	381	100.0
1972	113	28.6	217	54.9	59	14.9	6	1.5	395	100.0
1973	157	34.6	219	48.2	74	16.3	4	0.9	454	100.0
1974	108	26.0	208	50.0	77	18.5	23	5.5	416	100.0
1975	157	30.7	228	44.6	110	21.5	16	3.1	511	100.0
1976	127	27.5	200	43.3	117	25.3	18	3.9	462	100.0
1977	145	27.5	248	47.0	124	23.5	11	2.1	528	100.0
1978	144	23.9	248	41.1	194	32.2	17	2.8	603	100.0
1979	123	18.3	304	45.3	230	34.3	14	2.1	671	100.0
Total	**1,298**	**27.2**	**2,258**	**47.3**	**1,094**	**22.9**	**122**	**2.6**	**4,772**	**100.0**

Notes:
The term "homicides" refers to criminal homicides. Excluded are 178 homicides for which there were no data on the race/ethnicity of the victim or year of death.

TABLE 27
Homicide Rate by Race/Ethnicity of Victim
and Year of Death
City of Los Angeles, 1970-79

Year	Anglo	Black	Hispanic	Other
1970	6.7	35.7	11.1	5.4
1971	6.1	41.8	13.4	4.3
1972	6.7	43.6	11.8	4.0
1973	9.4	44.0	13.7	2.5
1974	6.6	41.8	13.3	13.4
1975	9.9	45.9	17.8	8.8
1976	8.2	40.3	17.8	9.3
1977	9.5	50.0	17.8	5.4
1978	9.7	50.0	26.3	7.9
1979	8.5	61.3	29.6	6.2
1970-79	8.1	45.4	18.2	6.9

Notes:
Rates are per 100,000 population. The term "homicide" refers to criminal homicide. Excluded are 178 homicides for which there were no data on race/ethnicity of victim or year of death.

TABLE 28
Number and Percentage of Homicides
by Race/Ethnicity and Sex of Victim and by Year of Death
City of Los Angeles, 1970-79

Year	Male									
	Anglo		Black		Hispanic		Other		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
1970	79	30.2	134	51.1	43	16.4	6	2.3	262	100.0
1971	74	24.8	170	57.0	49	16.4	5	1.7	298	100.0
1972	78	25.4	176	57.3	48	15.6	5	1.6	307	100.0
1973	109	31.1	173	49.4	64	18.3	4	1.1	350	100.0
1974	76	23.8	170	53.1	65	20.3	9	2.8	320	100.0
1975	98	25.1	180	46.2	98	25.1	14	3.6	390	100.0
1976	80	23.5	160	46.9	93	27.3	8	2.3	341	100.0
1977	97	25.1	174	45.0	106	27.4	10	2.6	387	100.0
1978	100	20.7	187	38.7	182	37.7	14	2.9	483	100.0
1979	92	16.1	260	45.5	209	36.5	11	1.9	572	100.0
Total	**883**	**23.8**	**1,784**	**48.1**	**957**	**25.8**	**86**	**2.3**	**3,710**	**100.0**
	Female									
Year	Anglo		Black		Hispanic		Other		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
1970	39	44.8	43	49.4	4	4.6	1	1.1	87	100.0
1971	31	37.3	38	45.8	13	15.7	1	1.2	83	100.0
1972	35	39.8	41	46.6	11	12.5	1	1.1	88	100.0
1973	48	46.2	46	44.2	10	9.6	0	0.0	104	100.0
1974	32	38.1	35	41.7	9	10.7	8	9.5	84	100.0
1975	59	48.8	48	39.7	12	9.9	2	1.7	121	100.0
1976	47	38.8	40	33.1	24	19.8	10	8.3	121	100.0
1977	48	34.0	74	52.5	18	12.8	1	0.7	141	100.0
1978	44	36.7	61	50.8	12	10.0	3	2.5	120	100.0
1979	31	31.3	44	44.4	21	21.2	3	3.0	99	100.0
Total	**414**	**39.5**	**470**	**44.8**	**134**	**12.8**	**30**	**2.9**	**1,048**	**100.0**

Notes:
The term "homicides" refers to criminal homicides. Excluded are 192 homicides for which there were no data on race/ethnicity, sex of victim, or year of death.

TABLE 29
Homicide Rate by Race/Ethnicity and Sex of Victim and by Year of Death
City of Los Angeles, 1970-79

Year	Male			
	Anglo	Black	Hispanic	Other
1970	9.3	57.2	21.1	9.2
1971	8.8	72.7	21.9	7.1
1972	9.5	75.3	19.6	6.6
1973	13.5	74.1	24.1	4.9
1974	9.6	72.8	22.7	10.5
1975	12.7	77.2	31.9	15.4
1976	10.6	68.6	28.3	8.3
1977	13.1	74.7	30.4	9.9
1978	13.8	80.3	49.2	13.1
1979	13.0	111.8	53.5	9.8
1970-79	11.3	76.4	32.2	9.7
Year	Female			
	Anglo	Black	Hispanic	Other
1970	4.3	16.3	1.8	1.6
1971	3.5	14.4	5.5	1.4
1972	4.0	15.5	4.3	1.3
1973	5.6	17.4	3.6	0.0
1974	3.8	13.3	3.1	9.3
1975	7.2	18.2	3.8	2.2
1976	5.9	15.2	7.3	10.3
1977	6.1	28.1	5.2	1.0
1978	5.8	23.2	3.3	2.8
1979	4.2	16.7	5.4	2.6
1970-79	5.0	17.8	4.4	3.4

Notes:
Rates are per 100,000 population.
The term "homicide" refers to criminal homicide. Excluded are 192 homicides for which there were no data on race/ethnicity or sex of victim or year of death.

TABLE 30
Number and Rate of Homicide by Age and Race/Ethnicity of Male Victims
City of Los Angeles, 1970-79

	Anglo				Black				Hispanic			
	1970		1979		1970		1979		1970		1979	
Age	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
<15	2	1.1	3	2.9	5	6.1	3	4.8	2	2.7	0	0.0
15-24	17	11.9	12	10.1	46	117.1	86	185.1	17	47.1	89	97.3
25-34	12	10.0	25	18.9	39	112.9	76	195.4	11	34.0	70	88.0
35-44	9	8.5	14	15.4	24	86.9	36	133.1	3	11.4	29	69.0
45-54	12	10.2	11	12.5	12	51.0	28	123.8	5	30.0	13	48.9
55-64	16	17.3	12	13.8	6	37.4	15	80.3	1	10.0	3	19.0
65+	11	12.8	15	17.6	2	17.7	12	73.6	4	48.2	4	32.1

Notes:
Rates are per 100,000 population.
The term "homicide" refers to criminal homicide. The "Other" race/ethnic category is excluded because of the extremely small numbers of homicides (when distributed by sex and age) that occurred in this category during 1970 and 1979.

TABLE 31
Number and Rate of Homicide by Age and Race/Ethnicity of Female Victims
City of Los Angeles, 1970-79

	Anglo				Black				Hispanic			
	1970		1979		1970		1979		1970		1979	
Age	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
<15	1	0.6	1	1.0	4	4.8	1	1.6	0	0.0	1	0.8
15-24	6	4.1	6	5.1	16	34.3	18	35.1	3	7.3	6	7.2
25-34	8	7.1	8	6.4	13	33.9	9	20.3	0	0.0	6	8.1
35-44	5	4.8	5	5.8	2	6.5	6	19.7	1	3.8	4	9.7
45-54	6	4.8	1	1.1	2	7.3	3	11.5	0	0.0	2	6.8
55-64	1	1.0	3	3.2	2	9.9	4	17.2	0	0.0	0	0.0
65+	12	8.6	7	5.2	2	11.3	3	11.4	0	0.0	1	5.3

Notes:
Rates are per 100,000 population.
The term "homicide" refers to criminal homicide. The "Other" race/ethnic category is excluded because of the extremely small numbers of homicides (when distributed by sex and age) that occurred in this category during 1970 and 1979.

TABLE 32
Sex, Age, and Race/Ethnicity of Homicide Victims Tested and Not Tested for Blood Alcohol, City of Los Angeles, 1970-79

	Tested		Not Tested		Total[a]	
	No.	%	No.	%	No.	%
Sex						
Male	3,159	85.9	517	14.1	3,676	100.0
Female	853	81.9	189	18.1	1,042	100.0
Unknown	80	87.0	12	13.0	92	100.0
Age						
0-14	125	49.8	126	50.2	251	100.0
15-64	3,551	88.1	481	11.9	4,032	100.0
65+	261	74.8	88	25.2	349	100.0
Unknown	155	87.1	23	12.9	178	100.0
Race/Ethnicity						
Anglo	1,027	82.0	225	18.0	1,252	100.0
Hispanic	911	85.7	152	14.3	1,063	100.0
Black	1,914	86.6	297	13.4	2,211	100.0
Other	98	81.0	23	19.0	121	100.0
Unknown	142	87.1	21	12.9	163	100.0

Notes:
The term "homicide" refers to criminal homicide.

[a] Totals exclude 140 homicides for which test status was unknown.

TABLE 33
Blood Alcohol Levels in Homicide Victims by Year of Death City of Los Angeles, 1970-79

	Blood Alcohol Levels (mg%)							
	0		1-99		100+		Total	
Year	No.	%	No.	%	No.	%	No.	%
1970	150	57.9	28	10.8	81	31.3	259	100.0
1971	176	53.2	58	17.5	97	29.3	331	100.0
1972	205	53.8	64	16.8	112	29.4	381	100.0
1973	211	56.4	54	14.4	109	29.1	374	100.0
1974	215	57.3	52	13.9	108	28.8	375	100.0
1975	229	51.4	68	15.3	149	33.4	446	100.0
1976	212	52.9	85	21.2	104	25.9	401	100.0
1977	239	54.9	76	17.5	120	27.6	435	100.0
1978	282	55.7	70	13.8	154	30.4	506	100.0
1979	286	49.7	90	15.7	199	34.6	575	100.0
1970-79	2,205	54.0	645	15.8	1,233	30.2	4,083	100.0

Notes:
The term "homicide" refers to criminal homicide. Excluded are 867 homicides for which there were no data on year of death or blood alcohol level.

TABLE 34
Blood Alcohol Levels in Homicide Victims
by Sex of Victim
City of Los Angeles, 1970-79

Blood Alcohol Level (mg%)	Male		Female		Total	
	No.	%	No.	%	No.	%
0	1,538	48.7	633	74.2	2,171	54.1
1-99	545	17.3	93	10.9	638	15.9
100+	1,076	34.1	127	14.9	1,203	30.0
Total	**3,159**	**100.0**	**853**	**100.0**	**4,012**	**100.0**

Notes:
The term "homicide" refers to criminal homicide. Excluded are 938 homicides for which there were no data on sex of victim or blood alcohol level.

TABLE 35
Blood Alcohol Levels in Homicide Victims by Age of Victim
City of Los Angeles, 1970-79

Blood Alcohol Level (mg%)	Age of Victim													
	<15		15-24		25-34		35-44		45-54		55-64		65+		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
0	108	86.4	655	57.4	534	48.7	288	46.8	214	47.8	127	50.8	203	77.8	2,129	54.1
1-99	5	4.0	221	19.4	194	17.7	75	12.2	57	12.7	41	16.4	26	10.0	619	15.7
100+	12	9.6	265	23.2	369	33.6	252	41.0	177	39.5	82	32.8	32	12.3	1,189	30.2
Total	**125**	**100.0**	**1,141**	**100.0**	**1,097**	**100.0**	**615**	**100.0**	**448**	**100.0**	**250**	**100.0**	**261**	**100.0**	**3,937**	**100.0**

Notes:
The term "homicide" refers to criminal homicide. Excluded are 1,013 homicides for which there were no data on age of victim or blood alcohol level.

TABLE 36
Blood Alcohol Levels in Homicide Victims by Race/Ethnicity of Victim City of Los Angeles, 1970-79

Blood Alcohol Level (mg%)	Anglo		Black		Hispanic		Other		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
0	672	65.4	1,002	52.4	392	43.0	65	66.3	2,131	53.9
1-99	145	14.1	304	15.9	171	18.8	9	9.2	629	15.9
100+	210	20.4	608	31.8	348	38.2	24	24.5	1,190	30.1
Total	**1,027**	**100.0**	**1,914**	**100.0**	**911**	**100.0**	**98**	**100.0**	**3,950**	**100.0**

Notes:
The term "homicide" refers to criminal homicide. Excluded are 1,000 homicides for which there were no data on race/ethnicity of victim or blood alcohol level.

TABLE 37
Blood Alcohol Levels in Homicide Victims by Site of Occurrence
City of Los Angeles, 1970-79

Blood Alcohol Level (mg%)	Home		Street		Bar/ Restaurant		Business		Other Site		Site Not Known		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
0	1,011	57.1	434	50.0	40	24.8	120	60.3	365	61.3	239	48.1	2,209	54.0
1-99	281	15.9	147	16.9	25	15.5	24	12.1	93	15.6	78	15.7	648	15.8
100+	480	27.1	287	33.1	96	59.6	55	27.6	137	23.0	180	36.2	1,235	30.2
Total	**1,772**	**100.0**	**868**	**100.0**	**161**	**100.0**	**199**	**100.0**	**595**	**100.0**	**497**	**100.0**	**4,092**	**100.0**

Notes:
The term "homicide" refers to criminal homicide. Excluded are 858 homicides for which there were no data on blood alcohol level.

Table 38
Blood Alcohol Level in Homicide Victims by Crime Circumstance
City of Los Angeles, 1970-79

Blood Alcohol Level (mg%)	Physical Fight		Verbal Argument		Child Abuse/Neglect		Sex Related		Gang Violence		Crime Related		Other Motive		Circumstance Not Determinable		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
0	139	32.0	624	45.1	23	95.8	139	65.9	108	51.7	679	65.8	168	64.1	328	61.5	2,208	54.0
1-99	67	15.4	234	16.9	0	0.0	27	12.8	56	26.8	148	14.3	41	15.6	74	13.9	647	15.8
100+	228	52.5	527	38.1	1	4.2	45	21.3	45	21.5	205	19.9	53	20.2	131	24.6	1,235	30.2
Total	**434**	**100.0**	**1,385**	**100.0**	**24**	**100.0**	**211**	**100.0**	**209**	**100.0**	**1,032**	**100.0**	**262**	**100.0**	**533**	**100.0**	**4,090**	**100.0**

Notes:
The term "homicide" refers to criminal homicide. See glossary for definition of terms.
Excluded are 860 homicides for which there were no data on crime circumstance or blood alcohol level.

TABLE 39
Sex, Age, and Race/Ethnicity of Homicide Victims Tested and Not Tested for Presence of Barbiturates
City of Los Angeles, 1970-79

	Tested		Not Tested		Total[a]	
	No.	%	No.	%	No.	%
Sex						
Male	3,142	85.5	534	14.5	3,676	100.0
Female	841	80.7	201	19.3	1,042	100.0
Unknown	80	87.0	12	13.0	92	100.0
Age						
0-14	123	49.0	128	51.0	251	100.0
15-64	3,525	87.4	507	12.6	4,032	100.0
65+	261	74.8	88	25.2	349	100.0
Unknown	154	86.5	24	13.5	178	100.0
Race/Ethnicity						
Anglo	1,017	81.2	235	18.8	1,252	100.0
Hispanic	906	85.2	157	14.8	1,063	100.0
Black	1,902	86.0	309	14.0	2,211	100.0
Other	97	80.2	24	19.8	121	100.0
Unknown	141	86.5	22	13.5	163	100.0

Notes:
The term "homicide" refers to criminal homicide.

[a] Excluded are 140 homicides for which test status was unknown.

TABLE 40
Presence of Barbiturates in Homicide Victims by Year of Death City of Los Angeles, 1970-79

Year	Presence of Barbiturates[a]				Total	
	Yes		No			
	No.	%	No.	%	No.	%
1970	41	15.9	217	84.1	258	100.0
1971	51	15.5	278	84.5	329	100.0
1972	25	6.6	352	93.4	377	100.0
1973	27	7.3	344	92.7	371	100.0
1974	25	6.7	346	93.3	371	100.0
1975	23	5.2	421	94.8	444	100.0
1976	23	5.8	374	94.2	397	100.0
1977	53	12.3	377	87.7	430	100.0
1978	30	6.0	474	94.0	504	100.0
1979	25	4.4	548	95.6	573	100.0
1970-79	323	8.0	3,731	92.0	4,054	100.0

Notes:
The term "homicide" refers to criminal homicide. Excluded are 896 homicides for which there were no data on year of death or presence of barbiturates.

[a]Barbiturates were defined as present if they were detected in the blood or tissues of the homicide victim at autopsy.

TABLE 41
Presence of Barbiturates in Homicide Victims by Sex of Victim City of Los Angeles, 1970-79

Presence of Barbiturates[a]	Male		Female		Total	
	No.	%	No.	%	No.	%
Yes	224	7.1	92	10.9	316	7.9
No	2,918	92.9	749	89.1	3,667	92.1
Total	**3,142**	**100.0**	**841**	**100.0**	**3,983**	**100.0**

Notes:
The term "homicide" refers to criminal homicide. Excluded are 967 homicides for which there were no data on the sex of the victim or presence of barbiturates.

[a]Barbiturates were defined as present if they were detected in the blood or tissues of the homicide victim at autopsy.

TABLE 42
Presence of Barbiturates in Homicide Victims by Age of Victim
City of Los Angeles, 1970-79

Presence of Barbiturates[a]	Age of Victim														Total	
	<15		15-24		25-34		35-44		45-54		55-64		65+			
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Yes	4	3.3	127	11.2	104	9.6	37	6.0	20	4.5	10	4.0	14	5.4	316	8.1
No	119	96.7	1,005	88.8	984	90.4	576	94.0	423	95.5	239	96.0	247	94.6	3,593	91.9
Total	**123**	**100.0**	**1,132**	**100.0**	**1,088**	**100.0**	**613**	**100.0**	**443**	**100.0**	**249**	**100.0**	**261**	**100.0**	**3,909**	**100.0**

Notes:
The term "homicide" refers to criminal homicide. Excluded are 1,041 homicides for which there were no data on age of victim or presence of barbiturates.

[a] Barbiturates were defined as present if they were detected in the blood or tissues of the homicide victim at autopsy.

TABLE 43
Presence of Barbiturates in Homicide Victims by Race/Ethnicity of Victim City of Los Angeles, 1970-79

Presence of	Anglo		Black		Hispanic		Other		Total	
Barbiturates[a]	No.	%	No.	%	No.	%	No.	%	No.	%
Yes	61	6.0	198	10.4	54	6.0	4	4.1	317	8.1
No	956	94.0	1,704	89.6	852	94.0	93	95.9	3,605	91.9
Total	**1,017**	**100.0**	**1,902**	**100.0**	**906**	**100.0**	**97**	**100.0**	**3,922**	**100.0**

Notes:
The term "homicide" refers to criminal homicide. Excluded are 1,028 homicides for which there were no data on the race/ethnicity of the victim or the presence of barbiturates.

[a] Barbiturates were defined as present if they were detected in the blood or tissues of the homicide victim at autopsy.

TABLE 44
Presence of Barbiturates in Homicide Victims by Site of Occurrence
City of Los Angeles, 1970-79

Presence of Barbiturates[a]	Home		Street		Bar/Restaurant		Business		Other Site		Site Not Known		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Yes	161	9.2	68	7.9	4	2.5	15	7.6	31	5.3	44	8.9	3,740	92.1
No	1,596	90.8	796	92.1	156	97.5	183	92.4	559	94.7	450	91.9	323	7.9
Total	**1,757**	**100.0**	**864**	**100.0**	**160**	**100.0**	**198**	**100.0**	**590**	**100.0**	**494**	**100.0**	**4,063**	**100.0**

Notes:
The term "homicide" refers to criminal homicide. Excluded are 887 homicides for which there were no data on the presence of barbiturates or site of occurrence.

[a] Barbiturates were defined as present if they were detected in the blood or tissues of the homicide victim at autopsy.

TABLE 45
Presence of Barbiturates in Homicide Victims by Crime Circumstance
City of Los Angeles, 1970-79

Presence of Barbiturates[a]	Physical Fight		Verbal Argument		Child Abuse/ Neglect		Sex Related		Gang Violence		Crime Related		Other Circumstance		Circumstance Not Determinable		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Yes	45	10.3	126	9.2	0	0.0	19	9.2	14	6.8	64	6.3	16	6.2	39	7.5	323	8.0
No	390	89.7	1,251	90.8	23	100.0	187	90.8	193	93.2	958	93.7	244	93.8	479	92.5	3,725	92.0
Total	**435**	**100.0**	**1,377**	**100.0**	**23**	**100.0**	**206**	**100.0**	**207**	**100.0**	**1,022**	**100.0**	**260**	**100.0**	**518**	**100.0**	**4,048**	**100.0**

Notes:
The term "homicide" refers to criminal homicide. See glossary for definition of terms.
Excluded are 902 homicides for which there were no data on crime circumstance or the presence of barbiturates.

[a] Barbiturates were defined as present if they were detected in the blood or tissues of the homicide victim at autopsy.

GLOSSARY

This glossary contains definitions of key terms, variables, and variable categories used in this study. Words in caps are defined elsewhere in the glossary.

ANGLO. Refers to non-HISPANIC persons who are White.

BLACK. Refers to non-HISPANIC persons who are Black.

BLOOD ALCOHOL LEVEL. The level of alcohol in the blood is defined as milligrams of alcohol per 100 milliliters of blood and is expressed in terms of milligrams percent (i.e., mg%). For example, if a person's blood contains 100 milligrams of alcohol per 100 milliliters of blood, that person has a blood alcohol level of 100 mg%.

BLUDGEON. To strike repeatedly with a blunt object, fists, or feet.

CHILD ABUSE/NEGLECT. This CRIME CIRCUMSTANCE category includes only victims under 18 years of age whose deaths were associated with physical abuse, neglect, or sexual molestation.

CRIME CIRCUMSTANCE. The action or activity that best describes the event(s) precipitating the homicide. This variable was classified into the following categories for purposes of analysis:

a) physical fight
b) verbal argument
c) CHILD ABUSE/NEGLECT
d) SEX RELATED
e) gang violence
f) CRIME RELATED
g) OTHER CIRCUMSTANCE
h) circumstance not determinable

CRIME RELATED. This CRIME CIRCUMSTANCE category includes victims killed as a direct result of activities related to property offenses (e.g., robbery, burglary), the illegal manufacture or sale of drugs, or illegal gambling.

DEMOGRAPHIC CHARACTERISTICS. In this study, those describing the sex, age, or race/ethnicity of homicide victims in Los Angeles.

HISPANIC. Refers to persons of Spanish origin.

HUSBAND. This OFFENDER-VICTIM RELATIONSHIP category includes husbands who are legally married as well as common-law husbands.

INTERPERSONAL CHARACTERISTICS. In this study, those describing the social relationship between the victim and the offender (e.g., OFFENDER-VICTIM RELATIONSHIP).

INTIMATE ACQUAINTANCE. This OFFENDER-VICTIM RELATIONSHIP category refers to relationships that presumably involve or have involved sexual intimacy, although it does not include relationships between individuals who are legally married or involved in a common-law marriage. Examples of intimate acquaintances are ex-husbands and ex-wives, boyfriends and girlfriends, and homosexual lovers.

LINEAR INTERPOLATION. A procedure used to estimate the population of a geopolitical unit for years or points of time between two dates on which census counts of the number of residents have already been made. It is assumed that the annual increment of population change remains constant across each of the years in the period between the two censuses.

LONG GUN. A shoulder firearm with an extended gun barrel. In this study, firearms identified as rifles or shotguns are referred to as long guns.

NO SUSPECT. This OFFENDER-VICTIM RELATIONSHIP category includes those cases in which the relationship could not be determined because police could not identify a suspect.

OFFENDER-VICTIM RELATIONSHIP. Refers to the social relationship between the offender and the victim. This variable was classified into the following categories for purposes of analysis:

a) HUSBAND/WIFE
b) OTHER FAMILY
c) INTIMATE ACQUAINTANCE
d) friend/acquaintance
e) OTHER NONFAMILY
f) stranger
g) NO SUSPECT

OTHER CIRCUMSTANCE. This CRIME CIRCUMSTANCE category includes types of circumstances that do not fit into any other category, e.g., homicides resulting from illegal abortions.

OTHER FAMILY. This OFFENDER-VICTIM RELATIONSHIP category includes all types of relationships by blood or marriage, with the exclusion of husband, wife, ex-husband, and ex-wife.

OTHER NONFAMILY. This OFFENDER-VICTIM RELATIONSHIP category includes those relationships for which it appears that the offender and victim knew one another, although such a relationship could not be determined conclusively from police records.

POPULATION-BASED SAMPLES. A randomly selected subset of a population from which information can be obtained that is representative of the population.

SEX RELATED. This CRIME CIRCUMSTANCE category includes victims killed during a sexual assault or during other activities directly related to illegal sexual practices (e.g., prostitution).

SITUATIONAL CHARACTERISTICS. Those describing persons, objects, and/or actions associated with a particular event or period of time. Site of occurrence and type of weapon are examples of situational characteristics commonly used to describe homicide events.

STANDARD METROPOLITAN STATISTICAL AREAS. A county or group of contiguous counties that contains at least one city of 50,000 inhabitants or that contains "twin cities" with a combined population of at least 50,000. (In the New England States, SMSA's consist of towns and cities instead of counties.) In addition to the county or counties containing such a city (or "twin cities"), contiguous counties are included in an SMSA if, according to certain criteria, they are socially and economically integrated with the central city or cities (*26*).

VICTIM-PRECIPITATED HOMICIDE. In this type of homicide, the victim is the first to resort to physical violence in the interaction that leads to his or her death (*4*).

WIFE. This OFFENDER-VICTIM RELATIONSHIP category includes wives who are legally married as well as common-law wives.

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