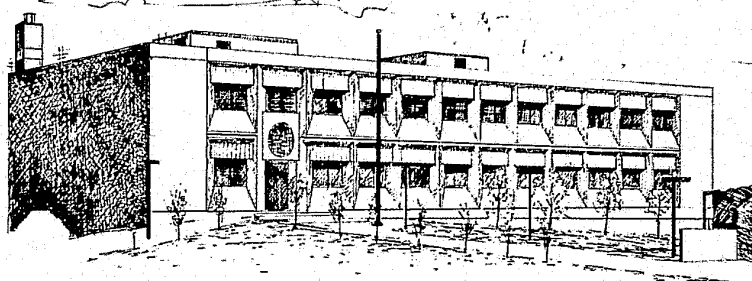


1972 Annual Report - 11763

Government of the District of Columbia • Department of Human Resources



**OFFICE OF THE CHIEF MEDICAL EXAMINER**

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**Annual  
Report  
1976**

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GOVERNMENT OF THE DISTRICT OF COLUMBIA

DEPARTMENT OF HUMAN RESOURCES

OFFICE OF THE CHIEF MEDICAL EXAMINER

ANNUAL REPORT

1976

GOVERNMENT OF THE DISTRICT OF COLUMBIA  
Walter E. Washington, Mayor

OFFICE OF THE CHIEF MEDICAL EXAMINER  
James L. Luke, M.D., Chief Medical Examiner

Washington, D. C.

1976

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# *Introduction*

The Office of the Chief Medical Examiner of the District of Columbia was created as an impartial medical fact-gathering agency, with passage by Congress of the Court Reform Act of 1970, replacing the outmoded Coroner system. The agency is located, for administrative purposes, in the Office of the Director of the Department of Human Resources. Its charge is the medical-legal investigation of all known or suspected homicides, suicides, accidental deaths, drug-related deaths, medically unattended deaths and deaths which might constitute a threat to the public health and safety.

In fact, the Office investigates the cause and the circumstances surrounding some one-third of the total District deaths, including all of the above categories, in excess of 4,000 cases per year, approximately one-third of which are specifically selected, for various reasons, for medical-legal autopsy. Complex toxicological screening analyses are performed in the Medical Examiners Office laboratory on nearly 1,000 of the latter cases, approximately 9,000 individual chemical procedures being completed per year.

While determination of specific cause and manner of death is a vitally important function of every medical-legal investigative agency, even more relevant, in the aggregate, is the provision of reasoned answers to the myriad questions posed in cases falling under its jurisdiction. Such questions range from time of death or onset of illness, to sequence of injury and the identification of patterned trauma reflecting a particular instrument, to the possible influence of drugs recovered postmortem on premortem behavior. Answers to questions such as these - and their variety is as infinite as the circumstances surrounding the cases themselves - constitute a significant component of the fabric of any criminal justice system, where circumstantial information and witnesses statements often are demonstrated to have been confabulated and/or to be relatively inaccurate. In addition, such answers have been shown to reflect with precision, matters of public significance relative to the community health and safety in non-criminal situations.

In an effort to begin to make the agency responsive to the public need for its services, much has been accomplished since implementation of the Medical Examiners Office portion of the Act in July of 1971. 1976 has been a year of continued progress in this regard.

\* After two years of design planning and three more years of construction, the new medical examiners' office facility was completed in August of 1976. By affording proper space for offices and conference areas and for pathology, laboratory, and other specialized services, the new building provides the District of Columbia with one of the most comprehensive medical-legal investigative facilities in the country.

\* Virtually every aspect of the old Coroner program has been up-graded and many have been fundamentally altered, bringing the Office into conformity with other medical examiner systems of excellence.

\* A functional data retrieval system has been established, to allow on-going compilations of cases of various types, for public information and other purposes. It is from such information that the specifics of the local narcotics epidemic of 1972-1973 were elucidated, allowing governmental promulgation of policy decisions relative to methadone maintenance, for example (See Narcotic-Related Deaths).

\* Guidelines have been promulgated by the Office to facilitate evaluation of medical examiner case material for renal transplantation, on a per case basis.

\*\*\*\*\*

Goals of the Office of the Chief Medical Examiner for the coming year include:

A) Expansion and further enhancement of the various educational/training and research programs initiated during the past several years.

Educational/training programs have actively involved the Medical Examiners Office with various facets of the Washington-area criminal justice and public health systems, and with the several local medical and legal academic institutions. Such efforts have taken the form of lectures and seminars as well as in-house medical student clerkships (See Lectures by Professional Staff).

Approval by the American Board of Pathology of a Forensic Pathology Residency Training Program for the Office was granted in 1972, affording pathologists the opportunity of one year's training experience in forensic pathology. Upon completion of his training, the candidate would then be eligible to take the specialty examination in forensic pathology. Active recruitment of such trainees will constitute a major thrust of the agency over the next year and into the future. The program was formally initiated in July of 1974.

In addition to the above, a collaborative - albeit informal - relationship was established in 1973 between the Medical Examiners Office and the Department of Laboratory Services of the National Naval Medical Center in Bethesda, Maryland, for short-term elective training of resident physicians in forensic pathology. A similar relationship was effected in 1974 with the Department of Forensic Sciences of the Armed Forces Institute of Pathology.

On-going research projects initiated by the Medical Examiner's Office and developed over the past several years include the following:

- Risk factors pertaining to certain aspects of child safety continue to be of major agency concern. Such considerations range from the inherent hazards of faulty crib design to matters of adequate restraint among children who are passenger-victims involved in automobile collisions.

- An in-depth study of the incidence and mortality coefficient of alcohol abuse in fatalities investigated by the Medical Examiners Office has recently been completed.

- The collaborative effort between the Office of the Chief Medical Examiner and the Narcotics Treatment Administration and the National Center for Disease Control in Atlanta to investigate the recently recognized epidemiological clustering (in terms of time and place) of narcotic-related fatalities in the District of Columbia (See Narcotic-Related Deaths and Publications by Professional Staff).

- A study to attempt to determine the influence, if any, of the sickle trait on mortality, relative to sudden death from natural causes, drug abuse, acute and chronic alcoholism, among various other conditions. This has been a collaborative project with the Georgetown Medical Division of the D. C. General Hospital. Although the study is not completed, it would appear that the influence of the sickle trait on mortality is negligible, regardless of the cause and circumstances of death.

- Investigation of the specific circumstances surrounding fatalities incident to the Sudden Infant Death ("crib death") Syndrome.

With regard to the latter entity, this agency initiated in 1973 a parental counseling service for families of Sudden Infant Death Syndrome victims in the District of Columbia. The service is implemented by the Community Health and Hospitals Administration of the Department of Human Resources and, to our knowledge, represents the only such governmentally sponsored activity in the country.

Research will continue to be a major commitment of the Office in the future.

B) Implementation of a closed-circuit, in-house television system, expected to be in-place shortly following completion of the new Medical Examiners Office facility.

This innovative technique will afford previously unavailable documentation of crime scene and other medical examiner-related examinations for enhanced service capability (in litigative situations, for example) and for educational and research purposes.

C) Development and justification of a realistic baseline budget plateau for the Medical Examiners Office, to bring the agency into accord with other medical-legal investigative systems of excellence.



D) Implementation of the Medical Examiners Office aspects of the District of Columbia Alcohol Countermeasures Program, in collaboration with the Traffic Division of the Metropolitan Police Department.

The Director of Laboratory Services at the Medical Examiners Office has been given the responsibility of quality control for and implementing the analytical aspects of this diverse and comprehensive program, which includes certification of Breathalyzer instruments and operators and testing of body fluids for the presence of alcohol and other drugs.



# *Medical Examiner Investigations and Medical-Legal Autopsies*

(Figures in parentheses represent 1975 data.)

Of the 4,547 cases reported to and investigated by the Office of the Chief Medical Examiner in 1976, representing approximately one-third of all District of Columbia deaths, 2,233 fatalities were accepted for further examination and were certified by the agency as to cause and manner of death. Of the latter cases, 1,040 were selected, for various reasons, for examination by medical-legal autopsy.

## MEDICAL EXAMINER INVESTIGATIONS AND MEDICAL-LEGAL AUTOPSIES

Medical Examiner Investigations Certified	2,233	(2,348)
Medical Examiner Cases Reported, Jurisdiction Waived	1,151	(1,100)
Total Medical Examiner Cases Reported and Investigated	3,384	(3,448)
Requests for Cremation Approved	1,163	(1,080)
TOTAL MEDICAL EXAMINER CASES	4,547	(4,528)
Medical-Legal Autopsies	1,040	(1,105)
Percent Medical-Legal Autopsies/Medical Examiner Investigations Certified	47%	(47%)
Scenes of Death Investigated by Professional Staff	76	

MEDICAL EXAMINER INVESTIGATIONS AND  
MEDICAL-LEGAL AUTOPSIES BY MONTH OF OCCURRENCE

<u>MONTH</u>	<u>CASES REPORTED AND INVESTIGATED</u>	<u>MEDICAL-LEGAL AUTOPSIES</u>
January	327	96
February	351	106
March	298	73
April	292	84
May	282	96
June	253	73
July	219	69
August	230	72
September	244	93
October	309	95
November	282	84
December	297	99
TOTAL	3,384 (3,448)	1,040 (1,105)

AUTOPSIES BY PROFESSIONAL STAFF

Dr. Luke	104
Dr. Blackbourne	158
Dr. Brownlee	151
Dr. Kim	186
Dr. Riddick	208
Dr. Henry	223
Other	10
TOTAL	1,040

TOTAL MEDICAL EXAMINER CASES ANALYZED BY TOXICOLOGY

Number of cases analyzed	865	(916)
Number of analytical procedures performed	8,998	(9,200)

TOTAL MEDICAL EXAMINER CASES EXAMINED HISTOLOGICALLY

Number of cases examined microscopically	546	(523)
Number of microscopical slides prepared	4,736	(4,991)



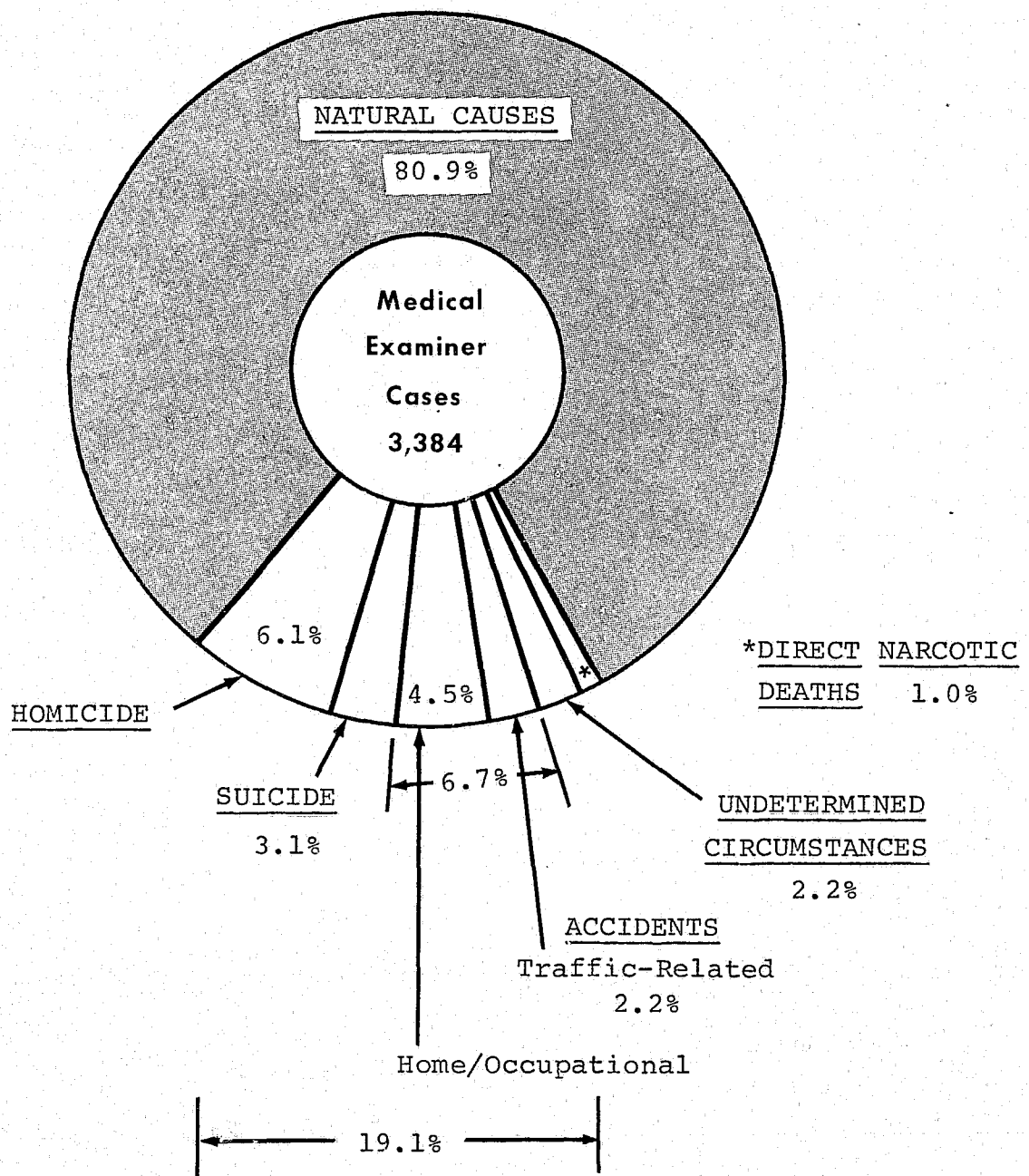
MEDICAL EXAMINER INVESTIGATIONS BY CIRCUMSTANCE OF DEATH

	TOTAL CASES REPORTED/ INVESTIGATED <sup>1</sup>	AGGREGATE RATE PER 100,000 POPULATION <sup>2</sup>	NUMBER AUTOPSIED	PERCENT AUTOPSIED
Natural Causes	2,738	379.3	406	14.8%
Homicide	207	28.7	207	100%
Suicide	105	14.5	104	99%
Accidental (Home & Occupational)	151	20.9	141	93%
Accidental (Traffic-Related)	77	10.7	77	100%
Narcotic-Related Deaths	76	10.5	76	100%
Direct ("overdose") deaths	32	4.4	32	100%
Unnatural deaths among users of narcotics	41	5.7	41	100%
Medical complications of narcotism	3	0.4	3	100%
Undetermined manner of death	74	10.3	73	99%

<sup>1</sup>Includes a small number of extra-jurisdictional cases (See individual case categories).

<sup>2</sup>Based on a District of Columbia population of 721,800 residents (1975 population estimate - D.C. Municipal Planning Office/Demographic Unit). The rates per category are slightly overestimated, in that small numbers of non-District residents are included.

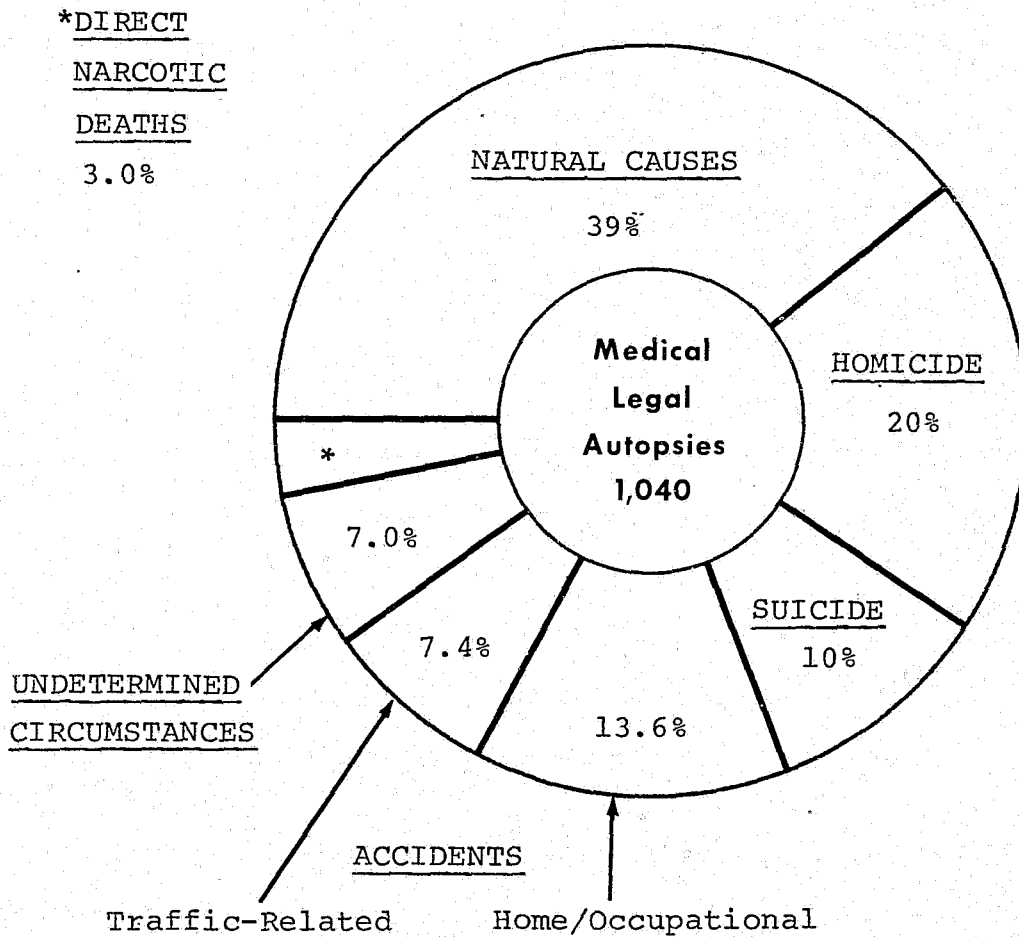
# Medical Examiner Cases Reported and Investigated



Deaths from Natural Causes: 80.9%

Deaths by Unnatural Circumstances: 19.1%

# Medical-Legal Autopsies



Deaths from Natural Causes:	39.0%
Deaths by Unnatural Circumstances:	61.0%

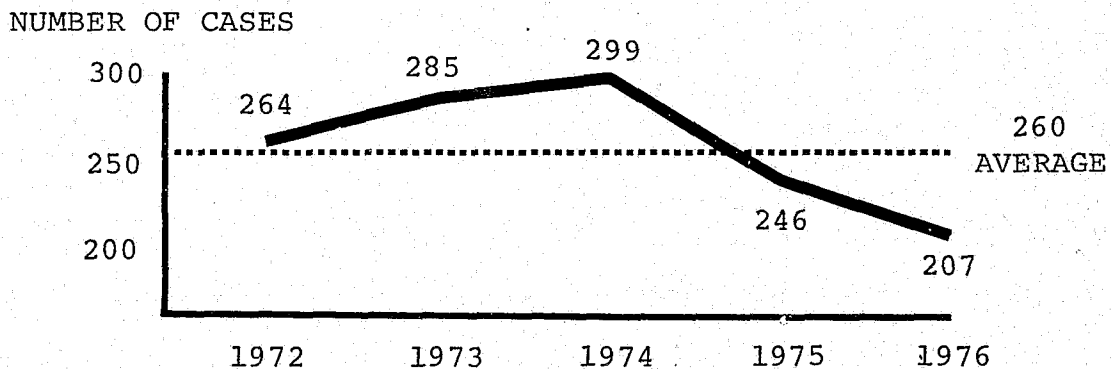




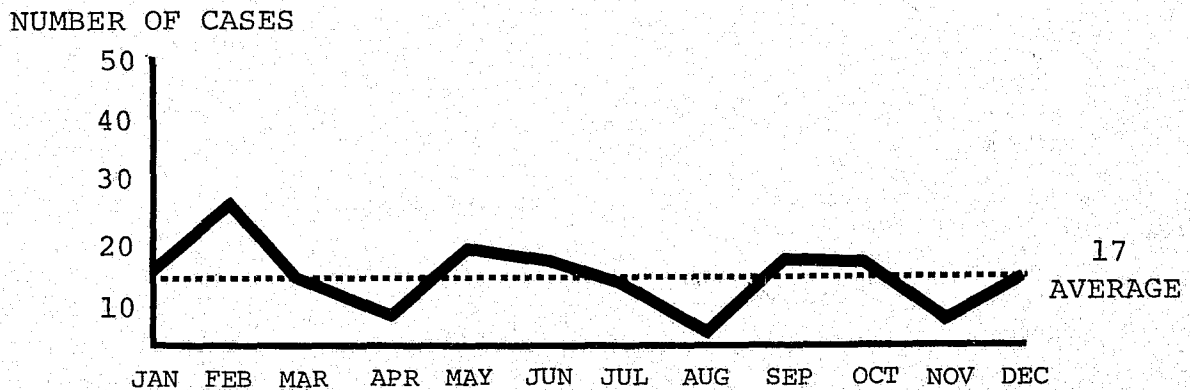
# *Death by Homicide*

(Figures in parentheses represent 1975 data.)

## Homicides by Year Since Inception of Medical Examiner System



## Homicides by Month for the Year 1976



### GEOGRAPHICAL LOCATION OF HOMICIDAL ASSAULT

District of Columbia	204	(245)
Maryland*	2	(1)
Virginia*	1	(0)
TOTAL	207	(246)

\*Individuals dying in District of Columbia hospitals who were assaulted in other jurisdictions, as noted.

### HOMICIDE BY AGE, SEX, AND RACE OF VICTIM

Age	Black Male <sup>1</sup>	Black Female	White Male <sup>2</sup>	White Female	TOTAL
0 - 4 yrs.	2	0	1	0	3 (5)
5 - 9 yrs.	0	1	0	0	1 (1)
10 - 14 yrs.	1	1	0	0	2 (3)
15 - 19 yrs.	16	1	0	1	18 (15)
20 - 29 yrs.	47	9	2	3	61 (80)
30 - 39 yrs.	39	5	6	1	51 (49)
40 - 49 yrs.	26	3	2	2	33 (45)
50 - 59 yrs.	16	2	1	0	19 (30)
60 - 69 yrs.	8	3	*3	0	14 (6)
70 - 79 yrs.	1	1	2	0	4 (11)
80 - 89 yrs.	0	0	0	1	1 (1)
90+ yrs.	0	0	0	0	0 (0)
TOTAL	156	26	17	8	207 (246)

<sup>1</sup>Includes two Maryland cases.

<sup>2</sup>Includes one Virginia case.

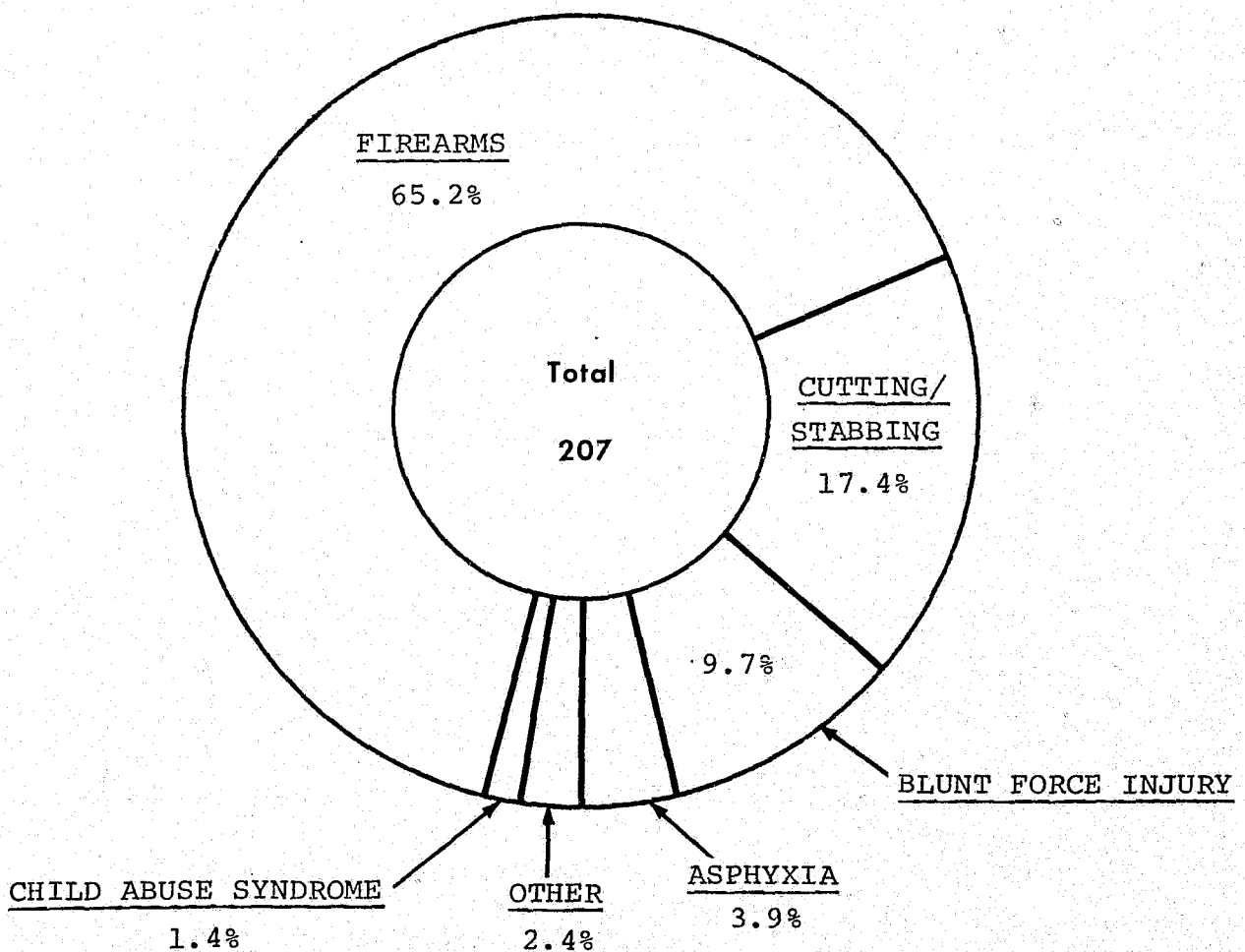
\*Includes one Oriental male.

## Method of Homicide

Firearms	135	(156)
Cutting/Stabbing	36	(50)
Blunt Force Injury	20	(27)
Asphyxia*	8	(8)
Child Abuse Syndrome**	3	(4)
Other	5	(1)
<b>TOTAL</b>	<b>207</b>	<b>(246)</b>

\*Includes manual and ligature strangulation, smothering, etc.

\*\*Includes infants and children under the age of four years dying of blunt force and/or thermal injury.



# HOMICIDE BY GUNFIRE BY AGE, SEX, AND RACE OF VICTIM

Age	Black Male <sup>1</sup>	Black Female	White Male	White Female	TOTAL	
0 - 4 yrs.	0	0	0	0	0	(0)
5 - 9 yrs.	0	0	0	0	0	(1)
10 - 14 yrs.	0	1	0	0	1	(3)
15 - 19 yrs.	15	1	0	1	17	(12)
20 - 29 yrs.	34	6	1	1	42	(59)
30 - 39 yrs.	28	4	3	0	35	(32)
40 - 49 yrs.	16	2	1	1	20	(27)
50 - 59 yrs.	8	1	1	0	10	(15)
60 - 69 yrs.	3	1	*3	0	7	(2)
70 - 79 yrs.	1	0	2	0	3	(4)
80 - 89 yrs.	0	0	0	0	0	(1)
90+ yrs.	0	0	0	0	0	(0)
TOTAL	105	16	11	3	135	(156)

<sup>1</sup>Includes one Maryland case.

\*Includes one Oriental male.

## TOXICOLOGY OF VICTIMS OF HOMICIDE

Blood Alcohol Level by  
Method of Homicide\*

ALCOHOL LEVEL	FIREARMS	CUTTING/ STABBING	BLUNT FORCE INJURY	ASPHYXIA	OTHER
< 0.10 gms.%	14	4	1	0	1
0.10-0.30 gms.%	28	21	5	0	0
> 0.31 gms.%	4	1	3	2	0
Negative	80	8	8	5	2
% Positive	37%	76%	53%	29%	0%

\*Excludes cases dying in excess of 24 hours of hospital admission and individuals less than 15 years of age.

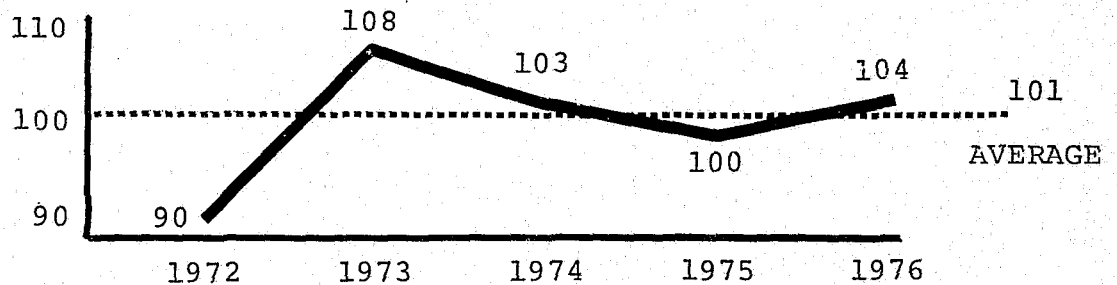
Thirty-six victims of homicide were found to have been using narcotics at the time of their deaths.

# *Death by Suicide*

(Figures in parentheses represent 1975 data.)

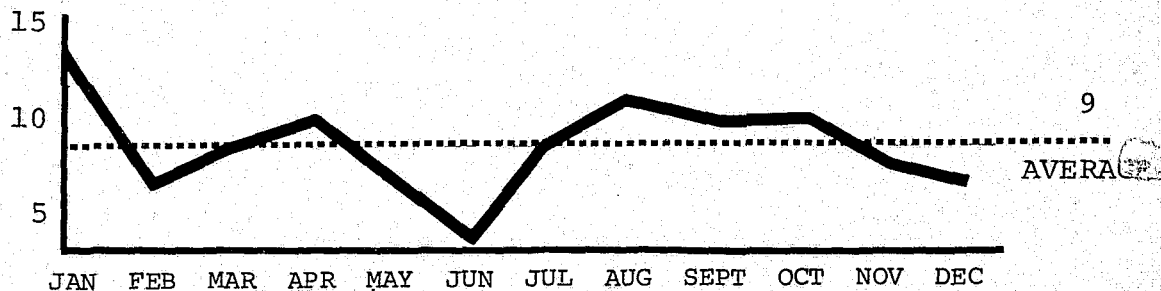
## **Suicides by Year Since Inception of Medical Examiner System**

NUMBER OF CASES



## **Suicides by Month for the Year 1976**

NUMBER OF CASES



# SUICIDE BY AGE, SEX, AND RACE OF VICTIM

Age	Black Male	Black Female	White Male	White Female	TOTAL	
0 - 4 yrs.	0	0	0	0	0	(0)
5 - 9 yrs.	0	0	0	0	0	(0)
10 - 14 yrs.	0	0	0	0	0	(1)
15 - 19 yrs.	0	1	0	0	1	(6)
20 - 29 yrs.	16	5	*12	2	35	(31)
30 - 39 yrs.	4	1	7	5	17	(18)
40 - 49 yrs.	3	3	3	2	11	(8)
50 - 59 yrs.	2	1	*4	6	13	(12)
60 - 69 yrs.	1	2	6	6	15	(13)
70 - 79 yrs.	2	0	*3	3	8	(7)
80 - 89 yrs.	1	0	1	1	3	(4)
90+ yrs.	1	0	0	0	1	(0)
TOTAL	30	13	36	25	104	(100)

\*Includes one Oriental male.

## TOXICOLOGY OF VICTIMS OF SUICIDE

Blood Alcohol Level by  
Method of Suicide\*

	<0.10 gms. %	0.10 - 0.30 gms. %	>0.31 gms. %	Negative	% Positive
Firearms	4	8	2	21	40%
Ingestion/drugs	1	4	0	16	24%
Jumping	0	1	1	10	17%
Hanging	2	1	0	9	25%
Drowning	0	1	0	3	25%
Other	1	2	0	10	23%

\*Excludes cases dying in excess of 24 hours of hospital admission and individuals less than 15 years of age.

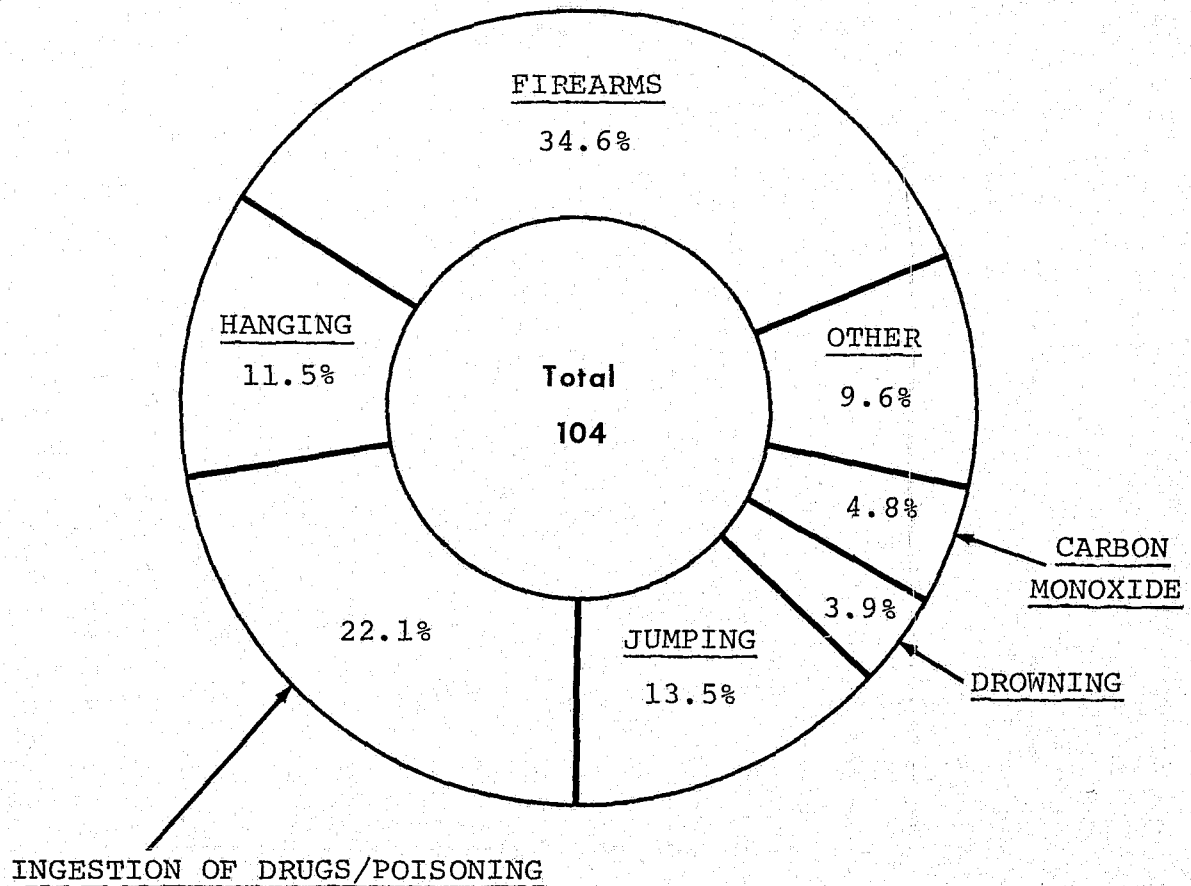
Suicidal drug/poison ingestions/deaths:

Barbiturates 13 (13), Propoxyphene (Darvon) 3 (2), other drugs/poisons 7 (8).

## Method of Suicide

Firearms	36	(32)
Ingestion of drugs/poison	23	(23)
Jumping	14	(13)
Hanging	12	(21)
Drowning	4	(5)
Carbon monoxide	5	(0)
Other*	10	(6)
TOTAL	104	(100)

\*One additional fire death not autopsied.





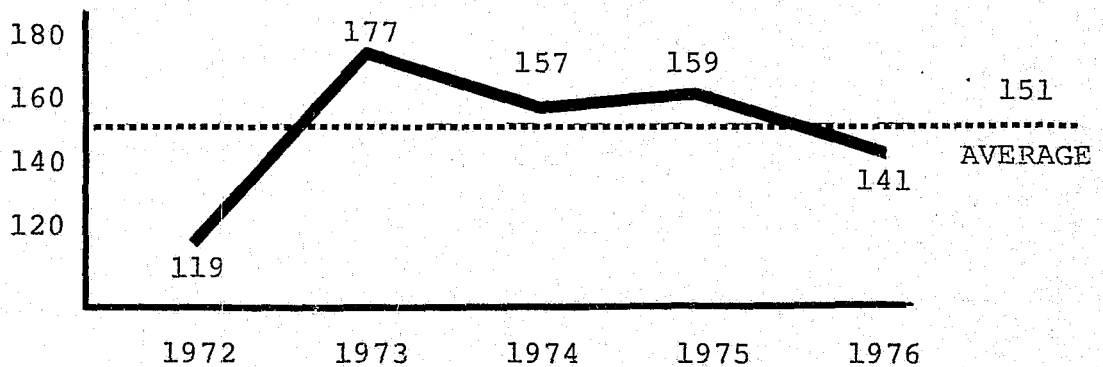


# *Death by Accidental Means*

(Figures in parentheses represent 1975 data.)

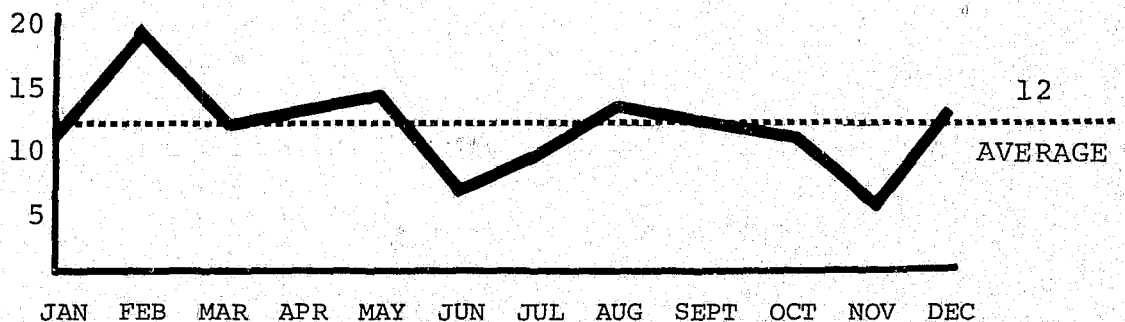
## Home and Occupational Accidental Fatalities

NUMBER OF CASES



## Home and Occupational Accidents by Month for the Year 1976

NUMBER OF CASES



## GEOGRAPHIC LOCATION OF HOME AND OCCUPATIONAL ACCIDENTS

District of Columbia	127
Maryland	9
Virginia	5
TOTAL	141

## HOME AND OCCUPATIONAL ACCIDENTS BY AGE, SEX, AND RACE OF VICTIM

Age	Black Male	Black Female	White Male	White Female	TOTAL	
0 - 4 yrs.	4	5	0	1	10	(16)
5 - 9 yrs.	3	2	1	0	6	(3)
10 - 14 yrs.	2	1	*1	0	4	(7)
15 - 19 yrs.	1	0	1	1	3	(5)
20 - 29 yrs.	3	0	*3	0	6	(10)
30 - 39 yrs.	8	2	1	0	11	(20)
40 - 49 yrs.	17	3	3	0	23	(26)
50 - 59 yrs.	11	4	3	0	18	(30)
60 - 69 yrs.	18	4	6	1	29	(23)
70 - 79 yrs.	8	3	5	4	20	(11)
80 - 89 yrs.	4	0	2	3	9	(5)
90+ yrs.	0	0	0	2	2	(3)
TOTAL	79	24	26	12	141	(159)

\*Includes one Oriental male.

## TOXICOLOGY OF VICTIMS OF HOME AND OCCUPATIONAL ACCIDENTS

### Blood Alcohol Level by Type of Accident\*

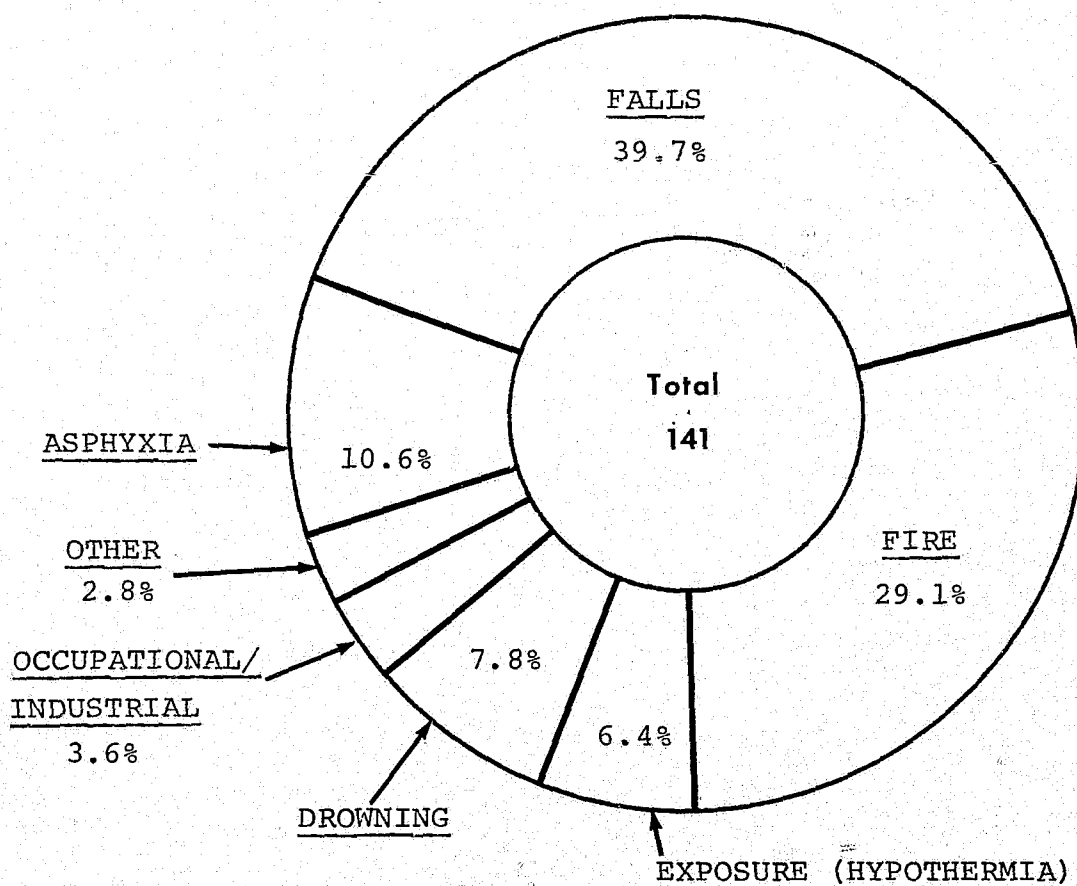
	<0.10 gms. %	0.10 - 0.30 gms. %	>0.31 gms. %	Negative	% Positive
Falls	2	1	1	17	19%
Fire	0	6	6	9	57%
Drowning	0	3	0	3	50%
Occupational	0	0	0	4	0%
Asphyxia	0	2	2	6	40%
Exposure	1	3	1	4	56%
Other	0	0	0	3	0%

\*Excludes cases dying in excess of 24 hours of hospital admission and individuals less than 15 years of age.

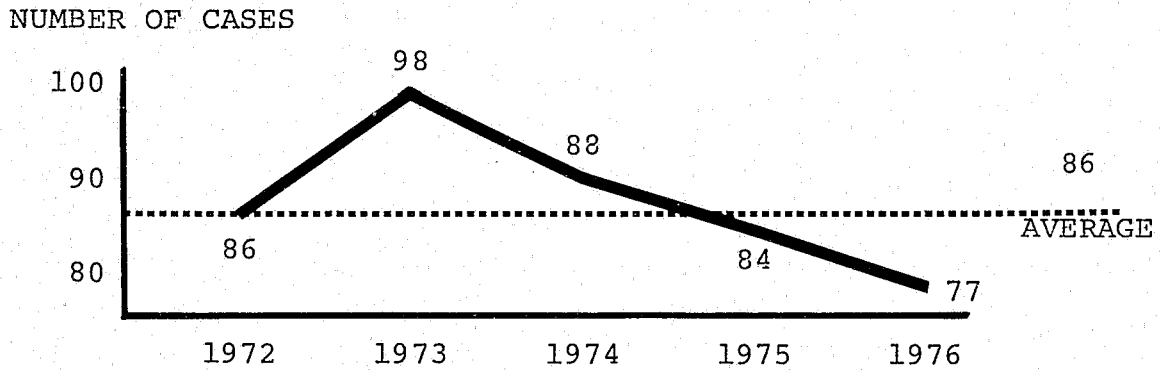
# Type of Home and Occupational Accident

Falls	56	(65)
*Fire	41	(25)
Asphyxia	15	(27)
Choking on bolus of food	6	
Faulty crib/positional asphyxia	1	
Carbon monoxide	4	
Other asphyxia	4	
*Drowning	11	(15)
Exposure (hypothermia)	9	(2)
Occupational/Industrial	5	(8)
Firearms	0	(2)
Other	4	(15)
TOTAL	141	(159)

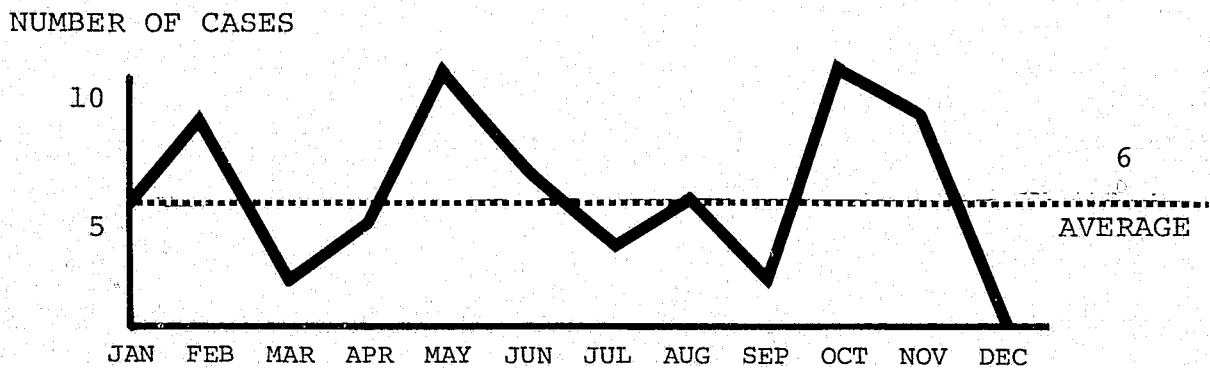
\*Additional fire deaths not autopsied 9 (5); drowning 1 (0).



## Traffic Related Accidents by Year Since Inception of Medical Examiner System



## Traffic Related Accidents by Month for the Year 1976



TRAFFIC-RELATED DEATHS BY AGE, SEX, AND RACE OF VICTIM

Age	Black Male	Black Female	White Male	White Female	TOTAL	
0 - 4 yrs.	1	1	0	0	2	(4)
5 - 9 yrs.	3	2	0	0	5	(7)
10 - 14 yrs.	2	1	0	0	3	(3)
15 - 19 yrs.	1	0	2	1	4	(4)
20 - 29 yrs.	6	2	4	7	19	(25)
30 - 39 yrs.	11	1	2	0	14	(13)
40 - 49 yrs.	3	0	3	2	8	(9)
50 - 59 yrs.	4	2	3	2	11	(3)
60 - 69 yrs.	2	0	1	0	3	(9)
70 - 79 yrs.	1	1	0	1	3	(2)
80 - 89 yrs.	1	1	1	2	5	(4)
90+ yrs.	0	0	0	0	0	(1)
TOTAL	35	11	16	15	77	(84)

TOXICOLOGY OF VICTIMS OF TRAFFIC-RELATED ACCIDENTS

Blood Alcohol Level by Type of Accident\*

	<u>&lt;0.10 gms.%</u>	<u>0.10 - 0.30 gms.%</u>	<u>&gt;0.31 gms.%</u>	<u>Negative</u>	<u>% Positive</u>
Operator					
Automobile	1	5	2	12	40%
Motorcycle	0	2	0	1	67%
Passenger	0	2	0	4	34%
Pedestrian	4	4	1	14	39%

\*Excludes cases dying in excess of 24 hours of hospital admission and individuals less than 15 years of age.

TYPE OF TRAFFIC-RELATED ACCIDENTAL DEATHS

DISTRICT OF COLUMBIA

Operator	21	(30)
(automobile)	17	(15)
(motorcycle)	4	(7)
(bicycle)	0	(8)
Passenger	3	(8)
Pedestrian	35	(37)
TOTAL	59	(75)

MARYLAND AND VIRGINIA

Operator	10	(4)
(automobile)	10	(4)
(motorcycle)	0	(0)
(bicycle)	0	(0)
Passenger	7	(3)
Pedestrian	1	(2)
TOTAL	18	(9)

# *Narcotic Related Deaths*

(Figures in parentheses represent 1975 data.)

It has proven convenient to subclassify narcotic-related deaths into the following three types of categories of cases:

a) Direct Narcotic ("Overdose") Deaths. While the specific pathophysiological mechanism of death in cases of this type has still not been definitively resolved, these are deaths that result directly from the injection and/or ingestion of a particular narcotic drug(s).

b) Incidental Narcotic Deaths. Violent or unnatural deaths among users of illicit narcotics.

c) Medical Complications of Narcotic Addiction. Fatalities involving the various recognized medical complications of narcotic addiction, such as viral hepatitis, sub-acute bacterial endocarditis, tetanus, etc.

Taken together, the above three categories comprise the generic narcotic-related category.

In 1976, there were seventy-six narcotic-related deaths in the District of Columbia. Of these cases, thirty-two represented "overdose" situations, thirty by heroin alone, two by methadone alone, and none by the combination of heroin and methadone. Comparative figures for 1975 were a total of thirty-four "overdose" deaths, of which thirty-two were caused by heroin alone, none by methadone alone, and two by the combination of heroin and methadone. Corresponding data for the years 1971 through 1974 are included in the subjacent table.



It should be understood that none of the methadone "overdose" deaths noted below involved individuals currently enrolled in therapeutic methadone maintenance programs, the drug having been acquired in each instance from illicit sources.

DIRECT NARCOTIC ("OVERDOSE") DEATHS BY YEAR OF  
OCCURRENCE AND DRUG(S) UTILIZED

<u>YEAR</u>	<u>HEROIN</u>	<u>METHADONE</u>	<u>HEROIN AND METHADONE</u>	<u>TOTAL</u>
1971	60	17	5	82
1972	20	33	18	71
1973	5	14	0	19
1974	16	2	2	20
1975	32	0	2	34
1976	30	2	0	32

In addition to the "overdose" category, there were forty-one violent or unnatural deaths among users of narcotics in the District of Columbia in 1976, and three deaths resulted from medical complications of narcotism. Corresponding figures for 1975 were forty-nine and six cases, respectively.

The significant trends depicted here involve the stepwise decrease and virtual elimination of methadone-related fatalities over the span of the past four years and the incremental increase of "overdose" deaths from heroin for the same time period. The reasons for the fluctuating incidence of deaths directly related to narcotics usage are undoubtedly complex. From past experience it would seem clear that they reflect, in part, the noteworthy success of local treatment modalities for addicted persons in curtailing general distribution of illicit methadone on the one hand, and the increased availability of heroin in enhanced street dosage on the

other. Worthy of mention in the latter regard is the mini-epidemic of November 12, 1976, which stemmed from availability in the District of Columbia of relatively unadulterated heroin and resulted in twenty-eight overdoses in a fifteen hour period, four of which were fatal. The dynamics of each of the above parameters continues to be monitored closely by this agency and by various other components of the District of Columbia Government.

\*\*\*\*\*

Detailed chemical testing is effected in the toxicology laboratory at the Office of the Chief Medical Examiner on approximately 1,000 cases per year, the majority of which are submitted for general unknown screening analyses. Quantitative tissue distribution studies are performed in each such investigation by the most modern methodology and instrumentation available. Consequently, it has been possible promptly to identify and specifically to characterize the "overdose" and incidental addict populations. This mechanism has generated insight relative to the correlation between tissue distribution drug levels and premortem ingestion/injection interval, community drug usage patterns, manner of death (i.e., intent of the victim) based on tissue drug levels, and the incidence of alcohol abuse in the addicted population, among various other facets of the narcotics problem.

\*\*\*\*\*

Statistical data presented in the 1972 Annual Report of the Office of the Chief Medical Examiner demonstrated temporal clustering of narcotic-related "overdose" deaths. This repetitive phenomenon was first elucidated in the fall of 1971 by this agency.

Quoting from our 1972 Annual Report, "As a result of this observation an agreement was formulated by this Office and the District's Narcotics Treatment Administration with the Center for Disease Control in Atlanta to investigate in detail the epidemiology of narcotic-related deaths in an effort to develop meaningful enough understanding of the dynamics of narcotic addiction to define its cause or causes."

Since the inception of this project, considerable insight has been developed relative to the dynamics of the correlation between, for example, the concentration and price of street heroin, results of qualitative urine screening analysis of Narcotics Treatment Administration intake patients, certain facets of the crime rate, and the narcotic-related "overdose" death rate per drug involved, among many other factors. (R.L. DuPont and M.H. Greene, "The Dynamics of a Heroin Addiction Epidemic", Science, 181:616-622, 1973). (See Publications by Professional Staff for additional reference material).

In brief, the dynamics of the recent narcotic epidemic in the District of Columbia appear to have lent themselves exceedingly well to epidemiological study. The sophisticated pathological/toxicological evaluation of narcotic-related fatalities has been shown to reflect with very great sensitivity and precision drug usage patterns in the community.

DIRECT NARCOTIC ("OVERDOSE") DEATHS BY MONTH  
OF OCCURRENCE AND DRUG(S) UTILIZED

MONTH	HEROIN		METHADONE		METHADONE AND HEROIN		TOTAL	
January	4	(2)	0	(0)	0	(0)	4	(2)
February	2	(2)	0	(0)	0	(0)	2	(2)
March	1	(1)	0	(0)	0	(0)	1	(1)
April	1	(3)	0	(0)	0	(0)	1	(3)
May	1	(1)	1	(0)	0	(0)	2	(1)
June	6	(6)	1	(0)	0	(0)	7	(6)
July	3	(1)	0	(0)	0	(2)	3	(3)
August	4	(3)	0	(0)	0	(0)	4	(3)
September	1	(2)	0	(0)	0	(0)	1	(2)
October	1	(1)	0	(0)	0	(0)	1	(1)
November	4	(3)	0	(0)	0	(0)	4	(3)
December	2	(7)	0	(0)	0	(0)	2	(7)
TOTAL	30	(32)	2	(0)	0	(2)	32	(34)

DIRECT NARCOTIC ("OVERDOSE") DEATHS BY  
AGE, SEX, AND RACE OF VICTIM

Age	Black Male		Black Female		White Male		White Female		TOTAL	
12 - 15 yrs.	0	(1)	0	(0)	0	(0)	0	(1)	0	(2)
16 - 19 yrs.	2	(0)	1	(0)	0	(1)	0	(0)	3	(1)
20 - 23 yrs.	6	(5)	1	(3)	0	(0)	0	(3)	7	(11)
24 - 27 yrs.	5	(9)	0	(0)	0	(0)	0	(0)	5	(9)
28 - 31 yrs.	1	(2)	1	(2)	0	(0)	0	(0)	2	(4)
32 - 35 yrs.	2	(3)	1	(0)	1	(0)	0	(0)	4	(3)
35+ yrs.	8	(4)	3	(0)	0	(0)	0	(0)	11	(4)
TOTAL	24	(24)	7	(5)	1	(1)	0	(4)	32	(34)

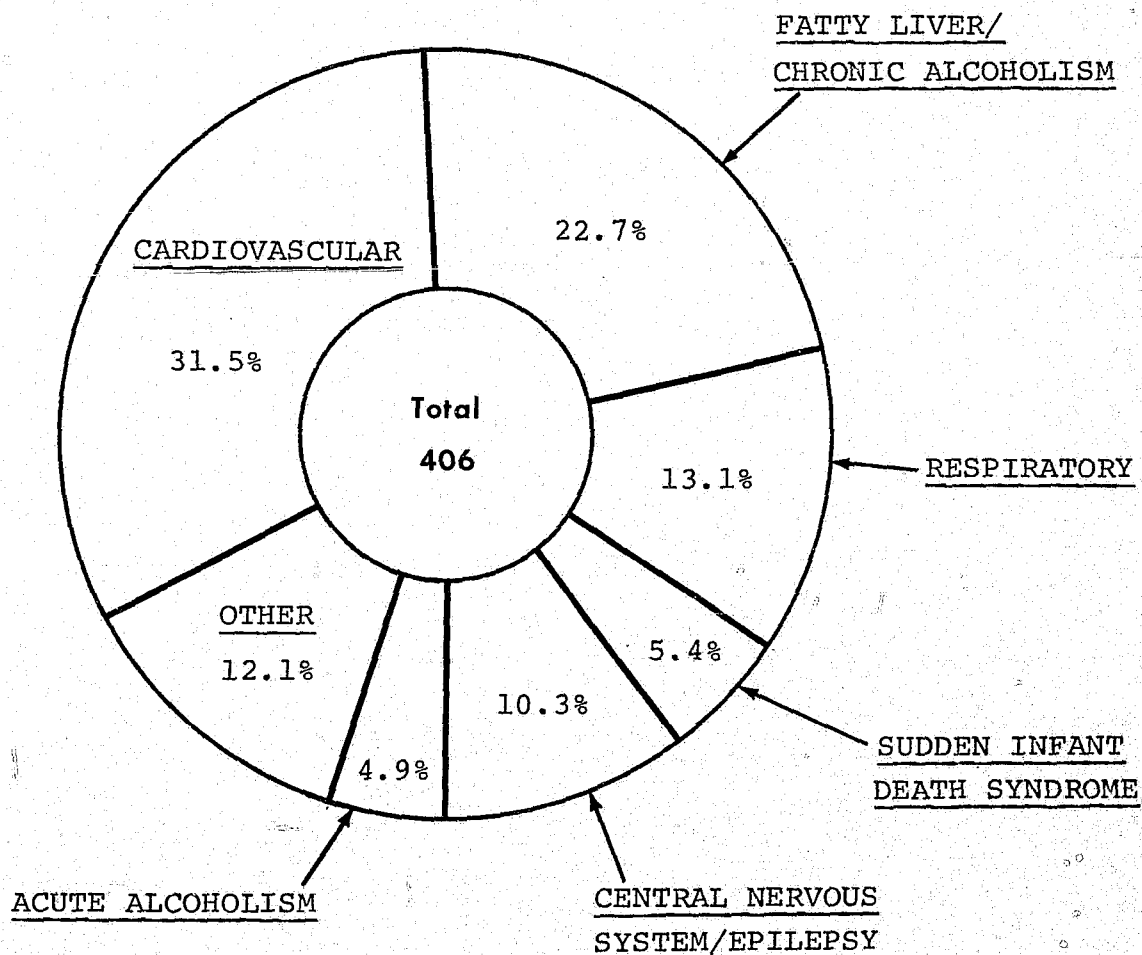


# Death from Natural Causes

(Figures in parentheses represent 1975 data.)

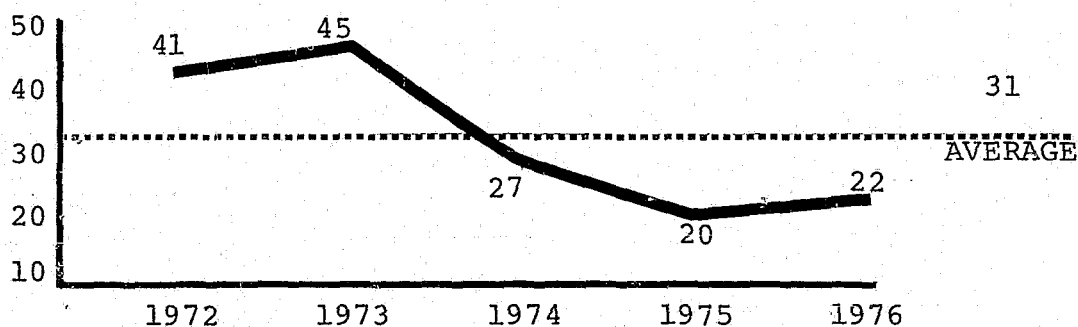
## DEATH FROM NATURAL CAUSES BY AUTOPSY DIAGNOSES

Cardiovascular System	128	(111)
Fatty metamorphosis of liver/Chronic alcoholism	92	(87)
Respiratory System	53	(57)
Sudden Infant Death Syndrome	22	(20)
Central Nervous System/Epilepsy	42	(35)
Acute alcoholism	20	(27)
Other	49	(40)
<b>TOTAL</b>	<b>406</b>	<b>(377)</b>



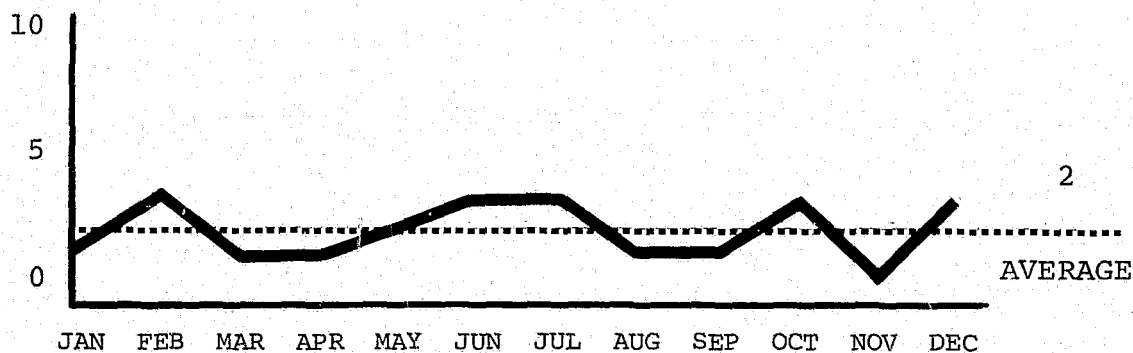
## Sudden Infant Death ("Crib Death") Syndrome by Year Since Inception of Medical Examiner System

NUMBER OF CASES



## Sudden Infant Death ("Crib Death") Syndrome by Month for the Year 1976

NUMBER OF CASES



## *Death by Undetermined Manner*

(Figures in parentheses represent 1975 data.)

Cases in this category represent unnatural deaths whose circumstances are sufficiently unclear as to make them unclassifiable, as well as those cases where the specific cause of death cannot be determined in spite of exhaustive toxicological and other specialized studies.

### TYPE OF DEATH

Drownings	13	(16)
Falls	3	(12)
*Ingestion of drugs/poisons	5	(14)
Firearms	3	(0)
Other unnatural deaths	34	(41)
Undetermined cause of death	15	(22)
TOTAL	73	(105)

\*One additional ingestion death not autopsied.





## *Publications by Professional Staff*

### 1974

Blackbourne, B.D.: Accidental Injuries in Children. Clinical Proceedings of the Children's Hospital National Medical Center. 30: 83-91, 1974

Greene, M.H., Luke, J.L., and DuPont, R.L.: Opiate "Overdose" Deaths in the District of Columbia,

I. Heroin-Related Fatalities.

Medical Annals of the District of Columbia. 43: 175-181, 1974

II. Methadone-Related Fatalities.

Journal of Forensic Sciences. 19: 575-584, 1974

Luke, J.L., Blackbourne, B.D., and Donovan, W.J.: Bed-Sharing Deaths Among Victims of the Sudden Infant Death Syndrome - A Riddle Within a Conundrum. Forensic Science Gazette. 5: 3-4, 1974

Bernstein, D.M., Kneip, T.J., Kleinman, M.T., Riddick, L., and Eisenbud, M.: Uptake and Distribution of Airborne Trace Metals in Human Respiratory Tissues. "Trace Substances in Environmental Health - VIII", 1974. A Symposium, D.C. Hemphill, Ed., University of Missouri, Columbia.

### 1975

Stahl, C.J., Jones, S.R., Johnson, F.B., and Luke, J.L.: The Effect of Glass as an Intermediary Target on Bullets; Experimental Studies and Report of a Case. (Submitted for publication. Journal of Forensic Sciences.)

### 1976

Luke, J.L.: Forensic Pathology. New England Journal of Medicine. 295: 32-34, 1976

ABSTRACT: The status of education, training and research in forensic pathology is discussed in relation to broader issues of public concern: hand-gun control, accident prevention, alcohol abuse and the justice system. Failure to address adequately concerns of the latter type and to effect meaningful education of physicians and attorneys in the forensic sciences is related to denial, in the psychiatric sense, of the issues themselves and of their impact on society.



# *Lectures by Professional Staff*

(TOPICS AND NUMBERS OF PRESENTATIONS IN PARENTHESES)

Howard University School of Law (Law and Medicine)	(JLL)
Georgetown University School of Medicine (Chemical Injuries and Drug Abuse)	(BDB)
George Washington University School of Medicine (Forensic Pathology Elective Course) (3)	(BDB/LR)
National Naval Medical Center Department of Laboratory Medicine (Medical Examiner Systems)	(JLL)
George Washington University Hospital Surgical Mortality Conference (2)	(LR)
Fairfax Hospital Northern Virginia Society of X-Ray Technicians (The Role of Radiology in the Forensic Sciences)	(BDB)
Hadley Hospital Medical Staff Conference (The D. C. Medical Examiner System)	(WJB)
University of Maryland Seminar on Child Abuse (Forensic Pediatrics)	(BDB)
George Washington University Hospital Cardiac Pathology Conference (2)	(LR)
District of Columbia Fire Department Emergency Medical Technicians Course (Role of Medical Examiners Office) (5)	(WJB)

Howard University Hospital Clinical-Pathological Conference	(LR)
Washington Hospital Center Pediatric Mortality Conference	(LR)
Catholic University of America National Capital School of Social Service (Crime and the Community)	(JLL)
Washington Medical & Surgical Society (The D. C. Medical Examiner System)	(JLL)
Brown University Division of Biological and Medical Sciences (The Practicing Physician and Forensic Medicine)	(JLL)
Connecticut State and Municipal Police (Deaths by Asphyxia)	(JLL)
Indiana State Coroners Symposium (Topics in Forensic Pathology) (3)	(BDB)
Washington Hospital Center Trauma Mortality Conference (3)	(LR)
George Washington University Hospital Emergency Room Staff Conference (2)	(LR)
Providence Hospital Medical Mortality Conference	(LR)
Greater Southeast Community Hospital Medical Staff Conference	(LR)
Howard University Department of Pharmacology Forensic Toxicology (10)	(RFR)
Metropolitan Police Department Homicide Investigators School (Pathology Aspects of Homicide Investigation) (5)	(BDB/LR)

Metropolitan Police Department  
Traffic Division  
(Medical Aspects of Automobile Accident  
Investigation) (2)

(BDB)

George Washington University  
Physicians Assistants Program  
(Physical and Chemical Injuries)

(BDB)

George Washington University  
Beaumont Society Lecture  
(Reducing Injuries and Death through  
Automobile Accident Research)

(BDB)

George Washington University  
School of Medicine  
(Physical and Chemical Injuries) (3)

(BDB/LR)

Association of Operating Room Nurses  
of Greater Washington  
(The D. C. Medical Examiner System)

(JLL)

Armed Forces Institute of Pathology  
Department of Forensic Sciences -  
Staff Conference  
(Medical Examiner Systems)

(JLL)

University of Maryland  
Homicide Investigators Seminar  
(Topics in Forensic Pathology) (3)

(BDB)

Office of the Chief Medical Examiner  
District of Columbia  
Seminar in Forensic Pathology for Pathology  
Residents and Staff Pathologists (14)

(STAFF)

Armed Forces Institute of Pathology  
Forensic Pathology Course  
(Topics in Forensic Pathology) (3)

(BDB/JLL)

F.B.I. Academy  
(Topics in Forensic Pathology) (4)

(BDB)

National Naval Medical Center  
Department of Laboratory Medicine  
(Accidental Injuries in Children)

(BDB)



# *Personnel*

## OFFICE OF THE CHIEF MEDICAL EXAMINER

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Vivian E. Brown - Secretary/Statistician

Brian D. Blackbourne, M.D. - Deputy Chief Medical Examiner  
Val Jean N. Scott - Secretary

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LeRoy Riddick, M.D.  
Rita A. Shorter - Secretary

Rak Woon Kim, M.D.  
Margaret E. Bejarano - Secretary/Administrative Aide

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Peter C. Pislор, M.D.  
George Washington University

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Mildred I. Holliday - Receptionist

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Rosemary M. Jellish, M.S. - Deputy Chief  
Diana E. Dupree - Secretary  
Annie L. Burton - Physical Science Technician  
Gene A. Garrett - Medical Technologist  
Mary D. McPherson - Histologist  
Ramesh P. Vyas - Chemist



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William M. Parrott - Technician, Shift Supervisor

Louis E. Rogers - Technician, Shift Supervisor

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Paul E. Martin

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Robert H. Perry

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Emory R. Scott

Robert E. Sims

Jasper L. Stocks

Larry Snead

James H. Thornwell

Sherman L. Walker

### MAINTENANCE

Samuel H. Duff

Charles D. Dixon

### A C K N O W L E D G E M E N T

We would like to recognize the expert and diligent assistance of the HOMICIDE BRANCH and the HIT AND RUN FOLLOW-UP UNIT of the Metropolitan Police Department in investigating the specific circumstances surrounding the cases categorized in these pages. The importance of their contribution to this Report cannot be overestimated.

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**END**