



# Los Angeles County **CORONER**



# 2006



## Annual Report



# Los Angeles County Department of Coroner Annual Report



2006



**Gloria Molina**  
*Supervisor, First District*  
**Yvonne Brathwaite Burke**  
*Supervisor, Second District*  
**Zev Yaroslavsky**  
*Supervisor, Third District*  
**Don Knabe**  
*Supervisor, Fourth District*  
**Michael D. Antonovich**  
*Supervisor, Fifth District*

On December 7, 1990, an ordinance approved by the County of Los Angeles Board of Supervisors created a Department of Coroner administered by a nonphysician director for all nonphysician operations, while retaining the Chief Medical Examiner-Coroner to set standards for the entire department and carry out statutorily mandated Coroner functions.

The ordinance placed the responsibility for all physician staff under the control the Chief Medical Examiner-Coroner, subject to the general direction of the Board of Supervisors, and the nonphysician director was given authority to manage/direct all nonphysician operations and staff within the department, subject to the general direction of the Board of Supervisors.

Board of Supervisors



# Los Angeles County Department of Coroner Annual Report



2006

## INDEX

<u>Topic</u>	<u>Page</u>
Department Heads' Message.....	4
Organizational Chart.....	6
Administrative Services Bureau.....	8
Forensic Medicine Bureau.....	10
Forensic Laboratories Bureau.....	12
Operations Bureau.....	14
Public Services Division.....	18
Death Statistics Index.....	21
Population of Los Angeles County.....	22
Reported and Accepted Cases.....	23
Final Mode of Coroner's Cases.....	24
Death Rates per 100,000 Population.....	25
Modes for Child Death.....	26
Statistics Required by NAME.....	27
Coroner Cases by Age.....	28
Coroner Cases by Gender.....	29
Coroner Cases by Race.....	30
Mode of Death by Month.....	31
Racial Distribution for Each Mode.....	32
Mode of Distribution for Each Age Group.....	33
Accidental Deaths.....	34
Transport Accidents.....	35
Accidental Falls.....	36
Homicidal Deaths.....	37
Suicidal Deaths.....	38
Natural Deaths.....	39
Circulatory Systems Disease Among Natural Deaths.....	40
Nervous System Disease Among Natural Deaths.....	41
Infectious Diseases Among Natural Deaths.....	42
Neoplasms Among Natural Deaths.....	43
Toxicology Statistics Index.....	45
Cases with Drugs Detected by Mode.....	46
Marijuana Detected by Mode.....	46
Cocaine (Benzoylcegonine) Detected by Mode.....	47
Methamphetamine Detected by Mode.....	47
Heroin (6-Monoacetylmorph) Detected by Mode.....	48
Phencyclidine Detected by Mode.....	48
Drugs by Classification.....	49
Alcohol Detected by Mode.....	50
Alcohol Detected by Year.....	50
Acknowledgements.....	51

Index



# Los Angeles County Department of Coroner Annual Report



2006

## DEPARTMENT HEADS' MESSAGE

This report contains statistical information from the Los Angeles County Department of Coroner for the year 2006, as well as selected statistics from the previous ten years.

### **Significant Accomplishments**

- Received funding from the Productivity Investment Board for the multi-year development of a DNA lab
- Replaced the Department's phone system with Voice over Internet Protocol (VOIP)
- Participated in formation of the County's elder death review team
- Implemented a Department wide quality assurance committee
- Obtained re-accreditation of the Department by the National Association of Medical Examiners

### **Legislation**

*SB 1562 – Coroner may recover certain costs related to patients at a state hospital (Penal Code 4758).*

*AB 2156 – A certified pathologist's assistant is authorized to perform autopsies (Business & Professions Code 1269.3).*

### **Academic Activities**

#### **Publications**

*D Anderson, S Reed, J Lintemoot, S Kegler, S DeQuintana, M Sandberg, J Muto, "A first look at duloxetine (Cymbalta®) in a postmortem laboratory" Journal of Analytical Toxicology 2006 Oct;30:576-81.*

*L Sathyavagiswaran, "The Medical Examiner and Traffic Crash Investigation", in Evidence in Traffic Crash Investigation and Reconstruction, R. W. Rivers, ed., Charles C Thomas:Springfield IL, 2006.*

#### **Presentations**

*J Lintemoot, "Ibogaine: The Controversy Revealed", California Association of Toxicologists, San Diego, California, January 2006.*

*B Waters, "Forensic Science & the Role of the Coroner Criminalist", California State University, Los Angeles, February 2006.*

*E Fu, "Introduction to Criminalistics", Crespi High School, Encino, California, March 2006.*

*B Waters, "Forensic Science & the Role of the Coroner Criminalist", Palmdale High School, Palmdale, California, April 2006.*

*B Waters, "Evidence Collection & Preservation", National Property Management Association, El Segundo, California, May 2006.*

*B Waters, "Hallucinogenic Tryptamines", California Association of Toxicologists, San Francisco, California, June 2006.*

Department Heads' Message





# Los Angeles County Department of Coroner Annual Report



2006

*E Fu, "Evidence Collection Training for Los Angeles County Coroner Forensic Attendants", Los Angeles, California, September 2006*

*E Fu, "Introduction to Criminalistics", Santa Ana Community College, Santa Ana, California, September 2006.*

*C Rogers, R Djabourian, L Sathyavagiswaran, "Cause of Death Coding in Forensic Cases", National Association of Medical Examiners, San Antonio, October 2006.*

*L Sathyavagiswaran, C Rogers, "Medicolegal Death Investigation with Appropriate Consultation", National Association of Medical Examiners, San Antonio, October 2006.*

*M Kaleuati, "Gunshot Residue and Toolmarkings", Don Bosco High School, Rosemead, California, October 2006.*

*D Anderson, "The Reality! Validation or Shotgun Chemistry? Method Validation and Measurement of Uncertainty for Dummies...and Smarties, Too", Society of Forensic Toxicologists, Austin, Texas, October 2006.*

*E Fu, "Distribution of Pseudoephedrine in Over 100 Postmortem Cases", Society of Forensic Toxicologists, Austin, Texas, October 2006.*

*M Sandberg, "Evidence Collection and Toxicology", California Association for Medical Laboratory Technology, San Diego, California, October 2006.*

*D Anderson, "Misuse, Abuse and Suicide with Ecstasy/MDMA", California Association of Toxicologists, Indian Wells, California, November 2006.*

*B Waters, "Hallucinogenic Tryptamines", West Coast Seminar, North Hollywood, California, November 2006.*

*E Fu, "PCP, Rap Music and Murder", West Coast Seminar, North Hollywood, CA, November 2006.*

*JJ Muto, "Ibogaine" West Coast Seminar, North Hollywood, California, November 2006.*

*JJ Muto, "Residential Fire Death Investigation – A Team Approach" West Coast Seminar, North Hollywood, California, November 2006.*



**Anthony Hernandez**  
Director



**Lakshmanan Sathyavagiswaran, M.D.**  
Chief Medical Examiner - Coroner

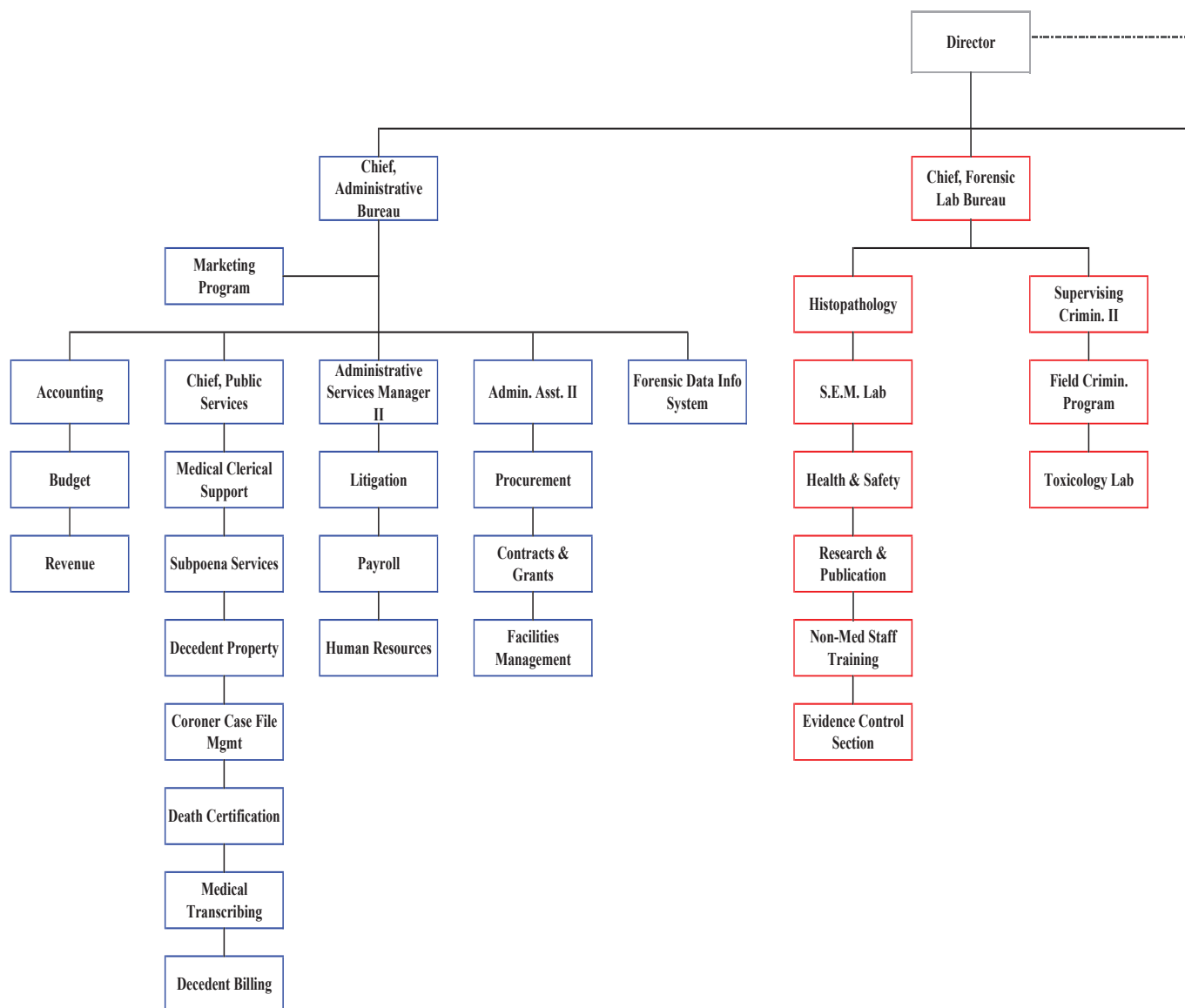
Department Heads' Message



# Los Angeles County Department of Coroner Annual Report



2006



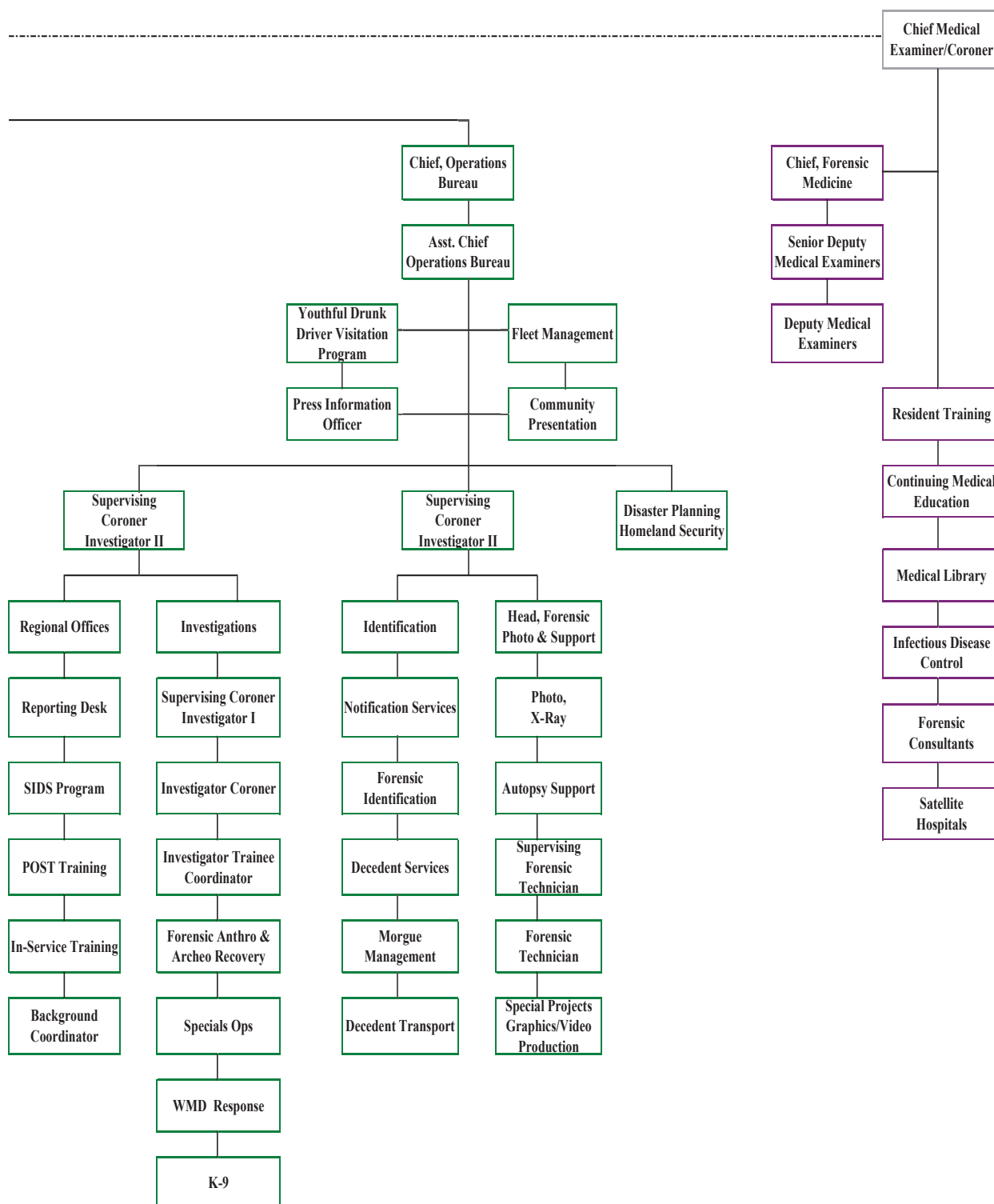


# Los Angeles County Department of Coroner Annual Report



2006

## Organizational Chart





# Los Angeles County Department of Coroner Annual Report



2006

## ADMINISTRATIVE SERVICES BUREAU

Chief, Sarah Ahonima

The Administrative Services Bureau is responsible for all departmental financial operations, departmental budget preparation, fiscal reports, personnel, payroll, litigation, procurement, accounting, revenue collection, marketing, volunteer services, affirmative action, contract and grants, internal control certification, workfare program, facilities management, and other related functions.

### FISCAL SERVICES

The accounting section is responsible for all financial transactions performed by the Department of Coroner. All Auditor-Controller guidelines are followed as well as any departmental guidelines governing monetary issues. The section also monitors all departmental accounts, such as salary and benefits, overtime expenditures, services and supplies, and budget.

### PROCUREMENT

Procurement is responsible for purchasing equipment, maintenance of buildings, contracts, budgetary support, monitoring of fixed assets, and inventory control.

### HUMAN RESOURCES

Human Resources is responsible for personnel issues which are inherent to County government, such as benefits, processing examinations, filling vacant positions, litigation, workers compensation, volunteer services, payroll, community support programs such as job fairs, and budgetary support.

### MARKETING PROGRAM

“Skeletons in the Closet” has been operating since September 1993. Given the scarcity of resources at that time, revenue generation had to be considered to help offset monetary losses. The intent was to use monies raised to offset some of the costs associated with the Youthful Drunk Driver Visitation Program (YDDVP),



Administrative Services Bureau





# Los Angeles County Department of Coroner Annual Report



2006

Administrative Services Bureau

as well as other Coroner needs. “Skeletons in the Closet” features a complete line of quality souvenir items, such as beach towels, shirts, toe tags, and much more. The items are available to the public via website at LACORONER.COM or by calling (323) 343-0760.

## CONTRACT PROGRAMS

The Department administers contracts and agreements for various functions, such as tissue harvesting, regional offices, satellite hospitals, histopathology, transcribing and contract physicians. The staff monitors and studies Department operations in the continuing evaluation of the appropriateness of contracting for other functions.

## MORTUARY BILLING PROGRAM

The Department now utilizes the services of the various mortuaries to bill for transportation and storage costs at the time services are billed to the families. This has improved the collection rate, dramatically raising revenues.



## FORENSIC DATA INFORMATION SYSTEMS

The mission of Forensic Data Information Systems is to enhance and support the Department’s long-range goals, mission critical business goals and objectives through the administration, project management, and expansion of information technology-related applications and services, including, where appropriate, the delivery of services to agencies referred through appropriate 24/7 e-government technologies.

The FDIS is also responsible for network, database and application administration, preparation of statistics and general client support. The FDIS is responsible to ensure that the Department is in alignment with the County-wide strategic planning effort to conduct county business electronically and maintain compliance with the technological directives as stipulated by the County’s Chief Information Officer. The FDIS manages the information technology efforts of subcontractors in the implementation and support of new technologies such as e-commerce content management and voice over internet protocol (VoIP). ■



# Los Angeles County Department of Coroner Annual Report



2006

## FORENSIC MEDICINE BUREAU Chief, Christopher Rogers, M.D., M.B.A.

The Forensic Medicine Bureau's full-time permanent staff consists of board certified forensic pathologists who are responsible for the professional medical investigation and determination of the cause and mode of each death handled by the Department. Our physicians are experts in the evaluation of sudden unexpected natural deaths and unnatural deaths such as deaths from firearms, sharp and blunt force trauma, etc. Physicians are frequently called to court to testify on cause of death and their medical findings and interpretations, particularly in homicide cases. In addition, the division has consultants in forensic neuropathology, odontology, anthropology, anesthesiology, pediatrics, surgery, ophthalmologic pathology, pulmonary pathology, cardiac pathology, emergency room medicine, psychiatry, psychology and radiology to assist the deputy medical examiners in evaluating their cases.



### MEDICAL EDUCATION

The department is approved by the Institute for Medical Quality, a subsidiary of the California Medical Association as a provider of Continuing Medical Education activities.

### HEALTH & SAFETY/RISK MANAGEMENT

The Department has implemented an aggressive health & safety committee and risk management program, which has significantly reduced work-related injuries.

### ICAN

The department participates in the Interagency Council for Child Abuse and Neglect. This department is the host of the monthly Child Death Review Committee of ICAN.

### IDENTIFICATION OF UNIDENTIFIED BODIES (SB90)

The Department participates in a state-mandated program to examine dental records and collect appropriate specimens for the identification of John and Jane Does.

### MEDICAL EXAMINER CORONER ALERT PROJECT

The Department of Coroner reports to the Consumer Product Safety



Forensic Medicine Bureau



# Los Angeles County Department of Coroner Annual Report



2006

Commission all deaths directly from unsafe consumer products.

## RESIDENCY PROGRAM

The Medical Division of the Department of Coroner has an Accreditation Council for Graduate Medical Education approved forensic pathology residency program designed to train deputy medical examiners and prepare them for board certification while performing medical investigations under appropriate supervision.

## SCUBA PROGRAM

The Department staff participates in the Los Angeles County Interagency Scuba Committee to investigate and develop programs to prevent future scuba diving fatalities

## SIDS PROGRAM (SB90)

The Department participates in the Sudden Infant Death Syndrome (SIDS) Interagency Council, and actively recovers cost from the state for fulfilling SIDS protocol requirements.

## TISSUE HARVESTING/ORGAN TRANSPLANTATION

This program provides corneas and other tissues to all in need in our community through coordinated efforts with various tissue banks and hospitals. After family consent is obtained, our medical staff provides review of organ and tissue procurement in Coroner's cases. In addition, the program makes tissue available

to low-income and indigent patients at county hospitals at no cost to the patients or hospitals.

## UNIVERSITY HOSPITAL PATHOLOGY RESIDENT TRAINING PROGRAM

We offer the opportunity for pathology residents from local university affiliated hospitals (USC, UCLA, and others) to train in our office with costs paid by the hospitals. This program fosters positive relationships with the university hospitals' pathology departments, and improves the standard of practice of forensic medicine in general, as these pathology residents will be practicing in the community when they finish training. ■



Forensic Medicine Bureau



# Los Angeles County Department of Coroner Annual Report



2006

## FORENSIC LABORATORIES BUREAU

Chief, Joseph J. Muto

The Forensic Science Laboratories Bureau is responsible for the identification, collection, preservation, and analysis of physical and medical evidence associated with Coroner's cases. Our mission is to conduct a comprehensive scientific investigation into the cause and manner of any death within the Coroner's jurisdiction. This is accomplished through the chemical and instrumental analysis of physical and medical evidence.

Our goal is to provide our medical examiners, families of decedents, outside investigating agencies, and the judicial system with timely, accurate, and state-of-the-art forensic analyses, and to provide expert interpretation of those analyses. The Forensic Laboratory is fully accredited by the prestigious American Society of Crime Laboratory Directors, and our Forensic Blood Alcohol Testing Program is licensed by the State of California.

### CRIMINALISTICS

Our team of specially trained forensic scientists is on call twenty-four hours a day to respond to crime scenes for the proper documentation, collection, and preservation of physical evidence.

### HISTOLOGY

The laboratory facilitates the preparation of gross tissue specimens for microscopic examination by the medical staff. This includes hematoxylin and eosin stains, special stains, and immunohistochemical stains. Through the microscopic examination of tissue, our forensic pathologists can determine the age and degree of injury, diagnose disease including cancers, evaluate cellular variation in tissue, and identify the presence of bacteria, medical disorders, and toxins such as asbestos.

### TOXICOLOGY

Using state of the art equipment and methods, the toxicology laboratory conducts chemical and instrumental analysis on post-mortem specimens to determine the extent that drugs may have contributed to the cause and manner of death. The laboratory's experienced forensic toxicologists offer expert drug interpretation,



Forensic Laboratories Bureau





# Los Angeles County Department of Coroner Annual Report



2006

which assists the medical examiners in answering questions like what drug was taken? How much and when was the drug taken? Did the drug contribute to the cause and/or manner of death? Was the drug use consistent with therapeutic administration, or was it an abuse? If the death is due to a drug overdose, was it intentional or accidental?



## SCANNING ELECTRON MICROSCOPY LAB

Our SEM laboratory conducts gunshot residue (GSR) analyses and tool mark evaluations. Using a scanning electron microscope equipped with an energy dispersive x-ray detector, GSR analysis is used to determine whether an individual may have fired a weapon. Our laboratory also performs GSR analyses for many law enforcement agencies throughout California.

Tool mark analysis involves the evaluation of trauma to biological material, especially bone and cartilage, as to the type of instrument that might

have produced the trauma. This not only helps our pathologists understand the circumstances of a death, but also aids the law enforcement agency in their criminal investigation.

## EVIDENCE CONTROL

Our evidence personnel are responsible for maintaining the integrity and chain of custody for all of the evidence collected from Coroner's cases. All of the physical evidence collected by Department investigators, criminalists, pathologists, forensic technicians, and forensic attendants is documented and maintained by the evidence control unit. ■



Forensic Laboratories Bureau



# Los Angeles County Department of Coroner Annual Report



2006

## OPERATIONS BUREAU Chief, Craig Harvey, F-ABMDI

This bureau is responsible for the 24-hour day, 7-day week operations of many direct services provided by the Department. The bureau oversees Investigations and Forensic Services Division. In addition, the bureau is responsible for disaster planning homeland security grants, fleet management, public information and other ancillary programs such as regional offices and the Youthful Drunk Driver Visitation Program (YDDVP).

Coroner Investigators are also responsible for testimony in court and deposition on Coroner cases along with preparation of investigative reports for use in the determination of cause and mode of death. Under state law, all Coroner Investigators are sworn peace officers. The Coroner Investigator must meet the same stringent hiring standards as any other California law enforcement agency. The Department of Coroner is a California Peace Officer Standards and Training (P.O.S.T.) certified agency.



### IDENTIFICATION OF UNIDENTIFIED BODIES (SB90)

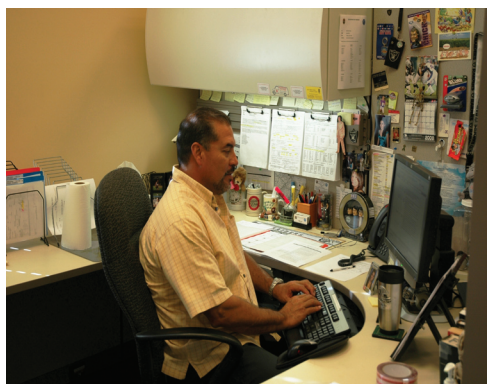
The Department participates in a state-mandated program to examine dental records of known missing persons to aid in the identification of John and Jane Does. In addition, more recent changes in the law have required that DNA specimens be collected from unidentified remains and sent to the State of California DNA lab in Richmond, California.

### NURSING HOME DEATHS (SB90)

The Department participates in a state-mandated program to investigate certain nursing home deaths to determine whether a death may be certified as natural by a private physician or handled as a Coroner's case.

### PEACE OFFICER STANDARDS AND TRAINING (P.O.S.T.)

The California State Commission on Peace Officer Standards and Training (P.O.S.T.) establishes minimum standards for training requirements for peace officers. We comply with those standards in hiring and all advanced training that is offered through the Department of Coroner through the annual West Coast Seminar or other specialized training such as Skeletal and Buried Body Recovery.



Operations Bureau



# Los Angeles County Department of Coroner Annual Report



2006



## REGIONALIZATION-SATELLITE OFFICES

Investigative capabilities have been extended to offices in the Antelope Valley, Santa Clarita Valley, and South Bay areas of Los Angeles County. Efforts are underway to expand regional services to the eastern

portion of Los Angeles County. Regional offices provide a more rapid Coroner's response to the scene of death, which results in rapid mitigation of traffic and other public conveyance obstructions.

## YOUTHFUL DRUNK DRIVER VISITATION PROGRAM (YDDVP)

The Department of Coroner has presented the YDDVP program since 1989 as an alternative sentence option that can be considered by a judicial officer. The program is designed to present to the participants the consequences of certain behavior in a manner that has an impact and is also educational. The program is currently offered up to 12 or more times per month and includes classes presented completely in Spanish.

## DISASTER PREPAREDNESS AND RESPONSE

The program ensures appropriate departmental response as one of the eight lead county agencies to major disasters and significant smaller incidents that involve multiple fatalities requiring successful operation of an Emergency Operation Center (EOC) and field command posts. These efforts may include coordinated activity with major airports, homeland defense agencies, law enforcement, the State Office of Emergency Services and mutual aid from Coroners throughout the state. The program provides planning support through participation in emergency planning and exercises and also through up-to-date manuals. A plan has been developed to form public/private

Operations Bureau





# Los Angeles County Department of Coroner Annual Report



2006



emergency response partnership with local funeral and cemetery directors for a mass fatality management response system. The Department maintains emergency communications equipment, which includes a command post trailer, County Wide Integrated System (CWIRS) radio communications, a mobile command post, and appropriate ancillary communications equipment. The Department also has eleven disaster cache trailers situated throughout the County. The Department has emergency short-wave radio communications ability as well.

## INVESTIGATIONS

The Investigations Division responds to the scenes of death throughout Los Angeles County twenty-four hours a day, seven days per week. It is the responsibility of the Coroner Investigator to function as the eyes and ears of the Deputy Medical Examiner, ensure that State law is followed with respect to Coroner cases, and be the advocate for the deceased person. Due to the diverse caseload in Los Angeles County, the Coroner Investigator is in the important position of seeing every death that occurs under other than natural conditions and is often the first to identify serial deaths and consumer product safety issues.

## SPECIAL OPERATIONS AND RESPONSE TEAM (SORT)

The Department of Coroner has fielded a specialized response unit comprised of Coroner

Operations Bureau





# Los Angeles County Department of Coroner Annual Report



2006

Investigators, Coroner Criminalists and Coroner Consultants in Anthropology and Archaeology and as needed, Forensic Attendants and Forensic Technician Photographers.

The S.O.R.T. team has special purpose vehicles fully equipped to handle certain types of cases thoroughly and as rapidly as possible. The S.O.R.T. team responds to cases requiring specialized recovery and scene processing techniques such as those required in aircraft crashes, buried bodies, scattered human remains and fires, and also assists law enforcement agencies in general searches for scattered human remains or possible burial sites.

## FORENSIC SERVICES DIVISION

This division is responsible for providing direct support in the autopsy room to the deputy medical examiners. Staff duties include, but are not limited to, preparation of the bodies for medical examiners and autopsy, assisting the deputy medical examiners in the performance of the autopsy, preparation and gathering of toxicology specimens, x-ray and photography and preparation of bodies for release to a mortuary.

The division is also home to the Forensic Fingerprint Identification Unit that is responsible for post-mortem dental x-rays and specialized fingerprint processing to aid in the identification of Jane, John, and Undetermined Does. Personnel who have been specially trained also fulfill specialized audio-visual

and graphic production requirements for the entire department as well as the courts.

Personnel assigned to this unit are responsible for the transportation, processing, storage, and release of bodies that are under the jurisdiction of the Coroner. Bodies may be recovered from any death scene, in almost any environment imaginable, including those in public view, private homes, and hospitals. Decedent processing include obtaining the height and weight of bodies, the collection, documentation, and safekeeping of personal effects, and the collection of both physical and medical evidence, fingerprinting of decedents using LIVE-SCAN technology and placement of identification tags on the body. Bodies are maintained in refrigerated crypts while awaiting examination and release to mortuaries or for county cremation.

The Decedent Services Unit is responsible for crypt management of human remains prior to release for photography, x-ray and autopsy. Additionally, staff are responsible for the accountability of all human remains and specimens stored in the crypt areas. ■

Operations Bureau



# Los Angeles County Department of Coroner Annual Report



2006

## PUBLIC SERVICES DIVISION

Chief, Silvia Gonzalez

This division is responsible for Coroner case file management, revenue collection (document sales, decedent billing, etc.), and interaction with the public both telephonically and at the front lobby reception area. In addition to providing information and copies of autopsy reports, Public Services staff offers many services to the public. These services include preparation of "Proof of Death" letters to verify that a death is being investigated by the Coroner and "Port of Entry" letters to confirm that a decedent had no communicable disease, necessary for the decedent's admission into a foreign country after death.

### RECORDS SECTION

Records Section is responsible for Coroner case file control, retention, document sales, and transportation billing. The section handles over 2,500 telephone inquiries per month from the public and other agencies requesting information and Coroner reports. Revenue generated from documents, microscopic slides, photograph sales and transportation billing for a one year period totals over \$1,200,000.00.

The Coroner is mandated by Government Code to retain all files permanently; consequently the department maintains 100+ years of records which are accessed on a regular basis at the request of the public. Approximately 16,000 pages are copied from compact disc, optical disk and microfilm to fill requests received from the public each year.

### DEATH CERTIFICATION & MEDICAL/CLERICAL SECTION

The Section is responsible for the completion and daily issuance of the death certificates to mortuaries and preparation of amendments stating the final cause of death. Medical/Clerical Section is responsible for reporting SIDS (Sudden Infant Death Syndrome) cases to the state and local health agencies for follow up by those agencies. This section also provides secretarial and clerical support to the Deputy Medical Examiners.



Public Services Division



# Los Angeles County Department of Coroner Annual Report



2006

Public Services Division

## MEDICAL TRANSCRIBING SECTION

This section is responsible for the transcription of the autopsy report protocols, microscopic slide reports, neuropathology reports, etc. An outside contract is utilized for routine transcription and in-house staff of three full-time employees is employed to handle rush, high-priority, and sensitive cases. In a one-year period, over 2,000 cases are transcribed by request of the law enforcement agencies, the families, hospitals, and other outside agencies.

## PERSONAL PROPERTY SECTION

Personal property of all decedents is brought to the Personal Property Section and safeguarded in a vault until release to the decedent's next-of-kin. The department has three Personal Property Custodians who are responsible to receive and inventory the personal effects, contact the next-of-kin and arrange for delivery of the personal effects to the decedent's family. The Office of the Public Administrator is consulted when

next-of-kin resides out of state or is unknown. The Custodians are also responsible for disposal of all unclaimed personal effects.

## SUBPOENA CONTROL

Approximately 4,000 subpoenas are received and processed by the Public Services Division Subpoena Control Section in a one-year period. This unit is responsible for the scheduling of all Deputy Medical Examiners for court appearances, depositions and appointments with law enforcement, district attorney, public defender staff and members of the public. The revenue generated by civil witness fees and collected by this section totals approximately \$55,000 per year. ■





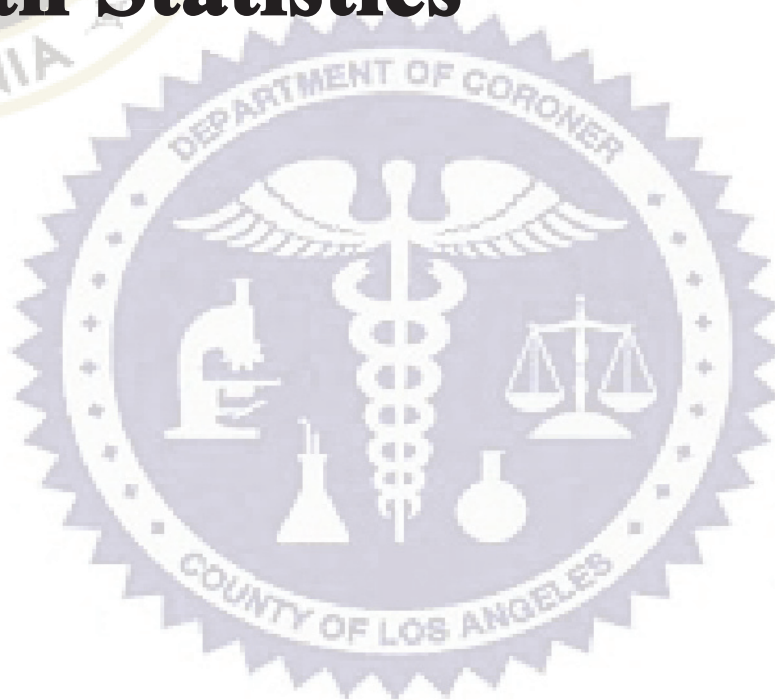
# Los Angeles County Department of Coroner Annual Report



2006



## Los Angeles County Death Statistics



Death Statistics





# Los Angeles County Department of Coroner Annual Report



2006

## DEATH STATISTICS INDEX

<u>Topic</u>	<u>Page</u>
Population of Los Angeles County.....	22
Reported and Accepted Cases.....	23
Final Mode of Coroner's Cases.....	24
Death Rates per 100,000 Population.....	25
Modes for Child Death.....	26
Statistics Required by NAME.....	27
Coroner's Cases by Age.....	28
Coroner's Cases by Gender.....	29
Coroner's Cases by Race.....	30
Mode of Death by Month.....	31
Racial Distribution for Each Mode.....	32
Mode Distribution for Each Age Group.....	33
Accidental Deaths.....	34
Transport Accidents.....	35
Accidental Falls.....	36
Homicidal Deaths.....	37
Suicidal Deaths.....	38
Natural Deaths.....	39
Circulatory System Disease Among Natural Deaths.....	40
Nervous System Disease Among Natural Deaths.....	41
Infectious Diseases Among Natural Deaths.....	42
Neoplasms Among Natural Deaths.....	43

## Death Statistics Index

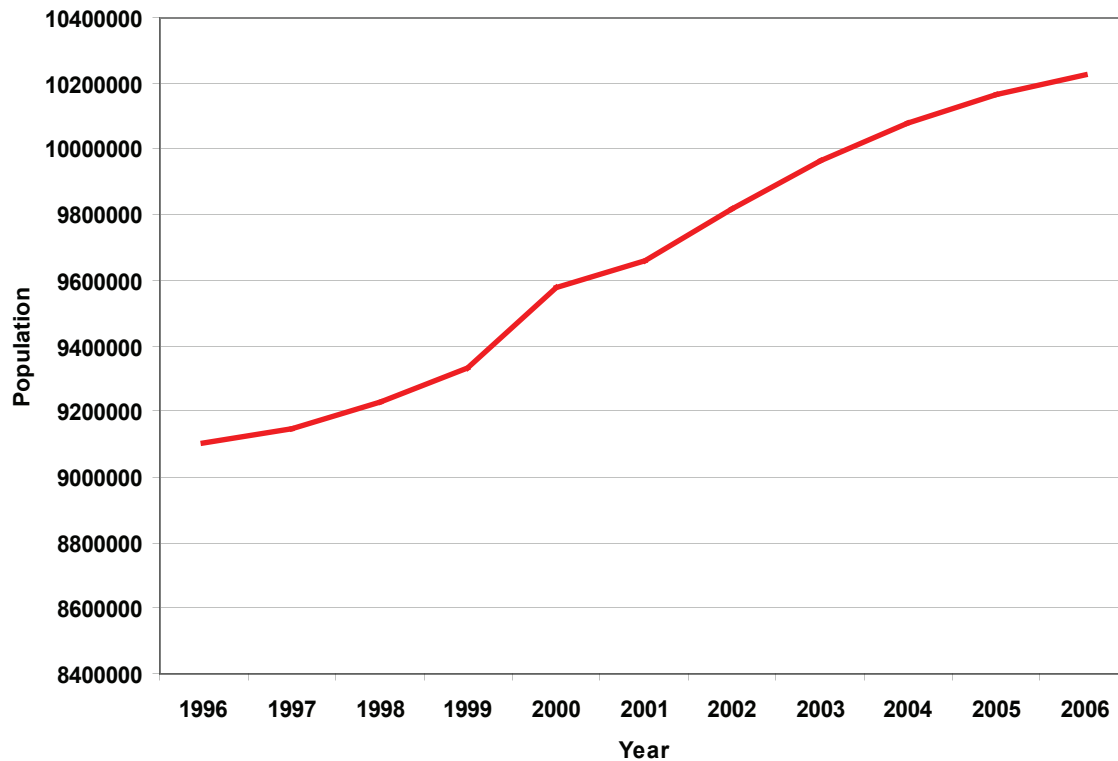


# Los Angeles County Department of Coroner Annual Report



2006

Population of Los Angeles County, 1996-2006



<u>Year</u>	<u>Population</u>
1996	9,104,700
1997	9,147,100
1998	9,225,800
1999	9,330,110
2000	9,579,022
2001	9,656,730
2002	9,816,792
2003	9,961,407
2004	10,077,865
2005	10,163,097
2006	10,223,263

Sources:

State of California, Department of Finance. Total Population Estimates for Cities, Counties and State, 2001-2008, with 2000 Benchmark. Sacramento CA, May 2008

State of California, Department of Finance. Revised Historical City, County and State Population Estimates, 1991-2000, with 1990 and 2000 Census Counts. Sacramento CA, March 2002

Population of Los Angeles County

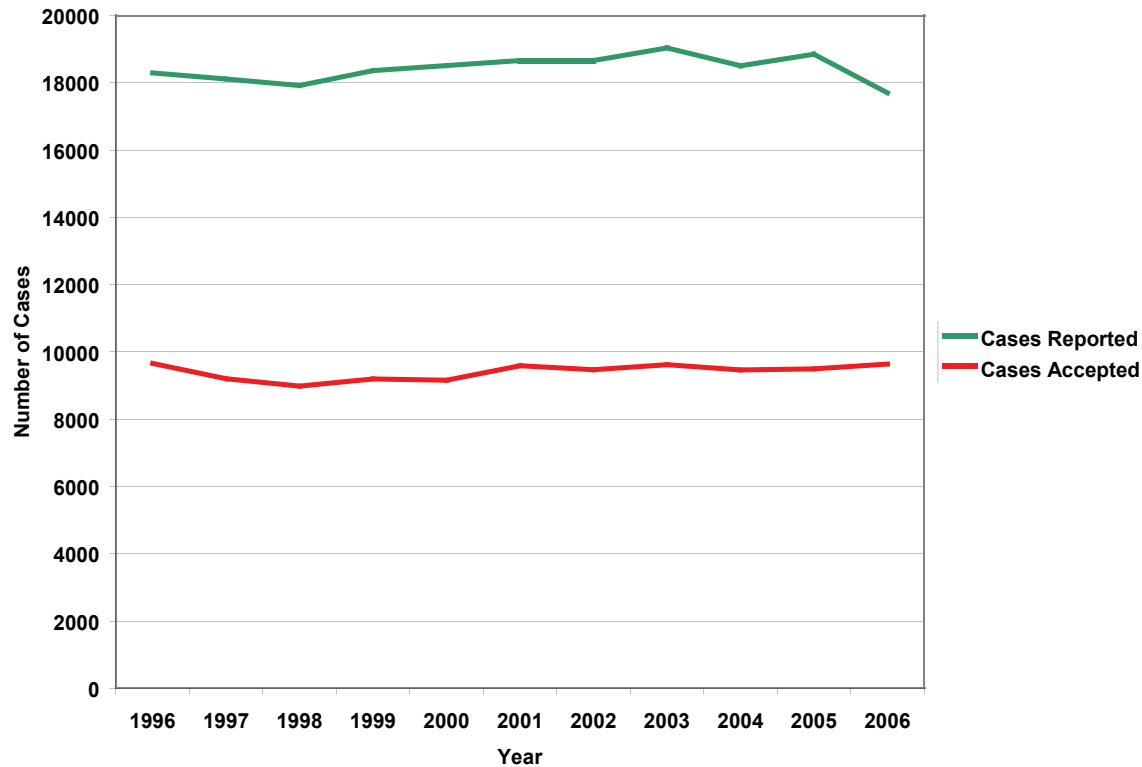


# Los Angeles County Department of Coroner Annual Report



2006

Number of Reported and Accepted Cases per Year, 1996-2006



<u>Year</u>	<u>Cases Reported</u>	<u>Cases Accepted</u>
1996	18,295	9,656
1997	18,113	9,202
1998	17,924	8,981
1999	18,362	9,197
2000	18,512	9,156
2001	18,665	9,591
2002	18,665	9,470
2003	19,039	9,620
2004	18,509	9,465
2005	18,854	9,494
2006	17,704	9,637

Reported and Accepted Cases

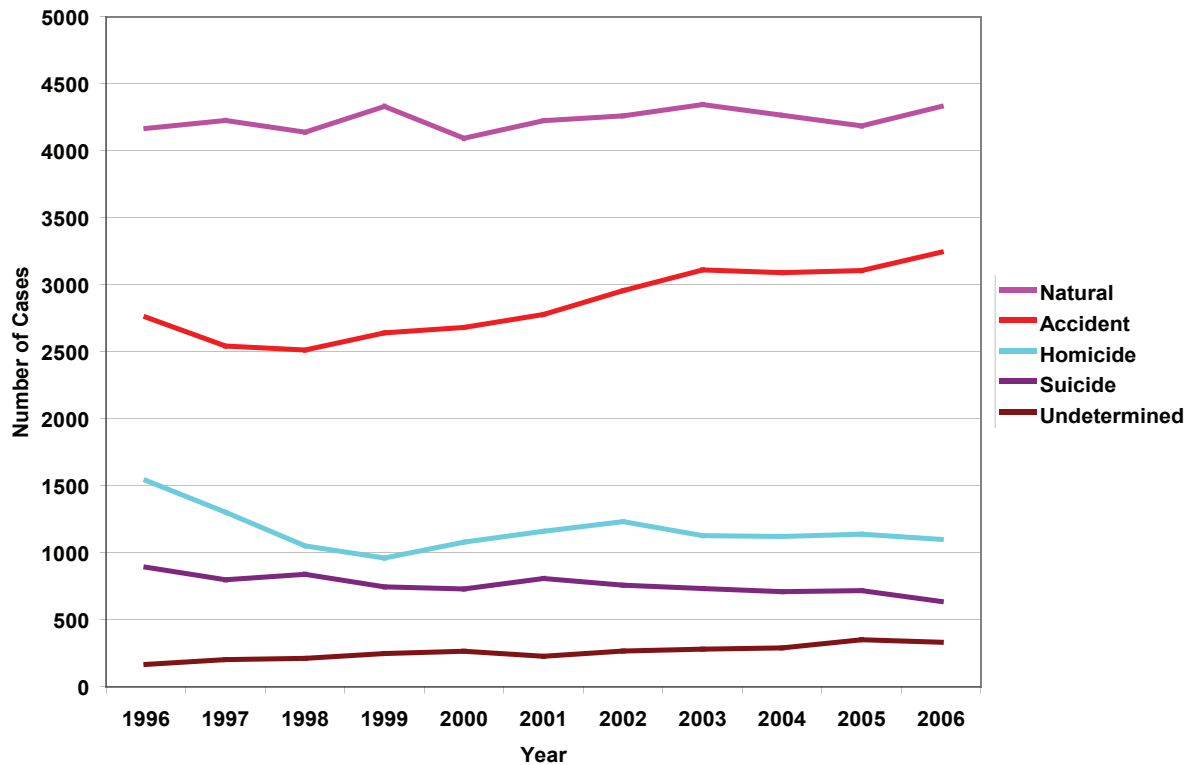


# Los Angeles County Department of Coroner Annual Report



2006

Final Mode of Coroner's Cases, 1996-2006



Final Mode of Coroner's Cases

<u>Year</u>	<u>Natural</u>	<u>Accident</u>	<u>Homicide</u>	<u>Suicide</u>	<u>Undetermined</u>
1996	4,166	2,757	1,538	891	165
1997	4,226	2,542	1,301	798	201
1998	4,139	2,513	1,050	838	210
1999	4,331	2,641	960	744	247
2000	4,094	2,681	1,078	729	263
2001	4,224	2,777	1,159	807	226
2002	4,261	2,955	1,232	757	265
2003	4,344	3,110	1,127	732	279
2004	4,265	3,090	1,121	709	289
2005	4,186	3,106	1,137	716	349
2006	4,330	3,243	1,098	635	331



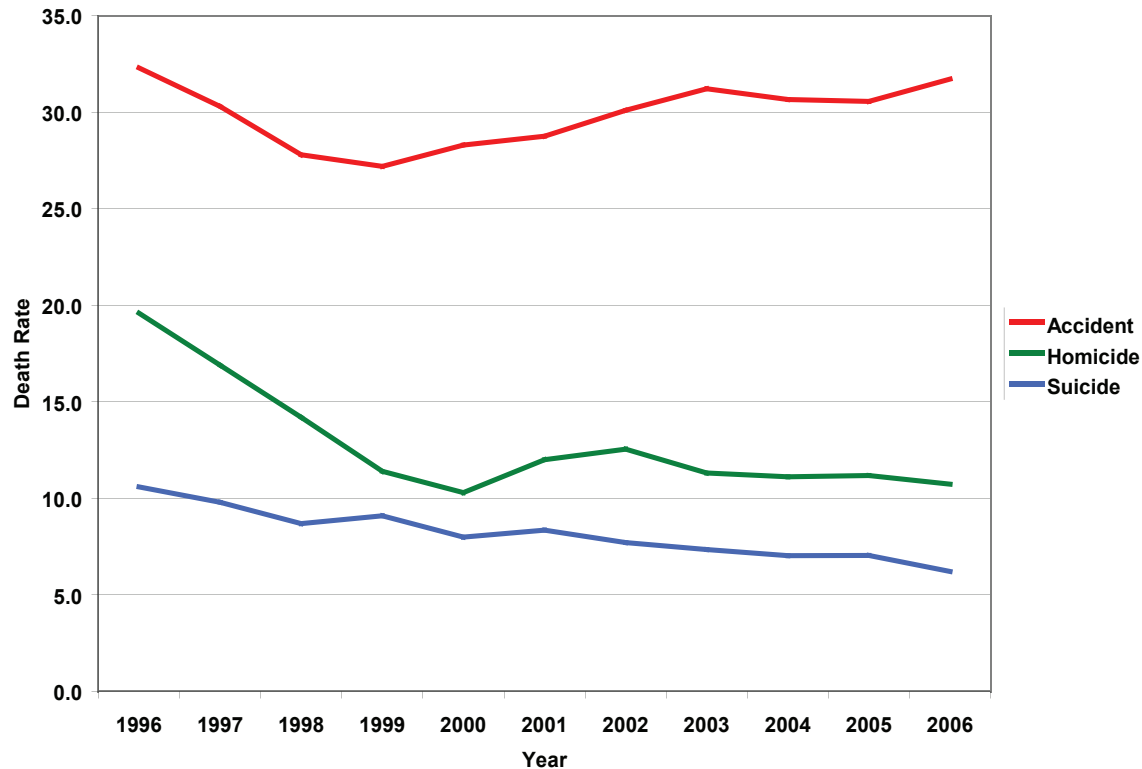


# Los Angeles County Department of Coroner Annual Report



2006

Death Rates per 100,000 Population, 1996-2006



<u>Year</u>	<u>Accident</u>	<u>Homicide</u>	<u>Suicide</u>
1996	32.3	19.6	10.6
1997	30.3	16.9	9.8
1998	27.8	14.2	8.7
1999	27.2	11.4	9.1
2000	28.3	10.3	8.0
2001	28.8	12.0	8.4
2002	30.1	12.5	7.7
2003	31.2	11.3	7.3
2004	30.7	11.1	7.0
2005	30.6	11.2	7.0
2006	31.7	10.7	6.2

Death Rates per 100,000 Population

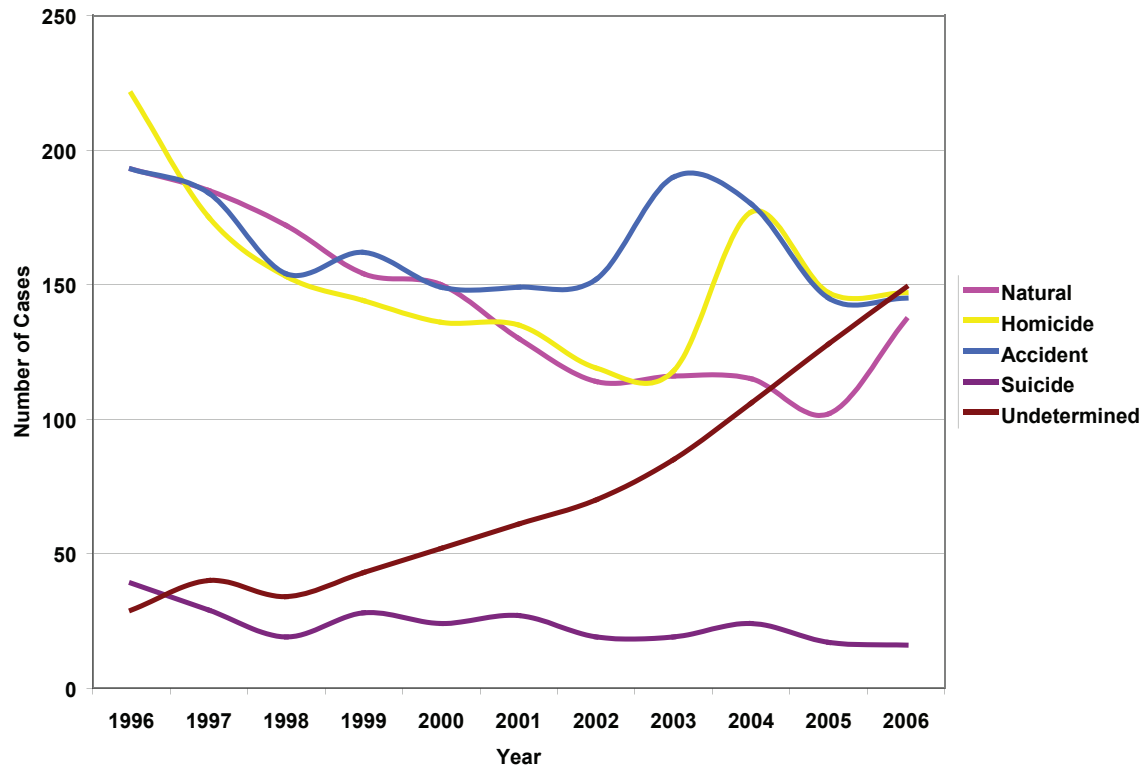


# Los Angeles County Department of Coroner Annual Report



2006

Modes for Child Death (Ages Under 18), 1996-2006



<u>Year</u>	<u>Natural</u>	<u>Homicide</u>	<u>Accident</u>	<u>Suicide</u>	<u>Undetermined</u>
1996	193	221	193	39	29
1997	185	175	184	29	40
1998	172	153	154	19	34
1999	154	144	162	28	43
2000	150	136	149	24	52
2001	130	135	149	27	61
2002	114	119	152	19	70
2003	116	118	190	19	85
2004	115	177	180	24	106
2005	102	147	145	17	128
2006	137	147	145	16	149

Modes for Child Death



# Los Angeles County Department of Coroner Annual Report



2006

## Statistics Required by National Association of Medical Examiners, 2006

Number of deaths reported:	17,704
Number of cases accepted:	9,637
Number of cases by manner of death:	
Accident:	3,243
Homicide:	1,098
Natural:	4,330
Suicide:	635
Undetermined:	331
Scene visits:	3,848
Number of bodies transported:	7,256
External examinations:	
By physician:	2,389
By investigator:	2,397
Partial autopsies:	450
Complete autopsies:	4,401
Hospital autopsies under ME jurisdiction:	9
Cases where toxicology was performed:	5,496
Bodies unidentified after examination:	3
Organ and tissue donations:	
Total transplanted organs:	406
Total tissues donated:	672
Unclaimed bodies:	733
Exhumations:	2

\* National Association of Medical Examiners

Statistics Required by NAME\*

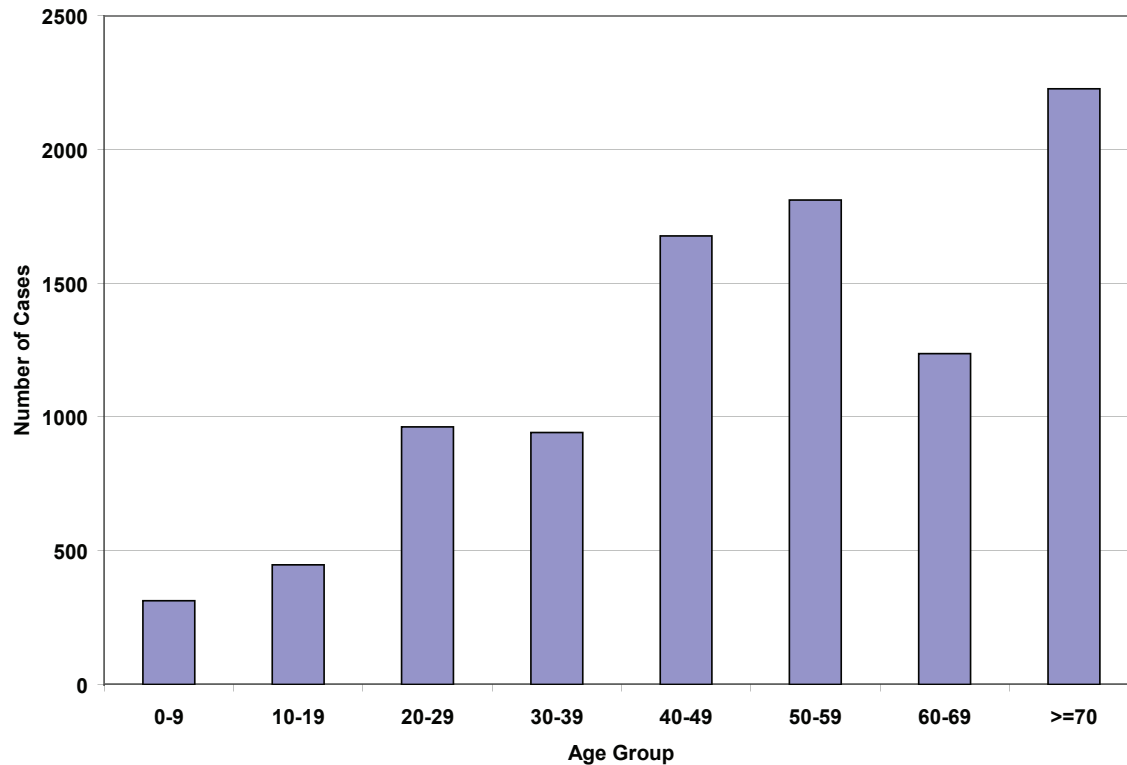


# Los Angeles County Department of Coroner Annual Report



2006

Number of Coroner's Cases by Age, 2006



<u>Age</u>	<u>Number of Cases</u>
0-9	313
10-19	447
20-29	963
30-39	942
40-49	1,677
50-59	1,811
60-69	1,237
>=70	2,227
Unknown	20
<b>Total</b>	<b>9,637</b>

Coroner's Cases by Age



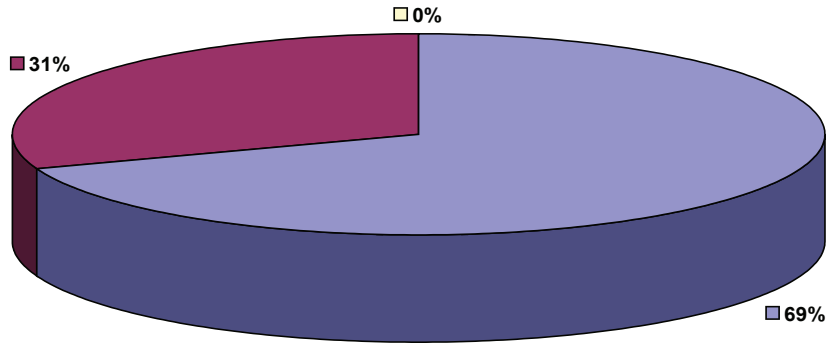


# Los Angeles County Department of Coroner Annual Report



2006

Coroner's Cases by Gender, 2006



■ Male ■ Female ■ Unknown

<u>Gender</u>	<u>Number of Cases</u>
Male	6,680
Female	2,944
Unknown	13
<b>Total</b>	<b>9,637</b>

Coroner's Cases by Gender

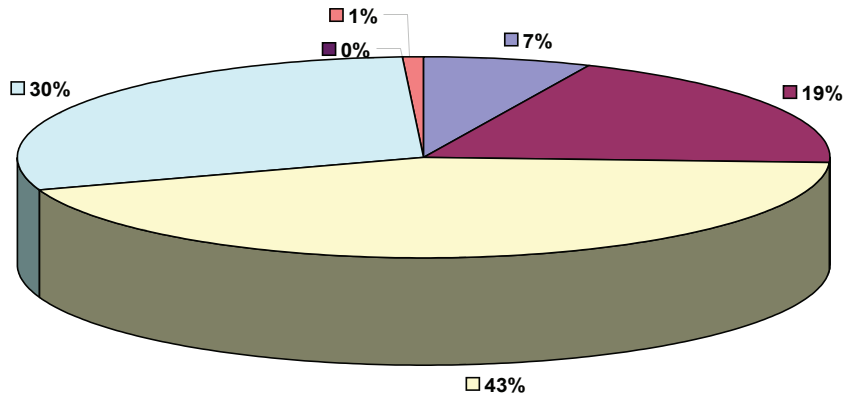


# Los Angeles County Department of Coroner Annual Report



2006

## Coroner's Cases by Race, 2006



■ Asian ■ Black ■ Caucasian ■ Latino ■ Native American ■ Unknown

<u>Race</u>	<u>Number of Cases</u>
Asian	641
Black	1,844
Caucasian	4,227
Latino	2,844
Native American	14
Unknown	67
<b>Total</b>	<b>9,637</b>

Coroner's Cases by Race

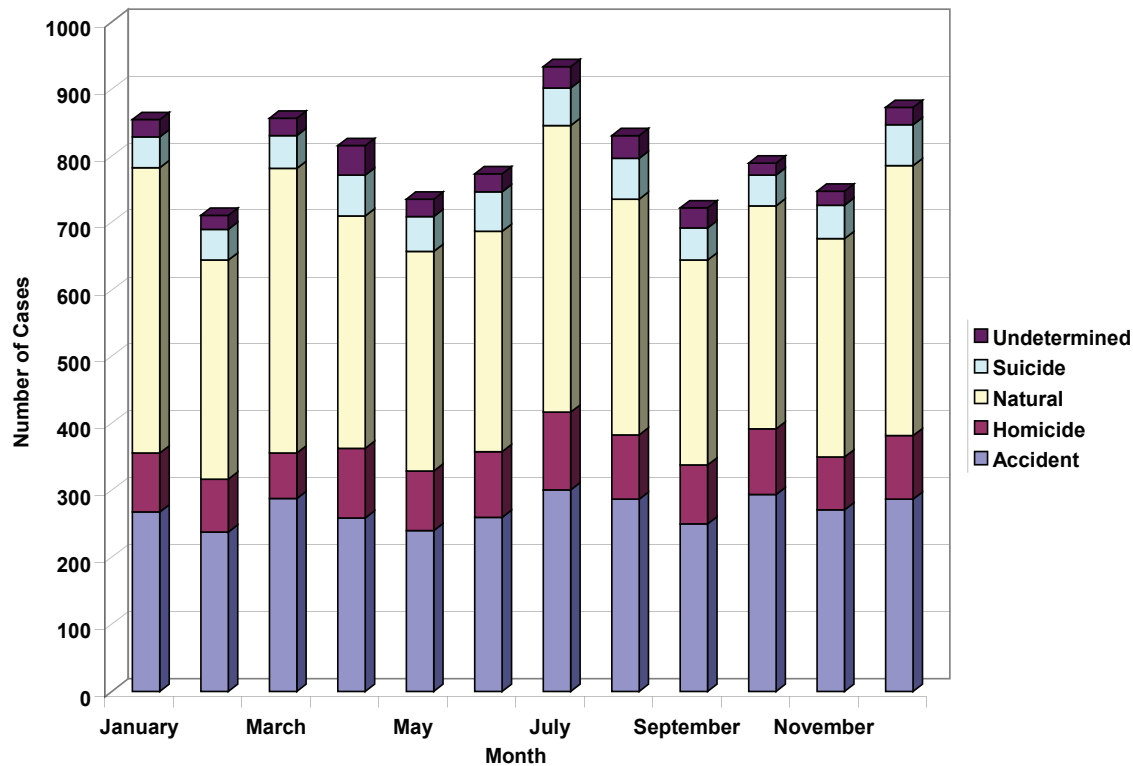


# Los Angeles County Department of Coroner Annual Report



2006

Mode of Death by Month, 2006



Mode of Death by Month

<u>Month</u>	<u>Accident</u>	<u>Homicide</u>	<u>Natural</u>	<u>Suicide</u>	<u>Undetermined</u>	<u>Total</u>
January	268	88	426	46	26	854
February	238	79	327	46	21	711
March	288	68	425	49	26	856
April	259	104	347	61	44	815
May	240	89	328	52	26	735
June	260	98	329	59	27	773
July	301	116	428	56	32	933
August	287	96	352	61	34	830
September	250	88	306	48	30	722
October	294	98	333	46	18	789
November	271	79	326	50	21	747
December	287	95	403	61	26	872
<b>Total</b>	<b>3,243</b>	<b>1,098</b>	<b>4,330</b>	<b>635</b>	<b>331</b>	<b>9,637</b>

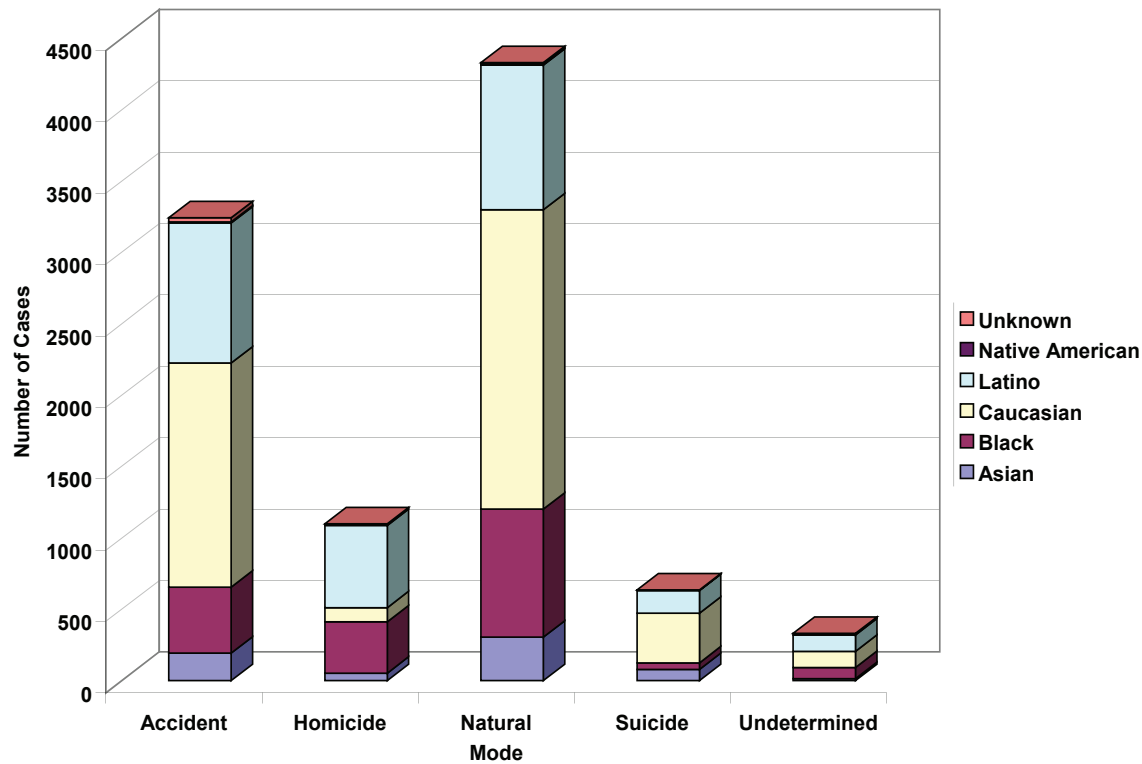


# Los Angeles County Department of Coroner Annual Report



2006

Racial Distribution for Each Mode, 2006



Racial Distribution for Each Mode

	<u>Accident</u>	<u>Homicide</u>	<u>Natural</u>	<u>Suicide</u>	<u>Undetermined</u>	<u>Total</u>
Asian	193	52	304	78	14	641
Black	462	360	898	46	78	1,844
Caucasian	1,570	99	2,097	348	113	4,227
Latino	981	576	1,013	159	115	2,844
Native American	7	0	6	1	0	14
Unknown	30	11	12	3	11	67
<b>Total</b>	<b>3,243</b>	<b>1,098</b>	<b>4,330</b>	<b>635</b>	<b>331</b>	<b>9,637</b>



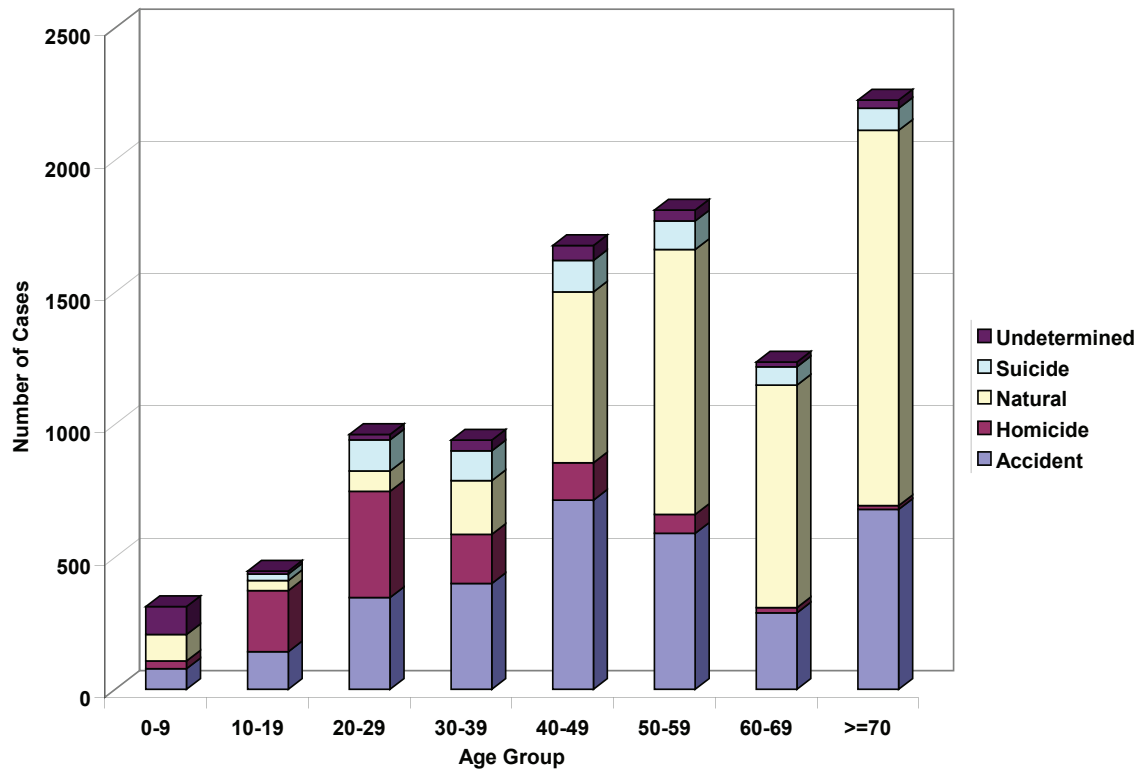


# Los Angeles County Department of Coroner Annual Report



2006

Mode Distribution for Each Age Group, 2006



Mode Distribution for Each Age Group

	<u>0-9</u>	<u>10-19</u>	<u>20-29</u>	<u>30-39</u>	<u>40-49</u>	<u>50-59</u>	<u>60-69</u>	<u>&gt;=70</u>	<u>Unknown</u>	<u>Total</u>
Accident	78	142	347	400	715	590	289	680	2	3,243
Homicide	29	231	401	186	141	71	20	14	5	1,098
Natural	100	38	77	203	646	1,001	841	1,419	5	4,330
Suicide	0	25	118	112	119	108	69	83	1	635
Undetermined	106	11	20	41	56	41	18	31	7	331
<b>Total</b>	<b>313</b>	<b>447</b>	<b>963</b>	<b>942</b>	<b>1,677</b>	<b>1,811</b>	<b>1,237</b>	<b>2,227</b>	<b>20</b>	<b>9,637</b>

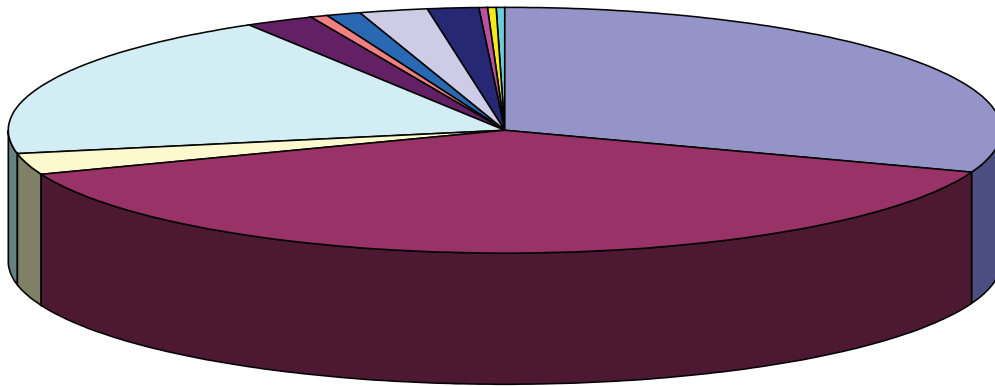


# Los Angeles County Department of Coroner Annual Report



2006

## Accidental Deaths, 2006



Transport Accident	Drugs and Alcohol
Therapeutic Misadventure	Fall
Fire/Burns	Hyperthermia/Hypothermia
Environmental factors	Drowning
Choking and Suffocation	Firearms
Electrocutation	Other

<u>Type of Accident</u>	<u>Number of Cases</u>
Transport Accident	995
Drugs and Alcohol	1,248
Therapeutic Misadventure	90
Fall	633
Fire/Burns	70
Hyperthermia/Hypothermia	14
Environmental factors	36
Drowning	75
Choking and Suffocation	55
Firearms	6
Electrocutation	12
Other	9
<b>Total</b>	<b>3,243</b>

Accidental Deaths



# Los Angeles County Department of Coroner Annual Report



2006

## Transportation Accidents, 2006

### Pedestrians

Collision with car, pick-up truck, or van	220
Collision with pedal cycle or motorcycle	2
Collision with heavy transport vehicle or bus	25
Collision with railway train or railway vehicle	18
Other and unspecified transport accidents	17
Total pedestrians	282

### Pedal Cyclists

Collision with car, pick-up truck, or van	27
Collision with heavy transport vehicle or bus	3
Collision with railway train or railway vehicle	1
Collision with fixed or stationary objects	2
Fall from pedal cycle	8
Other and unspecified transport accidents	3
Total pedal cyclists	44

### Motorcycle Riders

Collision with pedal cycle	1
Collision with motorcycle	1
Collision with car, pick-up truck, or van	58
Collision with heavy transport vehicle or bus	7
Collision with fixed or stationary objects	27
Non-collision accident (fell or thrown)	13
Other and unspecified transport accidents	8
Total motorcycle riders	115

### Car Occupants

Collision with motorcycle	2
Collision with car, pick-up truck, or van	206
Collision with heavy transport vehicle or bus	25
Collision with railway train or railway vehicle	3
Collision with fixed or stationary objects	158
Non-collision accident (fell or thrown)	69
Other and unspecified transport accidents	9
Total car occupants	472

### Occupant of Pick-up Truck or Van

Collision with car, pick-up truck, or van	3
Collision with heavy transport vehicle or bus	8
Collision with railway train or railway vehicle	1
Collision with fixed or stationary objects	12
Non-collision accident (fell or thrown)	6
Other and unspecified transport accidents	2
Total pick-up truck and van occupants	32

### Other Transport Accidents

Occupant of heavy transport vehicle	4
Fall from horse	4
Specialized construction vehicle	2
Off-road vehicle	6
Watercraft	5
Aircraft	11
Other and unspecified transport accidents	18
Total other transport accidents	50

**Total Transportation Accidents** 995

## Transportation Accidents



# Los Angeles County Department of Coroner Annual Report



2006

## Accidental Falls, 2006

Fall on same level from slipping, tripping and stumbling	470
Fall involving skateboard or snowboard	5
Fall due to collision with another person	2
Fall while being carried or supported by other persons	2
Fall involving wheelchair	9
Fall involving bed	29
Fall involving chair	11
Fall involving other furniture	5
Fall on or from stairs and steps	30
Fall on and from ladder	15
Fall from scaffolding	6
Fall from, out of or through building or structure	20
Fall from tree	1
Fall from cliff	4
Diving into water causing injury other than drowning	2
Other fall from one level to another	16
Other fall on same level	5
Unspecified fall	1
<b>Total Falls</b>	<b>633</b>

## Accidental Falls



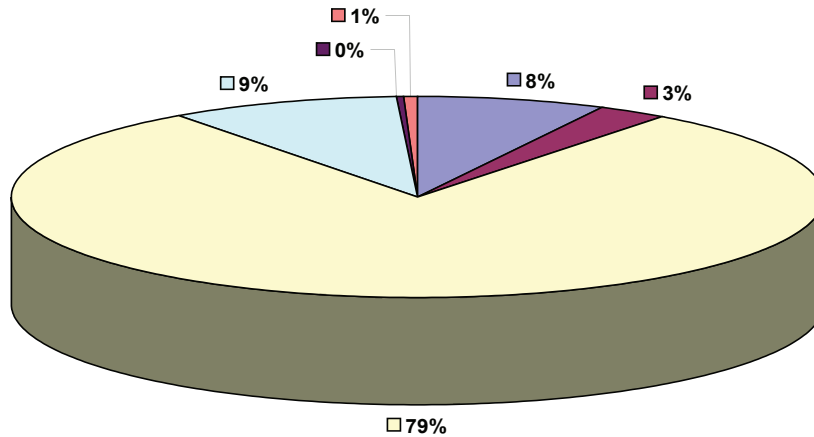


# Los Angeles County Department of Coroner Annual Report



2006

## Homicidal Deaths, 2006



■ Blunt trauma      ■ Strangulation/Suffocation      ■ Firearms  
■ Sharp force trauma      ■ Child/Elder abuse      ■ Arson

<u>Method of Homicide</u>	<u>Number of Cases</u>
Blunt trauma	81
Strangulation/Suffocation	29
Firearms	861
Sharp force trauma	99
Child/Elder abuse	4
Arson	6
Other	18
<b>Total</b>	<b>1,098</b>

Homicidal Deaths

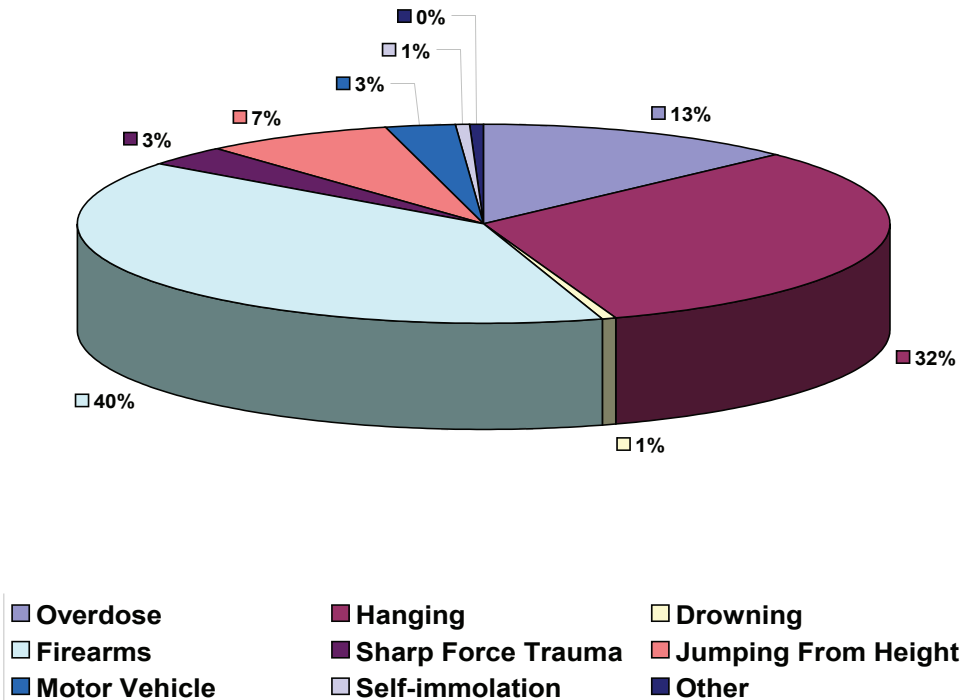


# Los Angeles County Department of Coroner Annual Report



2006

## Suicidal Deaths, 2006



<u>Method of Suicide</u>	<u>Number of Cases</u>
Overdose	81
Hanging	202
Drowning	4
Firearms	252
Sharp Force Trauma	22
Jumping From Height	47
Motor Vehicle	18
Self-immolation	4
Other	3
<b>Total</b>	<b>633</b>

Suicidal Deaths

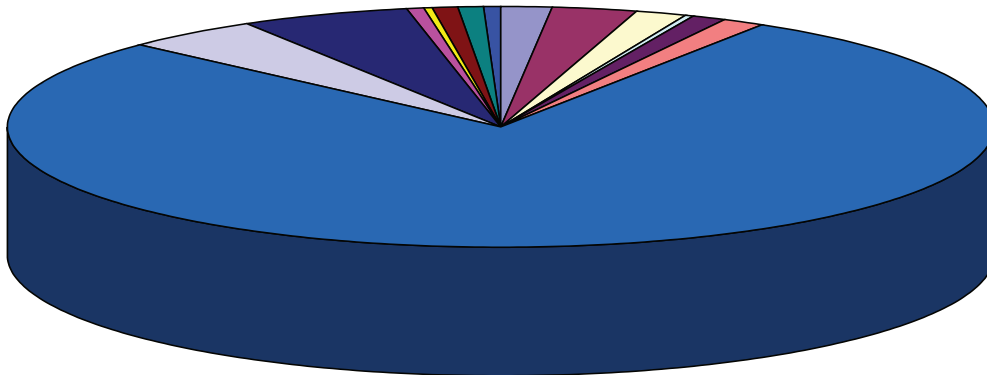


# Los Angeles County Department of Coroner Annual Report



2006

## Natural Deaths, 2006



■ Infectious and Parasitic	■ Neoplasms
■ Endocrine/Metabolic/Nutritional	■ Blood/Blood-Forming Organs
■ Psychiatric Conditions	■ Nervous System
■ Circulatory System	■ Respiratory System
■ Gastrointestinal System	■ Genitourinary System
■ Conditions of Pregnancy/Childbirth	■ Skin and Subcutaneous Tissue
■ Musculoskeletal System	■ Congenital Anomalies
■ Perinatal Conditions	■ Other Conditions

<u>Condition of Death</u>	<u>Number of Cases</u>
Infectious and Parasitic	71
Neoplasms	116
Endocrine/Metabolic/Nutritional	75
Blood/Blood-Forming Organs	9
Psychiatric Conditions	49
Nervous System	70
Circulatory System	3,373
Respiratory System	199
Gastrointestinal System	237
Genitourinary System	25
Conditions of Pregnancy/Childbirth	5
Skin and Subcutaneous Tissue	3
Musculoskeletal System	5
Congenital Anomalies	37
Perinatal Conditions	37
Other Conditions	19
<b>Total</b>	<b>4,330</b>

Natural Deaths



# Los Angeles County Department of Coroner Annual Report



2006

## Circulatory System Disease Among Natural Deaths, 2006

Cause of Death	Number of Cases
Aneurysms	
Cerebral	34
Aortic	42
Other arteries	5
Arteriosclerotic disease	2,693
Arteritis	1
Cardiomyopathy	
Alcoholic	6
Dilated	52
Hypertrophic	117
Endocardial fibroelastosis	1
Idiopathic	55
Right ventricular dysplasia	3
Cerebral hemorrhage/infarction	81
Endocarditis	8
Hypertensive disease	191
Myocarditis	14
Pericarditis	1
Pulmonary hypertension	1
Thrombosis/embolism	51
Valvular disease	
Aortic valve disease	4
Mitral valve disease	4
Multiple valvular disease	1
Wolff-Parkinson-White syndrome	1
Cardiac arrest/heart failure	7
<b>Total</b>	<b>3,373</b>

Circulatory System Disease Among Natural Deaths



# Los Angeles County Department of Coroner Annual Report



2006

## Nervous System Disease Among Natural Deaths, 2006

Cause of Death	Number of Cases
Alzheimer Disease	4
Amyotrophic lateral sclerosis	3
Central pontine myelinolysis	1
Cerebral abscess	1
Cerebral palsy	9
Cerebellar ataxia	1
Epilepsy	30
Hydrocephalus	1
Meningitis	6
Multiple sclerosis	4
Muscular dystrophy	1
Myasthenia gravis	1
Parkinson Disease	1
Phlebitis	1
Pick Disease	1
Sleep apnea	3
Spastic paraplegia	1
Spinal muscular atrophy	1
<b>Total</b>	<b>70</b>

Nervous System Disease Among Natural Deaths





# Los Angeles County Department of Coroner Annual Report



2006

## Infectious Diseases Among Natural Deaths, 2006

Cause of Death	Number of Cases
Bacterial infections:	
<i>Shigella</i>	1
<i>Clostridium Difficile</i>	2
<i>Mycobacterium Tuberculosis</i>	7
<i>Streptococcus</i>	3
<i>Staphylococcus</i>	1
Unspecified bacterium	3
Creutzfeldt-Jakob Disease	1
Viral infections:	
West Nile Virus	1
Hepatitis B	5
Hepatitis C	10
Human Immunodeficiency Virus	30
Epstein-Barr Virus	1
Unspecified virus	2
Other infections:	
Amoebiasis	1
<i>Aspergillus</i>	1
<i>Cryptococcus</i>	2
<b>Total</b>	<b>71</b>

Infectious Disease Among Natural Deaths



# Los Angeles County Department of Coroner Annual Report



2006

## Neoplasms Among Natural Deaths, 2006

Primary Site	Number of Cases
Adrenal gland	1
Ampulla of Vater	1
Bladder	3
Bone	2
Brain	8
Breast	10
Colon	10
Esophagus	1
Hemangioma	2
Kidney	2
Larynx	2
Leukemia	5
Liver	10
Lung	17
Lymphoma	3
Melanoma	1
Mesothelioma	3
Oral cavity	2
Ovary	5
Pancreas	6
Prostate	2
Salivary gland	1
Stomach	4
Testis	2
Thyroid	1
Uterus	3
Metastatic/unknown primary site	<u>11</u>
<b>Total</b>	<b>116</b>

Neoplasms Among Natural Deaths



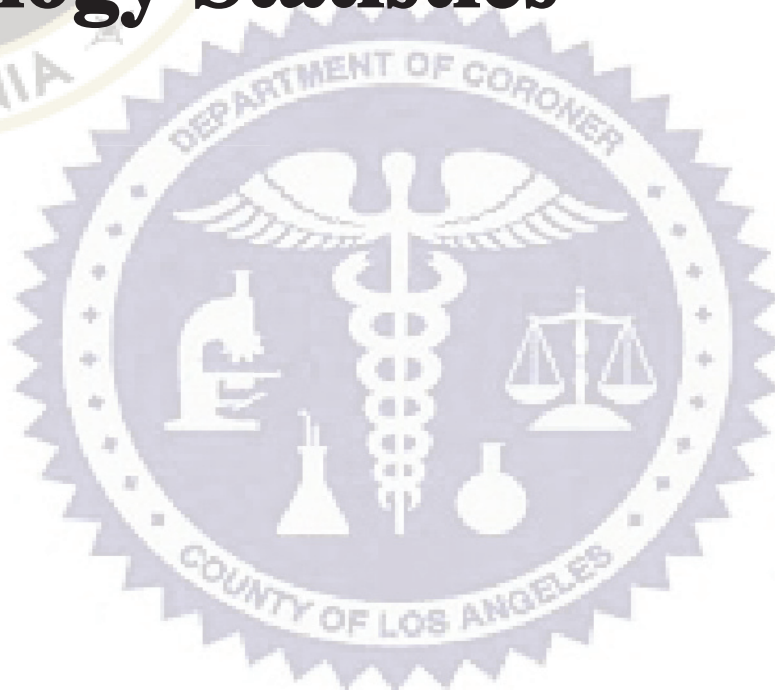
**Los Angeles County  
Department of Coroner  
Annual Report**



**2006**



**Los Angeles County  
Toxicology Statistics**



**Toxicology Statistics**



# Los Angeles County Department of Coroner Annual Report



2006

## Index of Toxicology Statistics

<u>Topic</u>	<u>Page</u>
Cases with Drugs Detected by Mode Marijuana Detected by Mode.....	46
Cocaine (Benzoylecgonine) Detected by Mode Methamphetamine Detected by Mode.....	47
Heroin (6-Monoacetylmorph) Detected by Mode Phencyclidine Detected by Mode.....	48
Drugs by Classification.....	49
Alcohol Detected by Mode Alcohol Detected by Year.....	50

## Toxicology Statistics Index

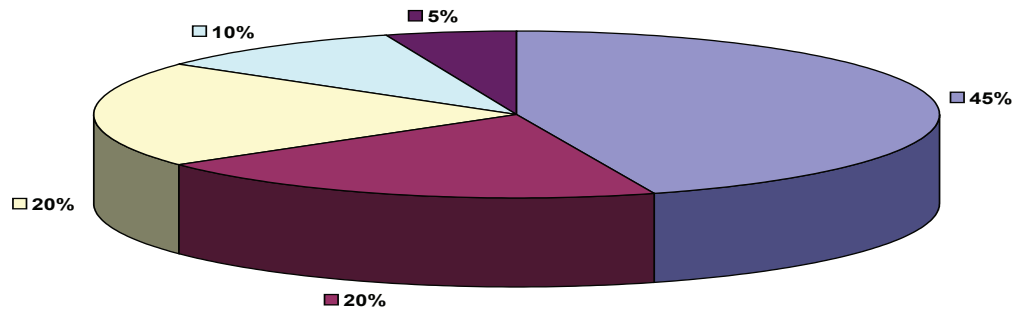


# Los Angeles County Department of Coroner Annual Report



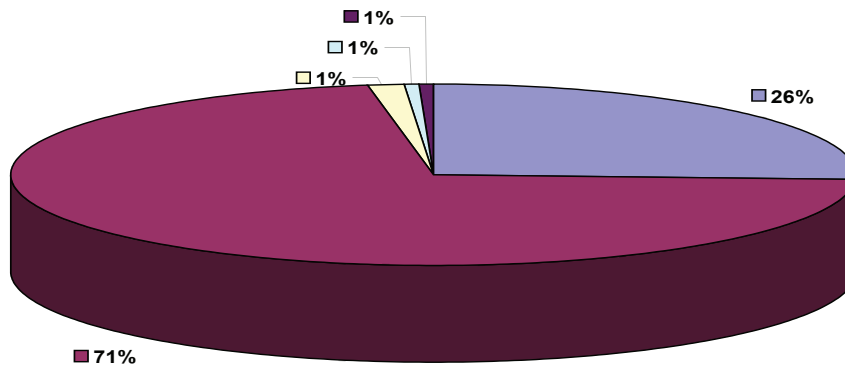
2006

2006 Number of Cases with Drugs Detected by Mode  
Total Cases of 3,858



■ Accident - 1722 ■ Homicide - 779 ■ Natural - 788 ■ Suicide - 373 ■ Undetermined - 196

2006 Marijuana Detected by Mode  
Total Cases of 581



■ Accident - 150 ■ Homicide - 417 ■ Natural - 7 ■ Suicide - 4 ■ Undetermined - 3

Toxicology Statistics





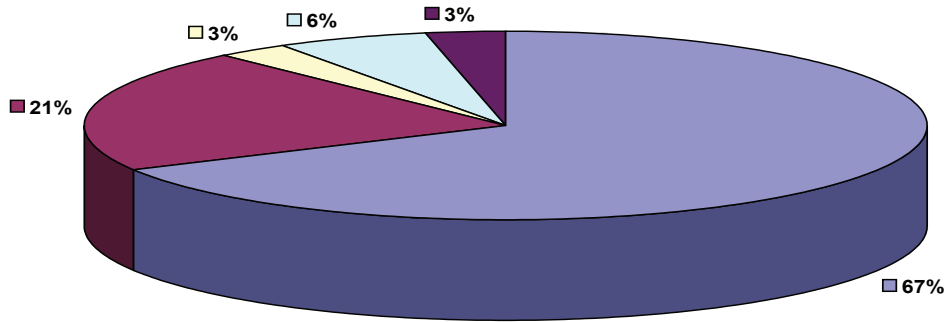
# Los Angeles County Department of Coroner Annual Report



2006

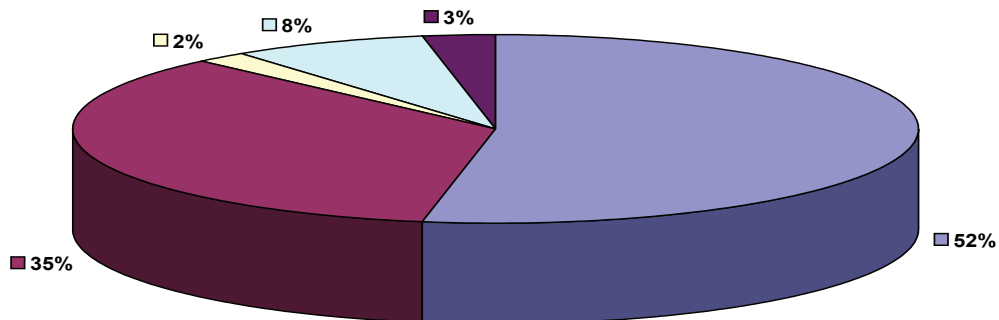
## Toxicology Statistics

2006 Cocaine (Benzoyllecgonine) Detected by Mode  
Total Cases of 779



■ Accident - 523 ■ Homicide - 165 ■ Natural - 22 ■ Suicide - 46 ■ Undetermined - 23

2006 Methamphetamine Detected by Mode  
Total Cases of 598



■ Accident - 315 ■ Homicide - 210 ■ Natural - 11 ■ Suicide - 45 ■ Undetermined - 17



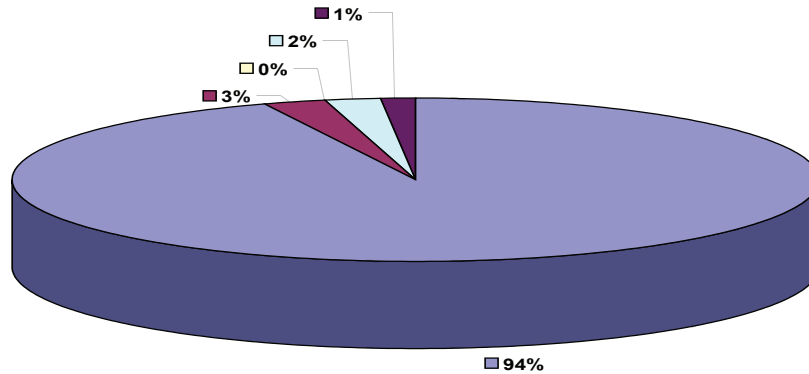
# Los Angeles County Department of Coroner Annual Report



2006

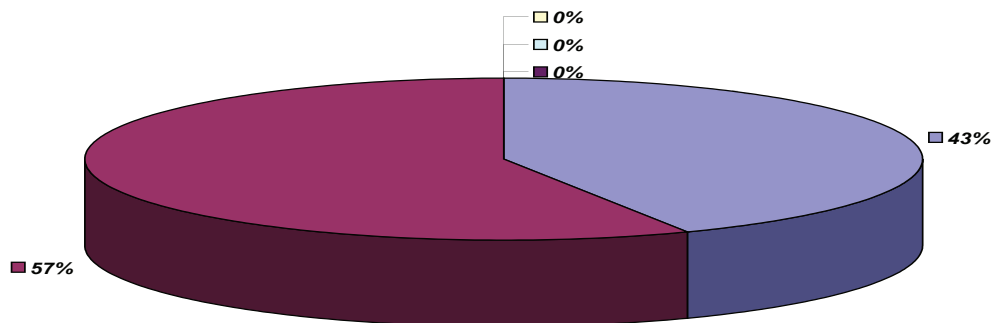
## Toxicology Statistics

2006 Heroin (6-Monoacetylmorph) Detected by Mode  
Total Cases of 279



■ Accident - 262 ■ Homicide - 7 ■ Natural - 0 ■ Suicide - 6 ■ Undetermined - 4

2006 Phencyclidine Detected by Mode  
Total Cases of 42



■ Accident - 18 ■ Homicide - 24 ■ Natural - 0 ■ Suicide - 0 ■ Undetermined - 0

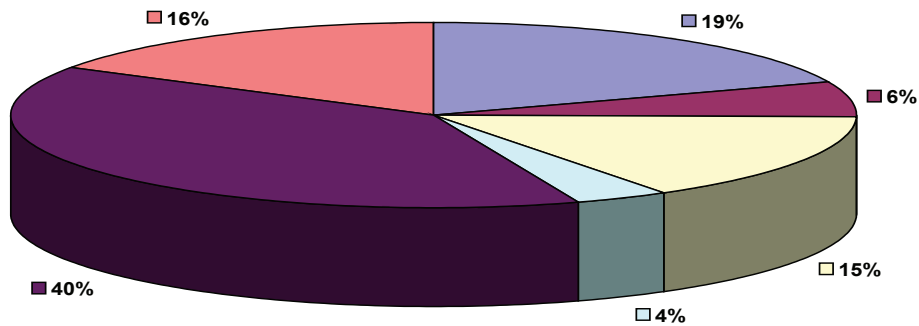


# Los Angeles County Department of Coroner Annual Report



2006

## 2006 Drugs by Classification Total Cases of 2,484



■ Antidepressants - 476	■ Antipsychotic - 155	■ Antihistamines - 382
■ Muscle Relaxants - 89	■ Narc Analgesic - 974	■ Sedative Hypnotics - 408

Toxicology Statistics

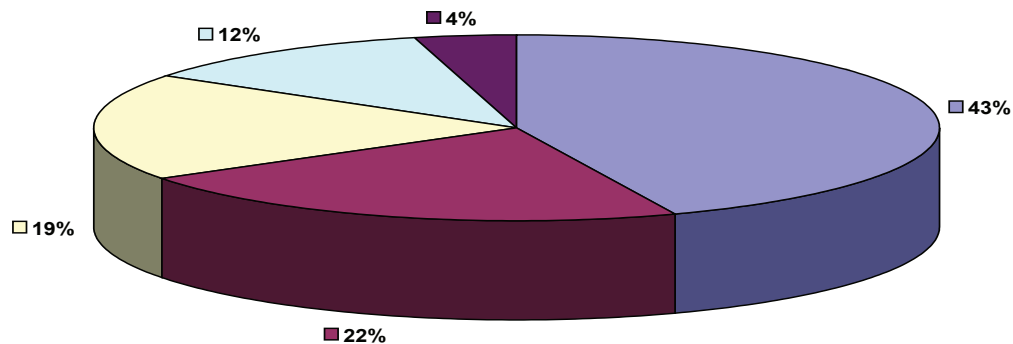


# Los Angeles County Department of Coroner Annual Report



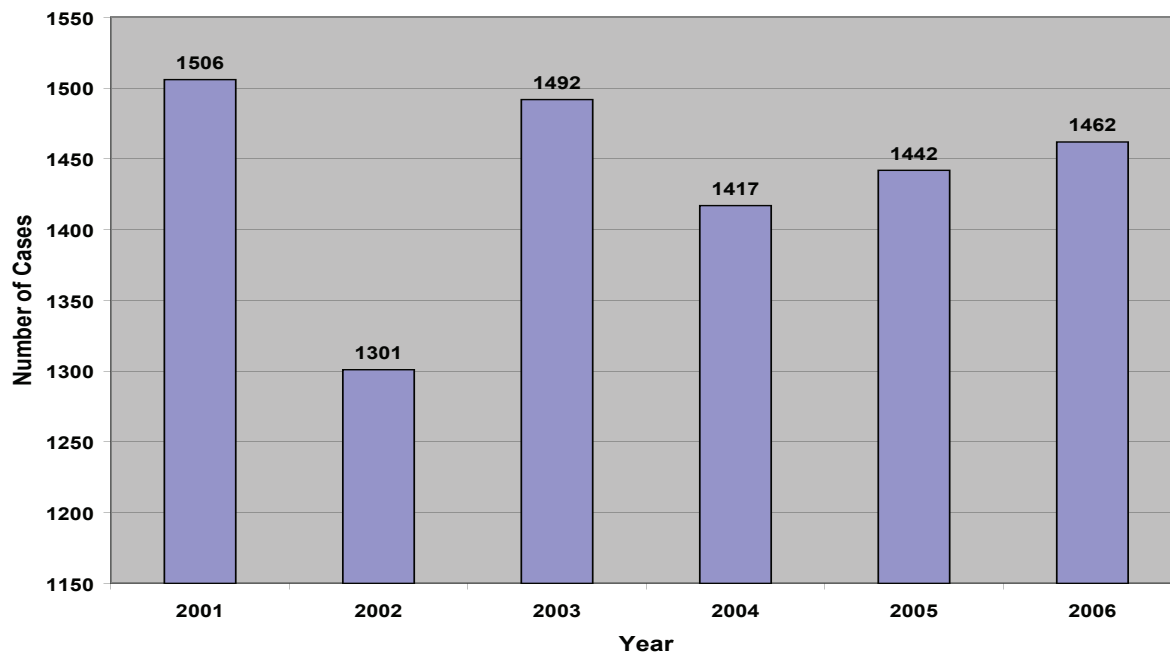
2006

2006 Alcodol Detected by Mode  
Total Cases of 1,462



■ Accident - 641 ■ Homicide - 320 ■ Natural - 274 ■ Suicide - 169 ■ Undetermined - 58

2001 - 2006 Alcohol Detected by Year





# Los Angeles County Department of Coroner Annual Report



2006

## *Acknowledgements*

*This document was created in-house by Marianne Oliva, M.B.A. Photography for the report was provided by Dr. Christopher Rogers, Mark Johnson, and Marianne Oliva. The Project Coordinator was Sarah Ahonima, Chief of Administrative Services Bureau.*

Acknowledgements