# Mortality in Los Angeles County

## The Annual Report and Data Trends

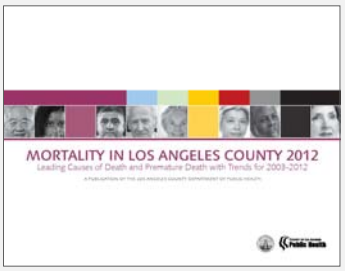
A presentation by the Office of Health Assessment and Epidemiology

## Importance of Mortality Data

- Presents snapshot of the general health status of a population.
- Shows differences in cause of death between population groups.
- Informs communities, stakeholders and policymakers who implement programs and interventions that reduce premature mortality and improve quality of life.
- Serves as indicator for federal, state and local resource allocation.
- Informs epidemiological disease surveillance.
- Guides population forecasting.

## Los Angeles County Mortality Report

- Published annually, beginning with data for 2001
- Includes:
  - Leading causes of death
  - Leading causes of premature death (before age 75)
  - Data and trend highlights
  - Distribution by: age, race/ethnicity, gender, health district, service planning area (SPA)




- Available online! http://publichealth.lacounty.gov/dca/dcareportspubs.htm

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## Mortality Indicators

- **Cause of death:** underlying cause of death from death certificate.
- **Premature death:** death occurring before the age of 75. Calculated by years of potential life lost (YPLL).
  - Ex. Person who dies at age 32: 75-32 = 43 YPLL
- **Death rate:** number of deaths divided by the population at risk. Typically, the number of deaths per 100,000 population.

Source: www.shutterstock.com

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## Mortality Indicators

- **Age-adjusted death rate:** uses a standard population to remove the confounding effects of age.
- **Age-specific death rate:** number of deaths in a specific age group divided by the population at risk in that age group.
- **Median age of death:** midpoint of a set of age of death values.
  - Ex. The median of this range of values: 10, 52, 29, 83, 76 is 52.

Source: www.shutterstock.com

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## Death Registration

**FUNERAL DIRECTOR**
- Coordinates the death certification process
- Collects personal and demographic data about the decedent

**LOCAL REGISTRAR**
Legal registration

**CA State Office of Vital Records**

Certified copy of death certificate available to family

**National Vital Statistics System (NVSS)**

**MEDICAL CERTIFIER**
- Licensed Physician
- Coroner
- Determines and certifies the "Cause of Death" as being correct

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## Source of Mortality Data

**National Vital Statistics System (NVSS):** ICD-10 coding of underlying causes of death for all death certificates in the United States.

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**California State Office of Vital Records**

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**Los Angeles County Department of Public Health**

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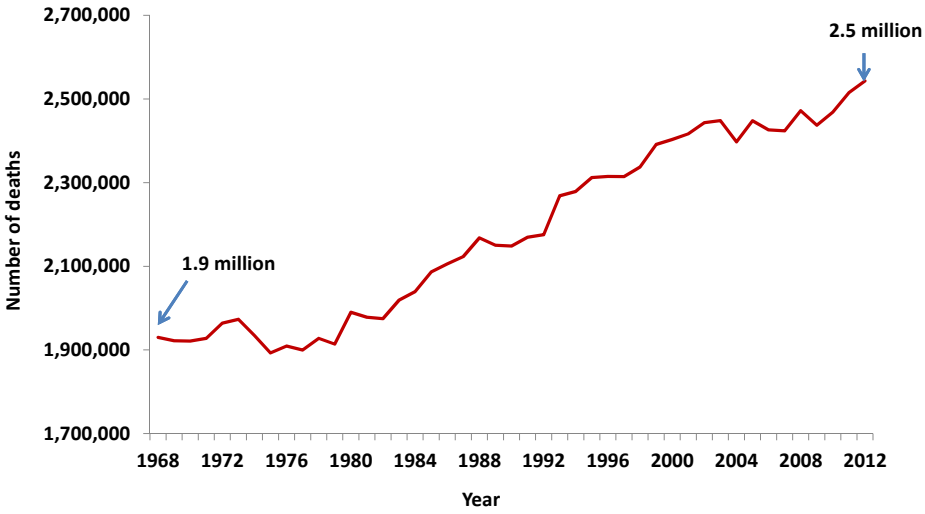
## Mortality Trends: U.S. 1968-2012




*Source: CDC National Center for Health Statistics. Compressed Mortality File 1968-1978, 1979-1998, 1990-2012.*

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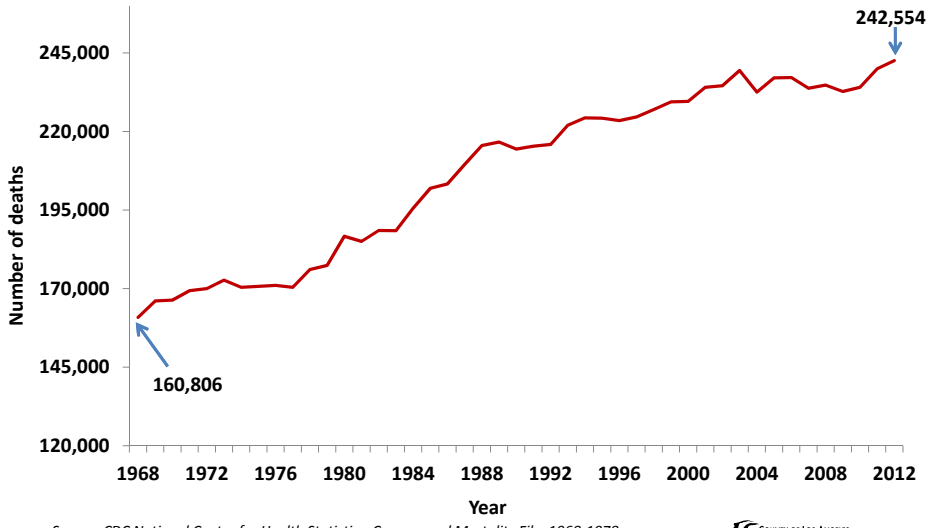
## Mortality Trends: California 1968-2012




*Source: CDC National Center for Health Statistics. Compressed Mortality File 1968-1978, 1979-1998, 1990-2012.*

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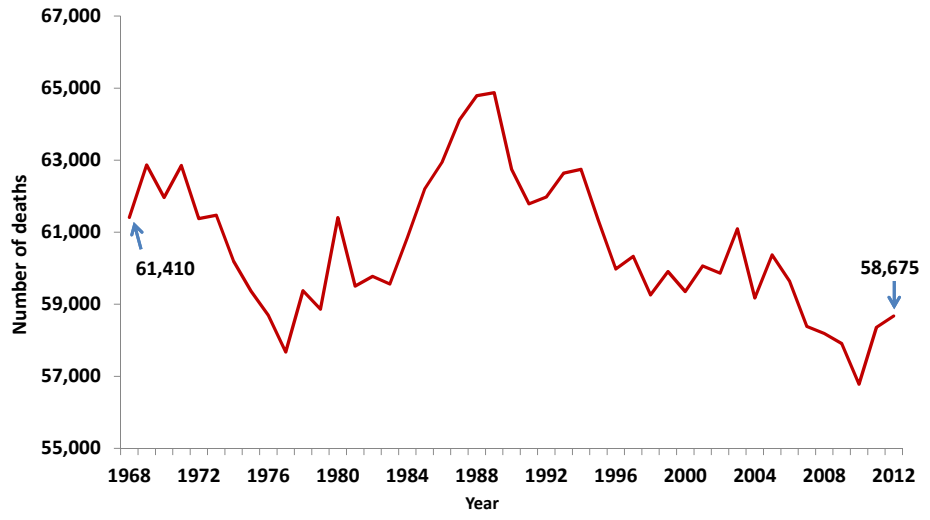
## Mortality Trends: Los Angeles County 1968-2012




*Source: CDC National Center for Health Statistics. Compressed Mortality File 1968-1978, 1979-1998, 1990-2012.*

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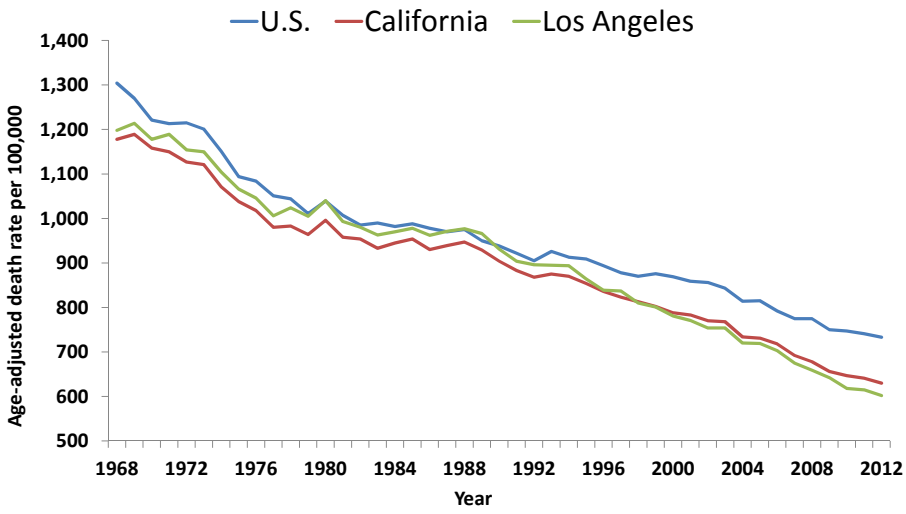
## Death Rates: 1968-2012




*Source: CDC National Center for Health Statistics. Compressed Mortality File 1968-1978, 1979-1998, 1990-2012.*

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## 10 Leading Causes of Death, 2012

**LOS ANGELES COUNTY: 58,498 Total deaths**

| Cause of death | Total deaths | Rate* |
|---|---|---|
| 1. Coronary heart disease | 11,677 | 115 |
| 2. Stroke | 3,360 | 33 |
| 3. Lung cancer | 2,809 | 29 |
| 4. Chronic obstructive pulmonary disease | 2,646 | 27 |
| 5. Alzheimer's disease | 2,476 | 24 |
| 6. Diabetes | 2,204 | 22 |
| 7. Pneumonia/influenza | 2,048 | 20 |
| 8. Colorectal cancer | 1,397 | 14 |
| 9. Liver disease/cirrhosis | 1,275 | 12 |
| 10. Hypertension/renal disease | 1,242 | 12 |

*** Age-adjusted death rate per 100,000**

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# 10 Leading Causes of Premature Death, 2012

## LOS ANGELES COUNTY: 431,534 Total YPLL

| Cause of death | YPLL |
|---|---|
| 1. Coronary heart disease | 52,263 |
| 2. Homicide | 24,905 |
| 3. Motor vehicle crash | 22,895 |
| 4. Liver disease/cirrhosis | 20,788 |
| 5. Suicide | 20,683 |
| 6. Drug overdose | 18,206 |
| 7. Lung cancer | 16,858 |
| 8. Diabetes | 16,041 |
| 9. Stroke | 14,855 |
| 10. Breast cancer (female) | 12,798 |

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# 10 Leading Causes of Death, 2003-2012

## LOS ANGELES COUNTY DEATH RATES 2003 vs. 2012

| Cause of death | 2003* | 2012* | % change** |
|---|---|---|---|
| 1. Coronary heart disease | 199 | 115 | -42% |
| 2. Stroke | 52 | 33 | -36% |
| 3. Lung cancer | 39 | 29 | -26% |
| 4. COPD | 35 | 27 | -23% |
| 5. Alzheimer's disease | 16 | 24 | +52% |
| 6. Diabetes | 27 | 22 | -16% |
| 7. Pneumonia/influenza | 30 | 20 | -32% |
| 8. Colorectal cancer | 18 | 14 | -21% |
| 9. Liver disease/cirrhosis | 12 | 12 | +4% |
| 10. Hypertension/renal disease | 9 | 12 | +39% |

*Age-adjusted death rate per 100,000
**Calculated before rates were rounded

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# Mortality Color-coding Guide

- Alzheimer's disease
- Cancer
- Chronic obstructive pulmonary disease (COPD)
- Coronary heart disease (CHD)
- Diabetes
- Homicide
- HIV
- Liver disease/cirrhosis
- Pneumonia/influenza (P & I)
- Stroke
- Suicide (self-inflicted injury)
- Unintentional injury (accident)
- Other conditions

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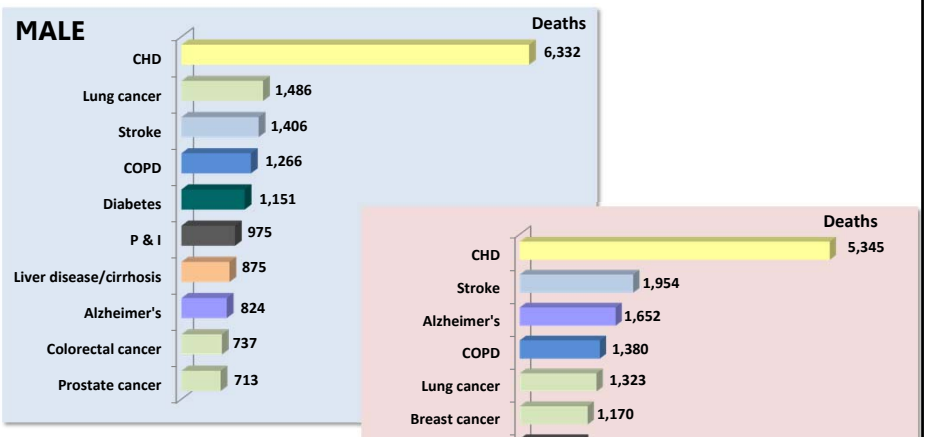
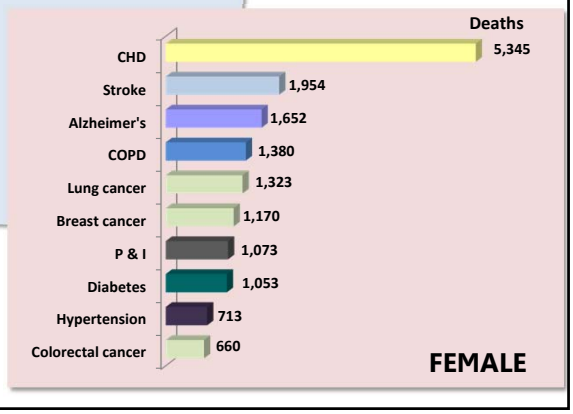
# Leading Causes of Death by Gender, 2012

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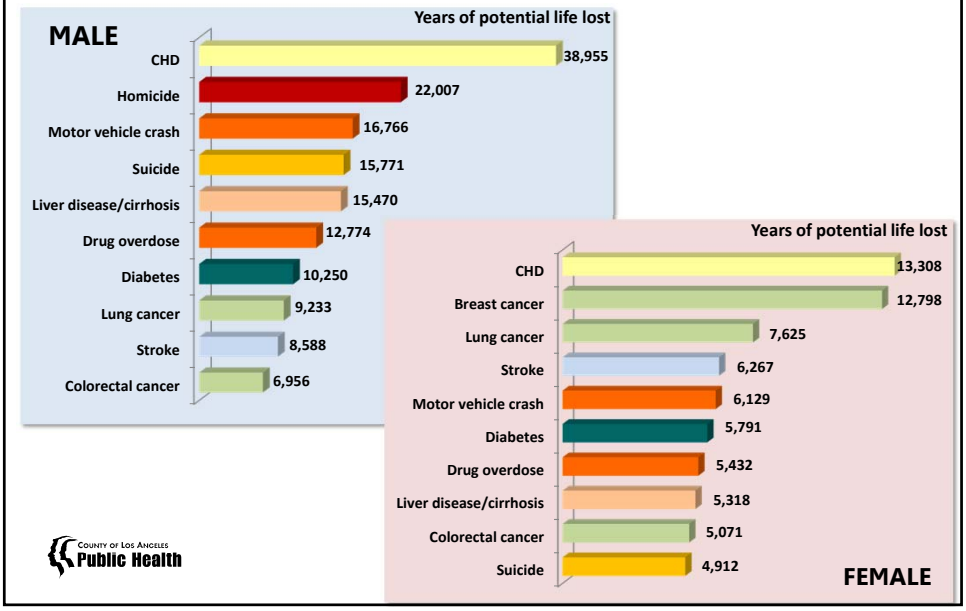
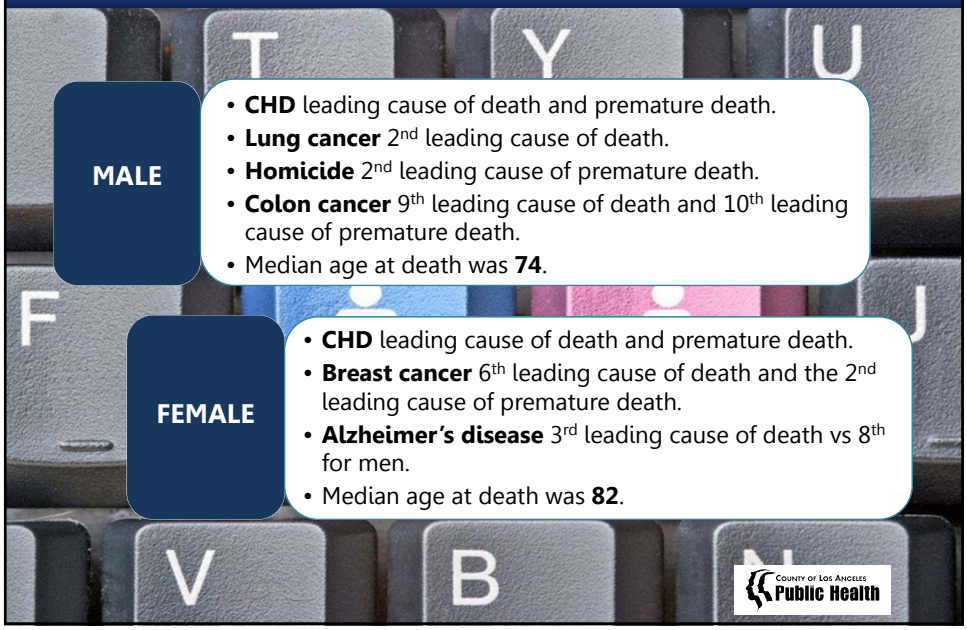
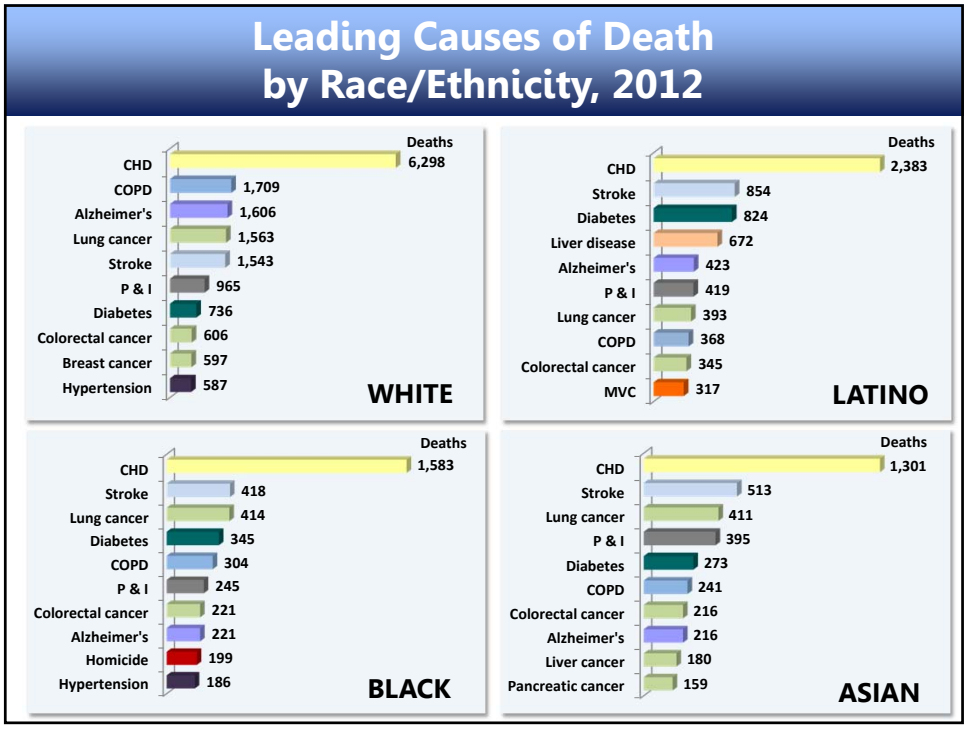
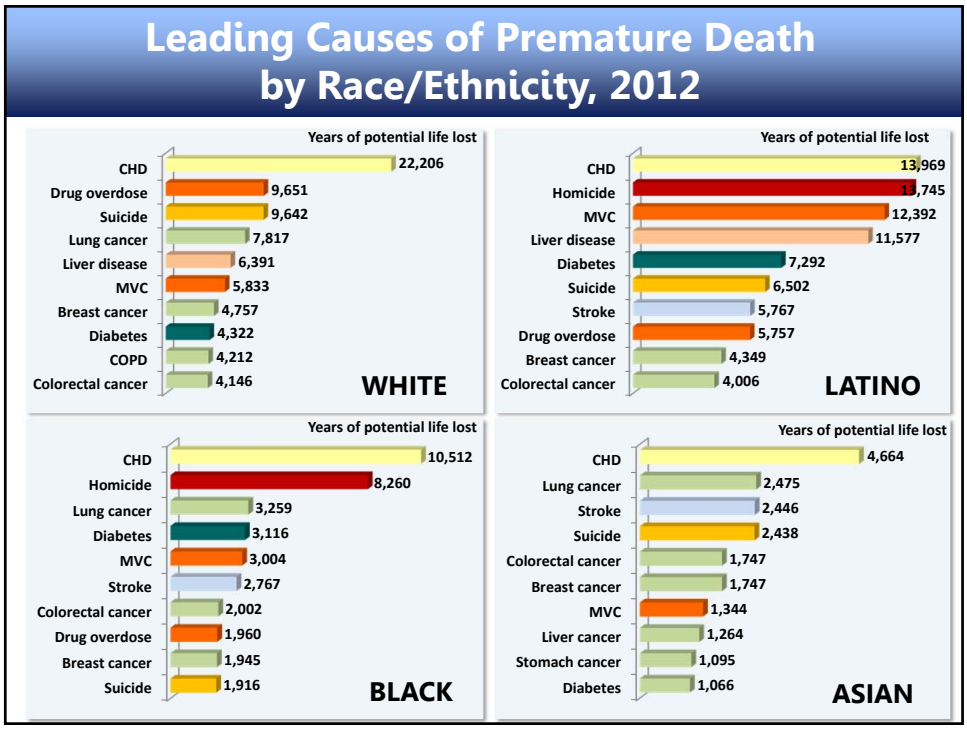
# Leading Causes of Premature Death by Gender, 2012




# Highlights




Leading Causes of Death
by Race/Ethnicity, 2012
Deaths
CHD 6,298
COPD 1,709
Alzheimer's 1,606
Lung cancer 1,563
Stroke 1,543
P & I 965
Diabetes 736
Colorectal cancer 606
Breast cancer 597
Hypertension 587
WHITE
Deaths
CHD 2,383
Stroke 854
Diabetes 824
Liver disease 672
Alzheimer's 423
P & I 419
Lung cancer 393
COPD 368
Colorectal cancer 345
MVC 317
LATINO
Deaths
CHD 1,583
Stroke 418
Lung cancer 414
Diabetes 345
COPD 304
P & I 245
Colorectal cancer 221
Alzheimer's 221
Homicide 199
Hypertension 186
BLACK
Deaths
CHD 1,301
Stroke 513
Lung cancer 411
P & I 395
Diabetes 273
COPD 241
Colorectal cancer 216
Alzheimer's 216
Liver cancer 180
Pancreatic cancer 159
ASIAN


Leading Causes of Premature Death
by Race/Ethnicity, 2012
Years of potential life lost
CHD 22,206
Drug overdose 9,651
Suicide 9,642
Lung cancer 7,817
Liver disease 6,391
MVC 5,833
Breast cancer 4,757
Diabetes 4,322
COPD 4,212
Colorectal cancer 4,146
WHITE
Years of potential life lost
CHD 13,969
Homicide 13,745
MVC 12,392
Liver disease 11,577
Diabetes 7,292
Suicide 6,502
Stroke 5,767
Drug overdose 5,757
Breast cancer 4,349
Colorectal cancer 4,006
LATINO
Years of potential life lost
CHD 10,512
Homicide 8,260
Lung cancer 3,259
Diabetes 3,116
MVC 3,004
Stroke 2,767
Colorectal cancer 2,002
Drug overdose 1,960
Breast cancer 1,945
Suicide 1,916
BLACK
Years of potential life lost
CHD 4,664
Lung cancer 2,475
Stroke 2,446
Suicide 2,438
Colorectal cancer 1,747
Breast cancer 1,747
MVC 1,344
Liver cancer 1,264
Stomach cancer 1,095
Diabetes 1,066
ASIAN

# Highlights

**WHITE**
- **CHD** leading cause of death and premature death.
- **Drug overdose** 2nd leading cause of premature death.
- Whites had more deaths from **CHD** (6,298) than all other races combined (5,267).

**LATINO**
- **CHD** leading cause of death and premature death.
- **Stroke** 2nd leading cause of death.
- **Homicide** 2nd leading cause of premature death

**BLACK**
- **CHD** leading cause of death and premature death.
- **Homicide** 2nd leading cause of premature death and 9th leading cause of death.

**ASIAN**
- **CHD** leading cause of death and premature death.
- **Cancer** of various types is an important cause of premature death.

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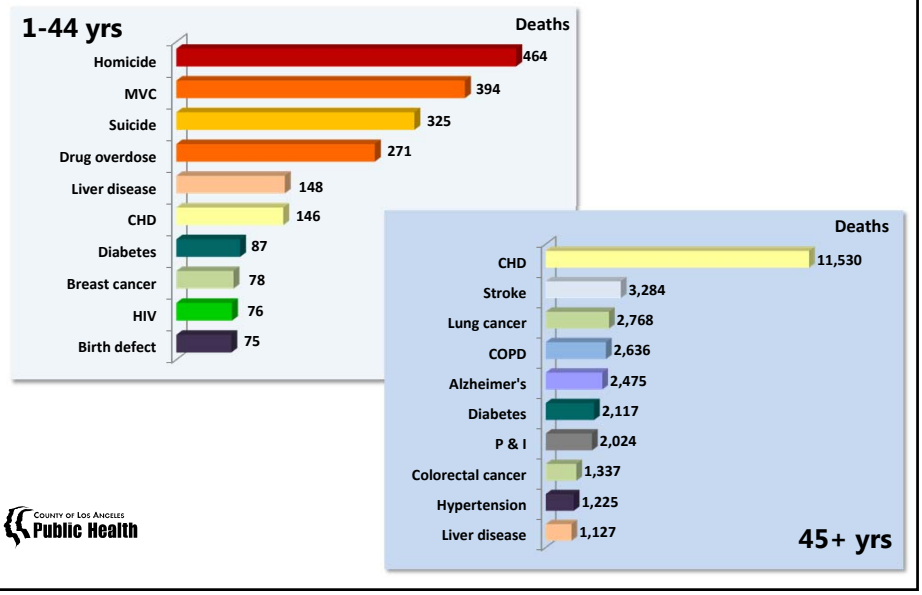
# Leading Causes of Death by Age Group, 2012

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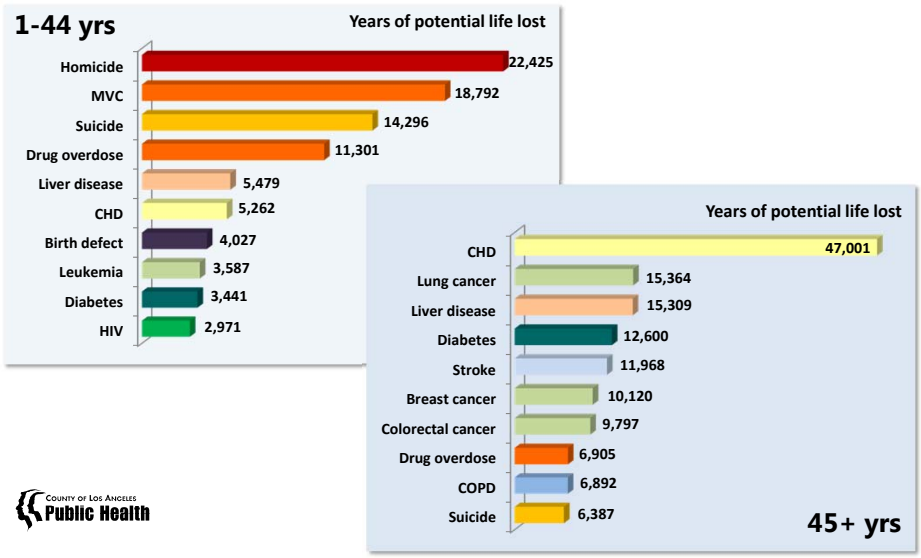
# Leading Causes of Premature Death by Age Group, 2012

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# Highlights

**1-44 YEARS**

- **6%** of all deaths in LA County (3,673 total).
- **Homicide** leading cause of death.
- Injuries comprised the top 4 leading causes of death (**homicide, motor vehicle crash, suicide, overdose**).
- Injuries accounted for 43% of all deaths.
- **CHD** 6th leading cause of death.
- **HIV** 9th leading cause of death.

**45+ YEARS**

- **93%** of all deaths in LA County* (54,256 total).
- **CHD** leading cause of death.
- 66% of all **CHD** deaths were among persons age 75 and older (7,623 deaths).
- One-fourth of all deaths were caused by **cancer**.
- **Alzheimer's disease** 5th leading cause of death.

*The last 1% occurs in <1 year olds.

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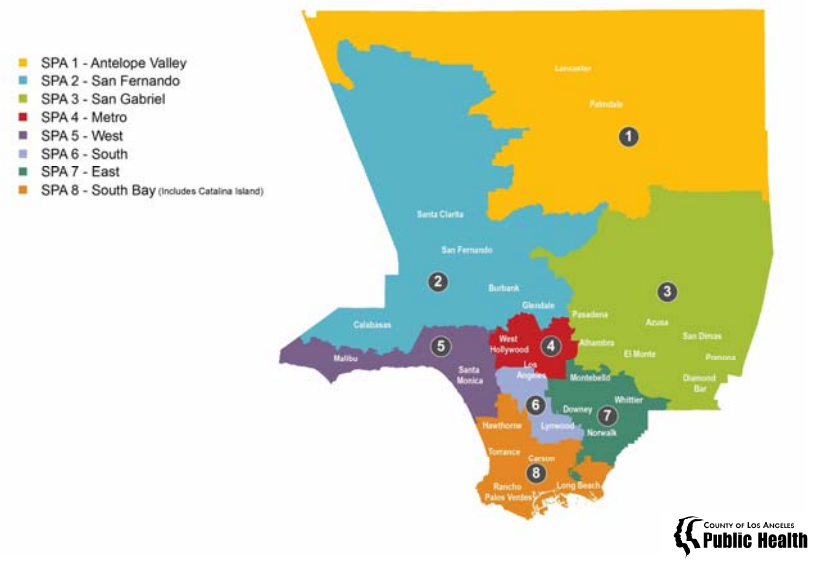
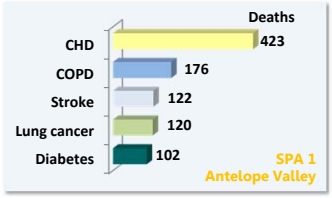
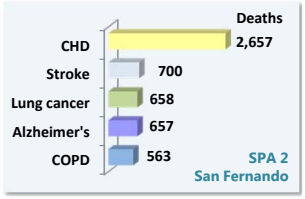
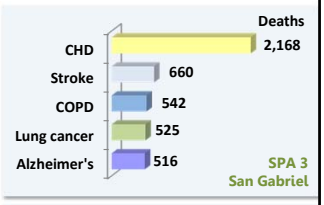
# Service Planning Areas (SPAs)

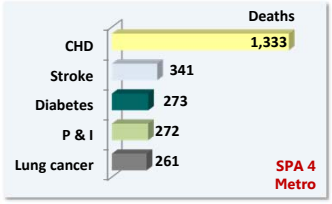


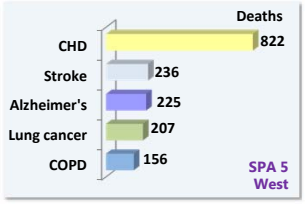

# Leading Causes of Death by SPA of Residence, 2012

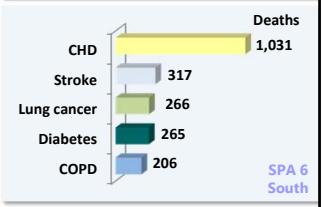


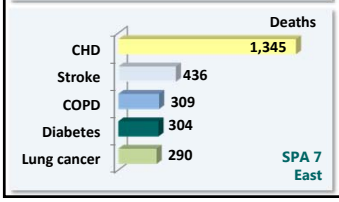



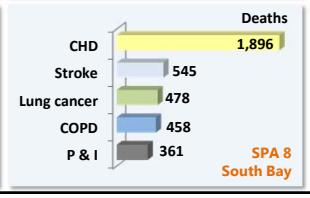



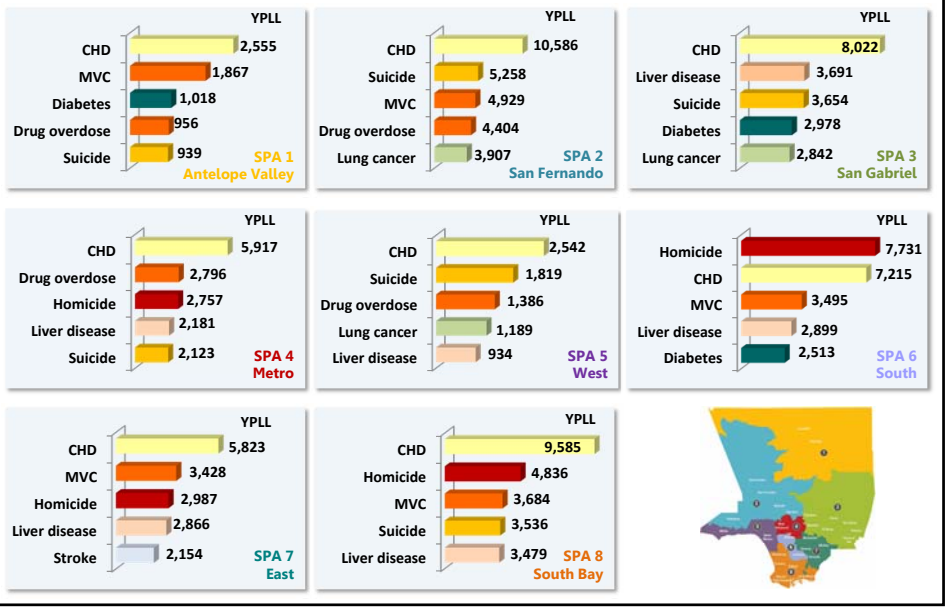



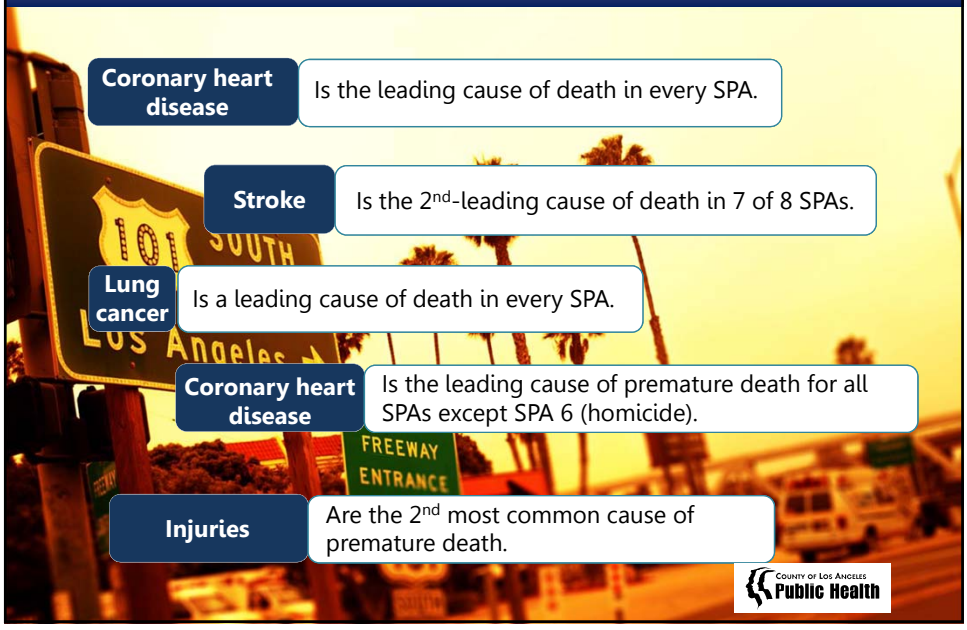



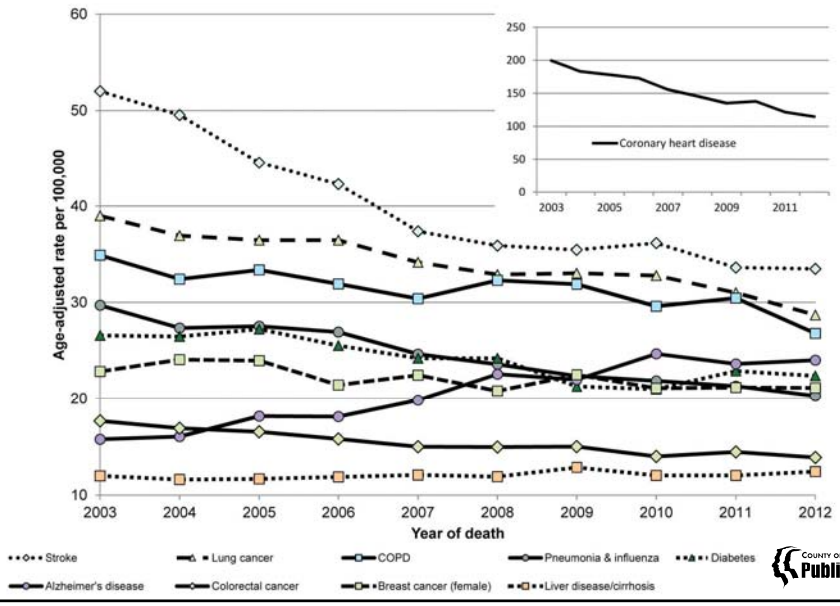
# Leading Causes of Premature Death by SPA of Residence, 2012




# Highlights



## Trends in Death Rates from Leading Causes of Death, 2003-2012

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## Data Highlights 2012

- On an average day in the County, **160 people died.**
- Coronary heart disease has been the leading cause of death every year for the past decade!
- 20% of all deaths in 2012 were caused by coronary heart disease (11,677 deaths).

Source: www.shutterstock.com

Source: www.shutterstock.com

- The four leading causes of death have remained unchanged during the last 10 years: **coronary heart disease, stroke, lung cancer,** and **COPD.**

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## Data Highlights 2012

- Of all cancer deaths, lung cancer was the most common (2,809 deaths), followed by colon cancer (1,397 deaths) and breast cancer (1,176 deaths).
- The median age at death for men was **74 years** compared to **82 years** for women.

Source: www.shutterstock.com

- Since 2003, the number of deaths from Alzheimer's disease has nearly doubled from 1,285 in 2003 to 2,476 in 2012.
- Overall, 57% of all deaths occurred in persons 75 years of age and older.

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## L.A. HealthDataNow!

Online query system to obtain mortality statistics by cause of death, demographic group and geographic area.

**https://dqs.publichealth.lacounty.gov/**

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Thank you!
Need more information?
Office of Health Assessment and Epidemiology
213.240.7785
Visit: publichealth.lacounty.gov