

HCIFS Annual Report 2009



An Analysis of the Harris County Institute of Forensic Sciences Pathology Services Caseload



HCIFS Case Summary, 2009



- Harris County Population Estimate 2009
 - 4,003,115

- Harris County DC's Filed 2009:
 - 43,586 (provisional data)

- Total Deaths Reported to HCIFS in 2009:
 - 11,133 (approx. 26% of deaths occurring in HC)
 - Of these reported deaths:
 - ✦ 4,153 became medicolegal cases
 - Autopsies: 3,383*
 - External Exams: 770

HCIFS Case Summary, 2009



- Inquest Only Cases (IO)
 - 6,980
- Out of County Cases (OC)
 - 29, all autopsies
- ML Cases: 4,153
 - 62% are Accidents, Homicides, or Suicides
 - 97 cases are associated with a companion case
- All ML Cases (4,153) were transported to the HCIFS



HCIFS Case Summary, 2009



- Decedents unidentified on arrival: 159
 - Decedents remaining unidentified: 6
- 205 Referrals to Harris County Bereavement Services
- 1,434 Cremation requests in 2009
 - 2008 = 1,477
 - 2007 = 1,471
- No exhumations were performed
- No hospital autopsies were retained

HCIFS Case Summary, 2009

Forensic Anthropology Cases



- Provided 53 autopsy consultations (no report)
- Completed 158 bone/cartilage trauma reports
- Received 11 skeletons for analysis
- Attended 32 death scenes for skeletal recovery
- Examined 23 cases of remains determined to be either non-human or non-forensic



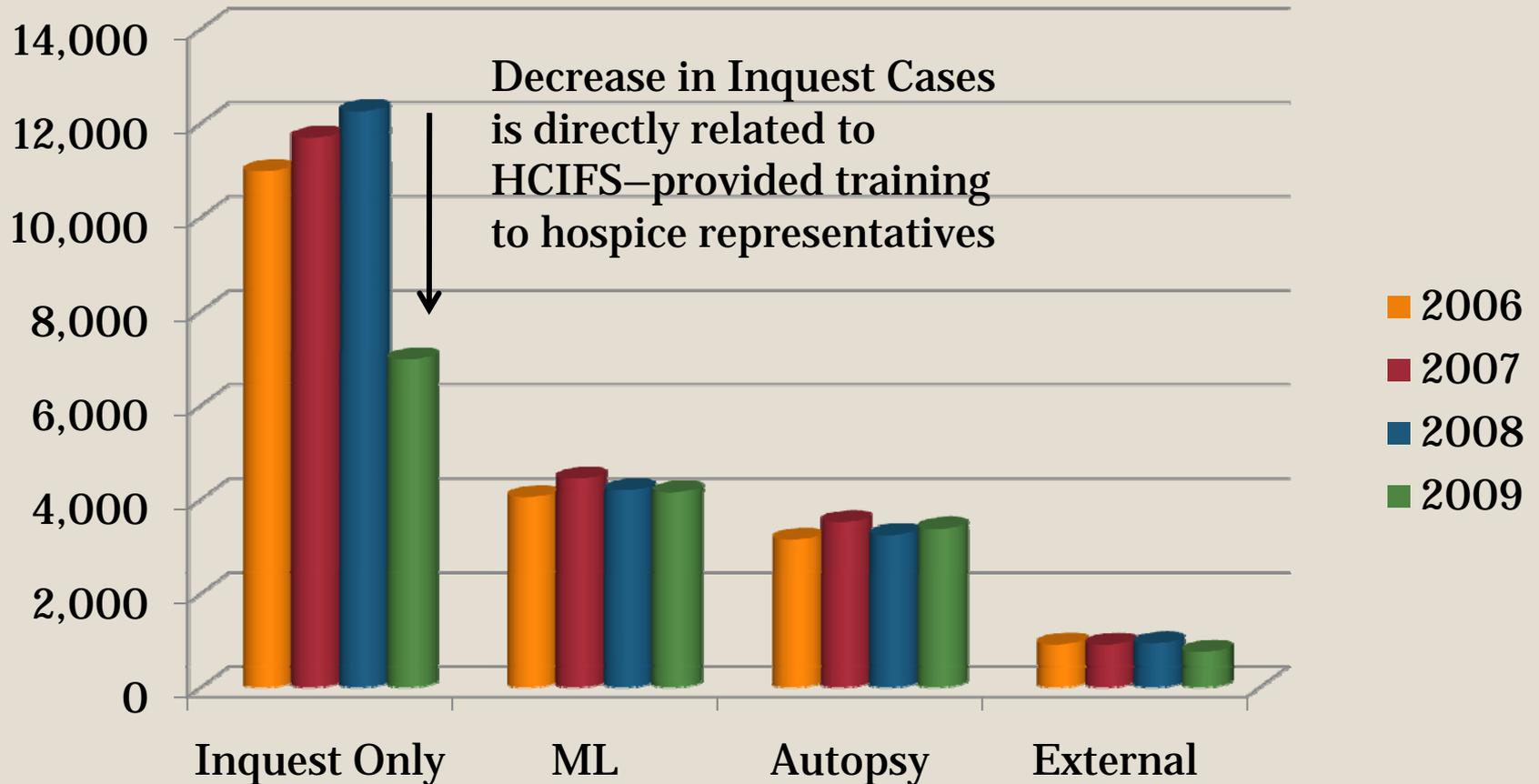
Organ and Tissue Procurement



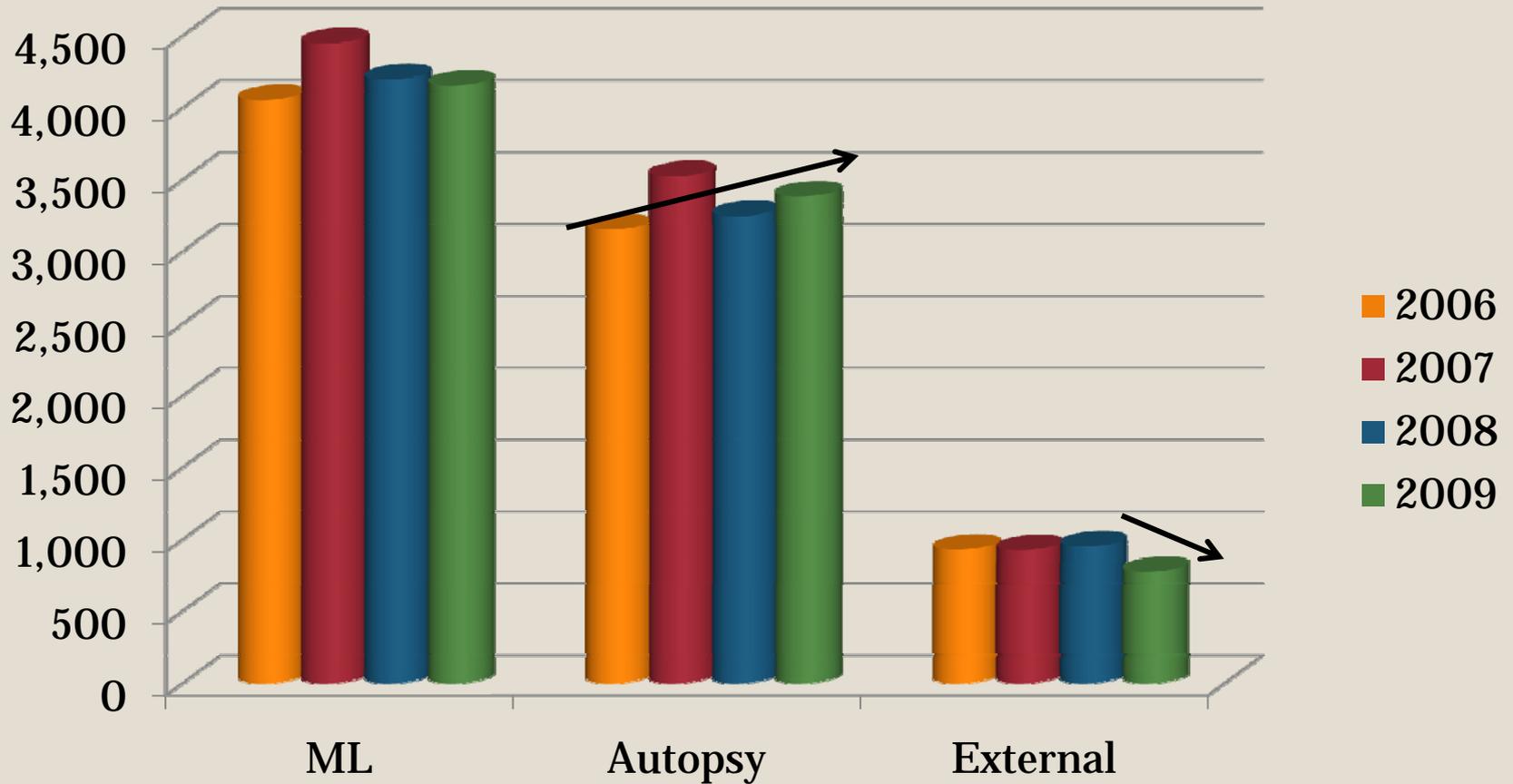
- **603** single and paired organs requested from January 1, 2009 to December 31, 2009
- **560** single and paired organs were released for recovery
- Annual organ release rate of **93%**

- **924** single tissue and paired cornea requests were received
- **598** single tissue and paired corneas were released for recovery *pre-autopsy*
- Annual *pre-autopsy* rate of **65%**
 - However, many tissue requests are accepted for post-autopsy recovery bringing the release rate to near **90%**

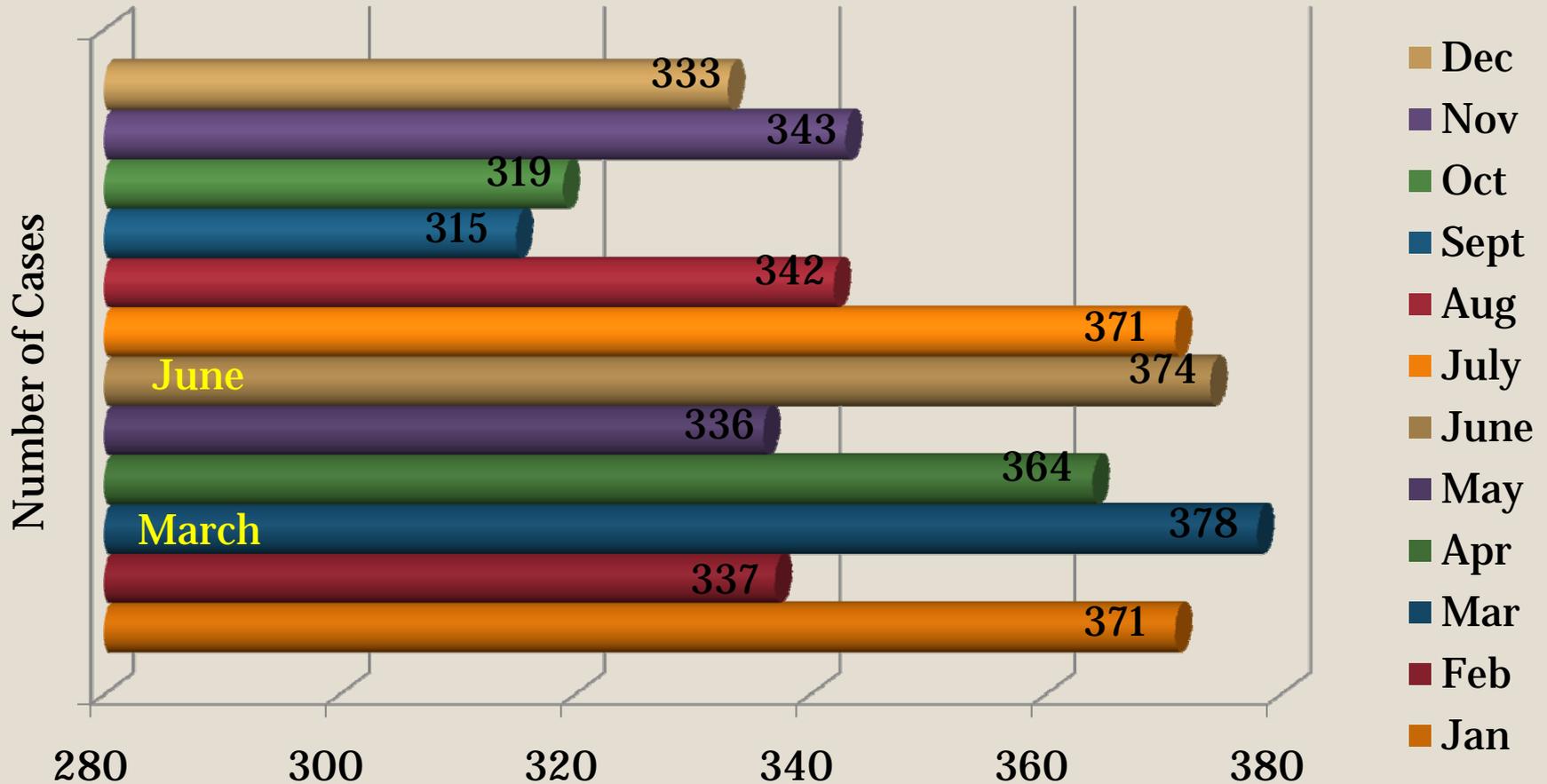
HCIFS Caseload: 2006-2009



HCIFS Caseload: 2006-2009



Monthly ML Case Counts 2009



Average Daily ML Case Load

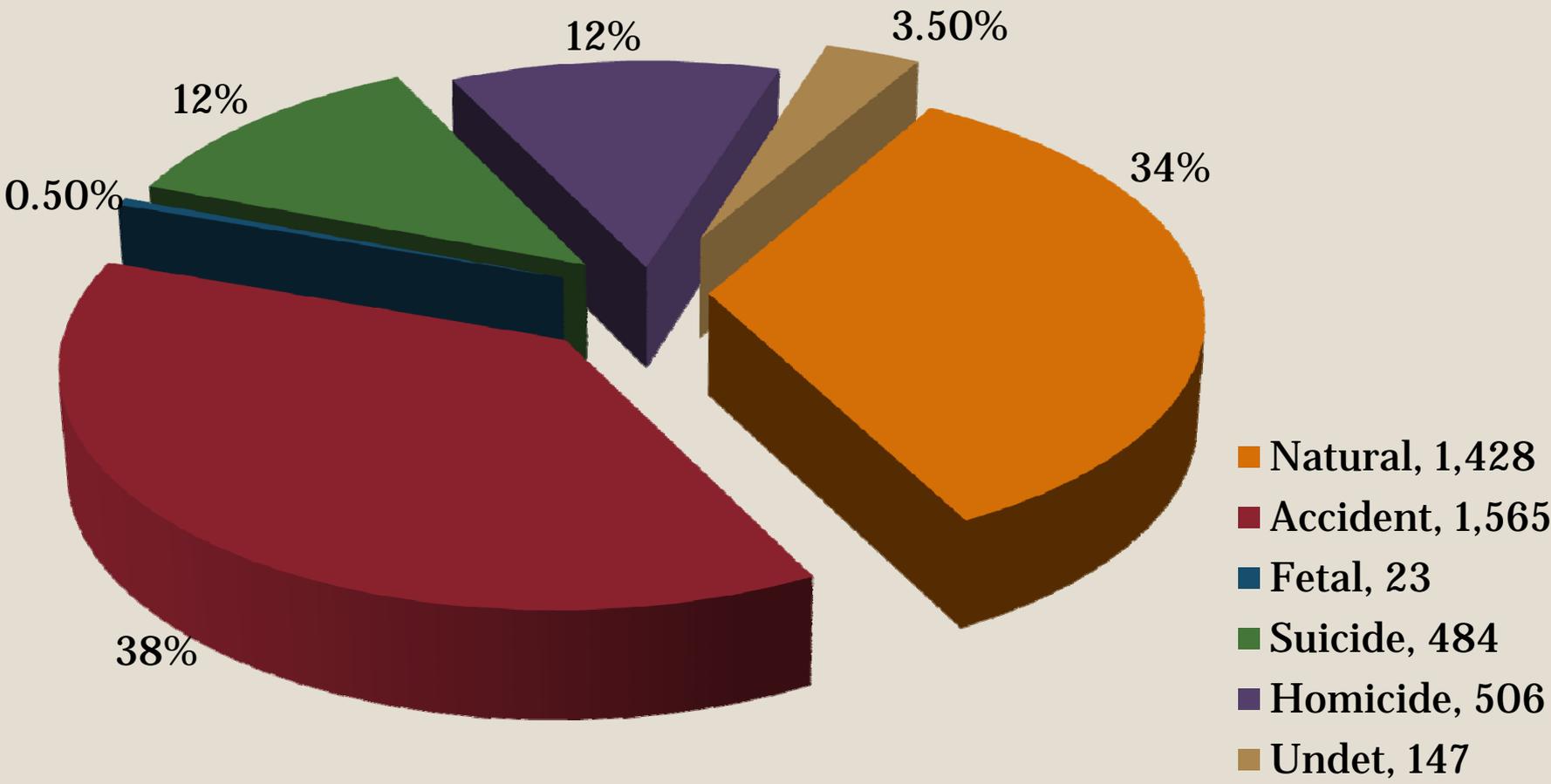


- Average daily case load:
 - 2009: 11.4 cases
 - 2008: 11.5 cases
 - 2007: 12.1 cases

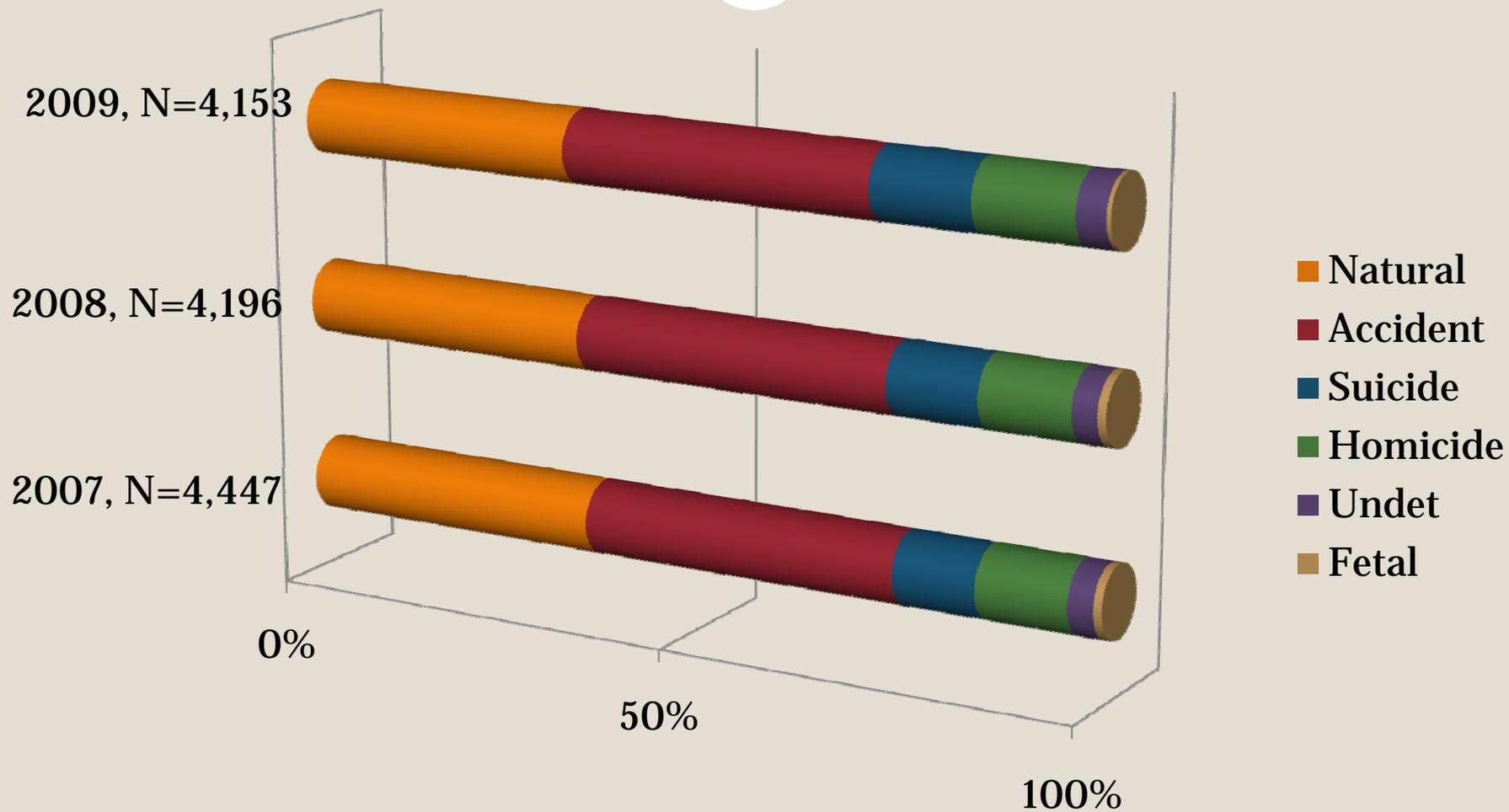


- Months with highest average daily case load:
 - 2009 – June (12.5), March (12.2)
 - ✦ 2008 – February, January
 - ✦ 2007 – December, August

Manner of Death Composition



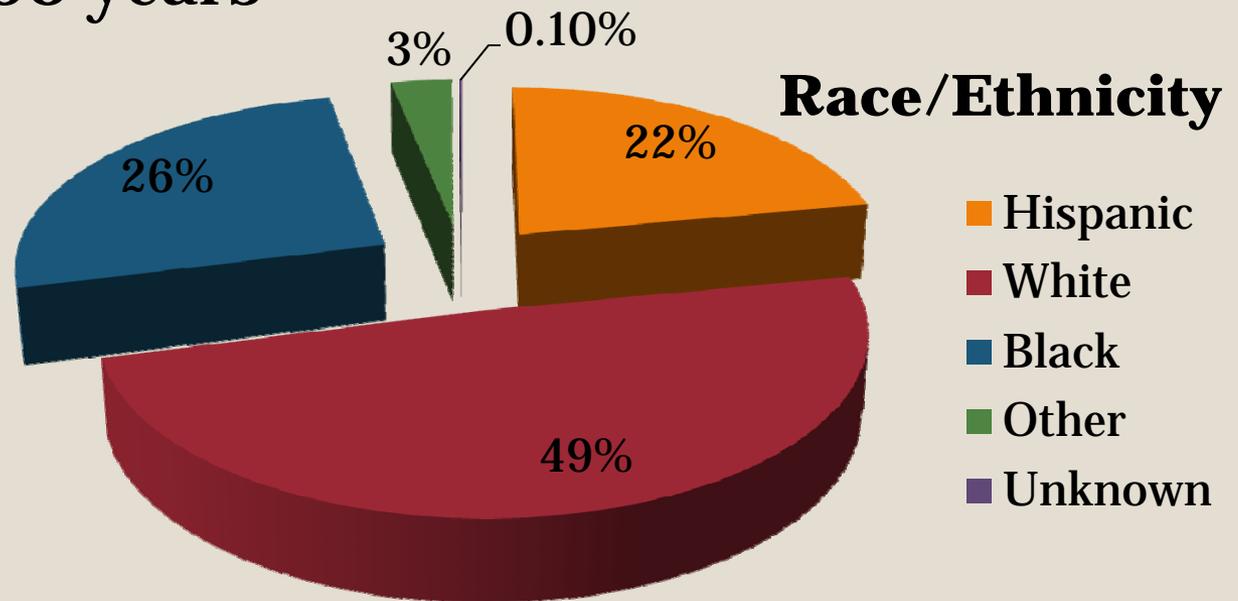
Manner of Death 2007-2009



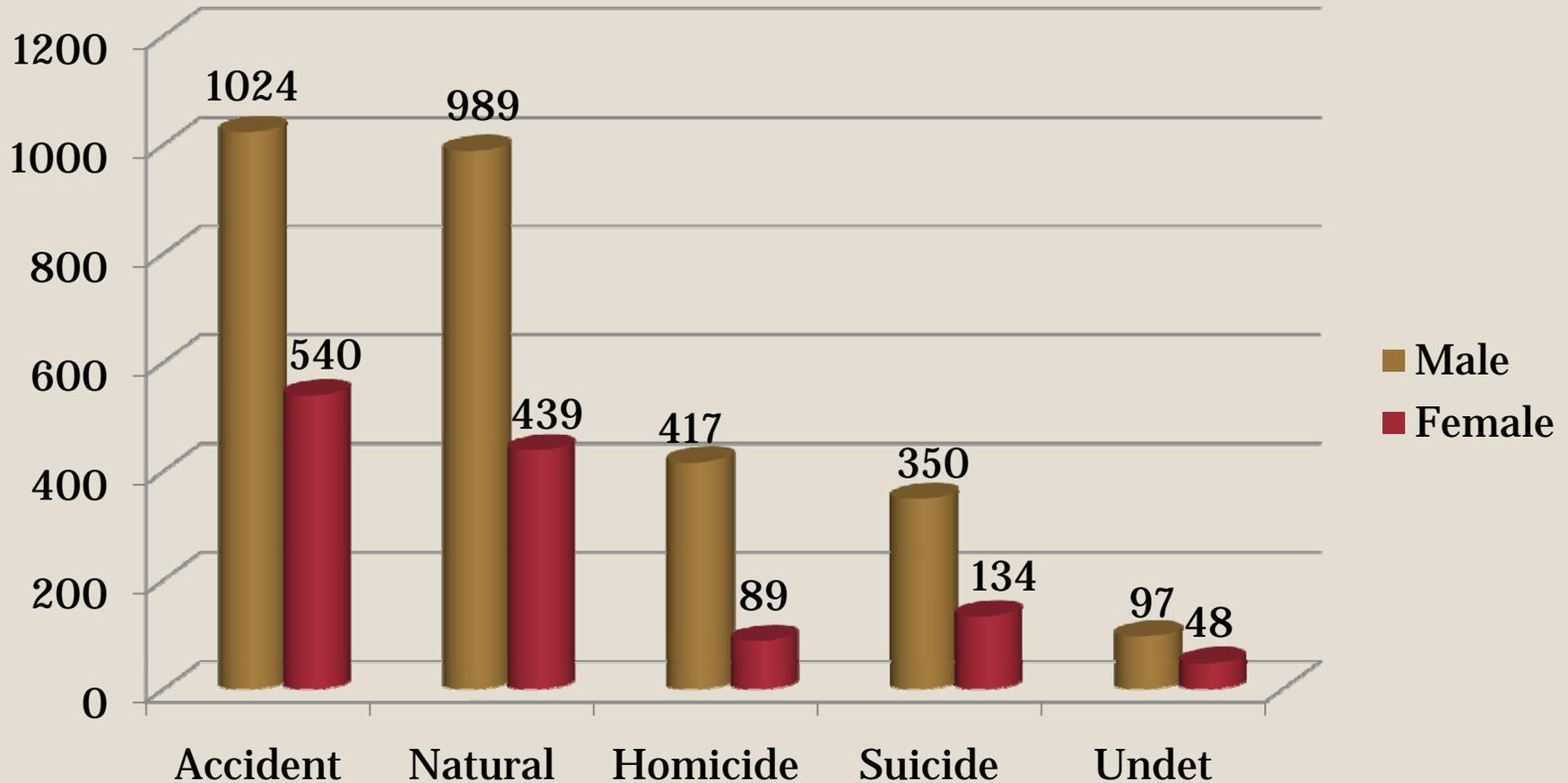
Demographic Components of ML Cases



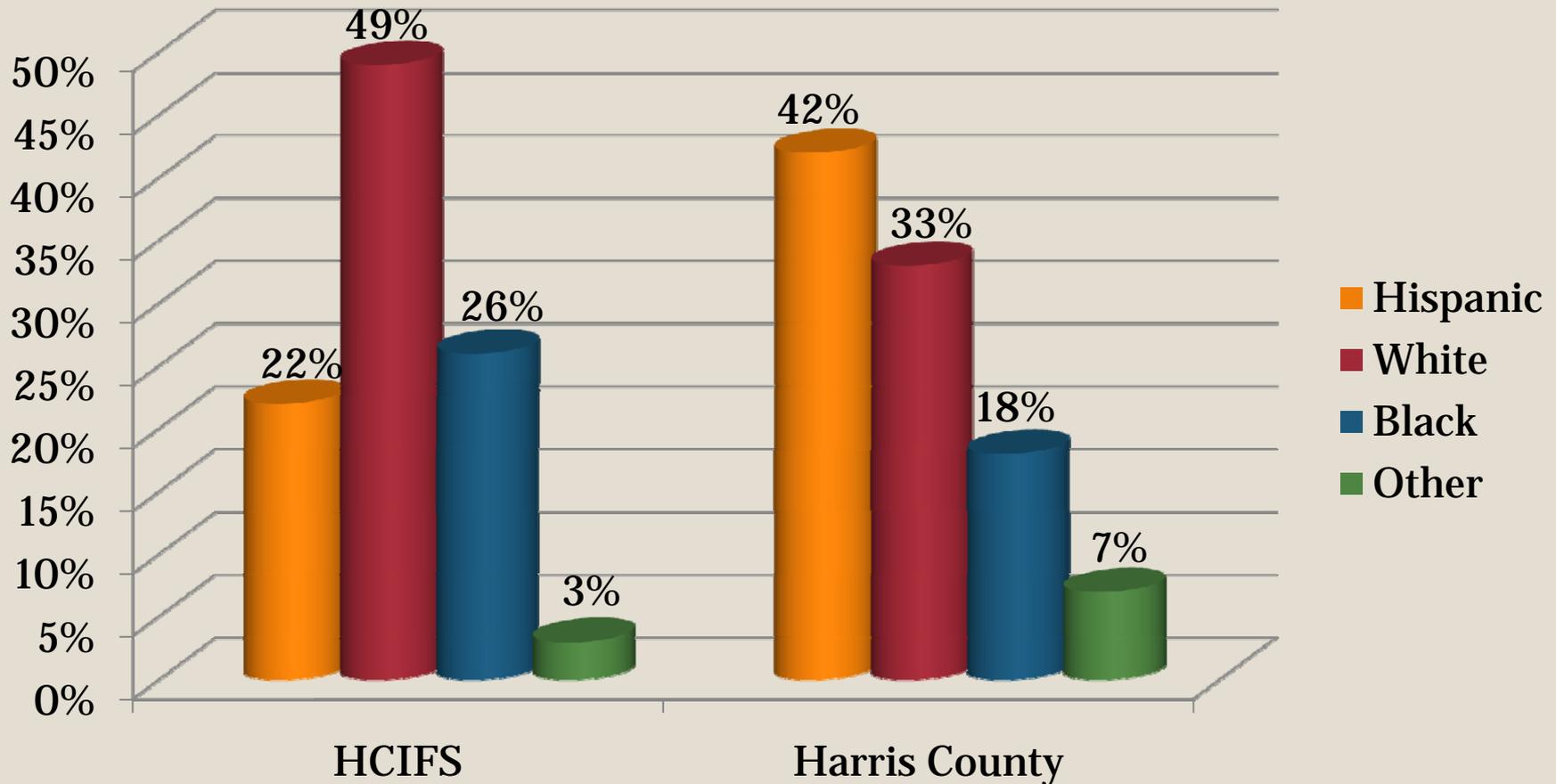
- Male to Female ratio is 2.3 to 1
- Age range (excluding fetal manner)
 - 4 days to 103 years



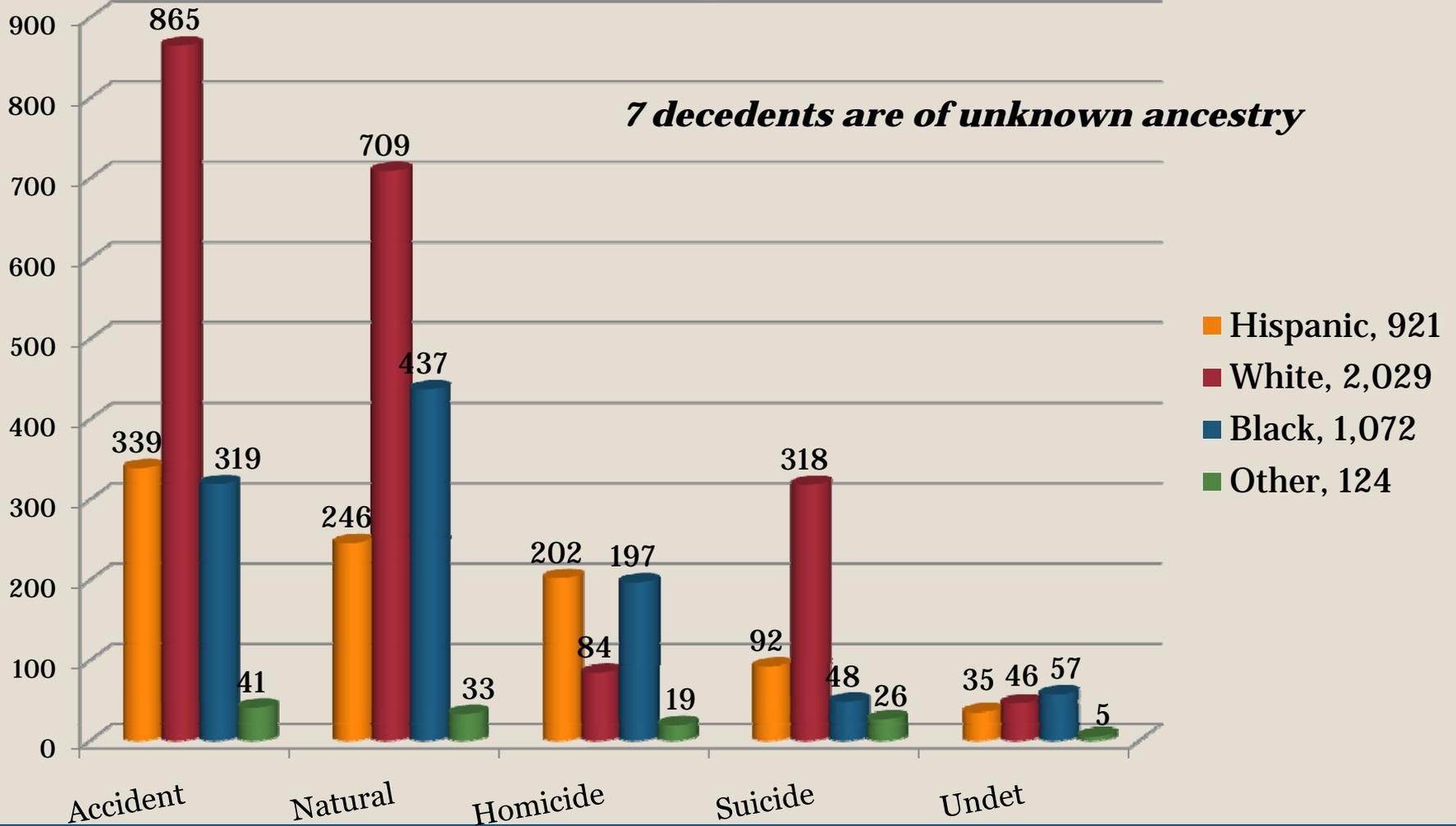
Manner Stratified by Sex



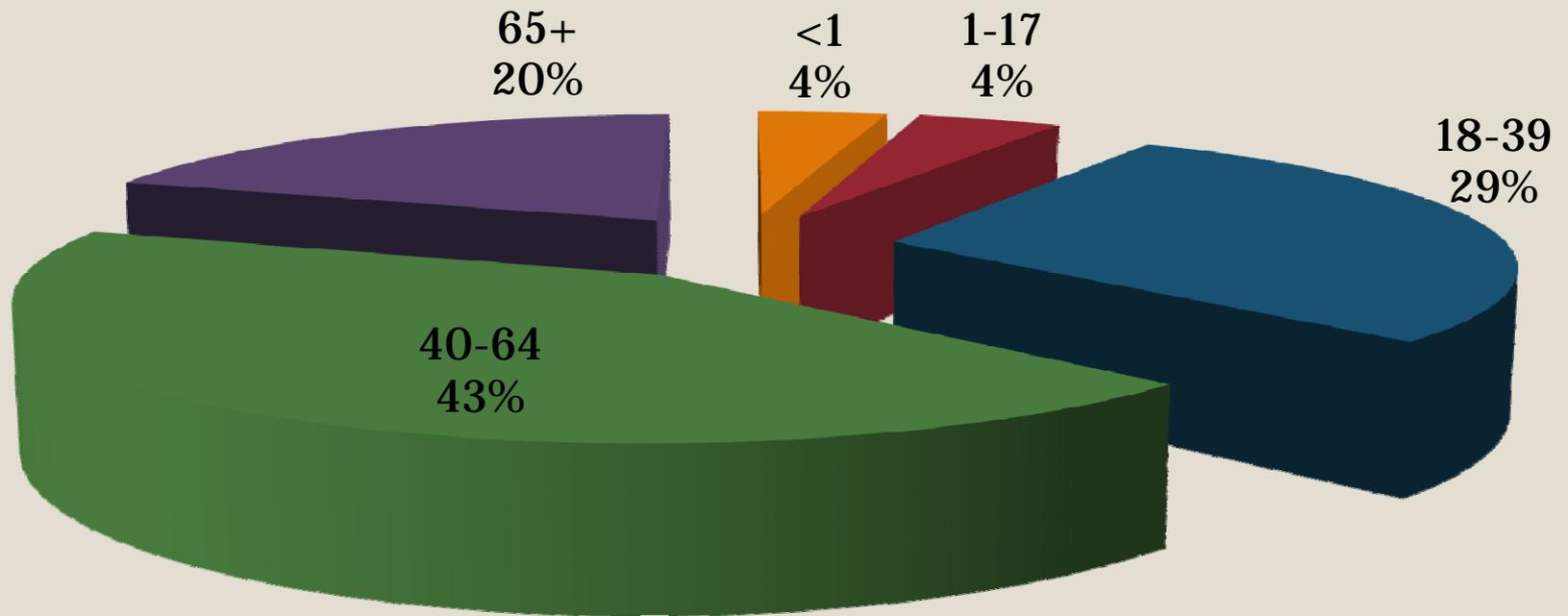
Race/Ethnicity Breakdown Compared to Harris County Population



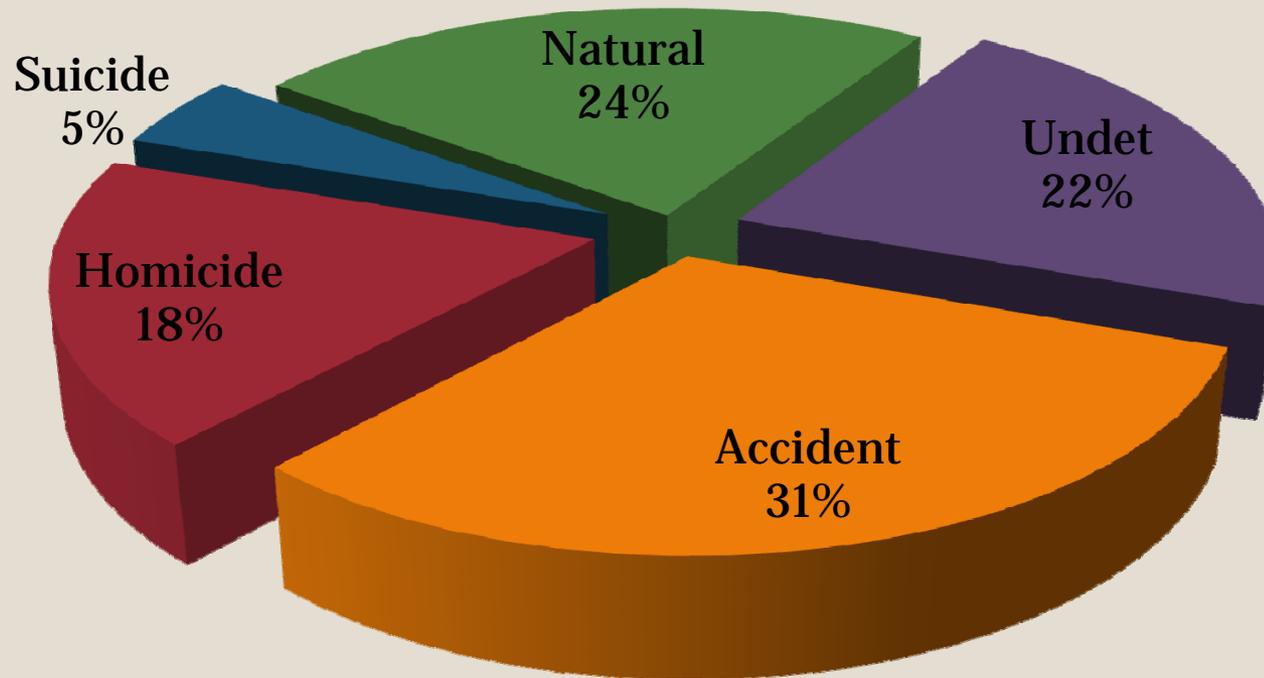
Breakdown of ML Cases by Manner and Ancestry



Age Categories Represented by Proportion



Manner in Children 0-17 Years

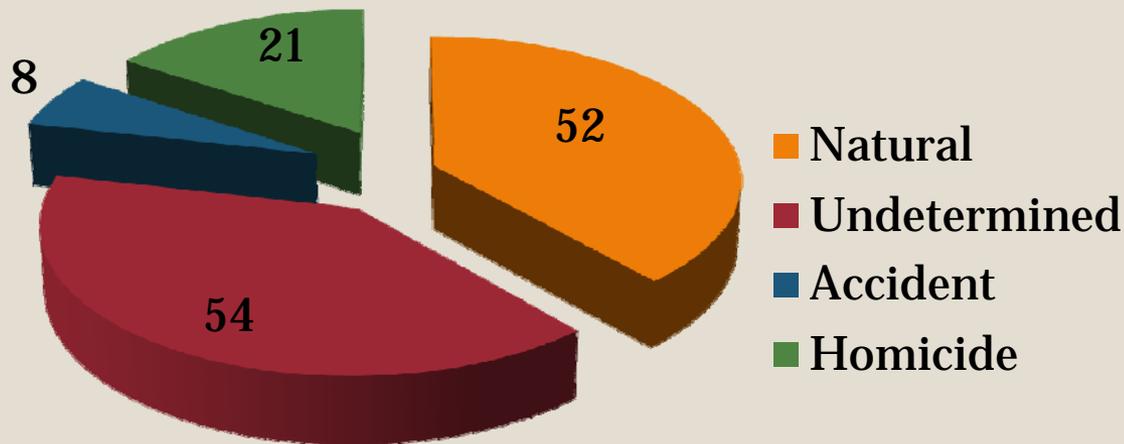


Infant Deaths



- 135 infant death cases (less than 1 year of age)
 - Approx. 0.096% of Harris County live births in 2009 (N=140,632)
- 54 cases of Undetermined Manner/35 were co-sleeping
- 34 SIDS cases

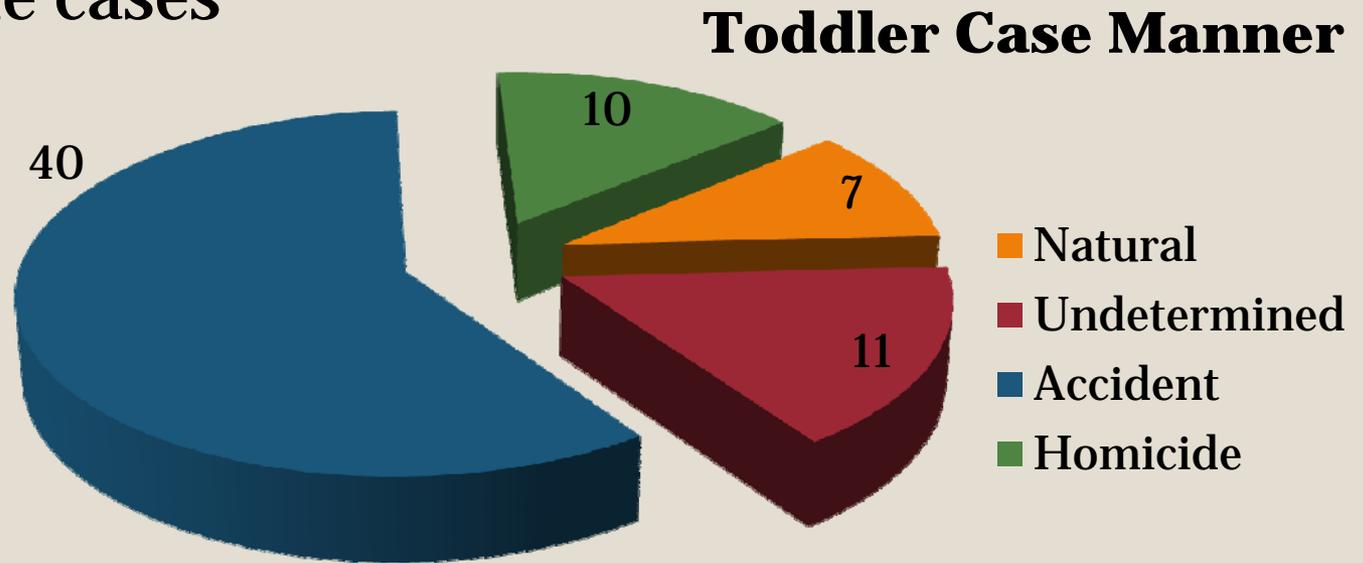
Infant Case Manner



Toddler Deaths (1-4 Years)



- 68 toddler death cases
- 20 toddlers were killed in MVC
- 17 toddlers drowned in Accidents
- 10 Homicide cases
 - 3 Females
 - 7 Males



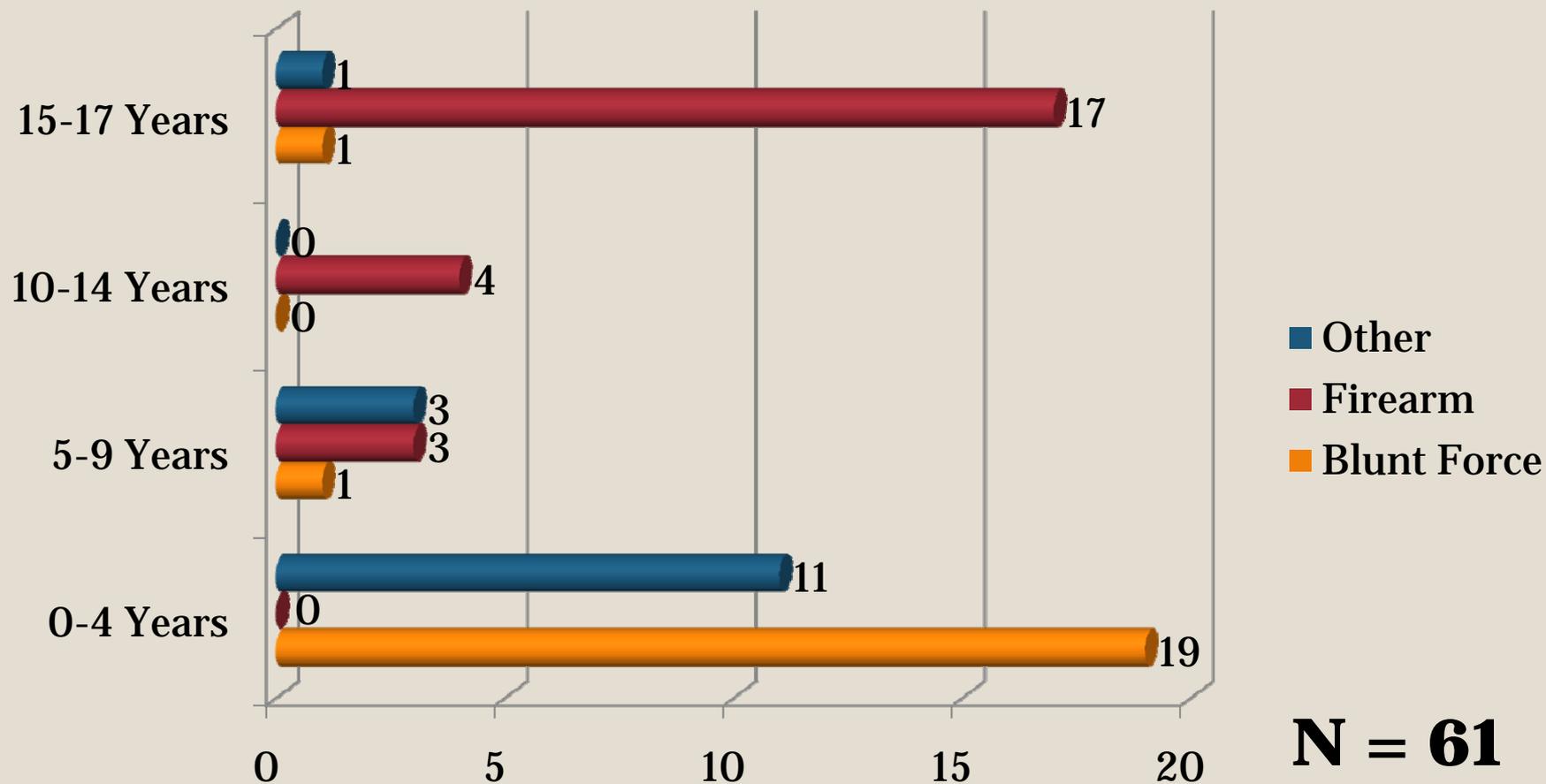
Top Four Injury Deaths of Children 0-17



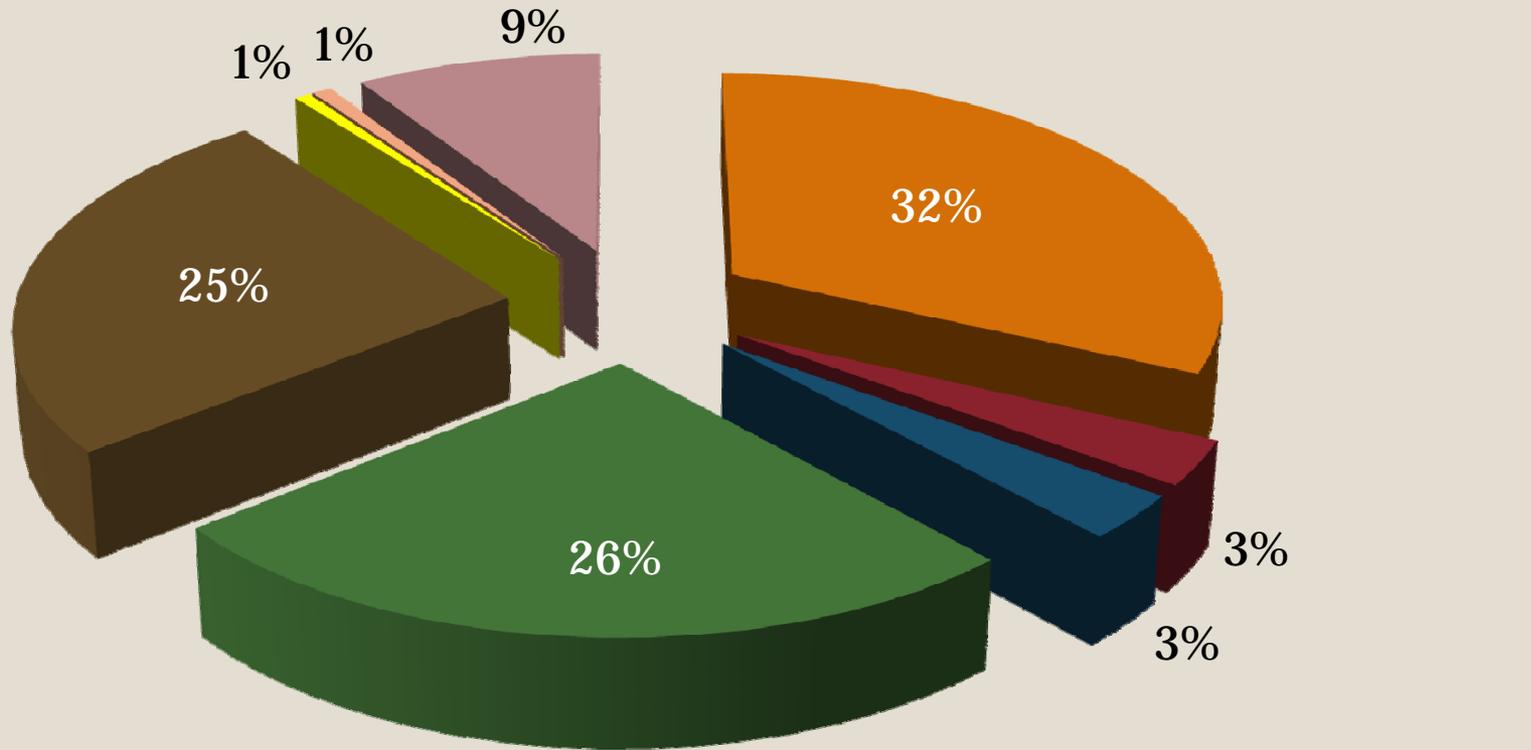
1. Motor vehicle crashes (63)
2. Drowning (29)
3. Firearm wounds (27)
4. Asphyxia/choking/
suffocation/hanging (22)



Homicide Deaths of Children 0-17



Accidental Death



■ MVC

■ Toxicity

■ Electrocution

■ Drowning

■ Blunt Force/no MVC)

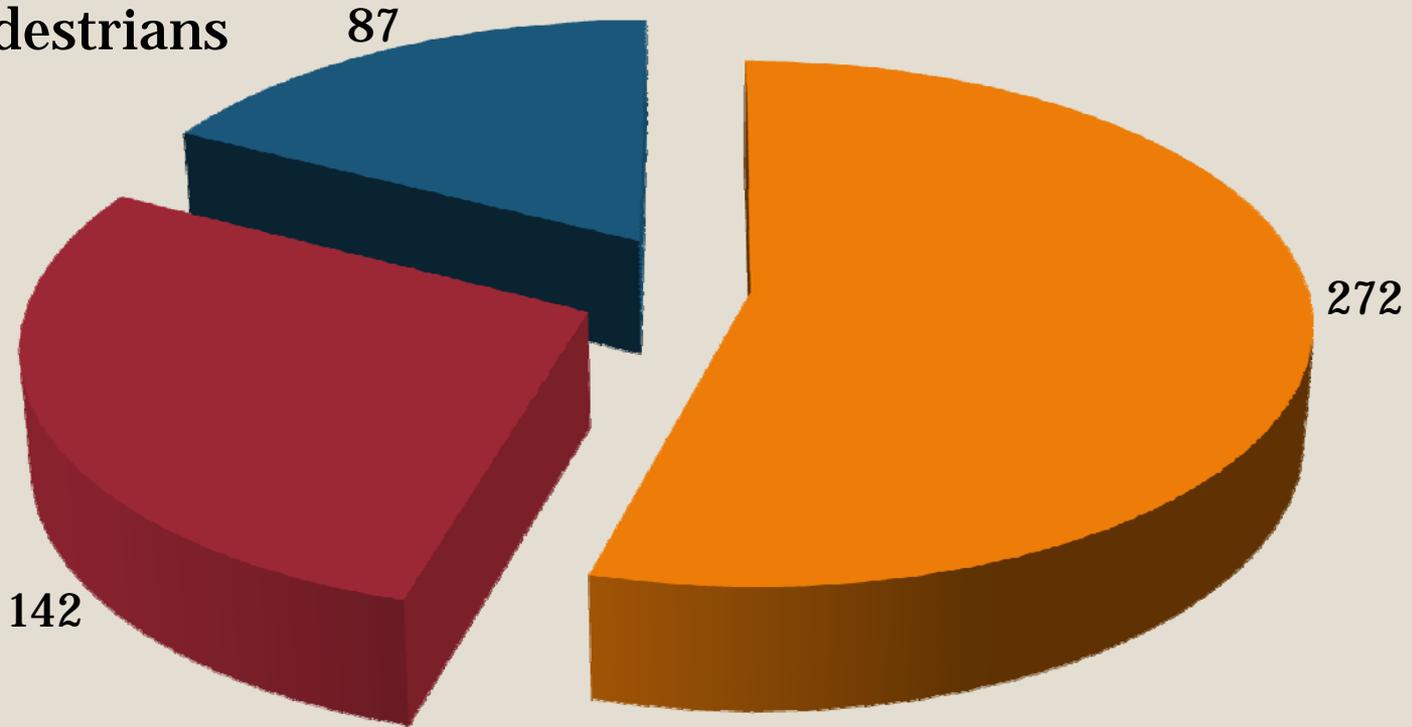
■ Other

■ Thermal/Smoke Inhal.

■ Hyperthermia

Motor Vehicle Crash Deaths

- 17 children 1-9 years were pedestrians

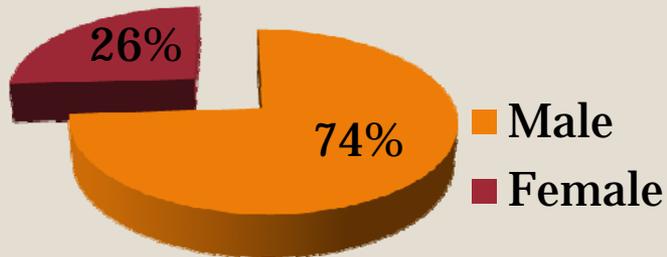


■ Driver ■ Passenger or Unknown Position ■ Pedestrian

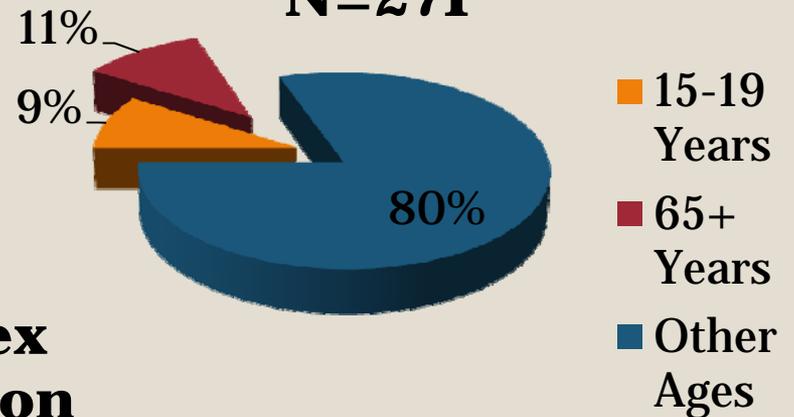
Driver Distribution



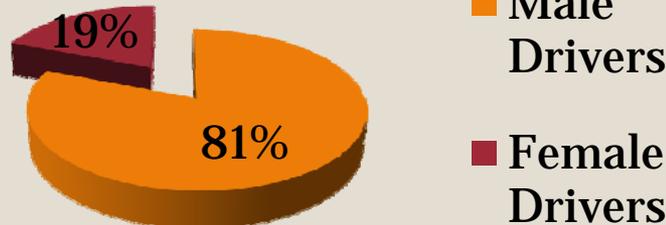
Sex Distribution
All MVC, N=501



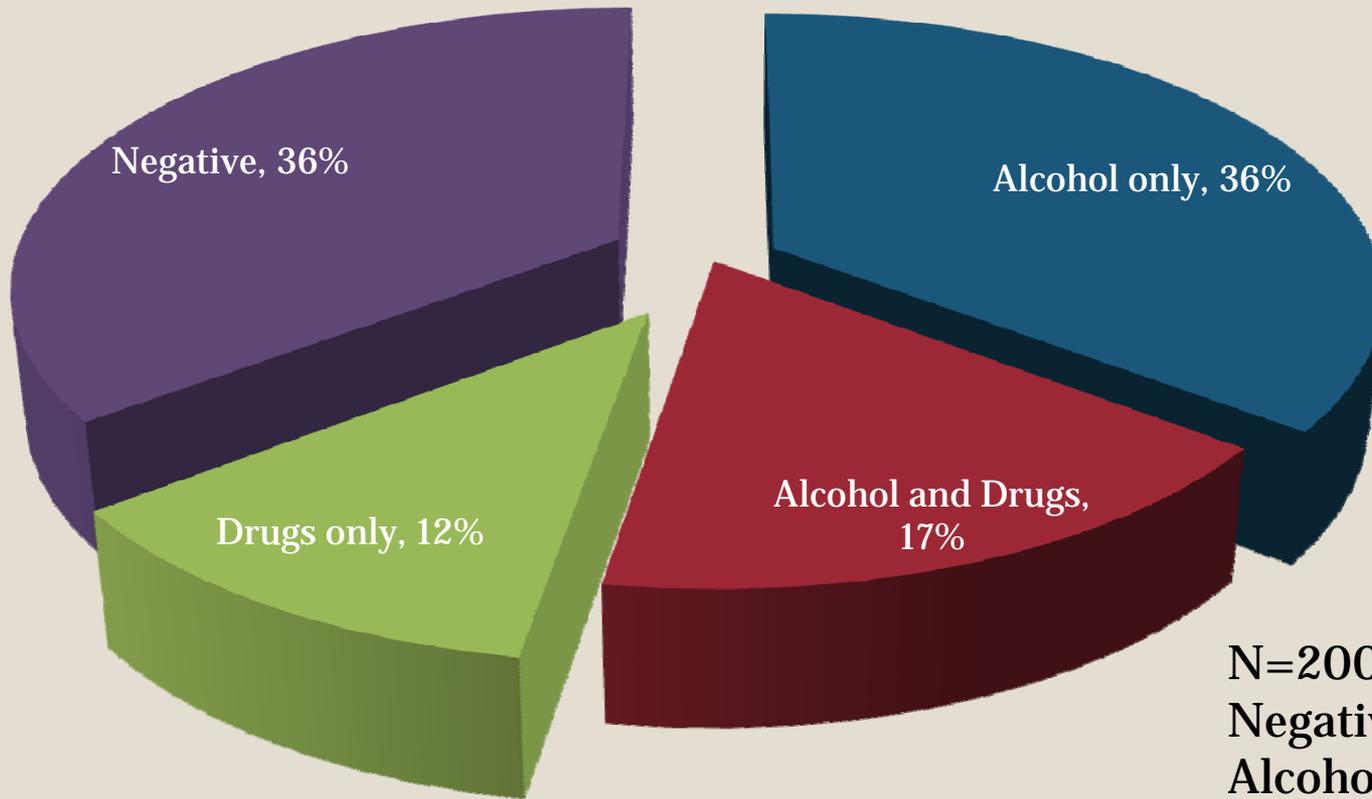
Proportion of Drivers who were teens or seniors,
N=271



Driver Sex Distribution
N=271

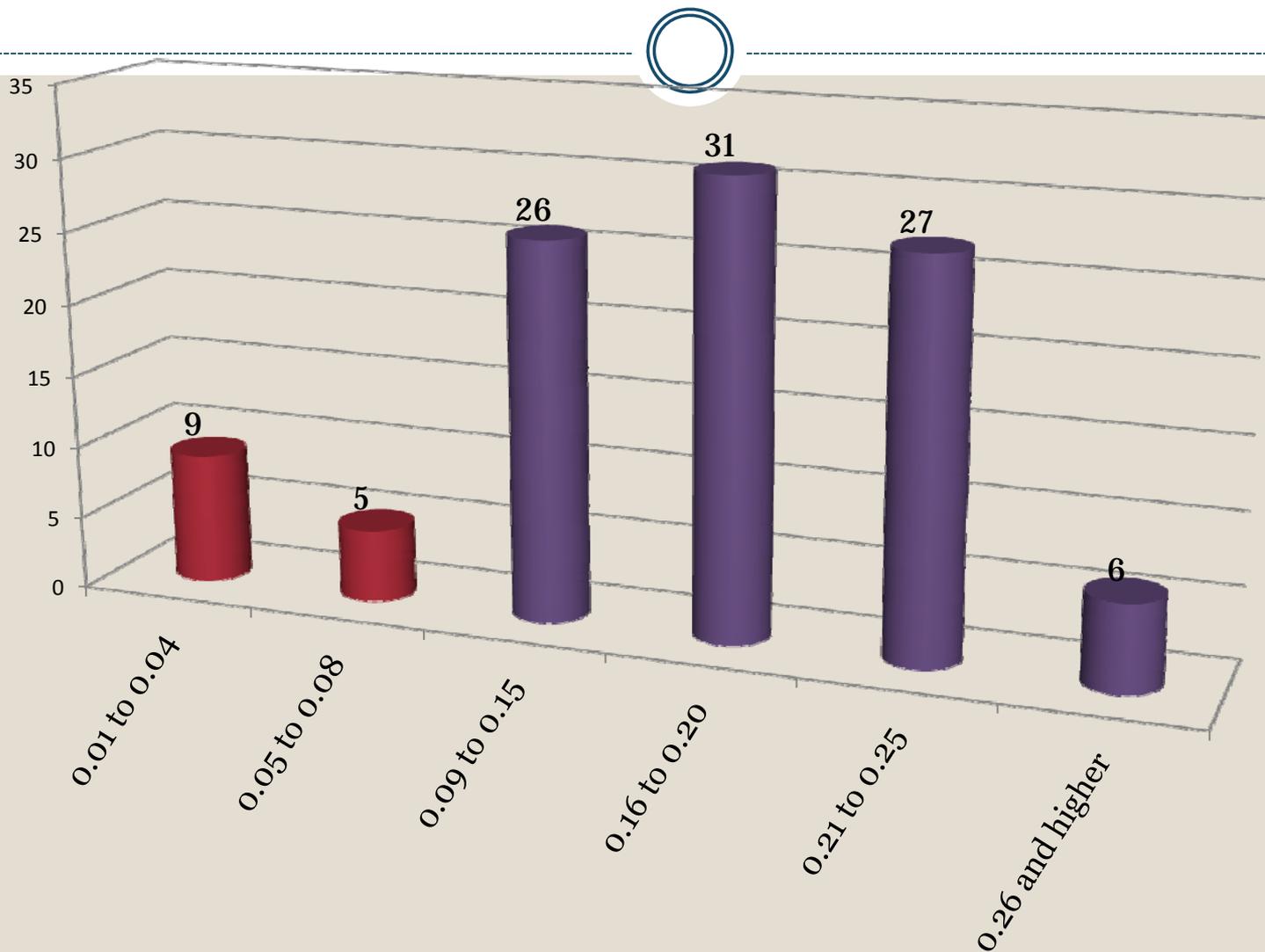


Drugs and Alcohol in Drivers

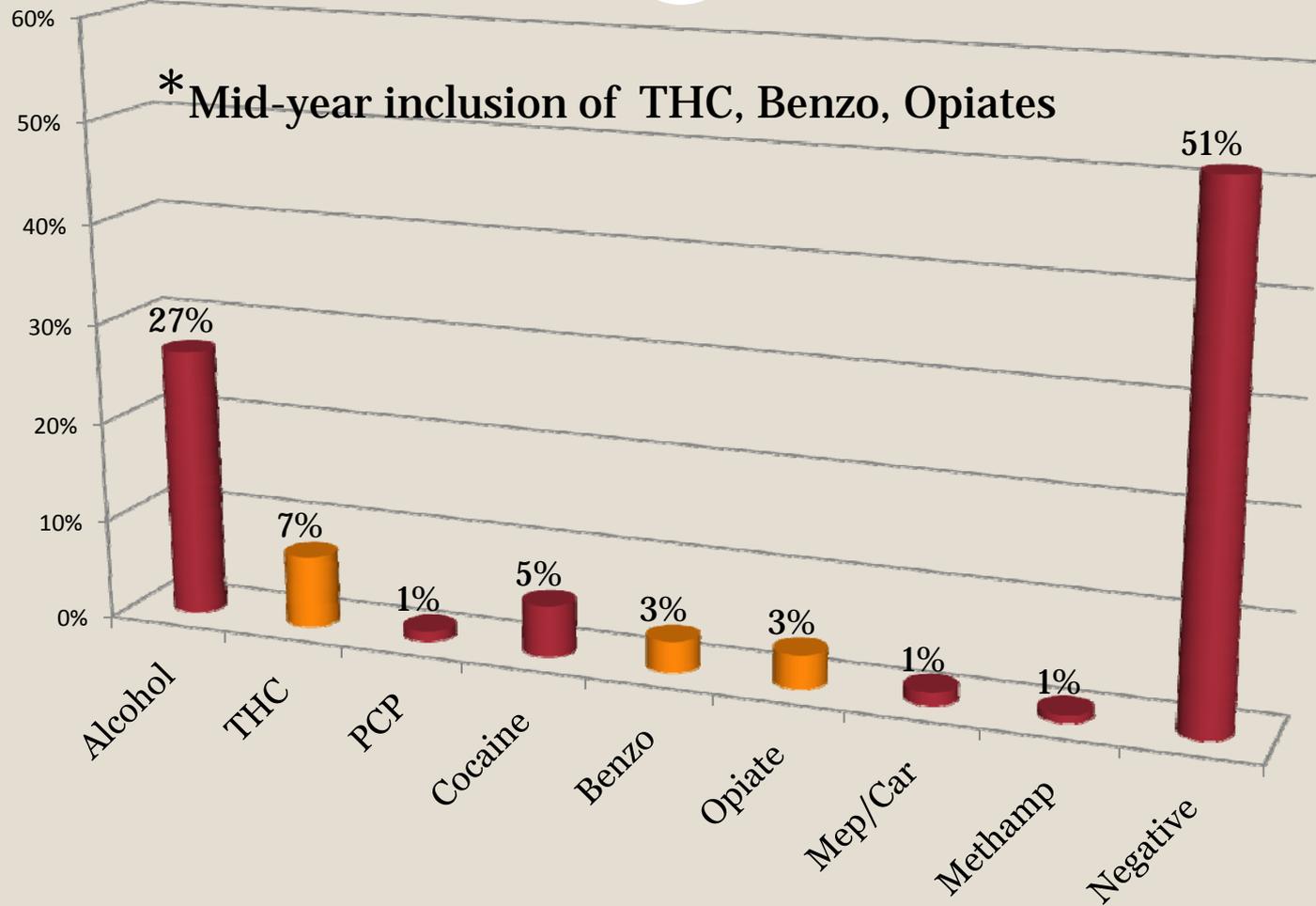


N=200 Tested Drivers
Negative: 71
Alcohol Only: 71
Alcohol and Drugs: 34
Drugs Only: 24

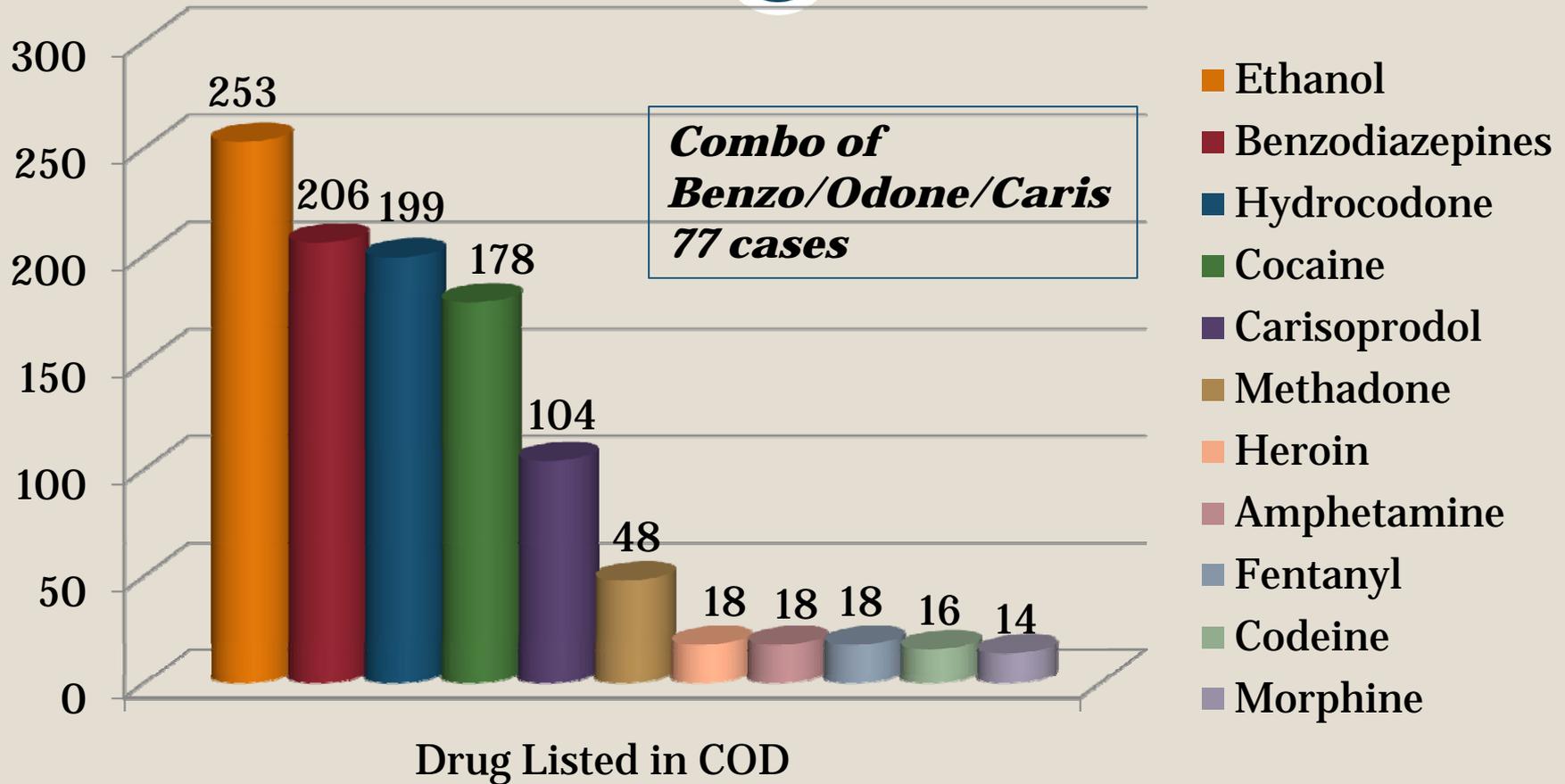
Driver Blood Alcohol Content



Occurrence of Intoxicants in Drivers



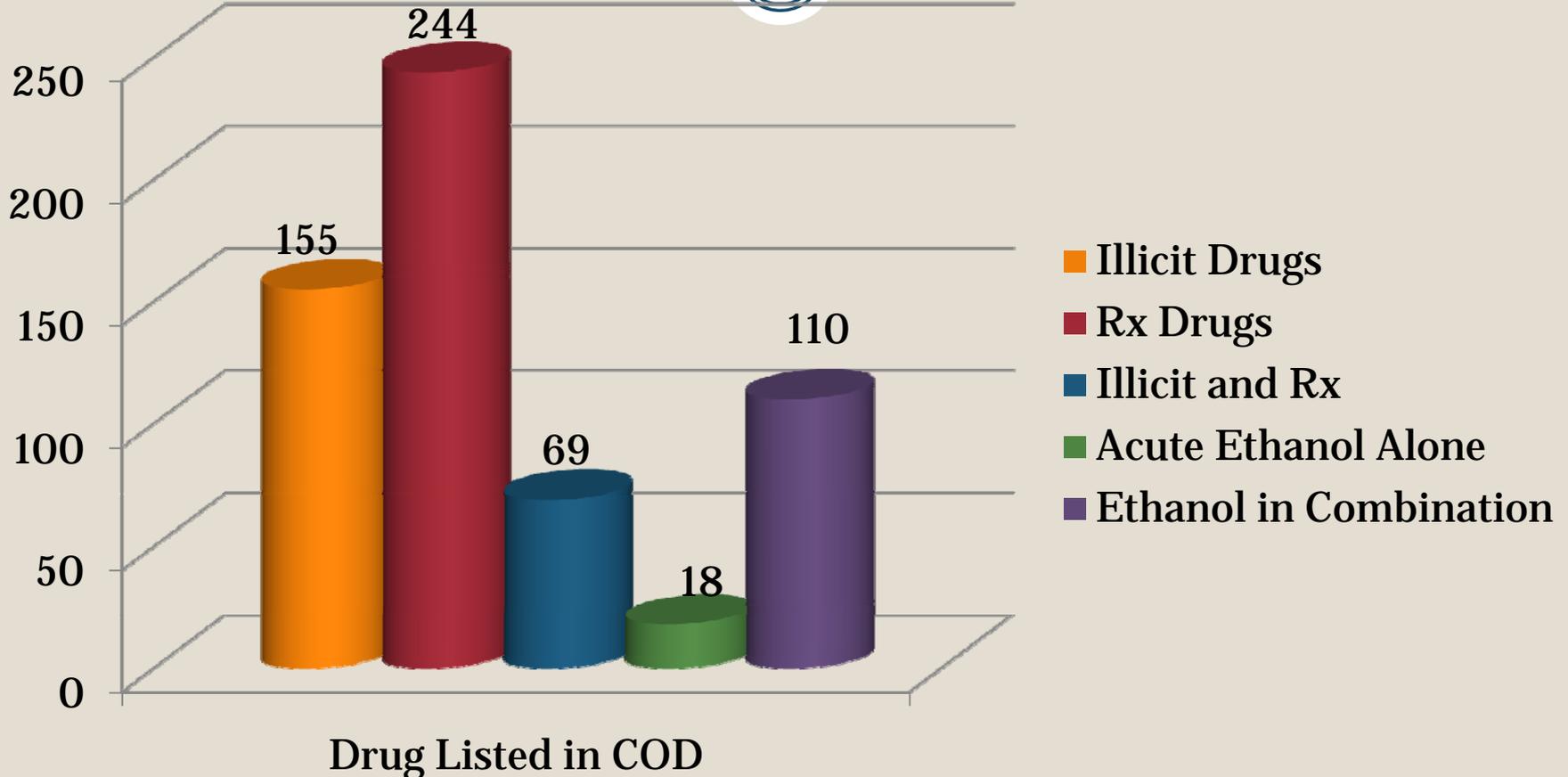
Drugs of Abuse



Total cases = 473

Drugs may be combined within a case. These data do not reflect discrete cases.

Drugs of Abuse



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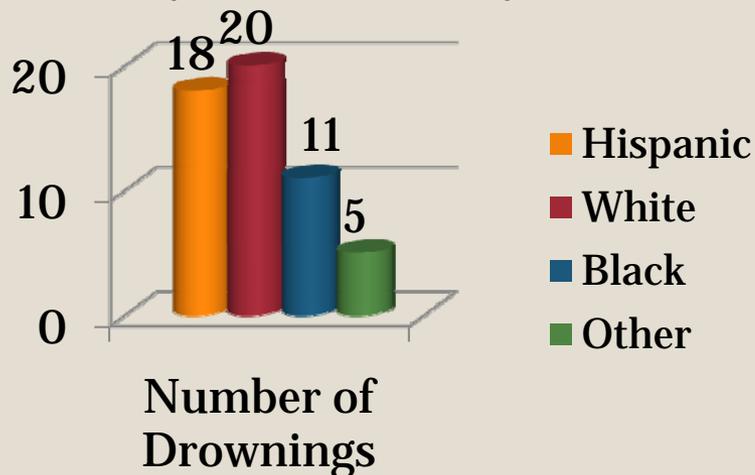
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Accidental and Infant Drowning

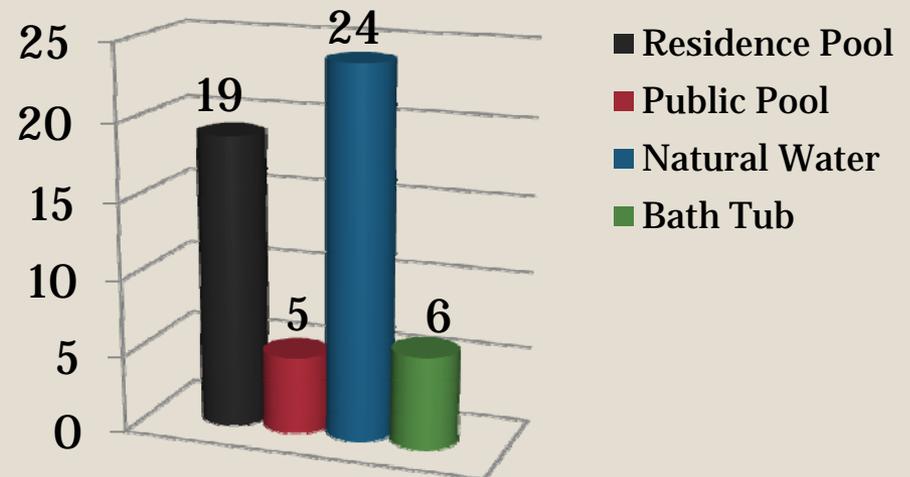


- Total Cases = 54 (not MVC cases)
- Age Range is 8 months to 90 years
 - 21 young children ages 8 months to 6 years
- The majority of drowning victims are male (38:16)

By Race/Ethnicity



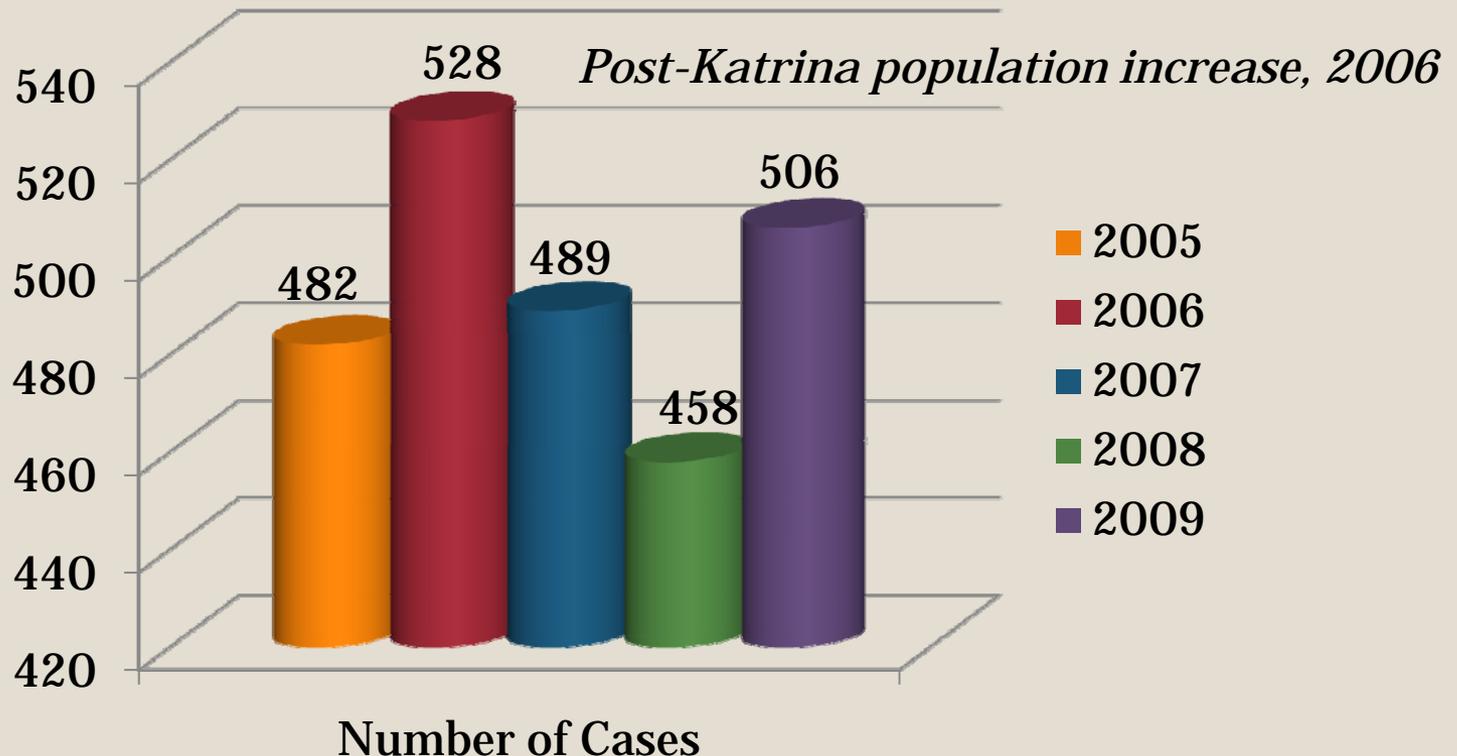
Body of Water



Homicide Numbers 2005-2009



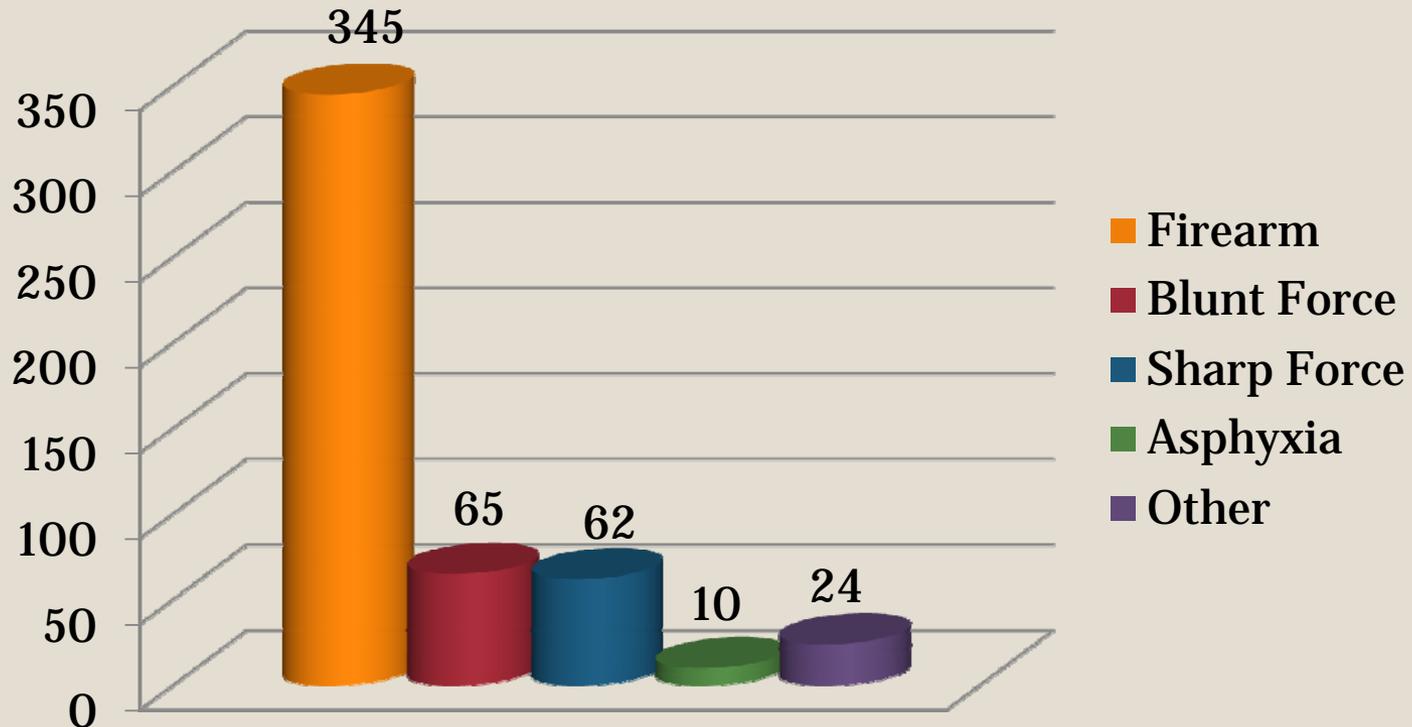
- The number of Homicide cases had steadily declined from 2006 to 2008 but has increased substantially in 2009



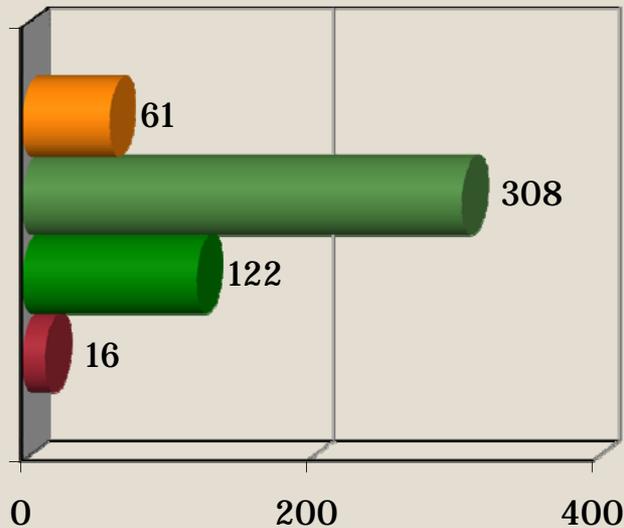
Causes of Death in Homicide Cases



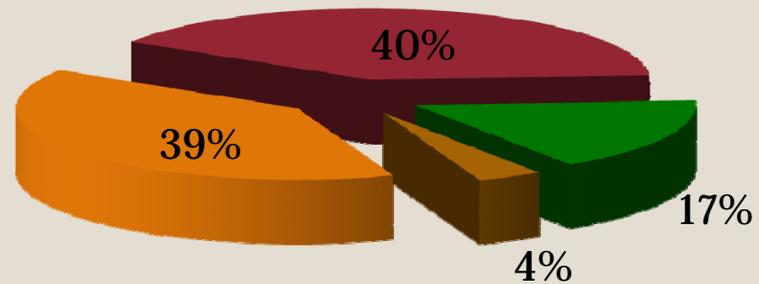
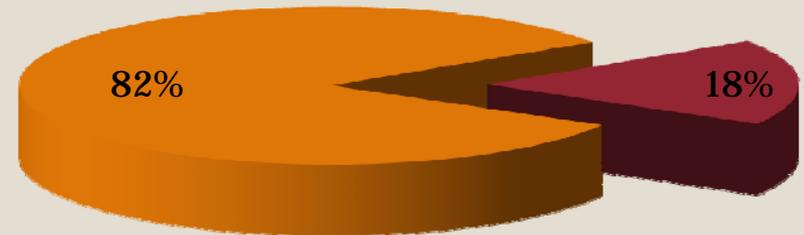
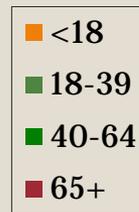
- 50 Homicide cases are associated with domestic violence
- 30 cases are companions to at least one other ML case



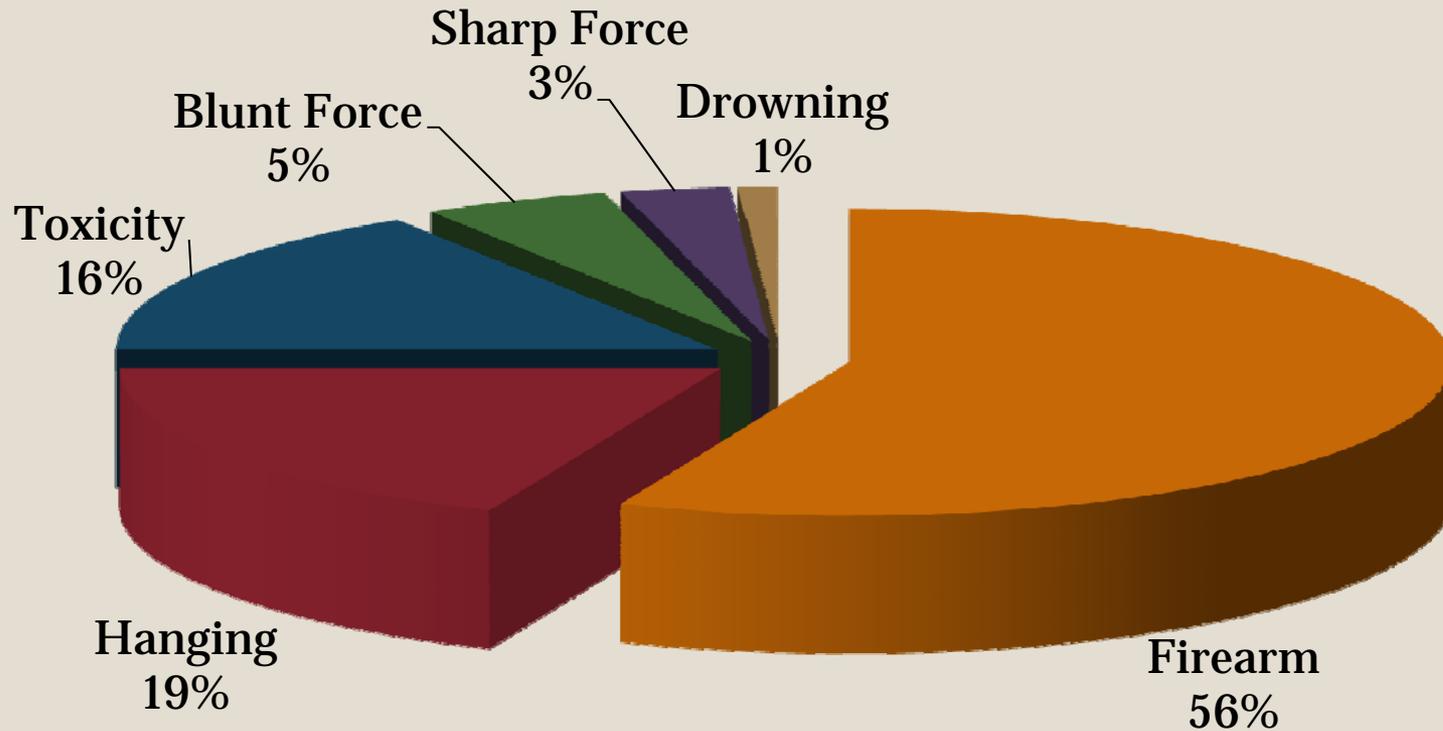
Homicide Deaths by Demographic Category



Two Homicide case decedents are of unknown age



Causes of Death in Suicide Cases



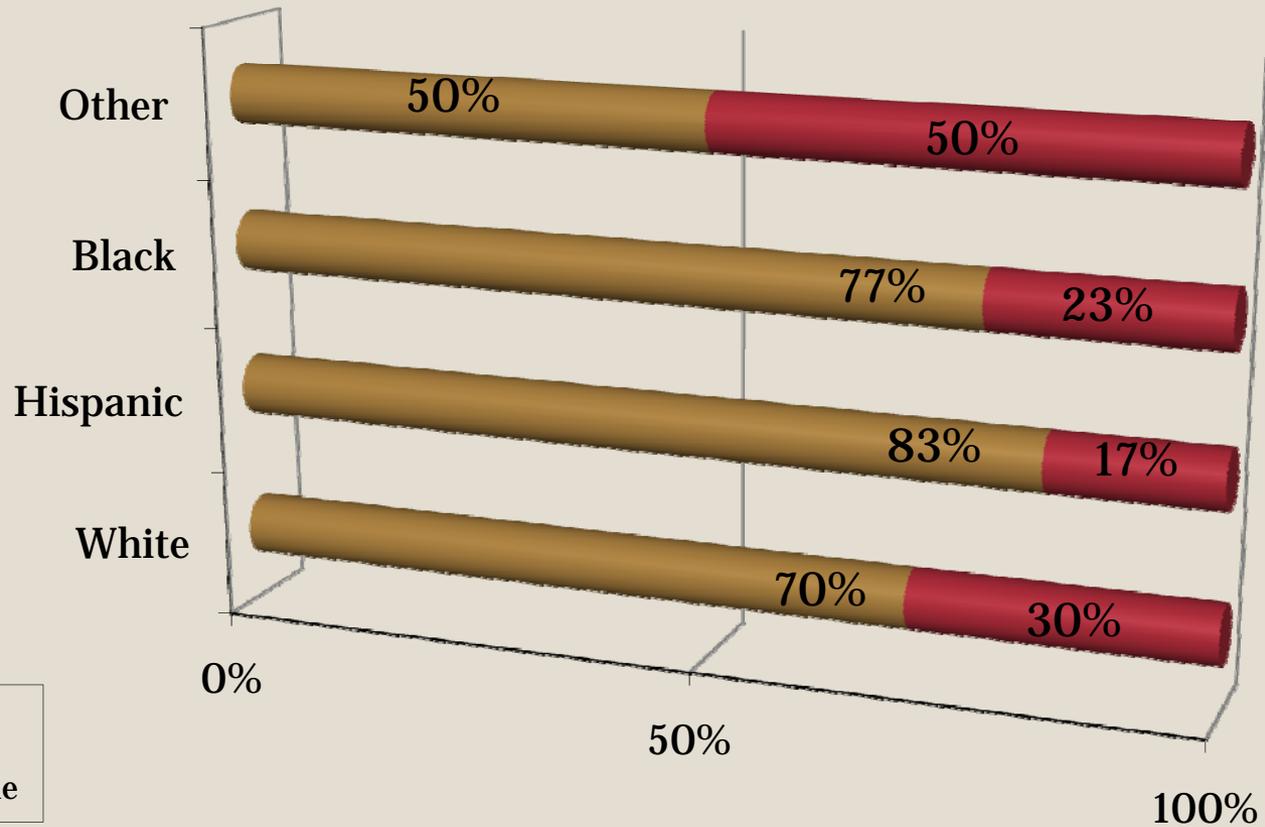
N=484

Demographic Data for Suicide

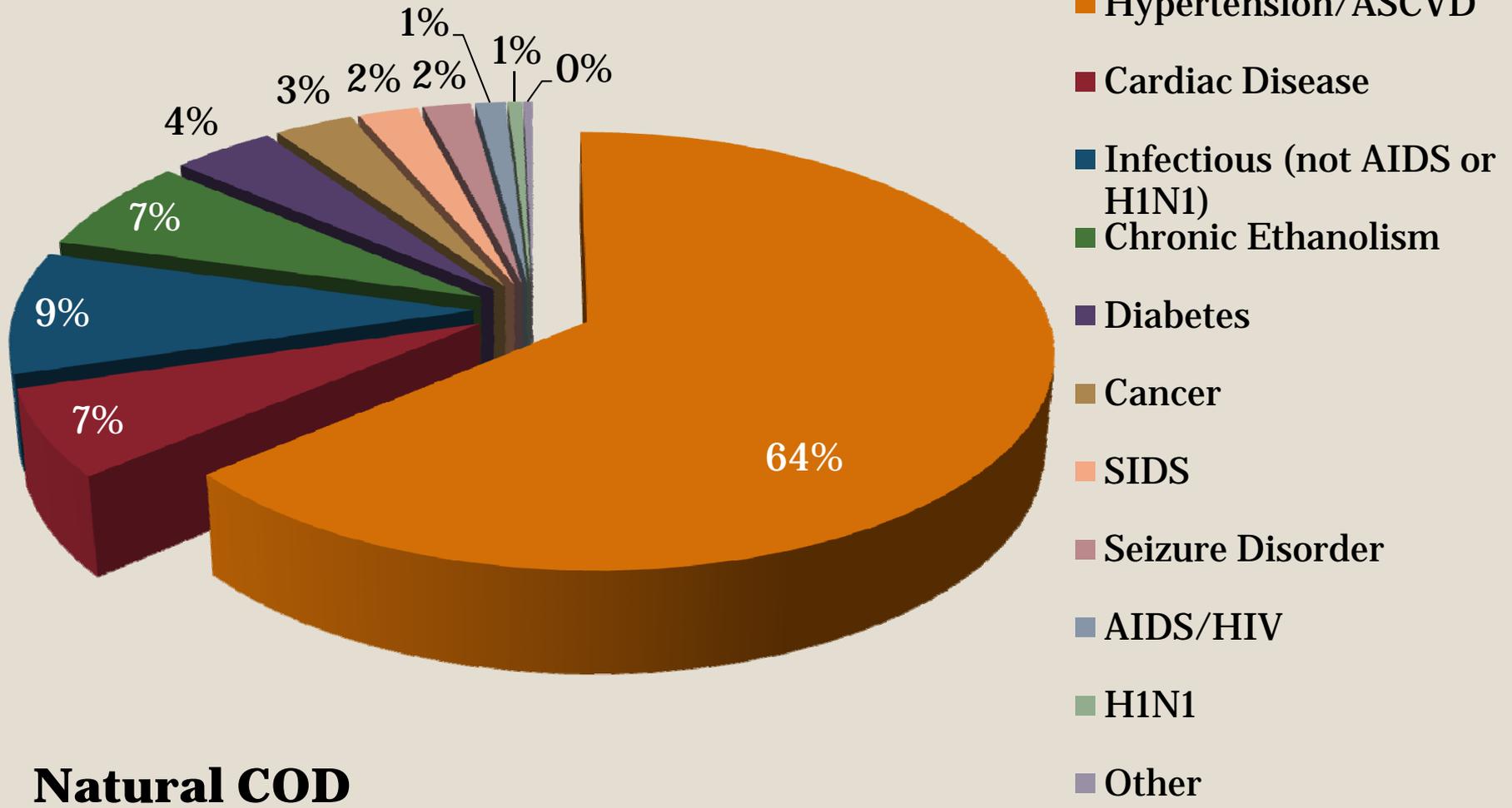


- Male to Female ratio is almost 3:1
- Age range is 11-88 years
- The number of White suicide cases is almost double the other ethnicities combined (318 compared to 166)
- Murder suicides:
 - 2006: 9, 2007: 9, 2008: 13, 2009: 10

Suicide Stratified by Sex and Race/Ethnicity



Natural Deaths (Primary Cause)



Natural COD

Diabetes and Obesity

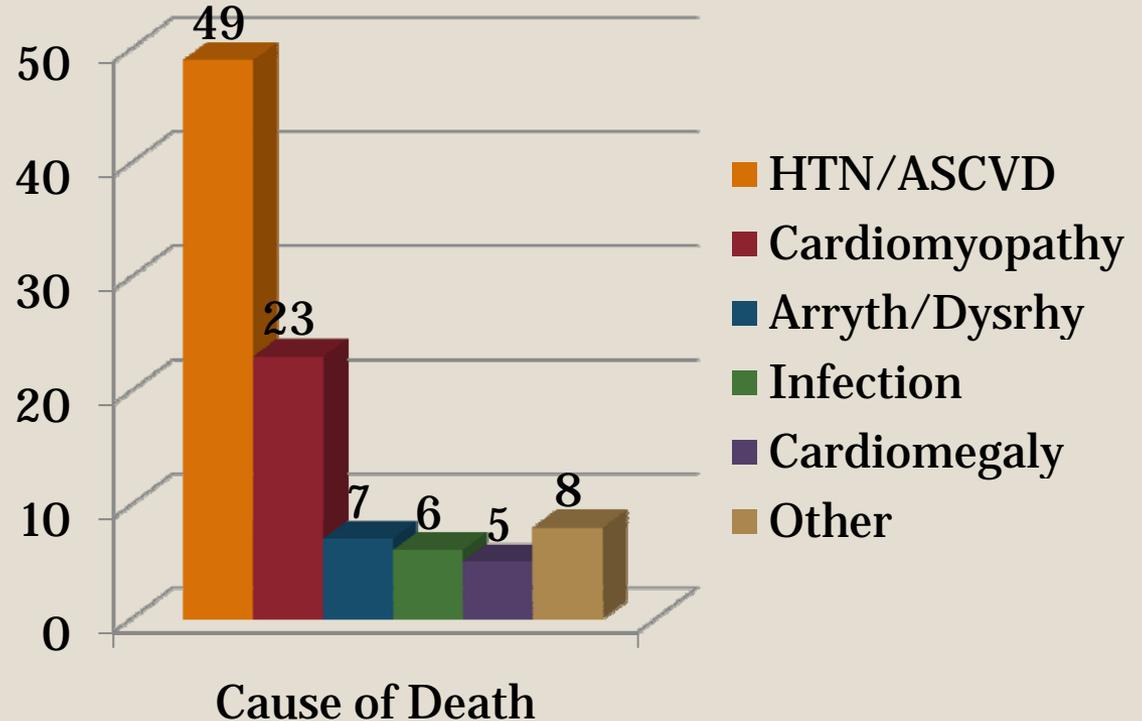


- The primary or contributing cause of death for 226 decedents was diabetes.
 - 65% of these decedents were either overweight or obese (BMI= 25+)
- BMI was calculated for 3698 decedents 13 years or older and at least 59” tall:
 - 1067 (29%) are obese with a BMI of 30 or greater
 - 907 (25%) are overweight with a BMI between 25 and 29
 - The greatest BMI is 119 (758 lbs./67”)
 - There are 32 decedents over 400 lbs.
 - 1055 (29%) decedents are of normal weight

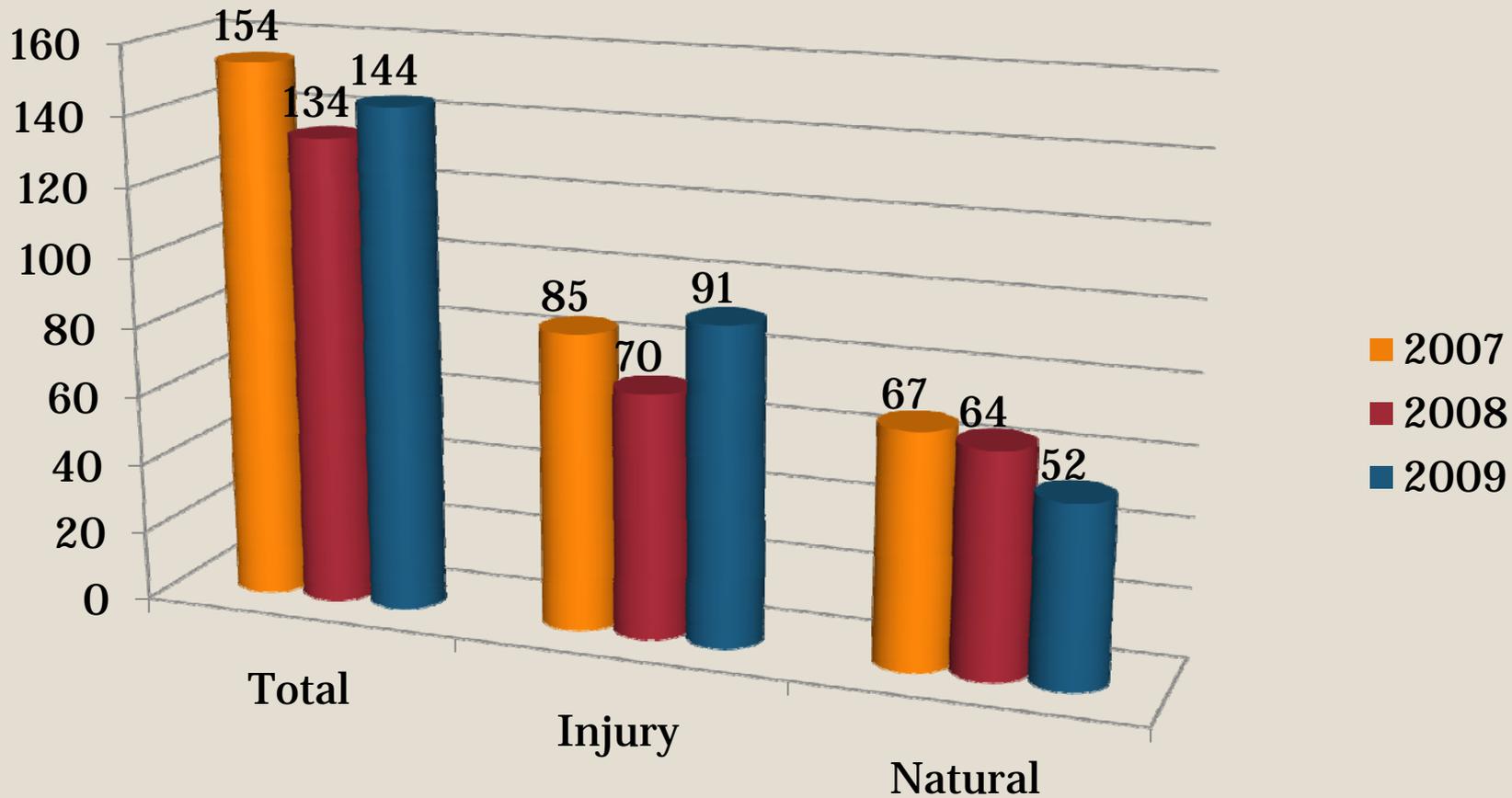
Cardiac Death in Young People



- 98 cases of cardiac death occurred in people aged 15 to 40 years
- Causes of Death:



“While At Work” Deaths

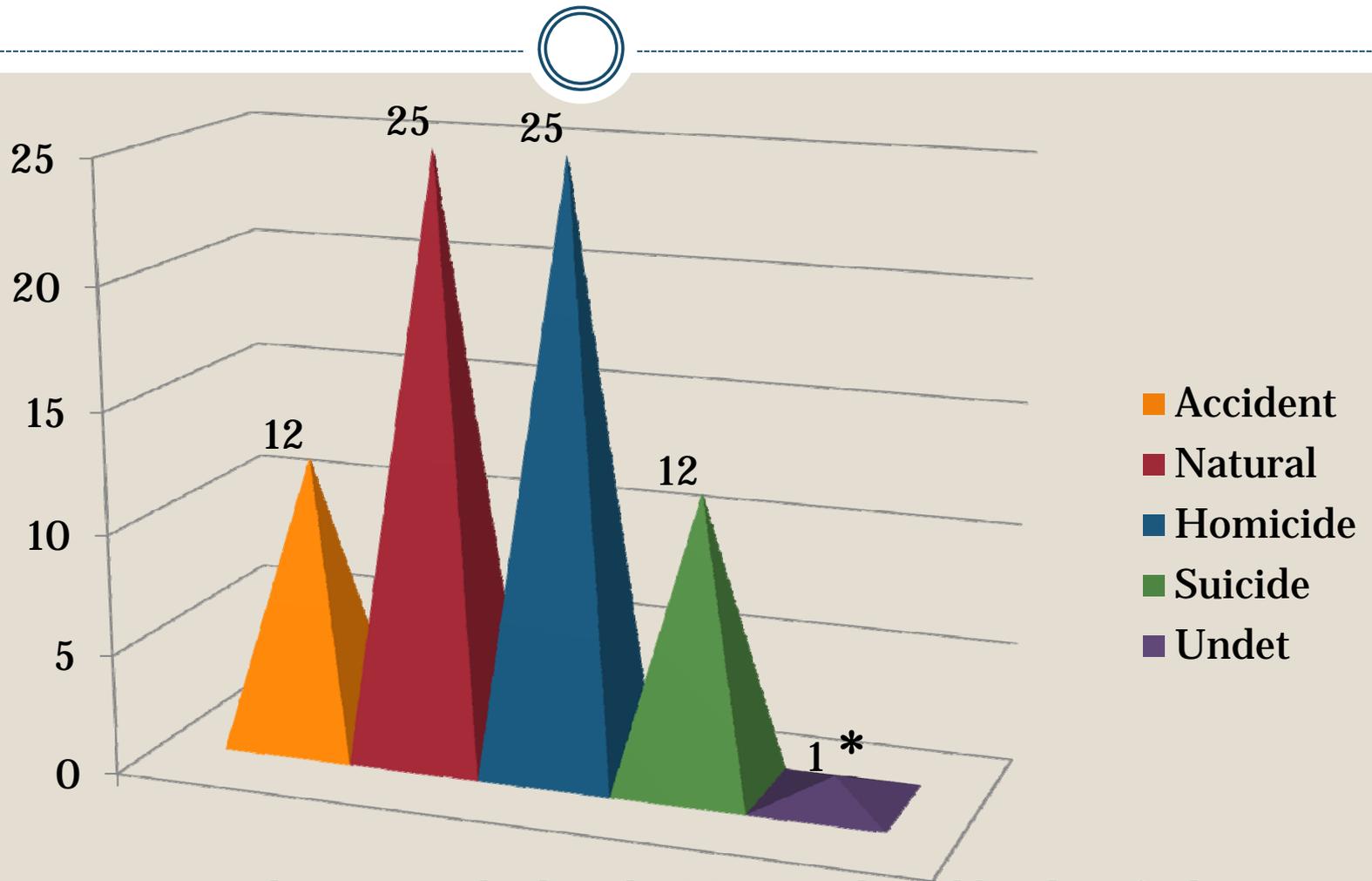


Deaths While “In Custody”



- 75 “in custody” deaths were investigated.
 - The HCIFS defines a death in custody as the “death of any person who is under arrest or is in the process of being arrested, is en route to be incarcerated, or is incarcerated at a municipal or county jail, State prison, or other local or State correctional facility (including any juvenile facility).”

Deaths While “In Custody”



*Circumstances were unclear as to whether the Manner should be classified as Accident or Suicide in the one Undetermined death case.

Summary Statements



- 11,133 Harris County deaths and 29 out of county deaths were reported to HCIFS in 2009.
- The medical examiners performed 3,383 full autopsies and 770 external exams
 - 62% of these cases were injury deaths classified as Accident, Homicide, or Suicide
 - Natural deaths comprised 34% of the medicolegal case load
 - Only 3.5% of cases were classified as Undetermined in Cause and Manner
 - 0.5% of cases were fetal deaths

