



2017

**Annual Report  
Office of the  
Chief Medical Examiner**

**State of Maryland**

Table of Contents

Cases Reported to OCME

- Action Taken .....1
- Autopsied .....2
- Manner of Death .....3

Manner of Death

- Classified by Sex .....4
- Classified by Race .....4

Medical Examiner Cases

- Cause and Manner of Death .....5
- A Three-Year Comparison.....7
- Manner and Jurisdiction .....8

Toxicologic Testing

- Percentage of Cases Positive for Alcohol and/or Drugs.....9

Drug Abuse Death

- By Jurisdiction (3-Year Comparison) .....10
- Undetermined Manner Only .....11

Homicide Deaths

- Cause of Death .....12
- A Five-Year Comparison.....13
- Deaths by Age.....14

Firearm Deaths

- A Five-Year Comparison.....15

Sudden Infant Death Syndrome

- A Five-Year Comparison.....16
- Classified by Age.....17
- Classified by Race and Sex .....17

Sudden Unexplained Death in Infancy

- Classified by Age.....18
- Classified by Race and Sex .....18

Suicide Death

- Cause of Death .....19
- Youth Suicides .....20
- Deaths by Age.....21

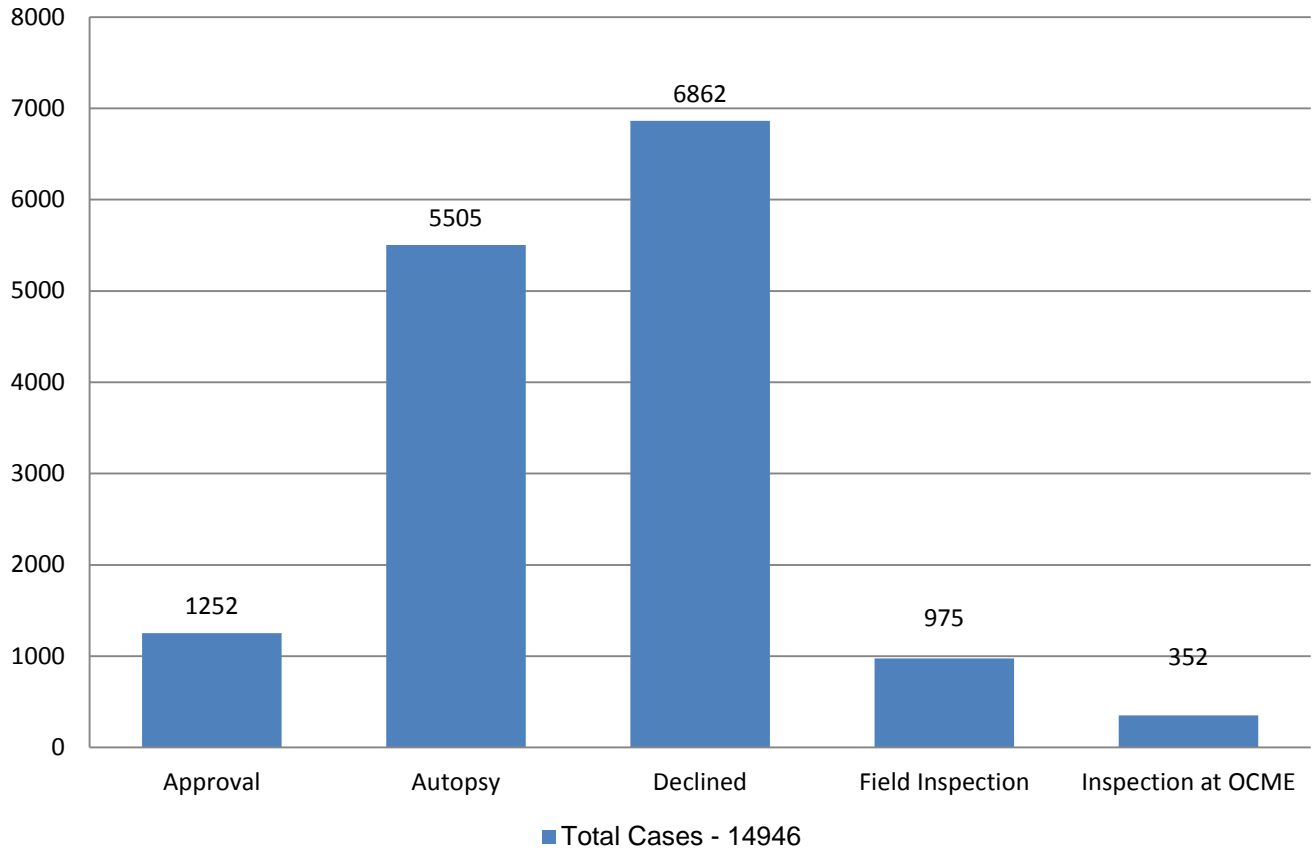
Transportation Deaths

- Classified by Activity .....22
- Type of Vehicle .....23
- Classified by Age.....24
- Alcohol/Drug Results .....25
- Alcohol Levels in Cases Testing Positive .....26

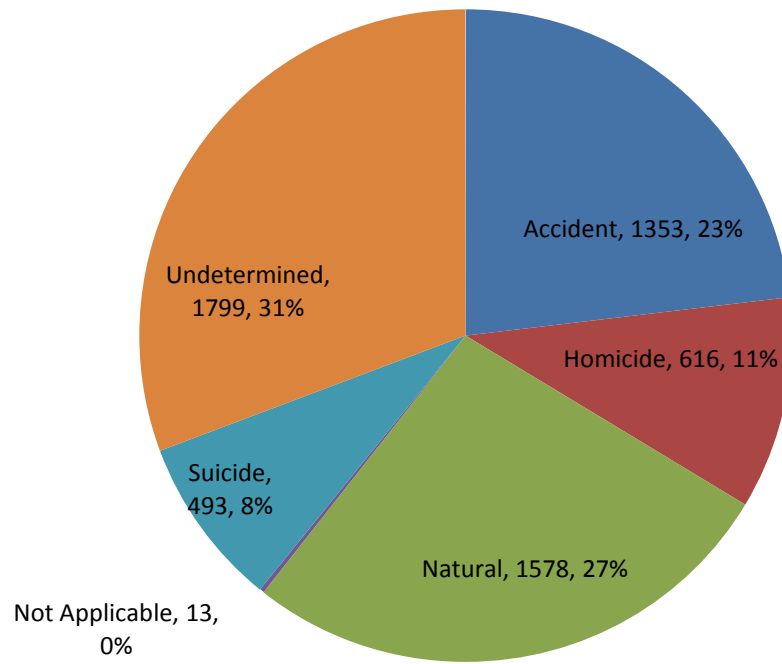
Addendum

- Miscellaneous Data .....27
- 2017 Drug Classification List .....28

## 2017 Cases Reported to OCME - Action Taken



## 2017 Medical Examiner Cases Autopsied\*

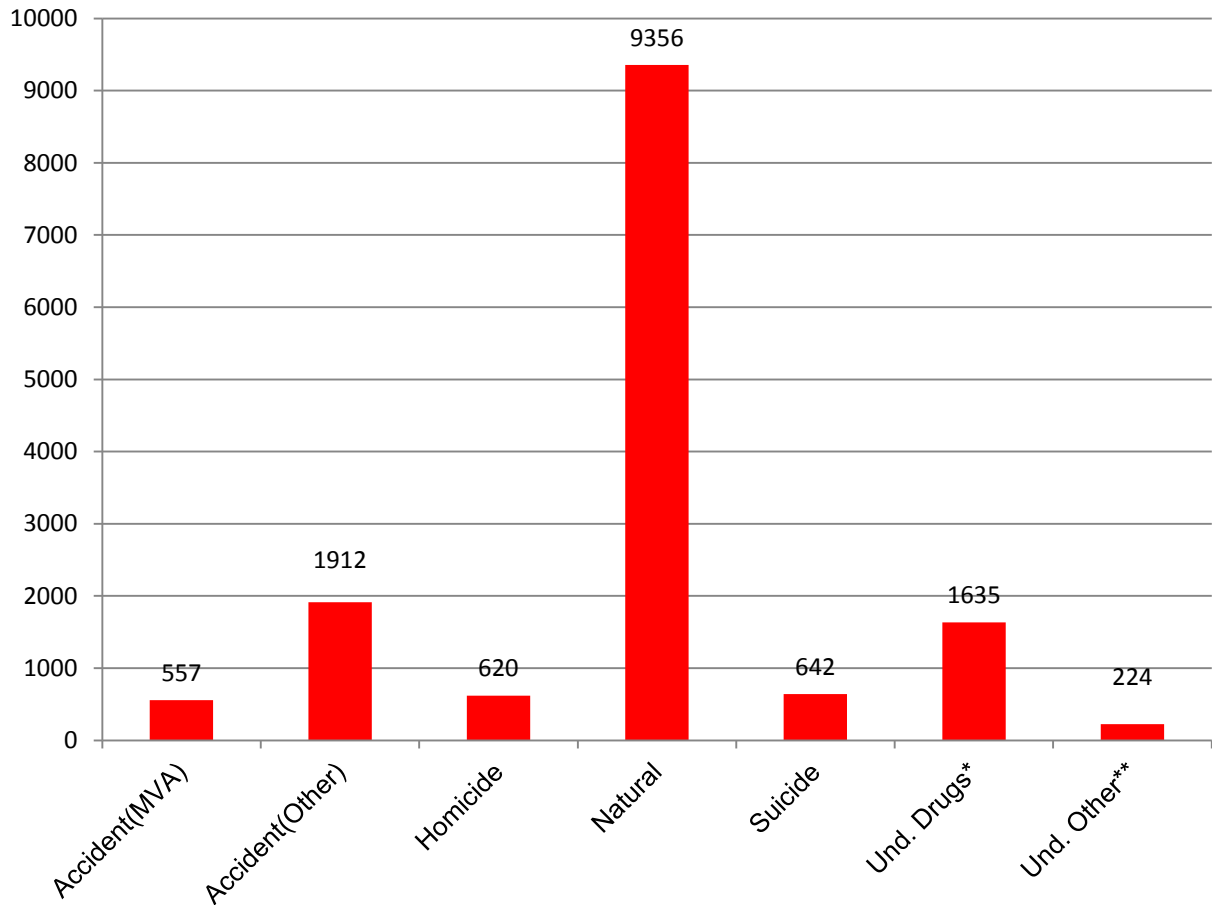


Total Cases Autopsied - 5852

\*Thirteen cases were classified as “not applicable” (e.g. stillborn & non-human remains).

\*\*Four homicides were not autopsied.

## 2017 Cases Reported to OCME Manner of Death



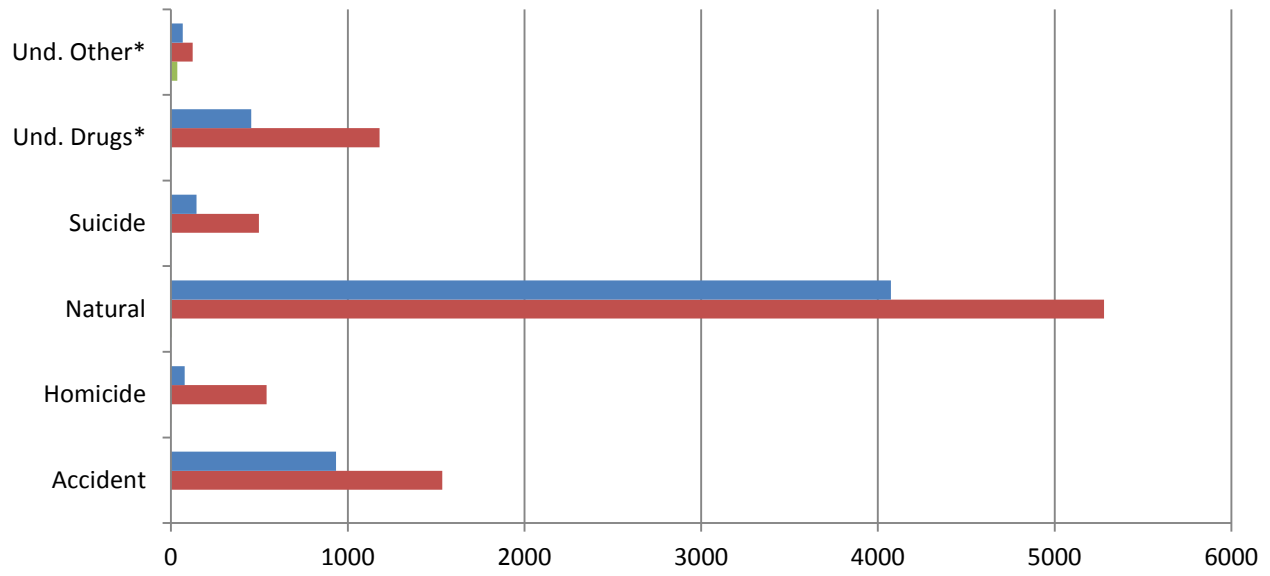
\*Undetermined Manner: Drugs/Narcotics

\*\* Undetermined Manner: Other

Total Cases – 14,946

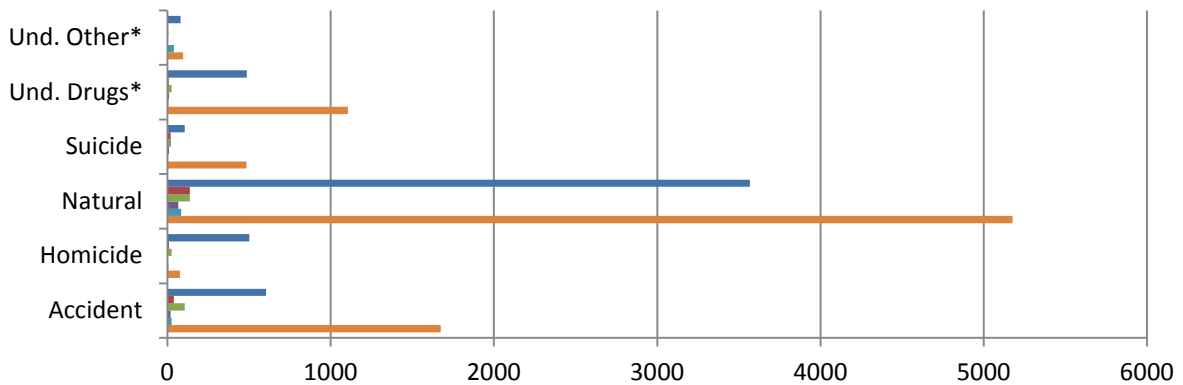
# 2017 Manner of Death

## Classified by Sex



	Accident	Homicide	Natural	Suicide	Und. Drugs*	Und. Other*
Female	934	78	4074	144	454	67
Male	1535	540	5279	497	1180	122
Unknown		2	3	1	1	35

## Classified by Race



	Accident	Homicide	Natural	Suicide	Und. Drugs*	Und. Other*
African American	603	501	3568	105	485	80
Asian	38	9	137	19	8	4
Hispanic	106	26	137	22	25	6
Other	20	3	67	9	9	1
Unknown	26	5	83	3	5	38
White	1674	76	5176	483	1105	95

\*Undetermined Manner: Drugs/Narcotics

\*\* Undetermined Manner: Other

Manner of Death

Cause of Death	Accident	Homicide	Natural	Not Applicable	Suicide	Undetermined	Total
<b>Asphyxiation</b>	<b>88</b>	<b>13</b>	<b>3</b>		<b>132</b>	<b>15</b>	<b>251</b>
Airway obstruction/Aspirated stomach content	4		3			2	9
Drowning	56				8	13	77
Hanging	1	1			102		104
Smoke inhalation	12	1					13
Strangulation/Asphyxiation	15	11			20		46
Suffocation					2		2
<b>Chemical/Drug/Alcohol Intoxication/Abuse/Use</b>	<b>538</b>	<b>4</b>	<b>93</b>		<b>90</b>	<b>1661</b>	<b>2386</b>
Alcohol abuse/use	11		71			4	86
Alcohol and drug intoxication/use	8				7	15	30
Alcohol intoxication/use	22				1	8	31
Carbon monoxide	3				16		19
Cocaine and alcohol intoxication/use	8					7	15
Cocaine intoxication/use	35		9		1	42	87
Drug intoxication/abuse/use	32	2	7		42	70	153
Drug intoxication/abuse/use	1				2	4	7
Narcotic abuse/use			1				1
Narcotic and alcohol intoxication/use	96	1			7	295	399
Narcotic intoxication/use	322	1	5		14	1216	1558
<b>Circulatory system</b>	<b>36</b>	<b>2</b>	<b>1234</b>			<b>5</b>	<b>1277</b>
Aneurysm	1		4				5
Cardiac arrhythmia	1	1	59				61
Cardiomyopathy	1		10				11
Cardiovascular disease	14		960			2	976
Cerebrovascular disease	4		35				39
Hemorrhage	7		11				18
Other cardiac	4		113			2	119
Pulmonary embolism	4	1	42			1	48
<b>Congenital / Perinatal</b>	<b>1</b>		<b>2</b>	<b>4</b>		<b>38</b>	<b>45</b>
Congenital/Perinatal	1		2	4			7
Sudden Unexplained Death in Infancy (SUDI)						38	38
<b>Digestive system disease</b>	<b>1</b>		<b>45</b>				<b>46</b>
Cirrhosis	1		11				12
Gastrointestinal hemorrhage			1				1
Other digestive			20				20
Fatty liver			7				7
Liver Disease			6				6
<b>Electrocution</b>	<b>3</b>						<b>3</b>
Electrocution	3						3
<b>Endocrine and metabolic disease</b>			<b>53</b>				<b>53</b>
Diabetes			39				39
Other Endocrine and metabolic			14				14
<b>Hyperthermia</b>	<b>7</b>					<b>1</b>	<b>8</b>
Hyperthermia	7					1	8
<b>Hypothermia</b>	<b>39</b>						<b>39</b>
Hypothermia	39						39
<b>Infectious disease</b>			<b>9</b>				<b>9</b>
Other infectious disease			9				9

Cause of Death	Manner of Death					Undeter- mined	Total
	Accident	Homicide	Natural	Not Applicable	Suicide		
<b>Malignant neoplasms (Cancer)</b>			<b>20</b>				<b>20</b>
Malignant neoplasms (Cancer)			20				20
<b>Nervous system disease</b>	<b>2</b>		<b>21</b>			<b>1</b>	<b>24</b>
Meningitis			2				2
Other CNS			7			1	8
Seizure disorder	2		12				14
<b>Non-human remains</b>				<b>4</b>			<b>4</b>
Non-human remains				4			4
<b>Other natural cause</b>			<b>60</b>				<b>60</b>
Other natural cause			60				60
<b>Other non-natural cause</b>	<b>7</b>			<b>5</b>	<b>5</b>		<b>17</b>
Other non-natural cause	7			5	5		17
<b>Respiratory system</b>			<b>38</b>			<b>2</b>	<b>40</b>
Asthma			3				3
Chronic obstructive pulmonary disease			4				4
Other respiratory			11				11
Pneumonia			19			2	21
Respiratory distress syndrome			1				1
<b>Thermal Injuries (Burns)</b>	<b>32</b>	<b>6</b>				<b>8</b>	<b>46</b>
Thermal Injuries (Burns)	32	6				8	46
<b>Traumatic injury</b>	<b>599</b>	<b>591</b>			<b>266</b>	<b>25</b>	<b>1481</b>
Blunt force	35	19			4	1	59
Fracture	1						1
Gunshot wound	9					1	10
Head/Chest injuries	2	485			226	6	719
Multiple injuries		1					1
Other trauma	93	4				5	102
Sharp force/cutting	441	26			29	10	506
Blunt force	17						17
Gunshot wound	1	56			7	2	66
<b>Unknown cause</b>						<b>43</b>	<b>43</b>
Unknown cause						43	43
<b>Grand Total</b>	<b>1353</b>	<b>616</b>	<b>1578</b>	<b>13</b>	<b>493</b>	<b>1799</b>	<b>5852</b>



## Manner of Death - 3 Year Comparison

### Medical Examiner Cases: Manner of Death, Maryland 2017

Manner of Death	Number	%
Accident	2469	16.5%
Homicide	620	4.1%
Natural	9356	62.6%
Suicide	642	4.3%
Undetermined	1859	12.4%
<b>Total</b>	<b>14946</b>	<b>100%</b>

### Medical Examiner Cases: Manner of Death, Maryland 2016

Manner of Death	Number	%
Accident	2382	16.7%
Homicide	599	4.2%
Natural	9048	63.3%
Suicide	586	4.1%
Undetermined	1686	11.8%
<b>Total</b>	<b>14301</b>	<b>100%</b>

### Medical Examiner Cases: Manner of Death, Maryland 2015

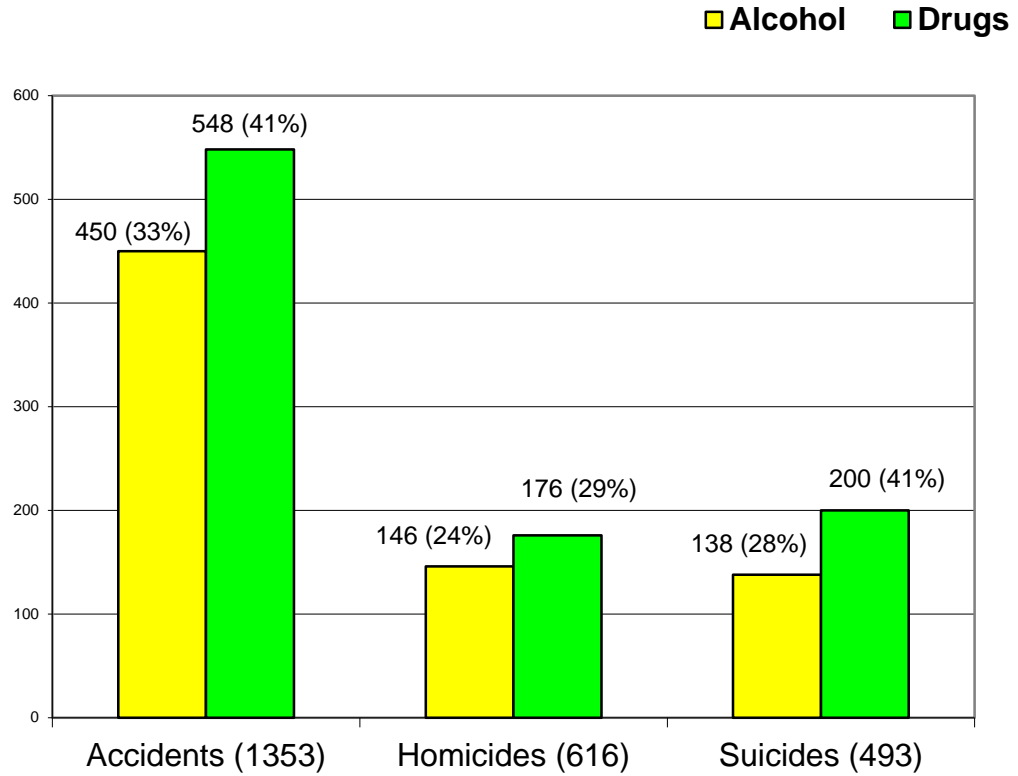
Manner of Death	Number	%
Accident	2037	16.4%
Homicide	606	4.9%
Natural	8135	65.4%
Suicide	557	4.5%
Undetermined	1110	8.9%
<b>Total</b>	<b>12445</b>	<b>100%</b>

## 2017 Manner of Death by County

2017 - Manner	Accident	Homicide	Natural	Suicide	Undetermined	Total	
Allegany	21	4	30	11	28	94	
Anne Arundel	110	18	157	65	160	510	
Baltimore City	353	375	354	78	633	1793	
Baltimore County	161	35	213	51	277	737	
Calvert	17	2	21	10	29	79	
Caroline	10		5	4	6	25	
Carroll	43	1	38	13	37	132	
Cecil	40	4	45	26	50	165	
Charles	54	6	32	16	25	133	
Dorchester	9		14	4	8	35	
Frederick	47	5	30	17	58	157	
Garrett	12	1	10	3	5	31	
Harford	49	9	50	20	76	204	
Howard	26	2	46	19	47	140	
Kent	4	1	3	4	4	16	
Montgomery	90	19	131	46	93	379	
Out-Of-State			2		1	3	
Prince George's	169	108	221	44	133	675	
Queen Anne's	11	1	14	4	5	35	
Saint Mary's	31	2	30	16	27	106	
Somerset	5	2	5		3	15	
Talbot	7		5	6	12	30	
Washington	42	9	46	18	47	162	
Wicomico	29	11	39	11	29	119	
Worcester	13	1	37	7	19	77	
<b>Grand Total</b>	<b>1353</b>	<b>616</b>	<b>1578</b>	<b>493</b>	<b>1812</b>	<b>5852</b>	
2017 - Case Type	Autopsy	OCME Insp.	Total	County	Autopsy	OCME Insp.	Total
Allegany	91	3	94	Washington	147	15	162
Anne Arundel	476	34	510	Wicomico	113	6	119
Baltimore City	1688	105	1793	Worcester	73	4	77
Baltimore County	697	40	737	Out-Of-State	2	1	3
Calvert	76	3	79	<b>Grand Total</b>	<b>5502</b>	<b>350</b>	<b>5852</b>
Caroline	24	1	25				
Carroll	122	10	132				
Cecil	153	12	165				
Charles	119	14	133				
Dorchester	33	2	35				
Frederick	144	13	157				
Garrett	30	1	31				
Harford	197	7	204				
Howard	134	6	140				
Kent	15	1	16				
Montgomery	351	28	379				
Prince George's	646	29	675				
Queen Anne's	34	1	35				
Saint Mary's	96	10	106				
Somerset	14	1	15				
Talbot	27	3	30				

# 2017 Toxicology Testing

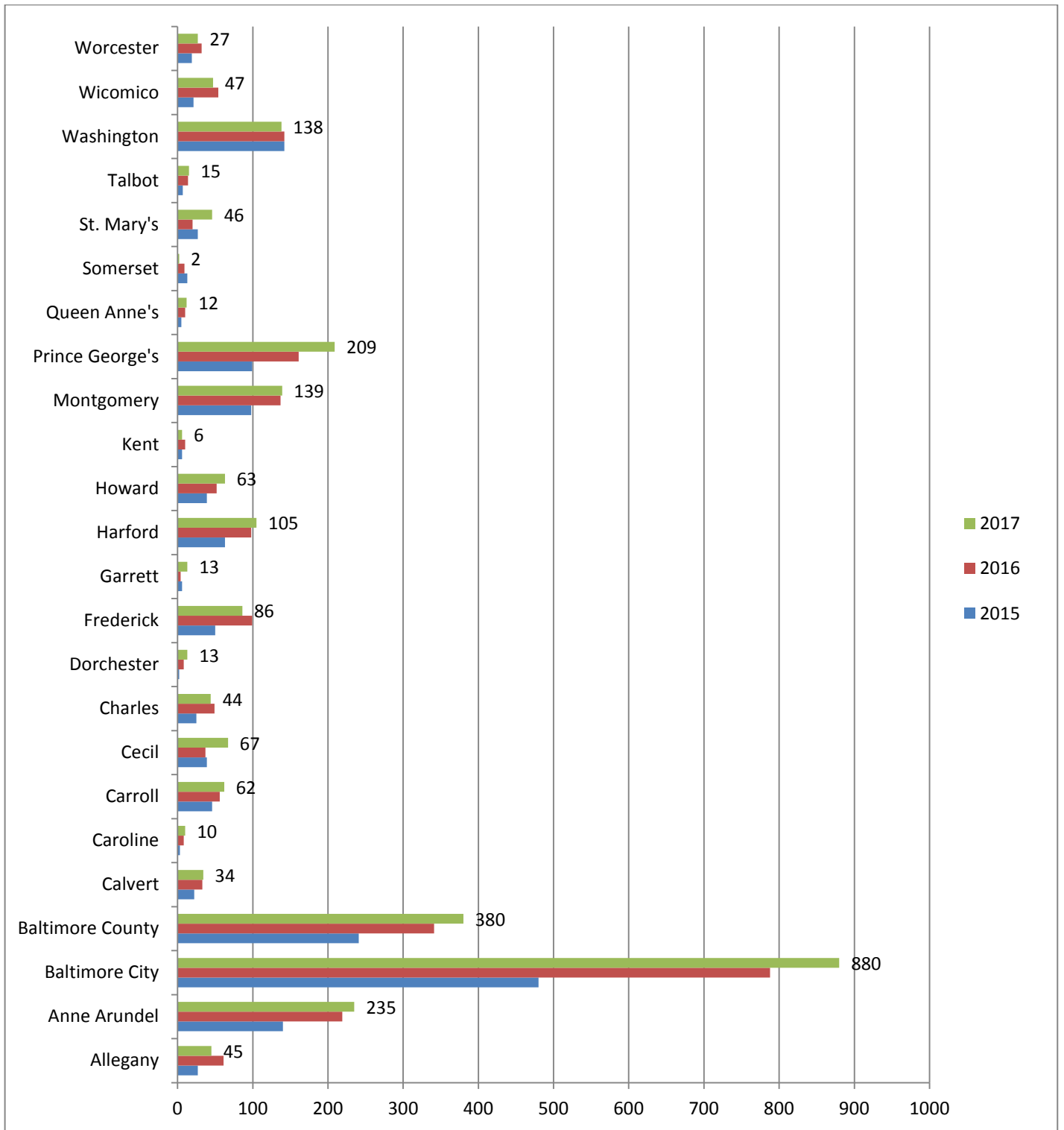
## # of Cases Positive for Alcohol and/or Drugs (Percentage of the Manner of Death)



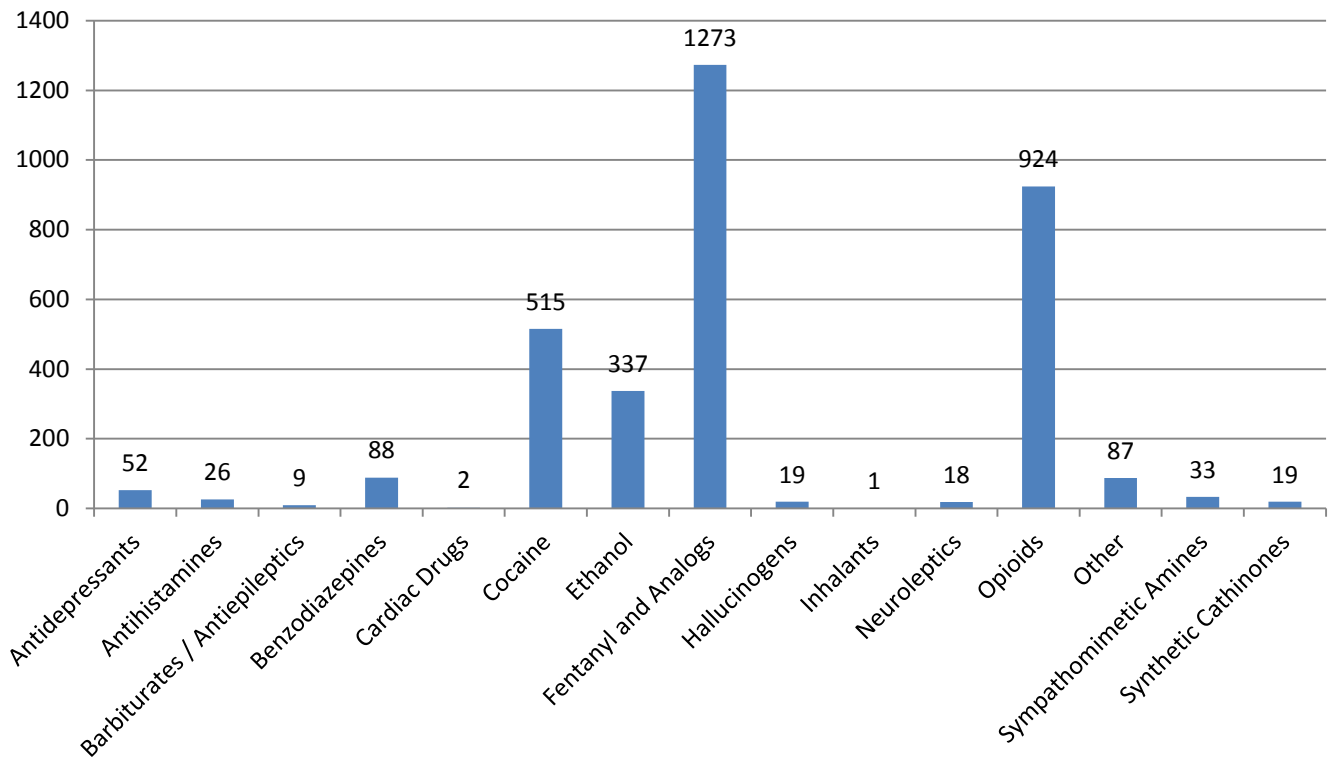
**Manner of Death**

# Drug Deaths

## 3 Year Comparison by Jurisdiction 2015-2017

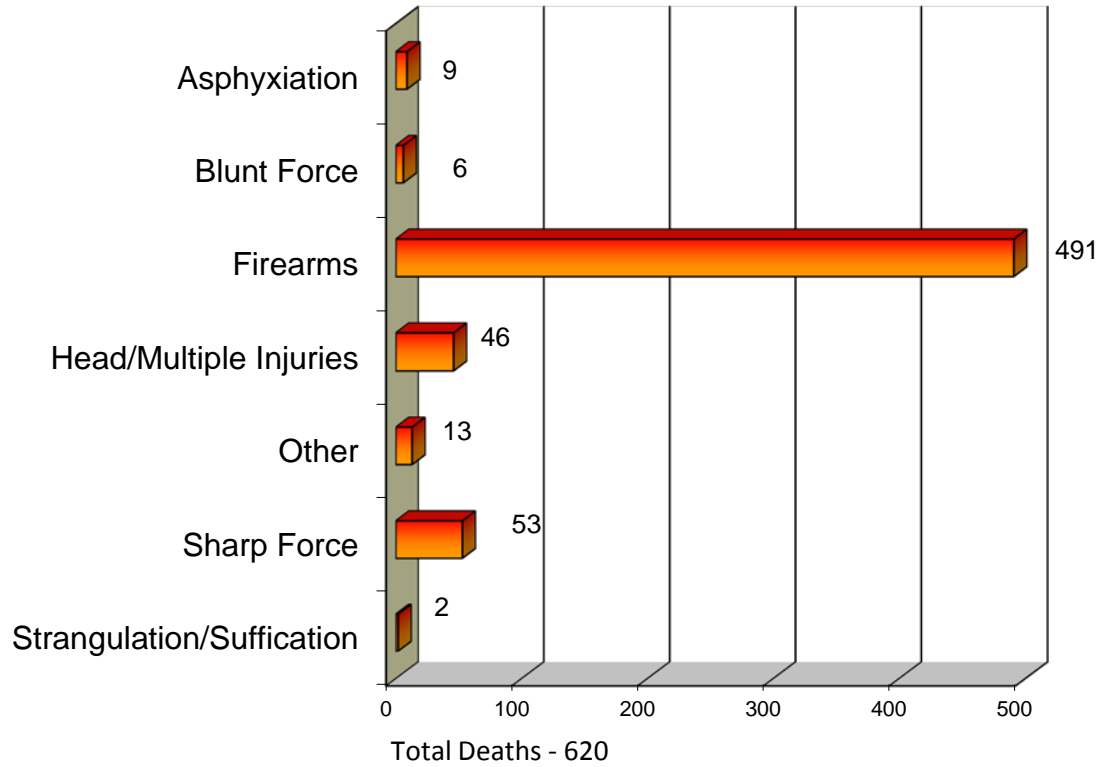


## 2017 Drug Deaths Undetermined Manner

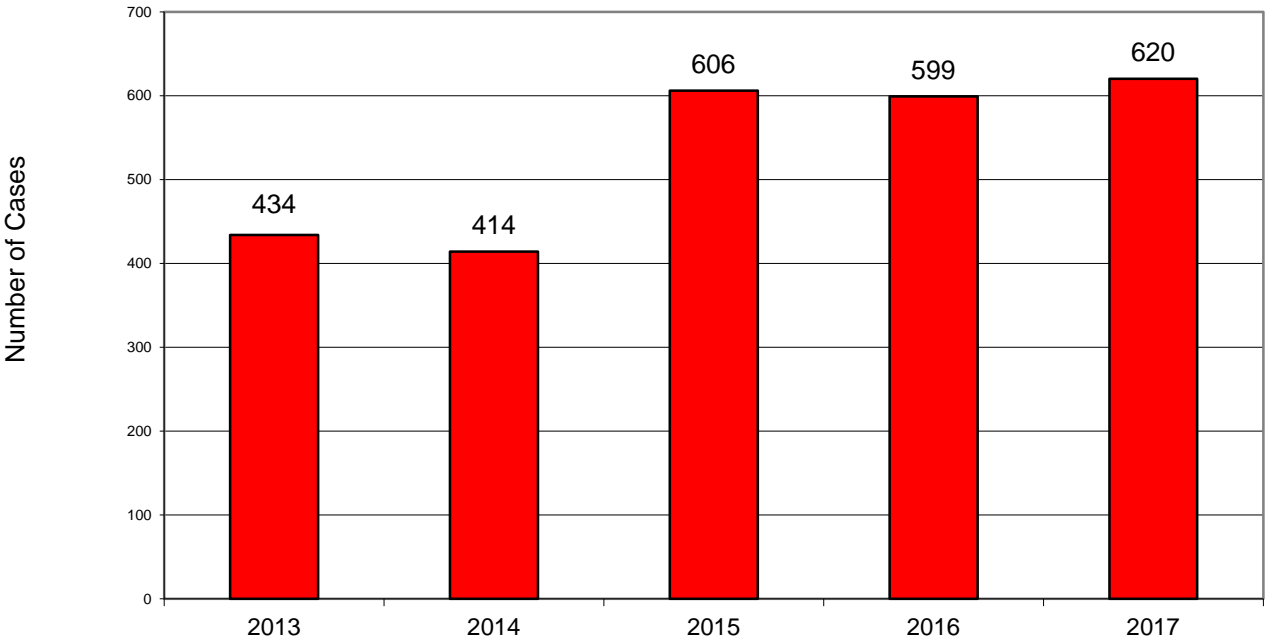


# 2017 Homicide Deaths

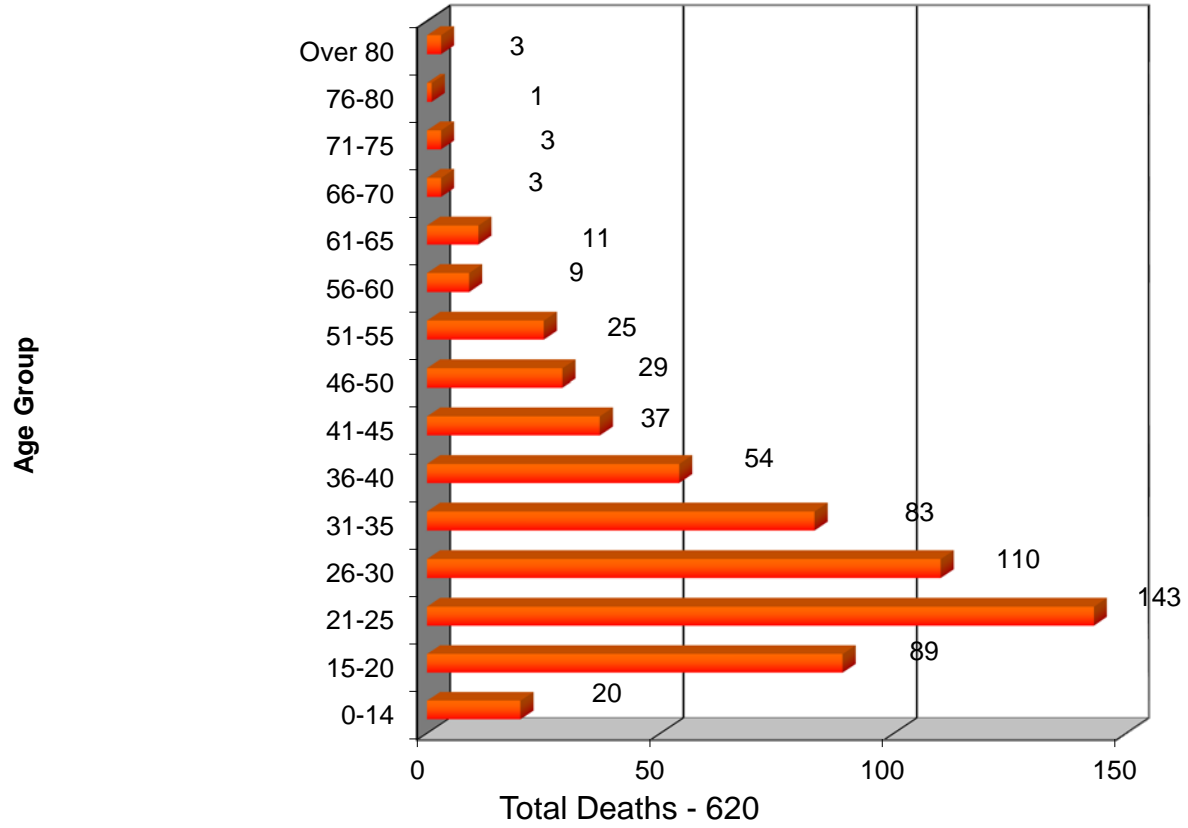
## Cause of Death



# Homicides 5 Year Comparison 2013 - 2017

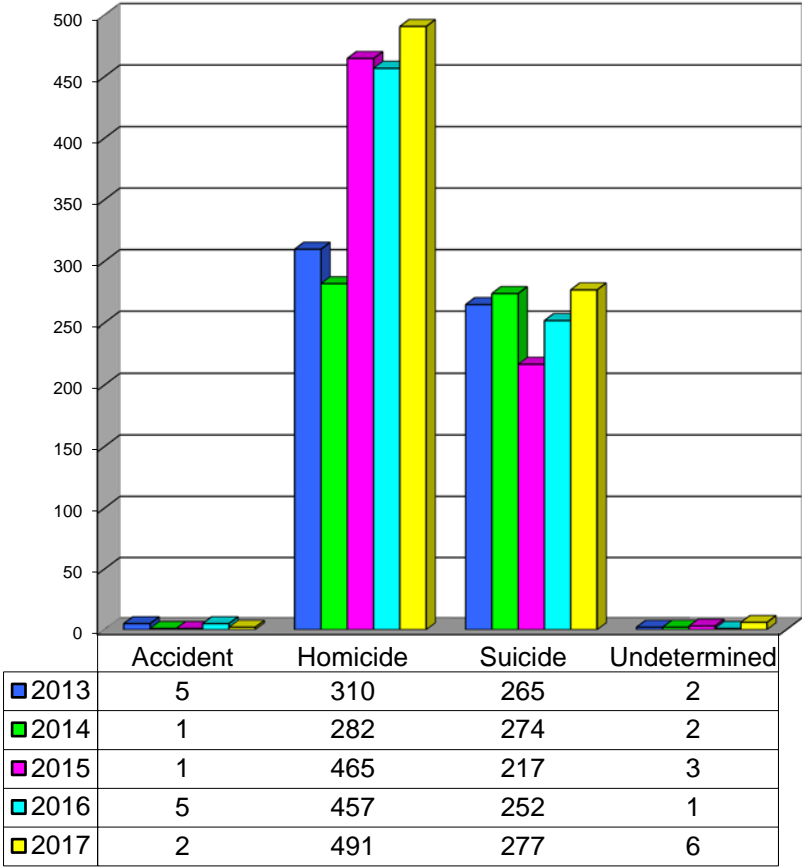


# 2017 Homicide Deaths by Age



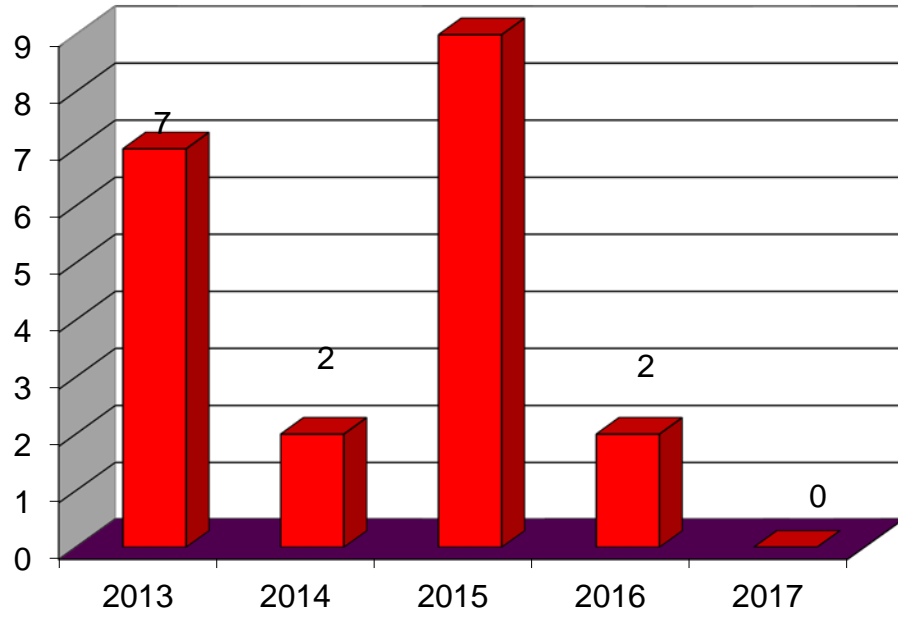


# Firearm Deaths 2013 - 2017



# SIDS Deaths 2013 - 2017 Comparison

9



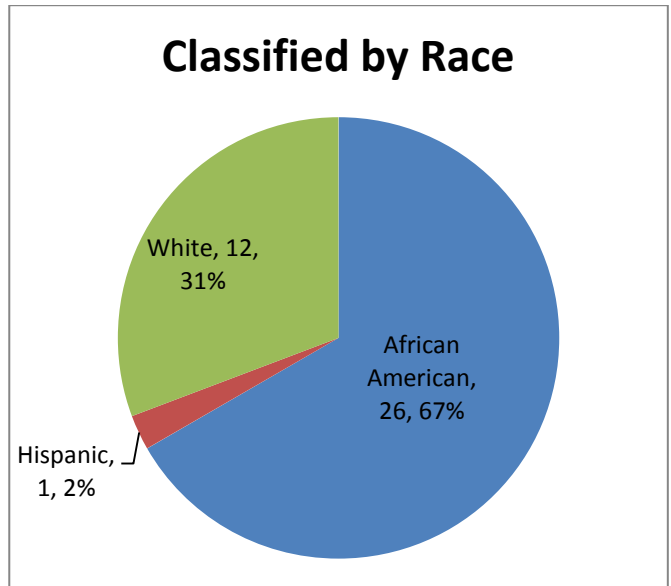
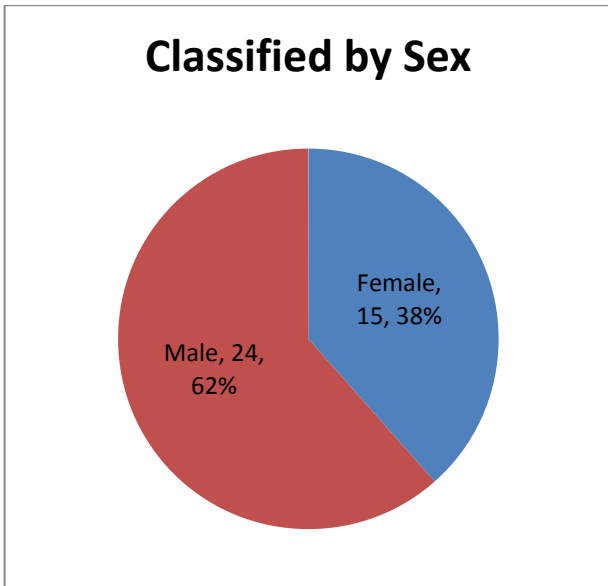
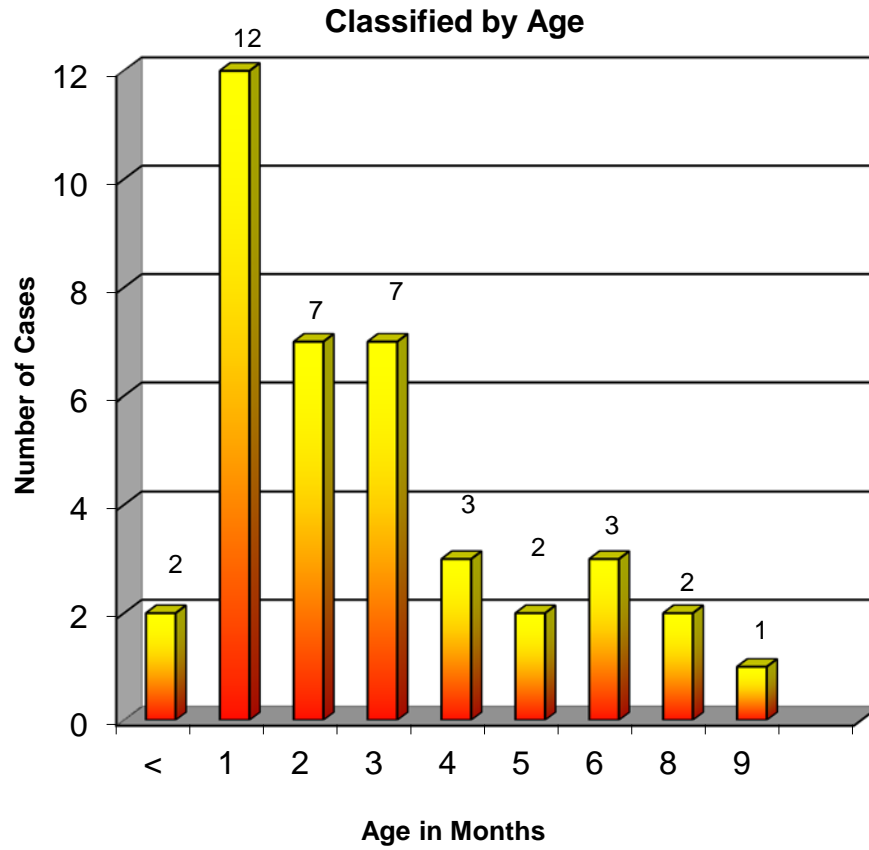
# Sudden Infant Death Syndrome – 2017

0 Deaths

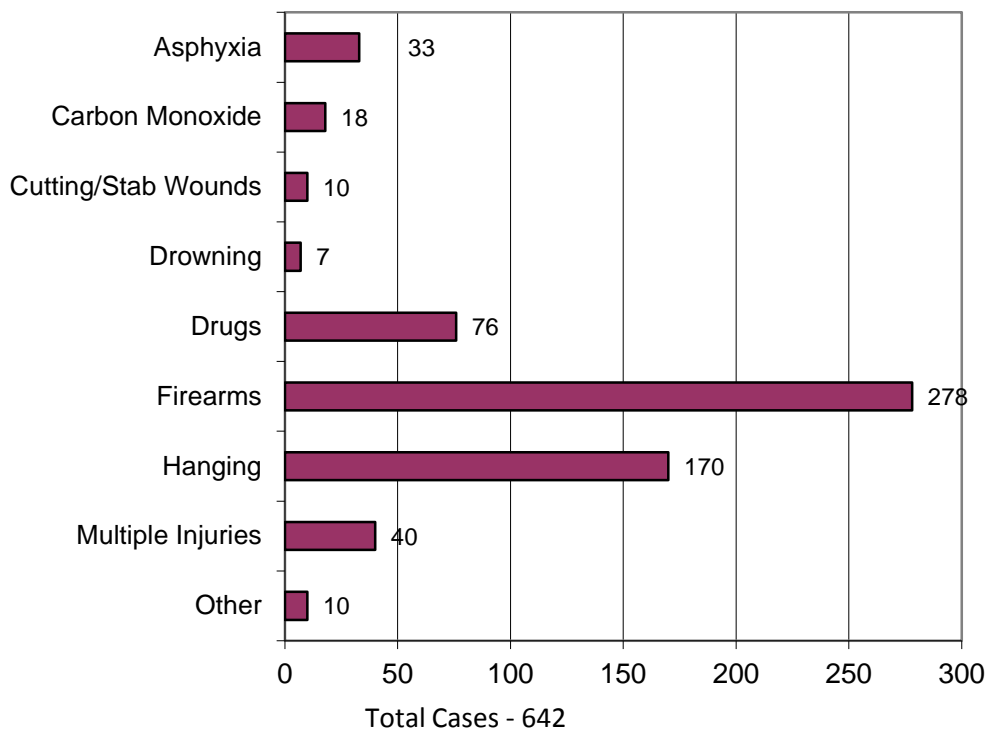
No Charts

# Sudden Unexplained Death in Infancy – 2017

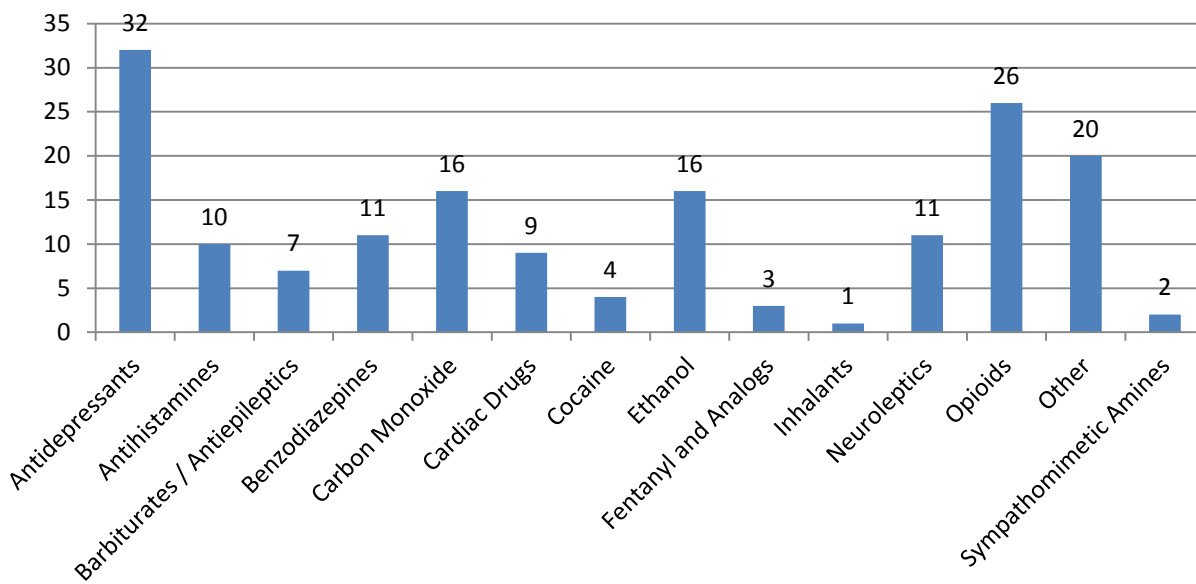
Total of 39 Deaths



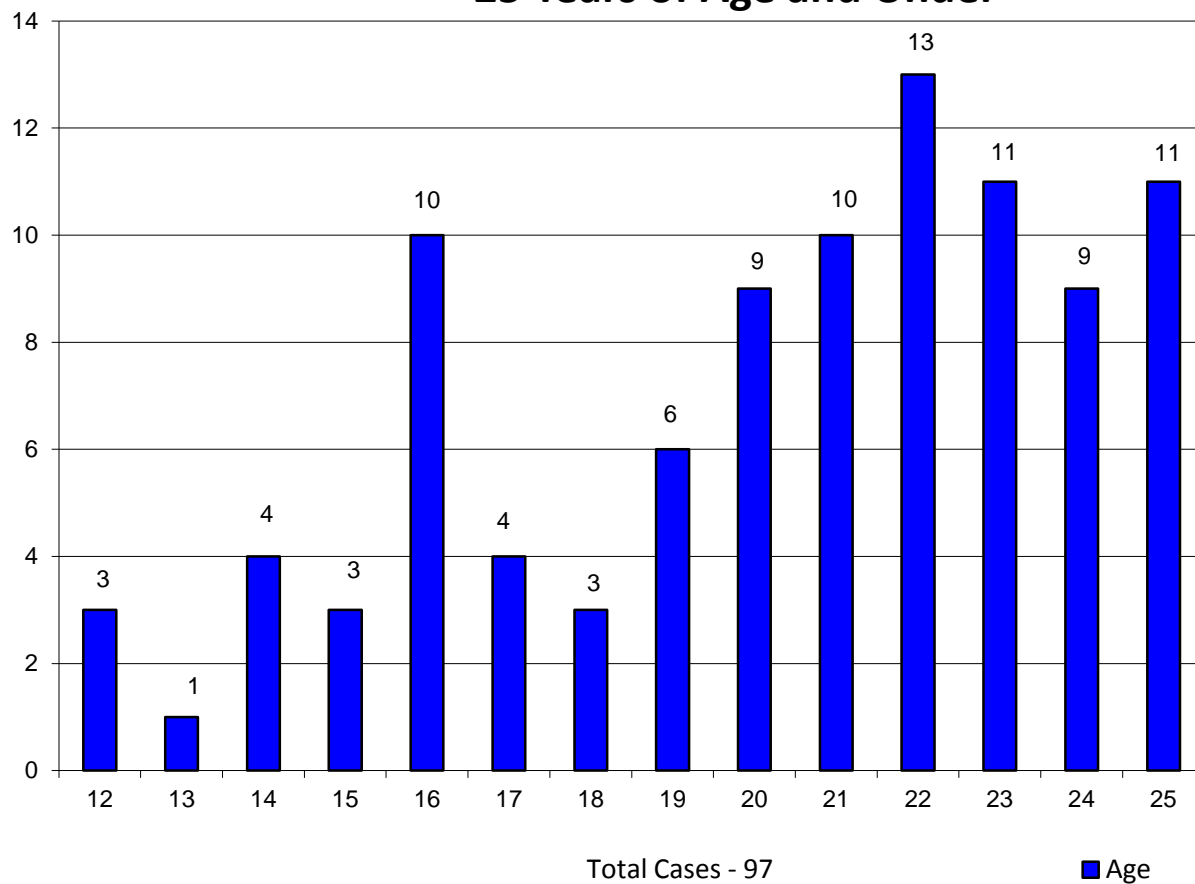
## 2017 Suicide Deaths Classified by Cause of Death



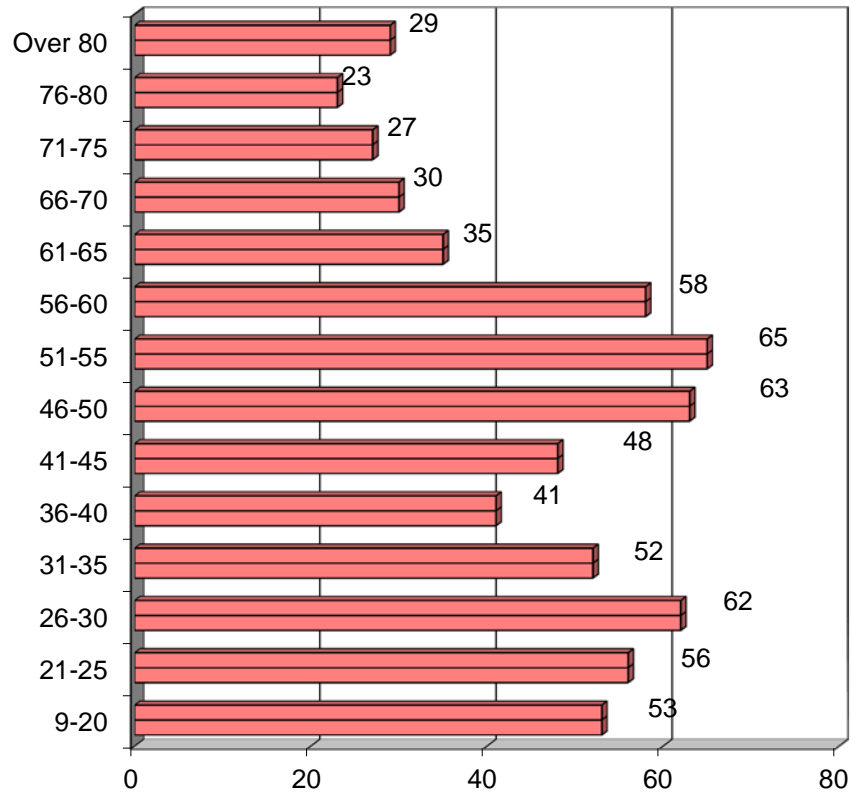
## 2017 Drug Deaths Suicide Manner



# 2017 Youth Suicides 25 Years of Age and Under

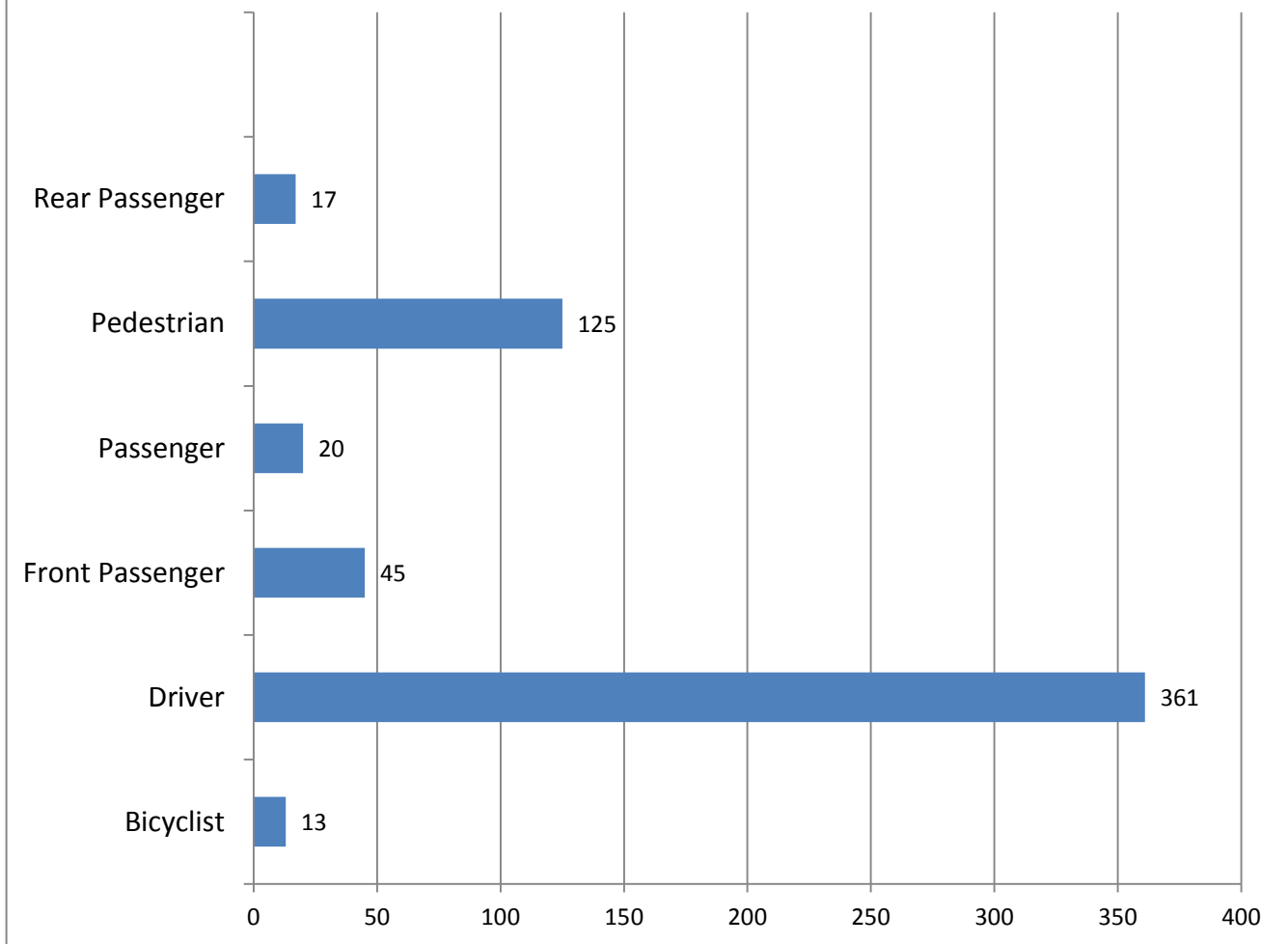


# 2017 Suicide Deaths by Age



Total Deaths - 642

## 2017 Transportation Accidents Classified by Activity

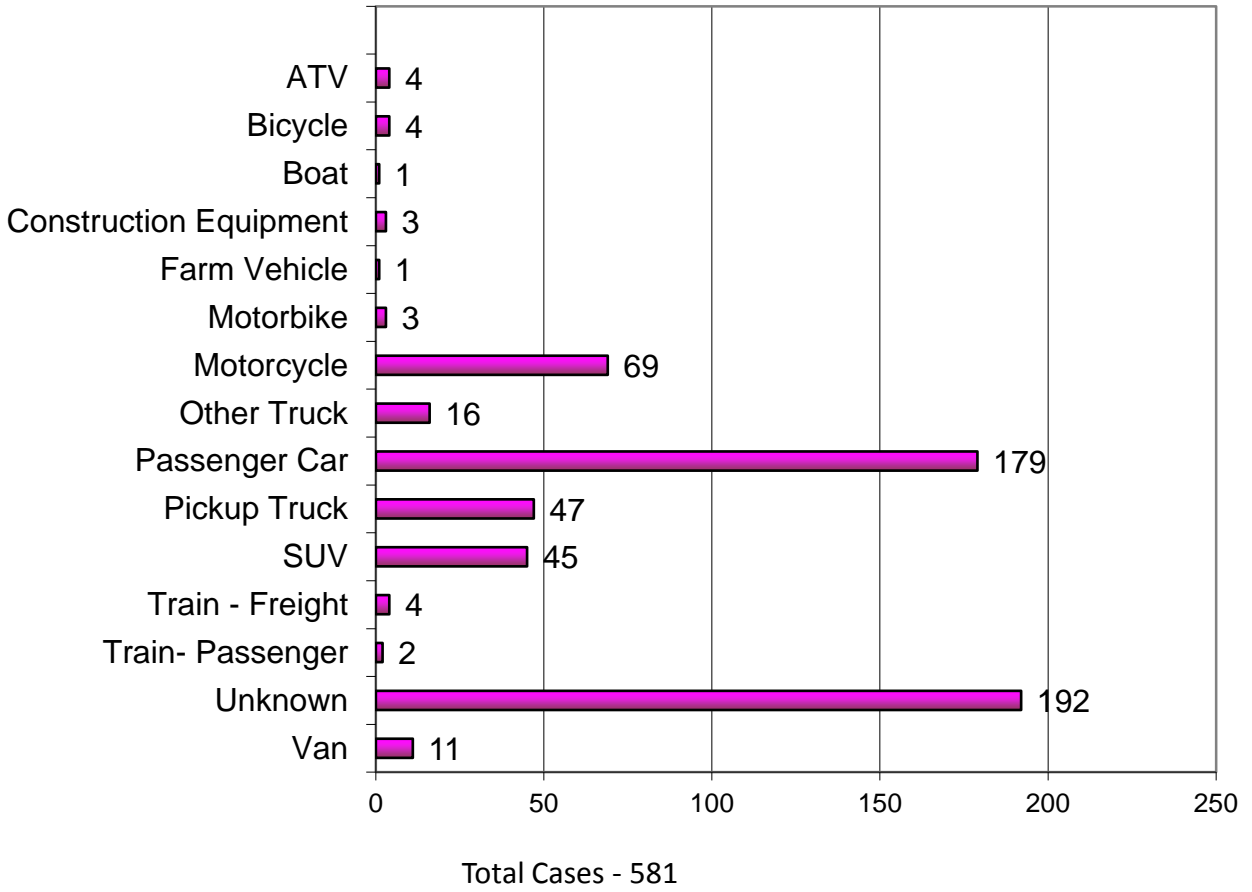


Total Cases – 581

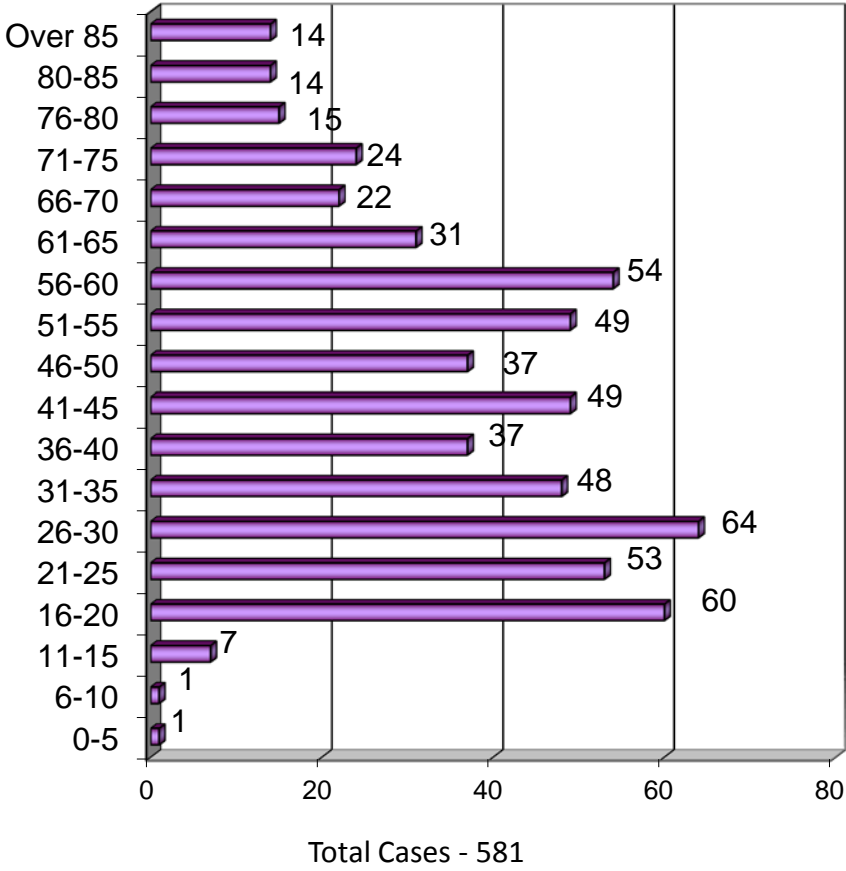


# 2017 Transportation Deaths

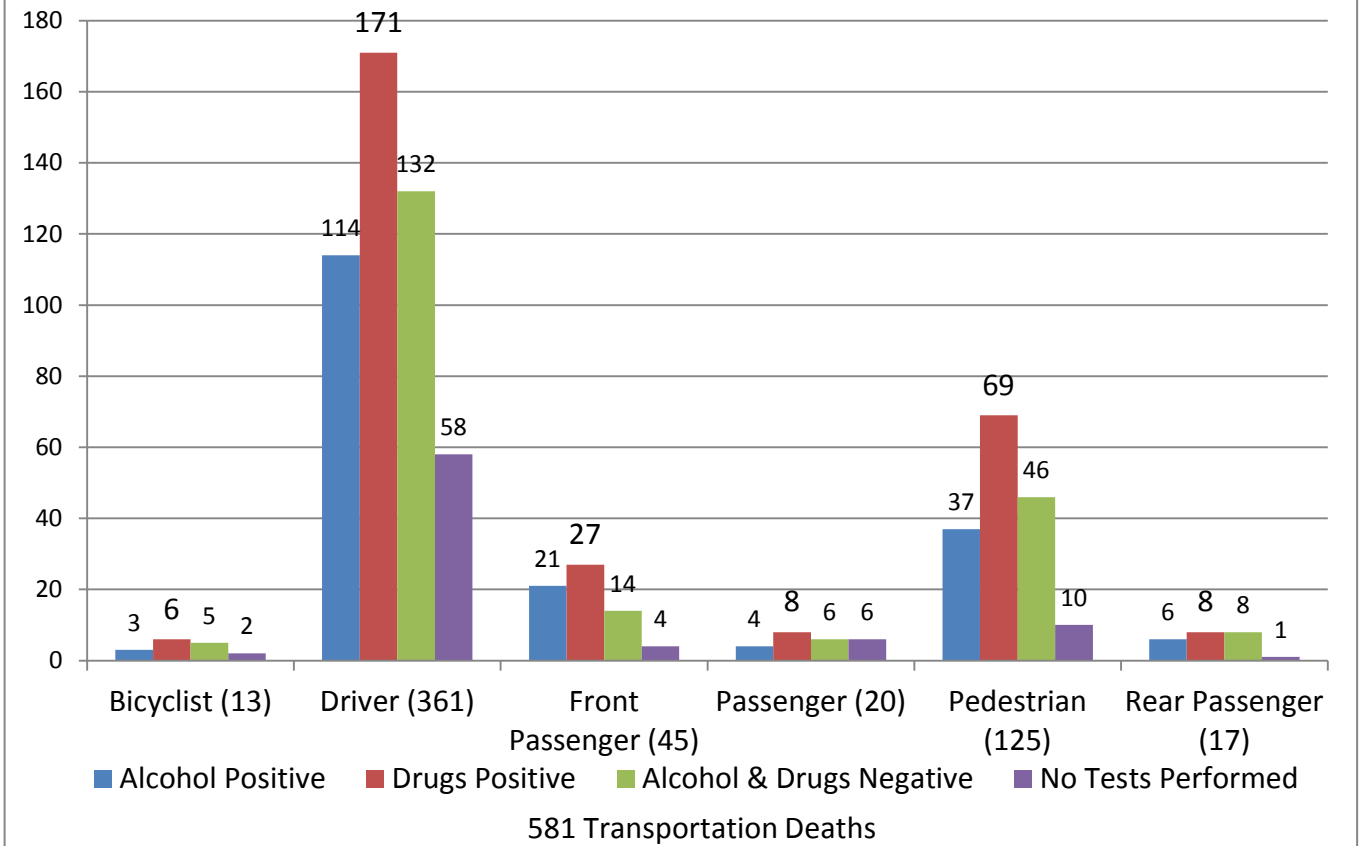
## Type of Vehicle



# 2017 Transportation Deaths by Age

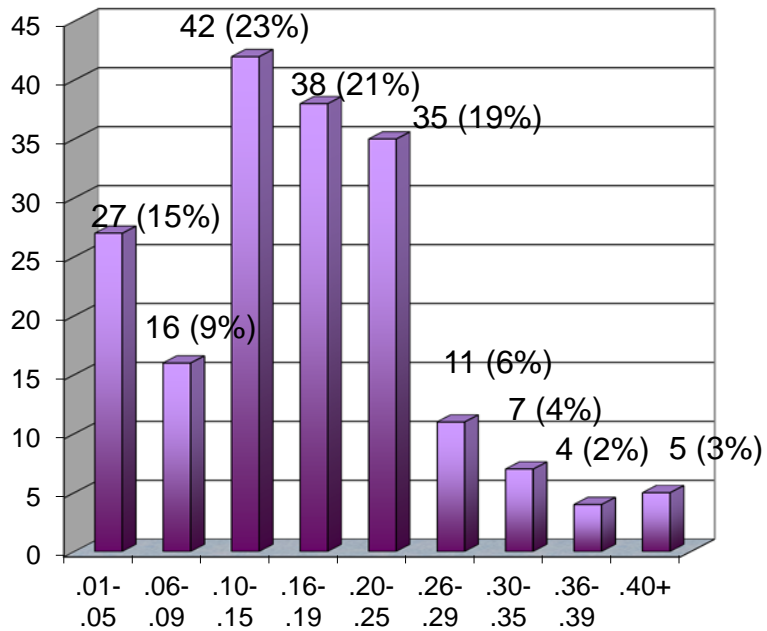


## 2017 Transportation Accidents Alcohol/Drug Results



The alcohol and drug tests are not mutually exclusive, so the numbers in parentheses may not add up to the numbers on the bar graphs. For example, a bicyclist may be positive for both alcohol and drugs.

## 2017 Transportation Deaths Blood Alcohol Concentration in 185 Cases 37%\* Tested Positive



581 Transportation Deaths  
315 Negative for Alcohol  
81 No Testing Performed

\*Percent based on total cases tested for

## ADDENDUM

### Miscellaneous Data

1. Number of Autopsies	3,878
Number of Partial Autopsies	1,604
Number of CT Autopsies	23
2. Organ donations	113
3. Unclaimed bodies released to State Anatomy Board	347
4. Exhumations	1
5. Bodies transported to the OCME	5,852

# 2017 Drug Classifications

## Antidepressants

Amitriptyline  
Bupropion  
Citalopram  
Clomipramine  
Desipramine  
Desmethylvenlafaxine  
Doxepin  
Fluoxetine  
Fluvoxamine  
Imipramine  
Mirtazapine  
Nardoxepin  
Nortriptyline  
Nortriptyline  
Paroxetine  
Sertraline  
Trazodone  
Venlafaxine

## Antihistamines

Brompheniramine  
Chlorpheniramine  
Diphenhydramine  
Doxylamine  
Hydroxyzine  
Meclizine  
Pheniramine

## Barbiturates / Antiepileptics

Butalbital  
Carbamazepine  
Lamotrigine  
Levetiracetam  
Pentobarbital  
Phenobarbital  
Phenytoin  
Primidone  
Topiramate

## Benzodiazepines

7-Aminoclonazepam  
Alprazolam  
Chlordiazepoxide  
Clonazepam

## Benzodiazepines (continued)

Diazepam  
Flurazepam  
Lorazepam  
Midazolam  
Nordiazepam  
Oxazepam  
Temazepam  
Triazolam

## Carbon Monoxide

## Cardiac Drugs

Amlodipine  
Diltiazem  
Flecainide  
Metoprolol  
Procainamide  
Propranolol  
Verapamil

## Cocaine and Metabolites

Benzoyllecgonine

## Fentanyl and Analogs

4-Fluoroisobutyryl fentanyl  
Acetyl Fentanyl  
Acrylfentanyl  
Butyryl Fentanyl  
Carfentanil  
Despropionyl fentanyl  
Fentanyl  
Furanyl fentanyl  
Methoxyacetyl fentanyl  
Tetrahydrofuran fentanyl

## Hallucinogens

Phencyclidine  
Tenocyclidine

## Inhalants

1,1-Difluoroethane  
Halogenated Hydrocarbons  
Nitrous Oxide

## Neuroleptics

Amoxapine  
Buspirone  
Chlorpromazine  
Clozapine  
Haloperidol  
Loxapine  
Olanzapine  
Prochlorperazine  
Promethazine  
Quetiapine  
Thioridazine

## Opioids

6-Monoacetylmorphine  
Buprenorphine  
Codeine  
Free Morphine  
Hydrocodone  
Hydromorphone  
Meperidine  
Methadone  
Mitragynine  
Morphine  
Normeperidine  
Oxycodone  
Oxymorphone  
Tapentadol  
Tramadol  
U-47700

## Other

Acetaminophen  
Amantadine  
Atomoxetine  
Atropine  
Benzoyllecgonine  
Benztropine  
Bupivacaine  
Carisoprodol  
GHB  
Ketamine  
Meprobamate  
Quinine  
Synthetic Cannabinoids  
Zolpidem

## Sympathomimetic Amines

Amphetamine  
Ephedrine  
Methamphetamine  
Methylenedioxyamphetamine  
Methylenedioxymethamphetamine  
Phentermine  
Phenylpropranolamine  
Pseudoephedrine

## Synthetic Cathinones

4-Chloroethcathinone  
alpha-Pyrrolidinovalerophenone  
Butylone  
Dibutylone  
Ethylone  
MDPV  
N-Ethylpentylone  
Pentylone