



2019

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

State of Maryland

Table of Contents

Cases Reported to OCME

- Action Taken1
- Autopsied2
- Manner of Death3

Manner of Death

- Classified by Sex4
- Classified by Race4

Medical Examiner Cases

- Cause and Manner of Death5
- A Three-Year Comparison.....7
- Manner and Jurisdiction8

Toxicologic Testing

- Percentage of Cases Positive for Alcohol and/or Drugs9

Drug Abuse Death

- By Jurisdiction (3-Year Comparison)10
- Undetermined Manner Only11

Homicide Deaths

- Cause of Death12
- A Five-Year Comparison.....13
- Deaths by Age.....14

Firearm Deaths

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

Sudden Unexplained Death in Infancy

- A Five-Year Comparison.....16
- Classified by Age.....17
- Classified by Race and Sex17

Infant Death

- Cause and Manner of Death18

Suicide Death

- Cause of Death19
- Youth Suicides20
- Deaths by Age.....21

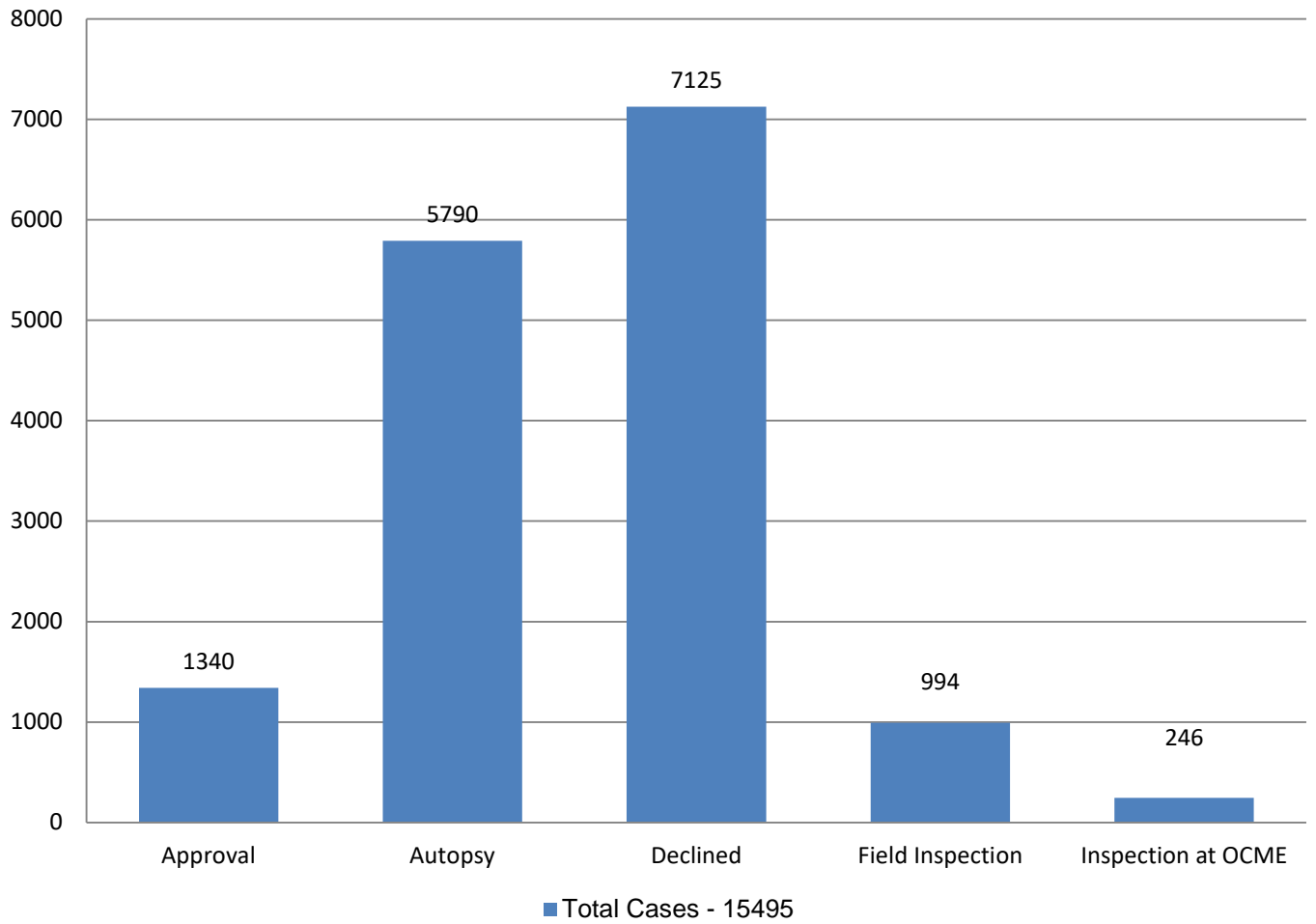
Transportation Deaths

- Classified by Activity22
- Type of Vehicle23
- Classified by Age.....24
- Alcohol/Drug Results25
- Alcohol Levels in Cases Testing Positive26

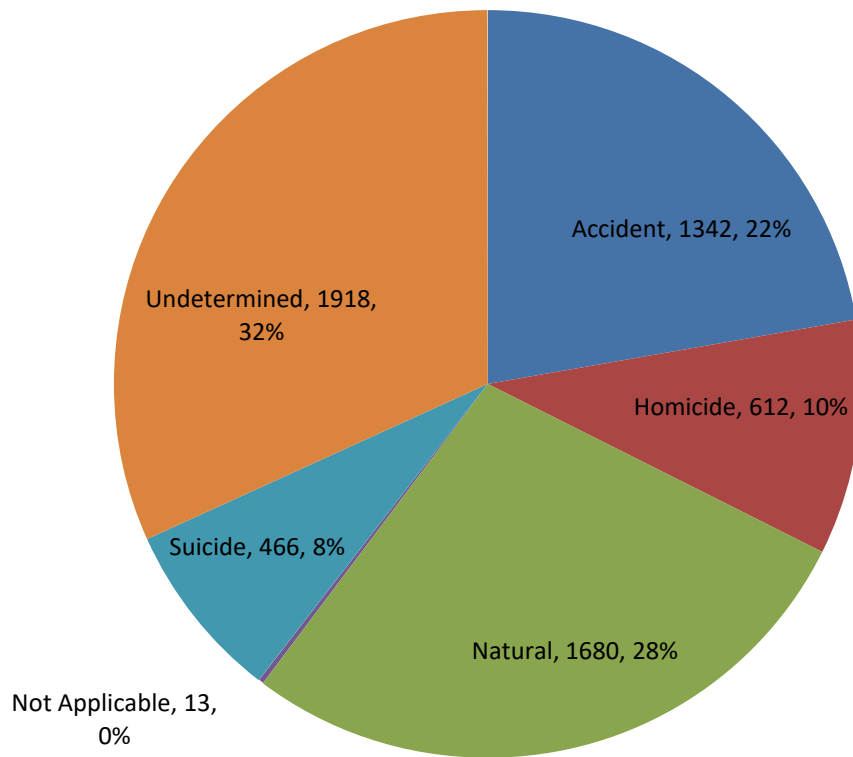
Addendum

- Miscellaneous Data27
- Drug Classification List28

2019 Cases Reported to OCME - Action Taken



2019 Medical Examiner Cases Autopsied*

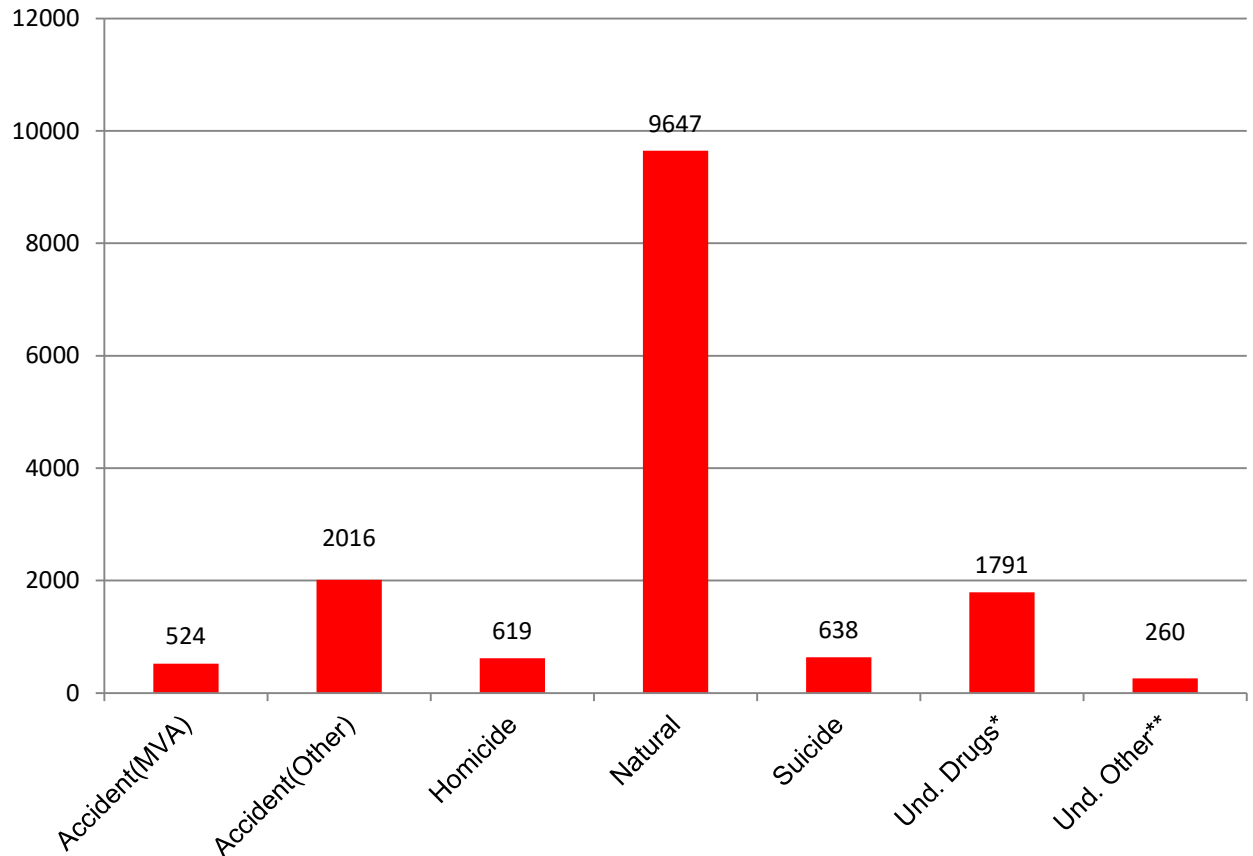


Total Cases Autopsied - 6031

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

**Seven homicides were not autopsied

2019 Cases Reported to OCME Manner of Death



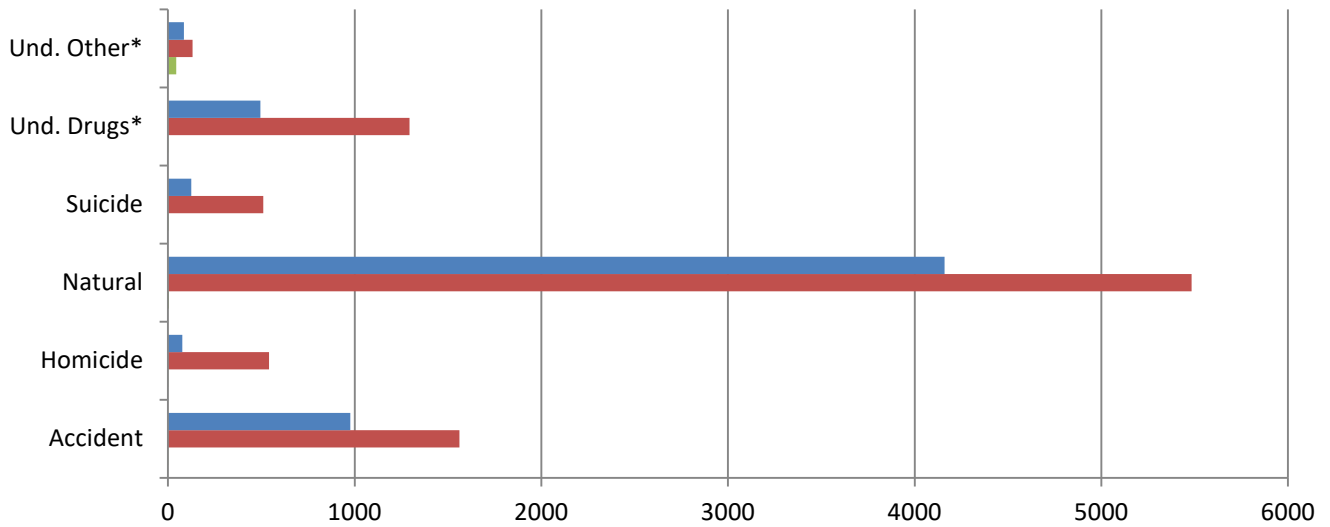
Total Cases – 15495

*Undetermined Manner: Drugs/Narcotics

** Undetermined Manner: Other

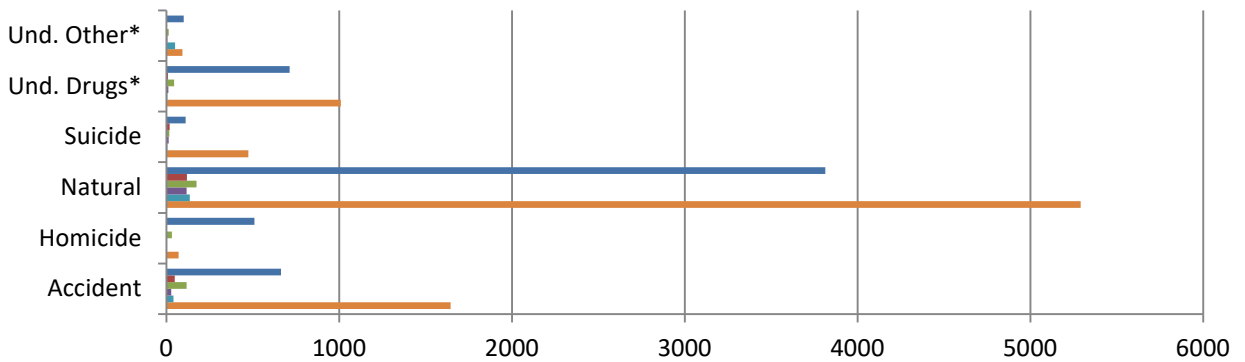
2019 Manner of Death

Classified by Sex



	Accident	Homicide	Natural	Suicide	Und. Drugs*	Und. Other*
Female	976	76	4160	124	495	85
Male	1562	542	5483	511	1294	131
Unknown	2	1	4	3	2	44

Classified by Race



	Accident	Homicide	Natural	Suicide	Und. Drugs*	Und. Other*
African American	663	509	3813	111	713	99
Asian	47	2	118	19	9	2
Hispanic	117	31	174	17	44	12
Other	27	4	117	13	10	5
Unknown	41	3	134	5	6	49
White	1645	70	5291	473	1009	93

*Undetermined Manner: Drugs/Narcotics

** Undetermined Manner: Other

Manner of Death

Cause of Death	Accident	Homicide	Natural	Not Applicable	Suicide	Undetermined	Total
Asphyxiation	89	4	3		128	21	245
Airway obstruction/Aspirated stomach content	3		3				6
Drowning	67				12	16	95
Hanging					97	1	98
Smoke inhalation	11					2	13
Strangulation/Asphyxiation	8	4			19	2	33
Chemical/Drug/Alcohol Intoxication/Abuse/Use	498	3	83		80	1794	2458
Alcohol abuse/use	3		60				63
Alcohol and drug intoxication/use	7				9	2	18
Alcohol intoxication/use	18		1		1	1	21
Carbon monoxide	3				5	2	10
Cocaine and alcohol intoxication/use	7		1			3	11
Cocaine intoxication/use	36	1	11		1	35	84
Drug intoxication/abuse/use	49		6		38	57	150
Narcotic and alcohol intoxication/use	74				4	257	335
Narcotic intoxication/use	301	2	4		22	1437	1766
Circulatory system	54	2	1301		1	3	1361
Aneurysm			7				7
Cardiac arrhythmia	2		54			1	57
Cardiomyopathy			23				23
Cardiovascular disease	21	2	952			1	976
Cerebrovascular disease	6		43				49
Hemorrhage	2		10		1		13
Other cardiac	9		160			1	170
Pulmonary embolism	14		52				66
Congenital / Perinatal		1	3	4		38	46
Congenital/Perinatal		1	3	4			8
Sudden Unexplained Death in Infancy (SUDI)						38	38
Digestive system disease	1		46			1	48
Cirrhosis			7				7
Gastrointestinal hemorrhage			19				19
Liver Disease	1		5				6
Other digestive			15			1	16
Electrocution	2				1		3
Electrocution	2				1		3
Endocrine and metabolic disease	2		51			1	54
Diabetes	2		44			1	47
Other Endocrine and metabolic			7				7
Hyperthermia	19						19
Hyperthermia	19						19
Hypothermia	48					1	49
Hypothermia	48					1	49
Infectious disease			11				11
Other infectious disease			11				11

Manner of Death

Cause of Death	Accident	Homicide	Natural	Not Applicable	Suicide	Undetermined	Total
Malignant neoplasms (Cancer)			30				30
Malignant neoplasms (Cancer)			30				30
Nervous system disease	4		29			3	36
Meningitis			1				1
Other CNS	1		8			1	10
Seizure disorder	3		20			2	25
Other natural cause			56				56
Other natural cause			56				56
Other non-natural cause	4	6		9	7		26
Other non-natural cause	4	6		9	7		26
Respiratory system		3	67			2	72
Asthma			7				7
Chronic obstructive pulmonary disease			2				2
Other respiratory		2	17			1	20
Pneumonia		1	41			1	43
Thermal Injuries (Burns)	27	3				2	32
Thermal Injuries (Burns)	27	3				2	32
Traumatic injury	594	590			249	28	1461
Blunt force	85	13			9	2	109
Fracture	10						10
Gunshot wound	2	494			197	2	695
Head/Chest injuries	89	10			2	12	113
Multiple injuries	387	30			33	7	457
Other trauma	19	2				4	25
Sharp force/cutting	2	41			8	1	52
Unknown cause						24	24
Unknown cause						24	24
Grand Total	1342	612	1680	13	466	1918	6031

Manner of Death - 3 Year Comparison

Medical Examiner Cases: Manner of Death, Maryland 2019

Manner of Death	Number	%
Accident	2540	16.4%
Homicide	619	4.0%
Natural	9647	62.3%
Suicide	638	4.1%
Undetermined	2051	13.2%
Total	15495	100%

Medical Examiner Cases: Manner of Death, Maryland 2018

Manner of Death	Number	%
Accident	2505	16.7%
Homicide	553	3.7%
Natural	9340	62.2%
Suicide	659	4.4%
Undetermined	1950	13.0%
Total	15007	100%

Medical Examiner Cases: Manner of Death, Maryland 2017

Manner of Death	Number	%
Accident	2469	16.8%
Homicide	620	3.7%
Natural	9356	62.5%
Suicide	642	4.4%
Undetermined	1859	13.0%
Total	14946	100%

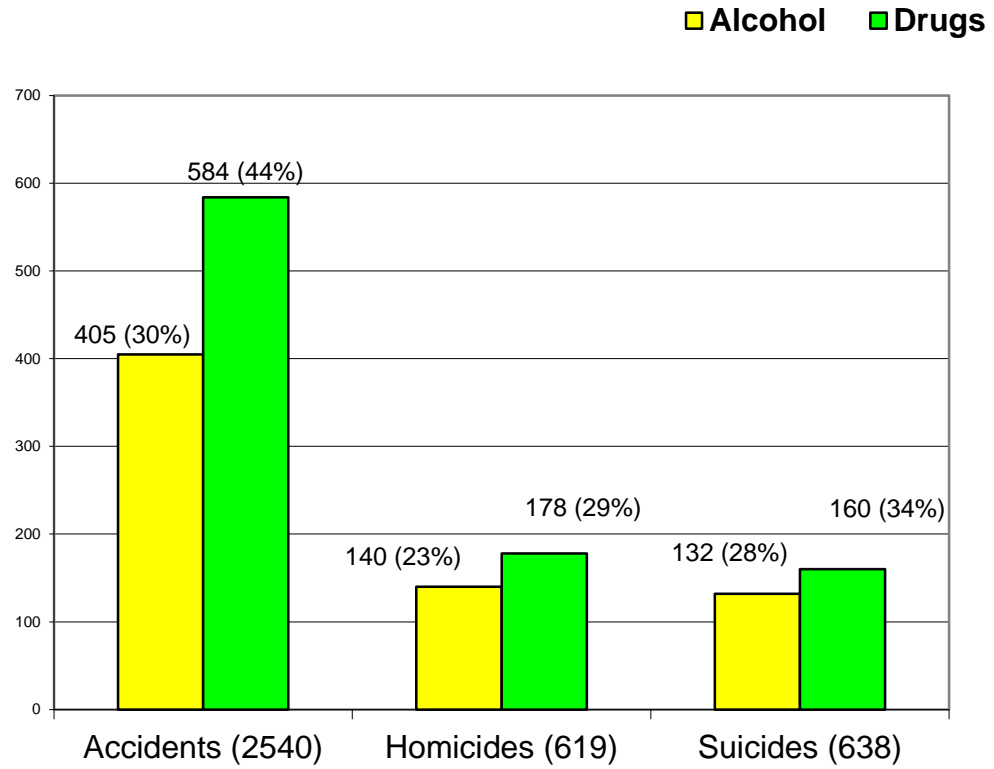
2019 Manner of Death by County

2019 - Manner	Accident	Homicide	Natural	Suicide	Undetermined	Total
Allegany	21	4	39	9	27	100
Anne Arundel	129	20	152	58	157	516
Baltimore City	326	380	400	66	781	1953
Baltimore County	140	40	221	62	254	717
Calvert	17		22	9	26	74
Caroline	6	1	5	5	12	29
Carroll	36	2	33	13	46	130
Cecil	29	3	39	16	49	136
Charles	34	4	26	10	23	97
Dorchester	5	2	14	6	10	37
Frederick	48	3	37	23	47	158
Garrett	9		12	2	6	29
Harford	64	7	45	18	68	202
Howard	32	7	49	22	31	141
Kent	5		9	1	10	25
Montgomery	104	18	176	45	83	426
Prince George's	176	110	224	42	121	673
Queen Anne's	8		6	4	9	27
Saint Mary's	20	1	23	10	27	81
Somerset	4	1	8	3	8	24
Talbot	15	1	19	1	12	48
Washington	49	4	62	26	72	213
Wicomico	42	3	41	9	40	135
Worcester	23	1	18	6	12	60
Grand Total	1342	612	1680	466	1931	6031

2019 - Case Type	Autopsy	OCME Insp.	Total	County	Autopsy	OCME Insp.	Total
Allegany	97	3	100	Washington	199	14	213
Anne Arundel	492	24	516	Wicomico	132	3	135
Baltimore City	1890	63	1953	Worcester	56	4	60
Baltimore County	689	28	717	Grand Total	5788	243	6031
Calvert	69	5	74				
Caroline	27	2	29				
Carroll	123	7	130				
Cecil	128	8	136				
Charles	96	1	97				
Dorchester	34	3	37				
Frederick	152	6	158				
Garrett	29		29				
Harford	191	11	202				
Howard	134	7	141				
Kent	24	1	25				
Montgomery	407	19	426				
Prince George's	648	25	673				
Queen Anne's	24	3	27				
Saint Mary's	78	3	81				
Somerset	22	2	24				
Talbot	47	1	48				

2019 Toxicology Testing

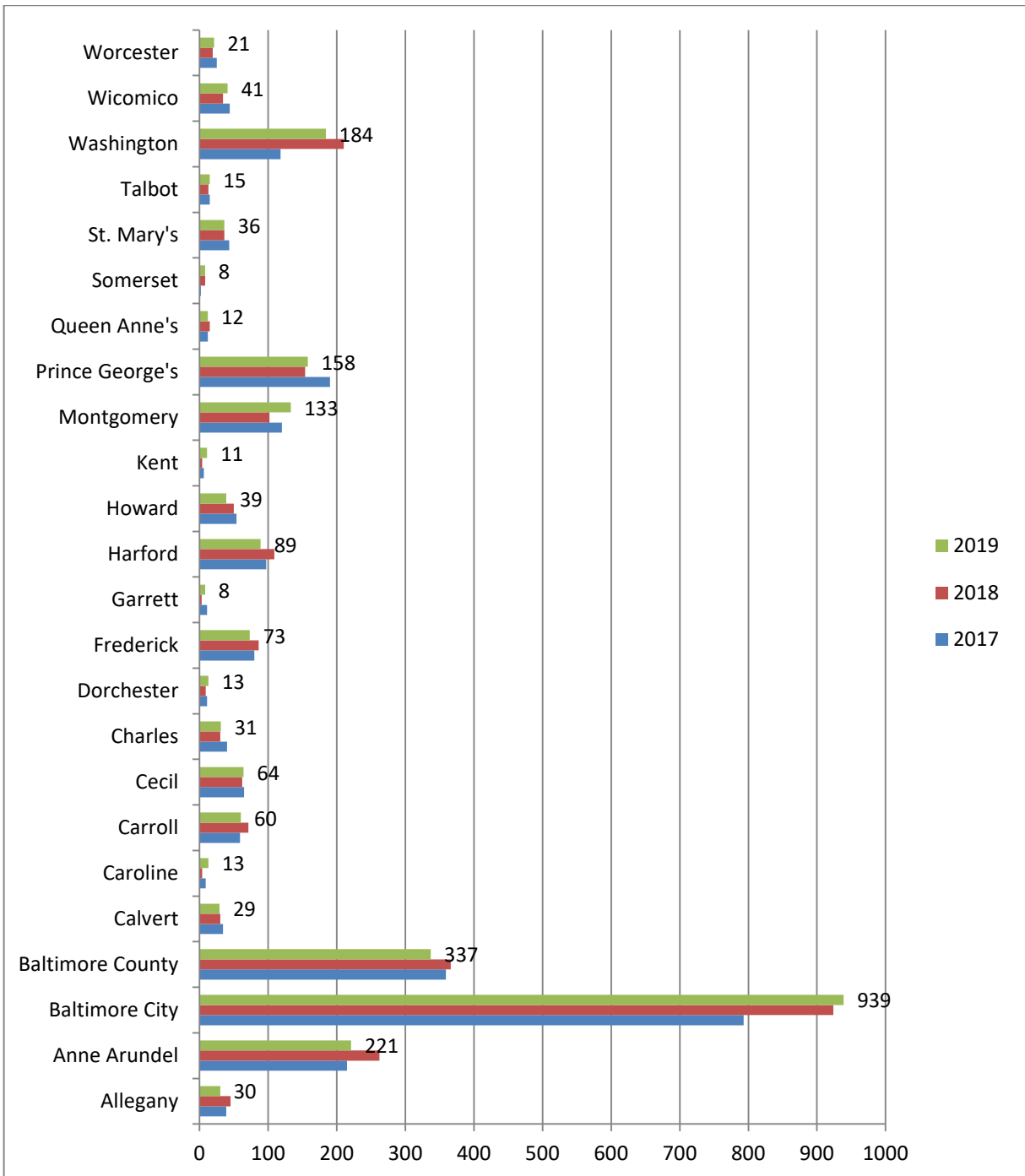
of Cases Positive for Alcohol and/or Drugs (Percentage of the Manner of Death)



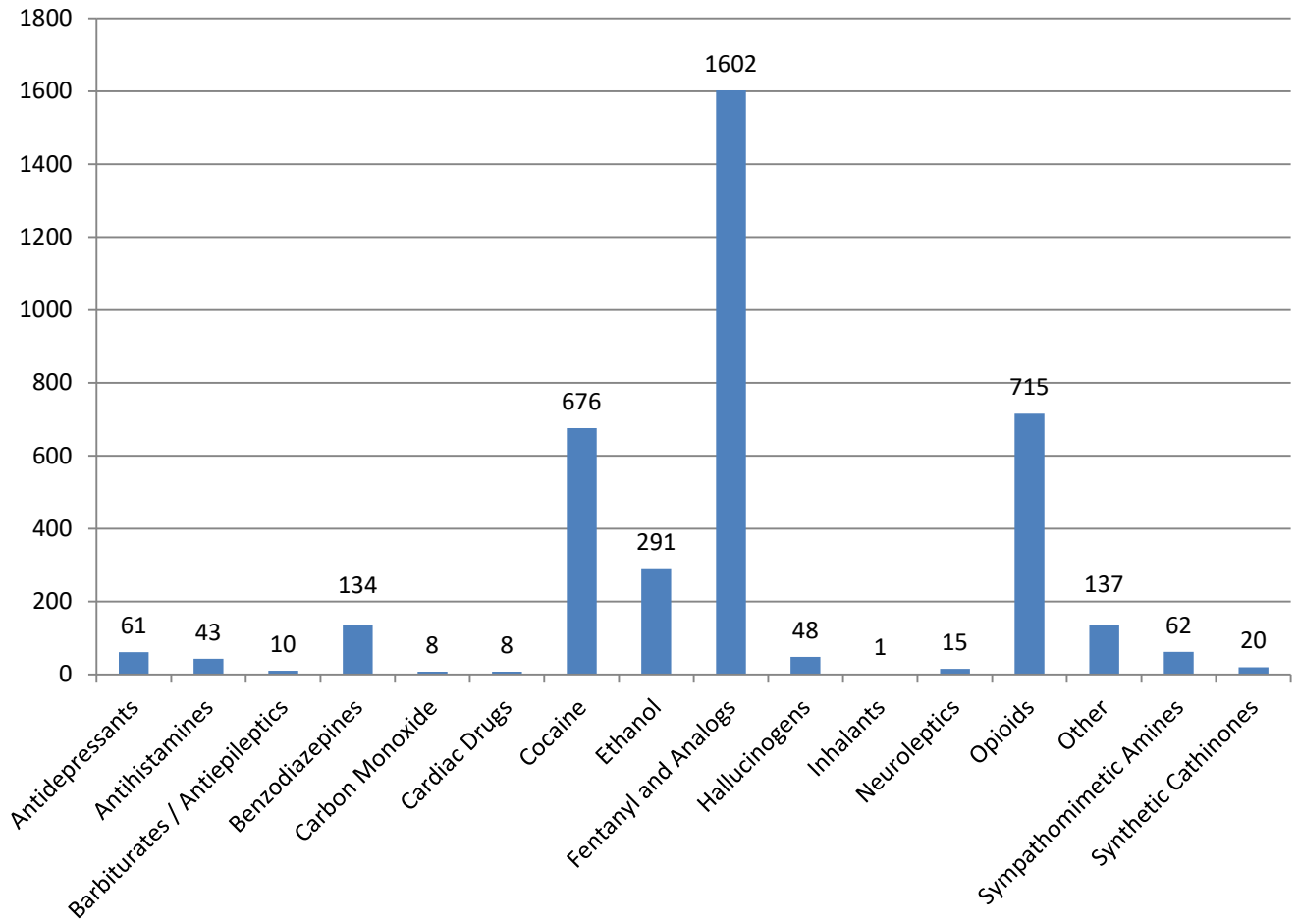
Manner of Death

Drug Deaths

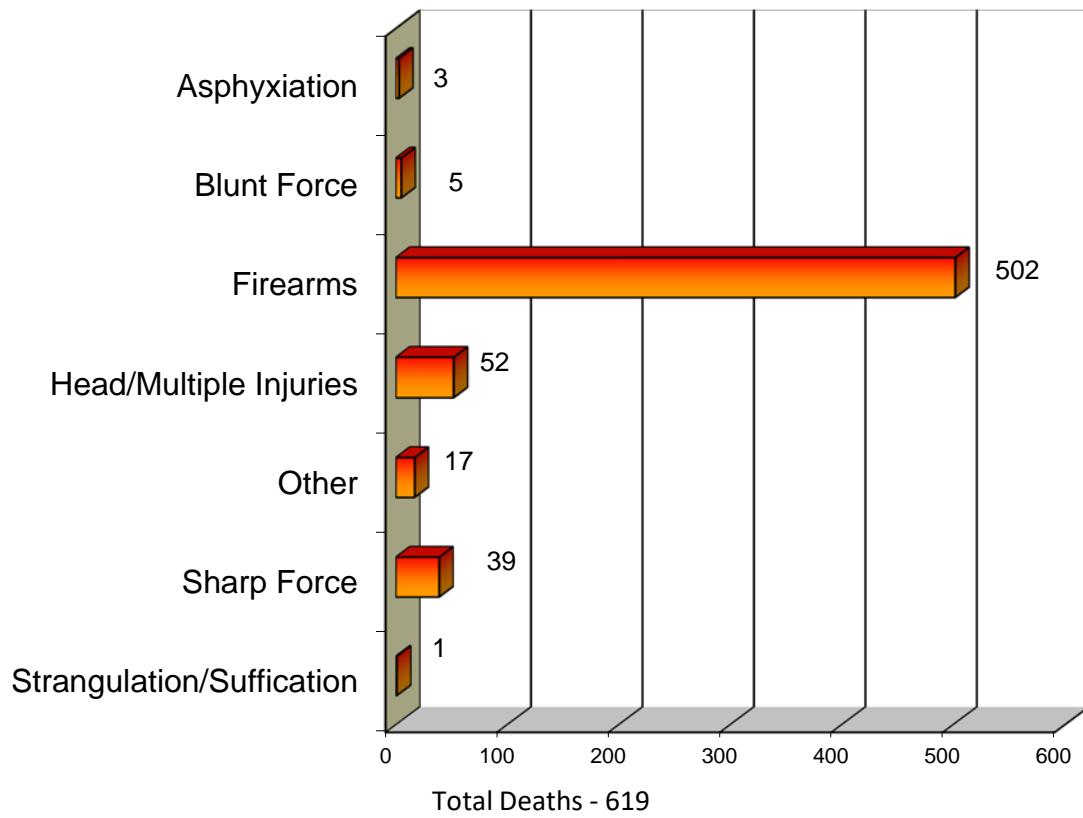
3 Year Comparison by Jurisdiction 2017-2019



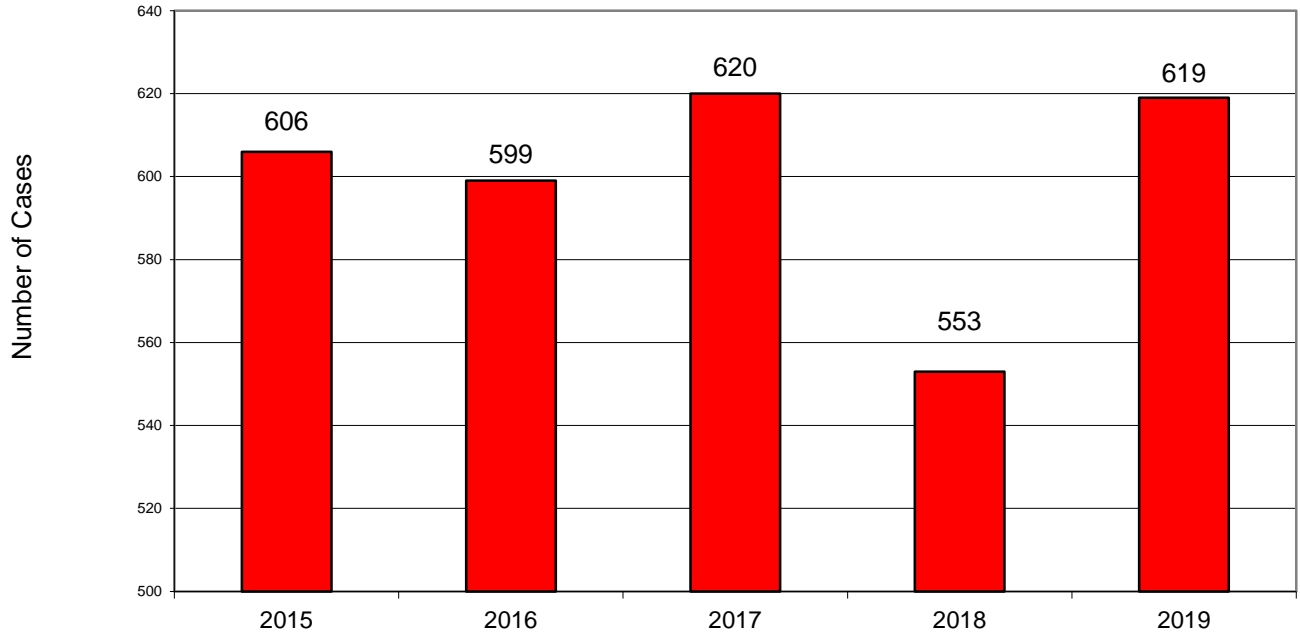
2019 Drug Deaths Undetermined Manner



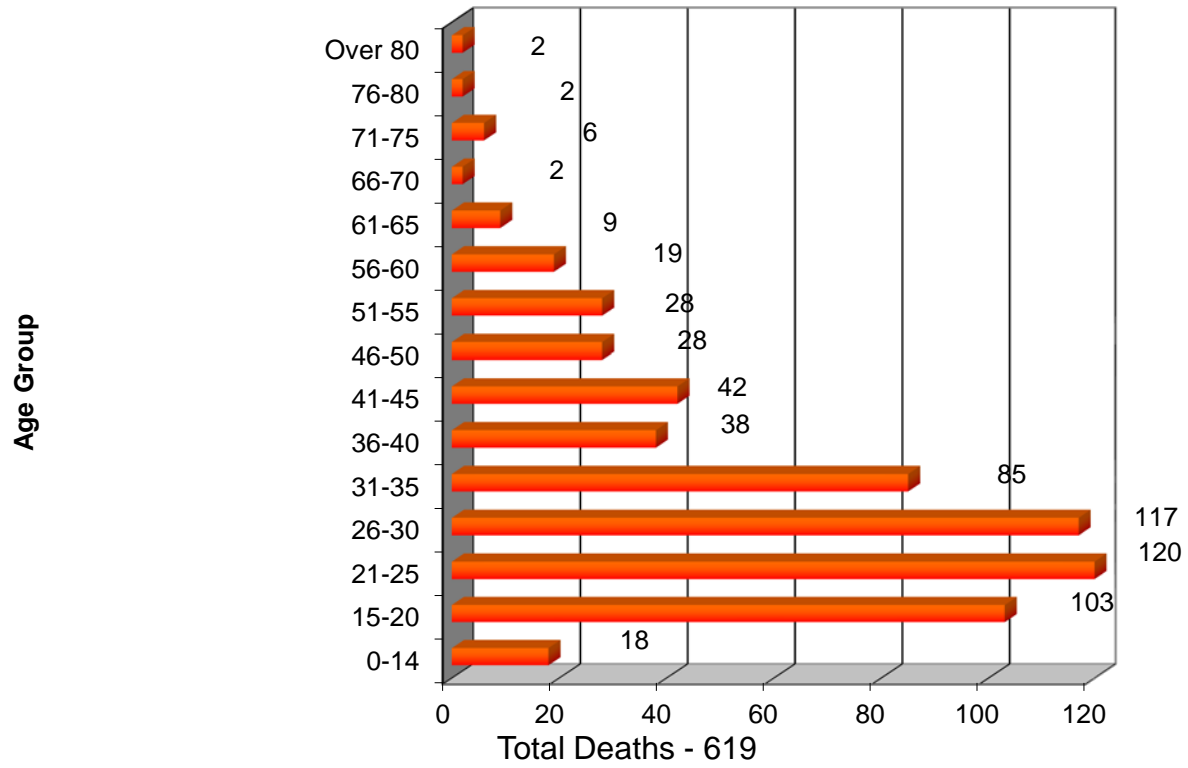
2019 Homicide Deaths Cause of Death



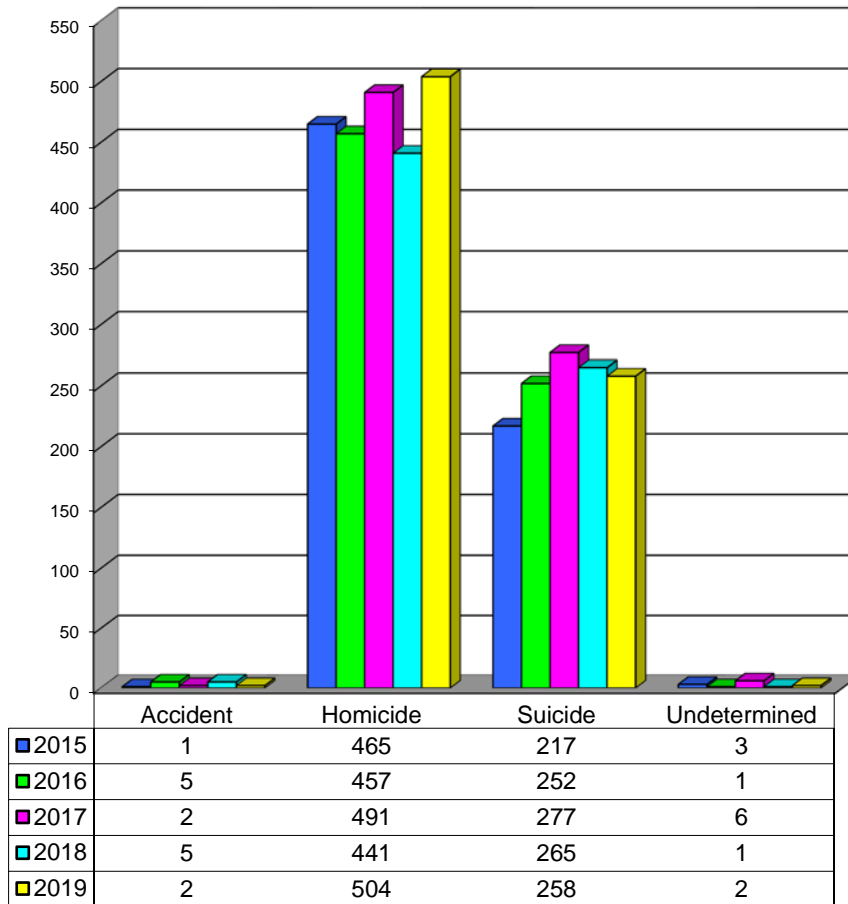
Homicides 5 Year Comparison 2015 - 2019



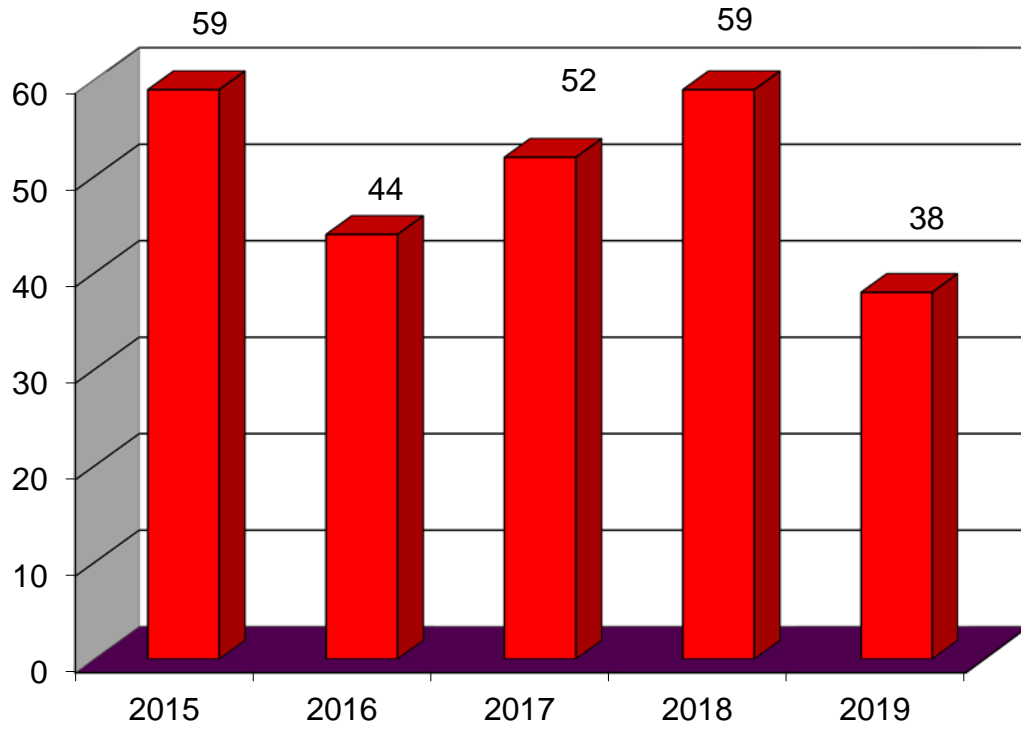
2019 Homicide Deaths by Age



Firearm Deaths 2015 - 2019

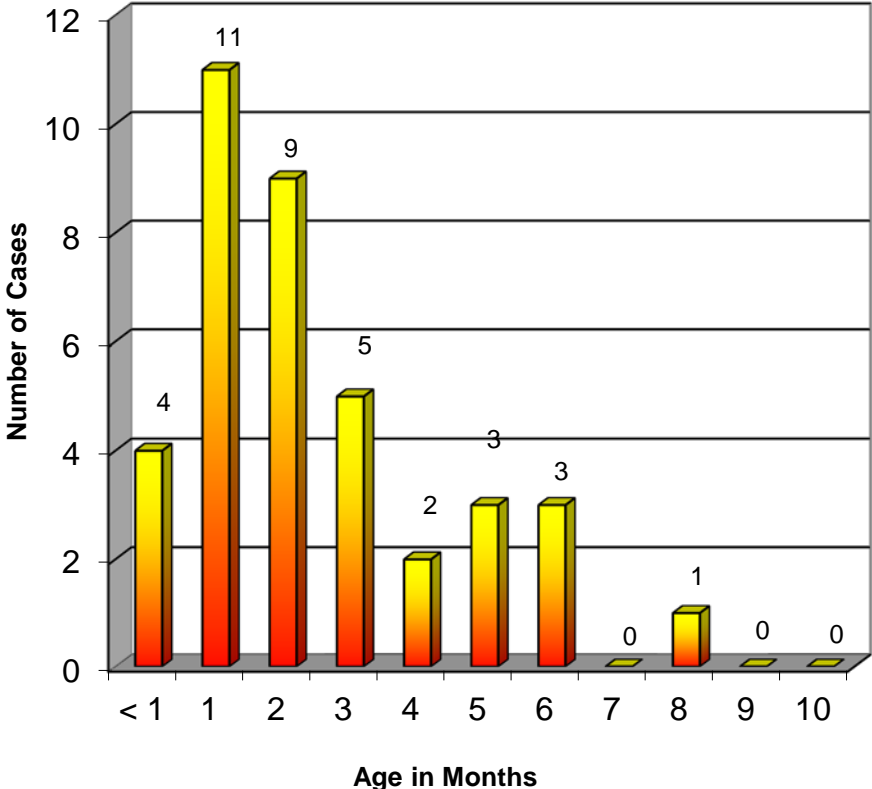


SUDI Deaths 2015 - 2019 Comparison

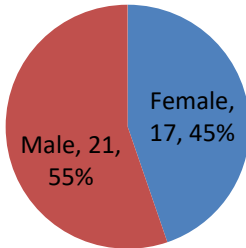


Sudden Unexplained Death in Infancy – 2019

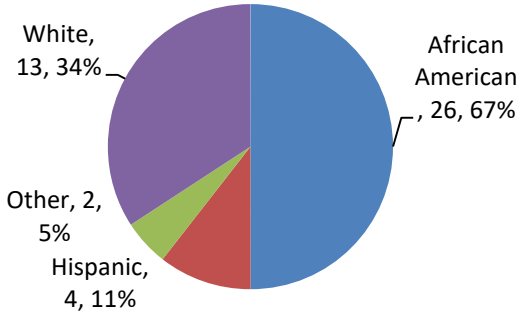
Classified by Age



Classified by Sex



Classified by Race



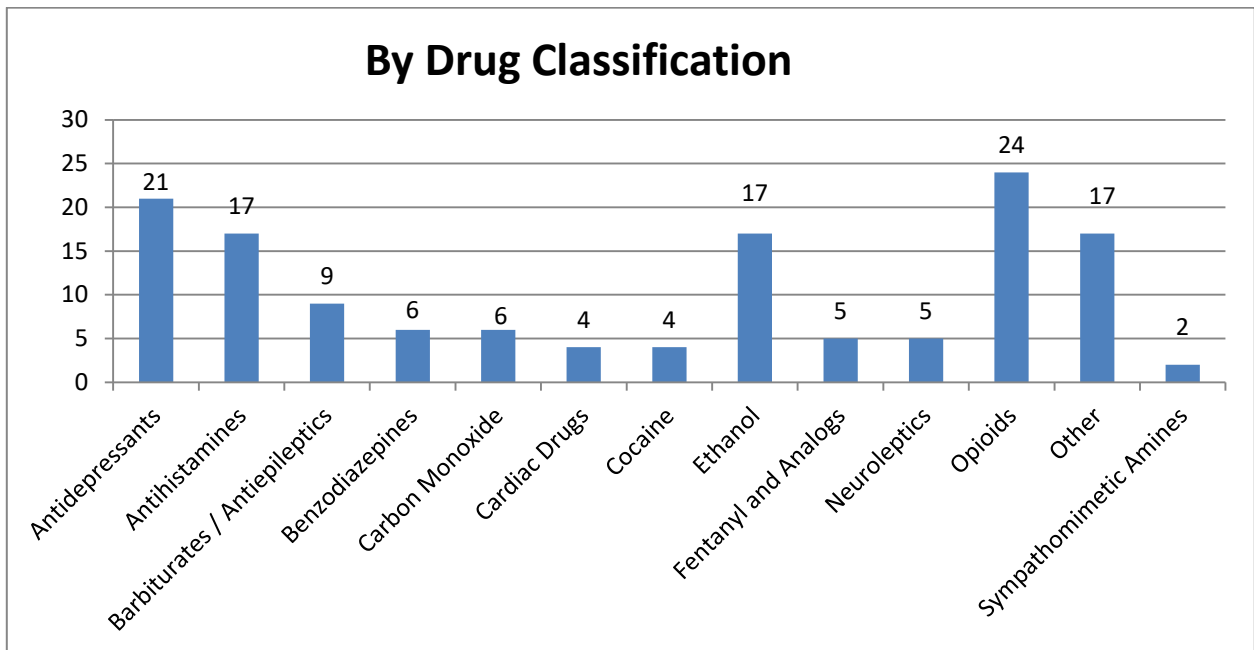
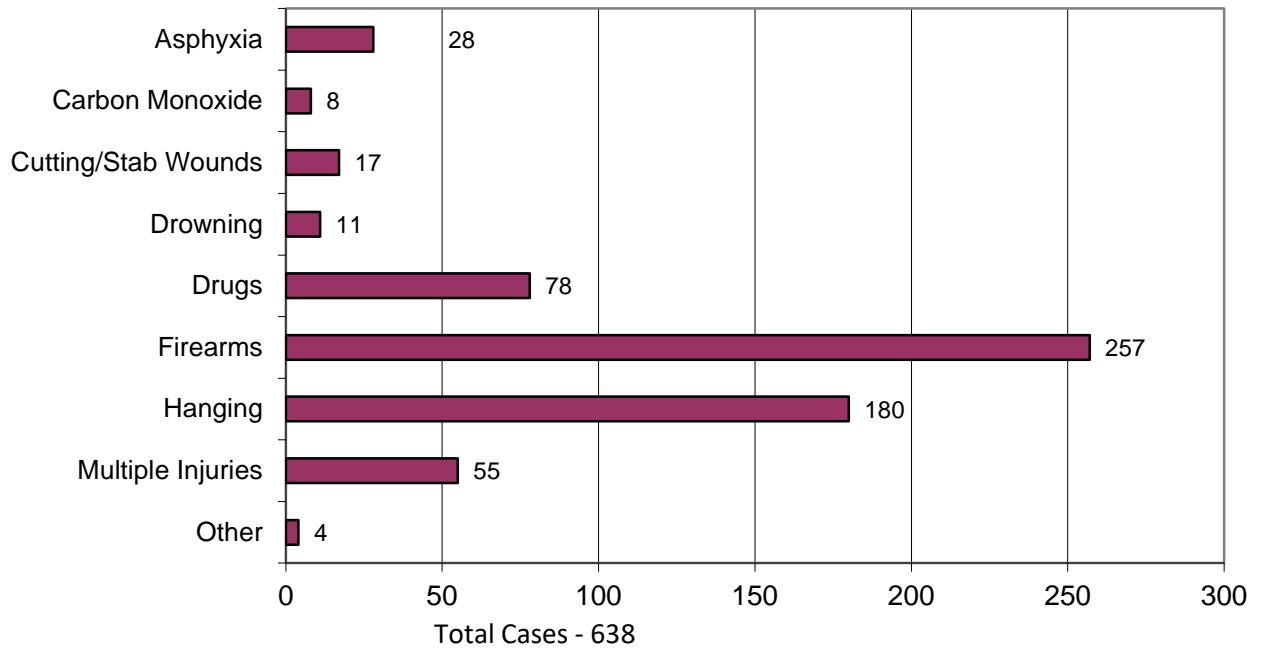
Total of 38 Deaths

Infant Deaths (age live birth to one year)

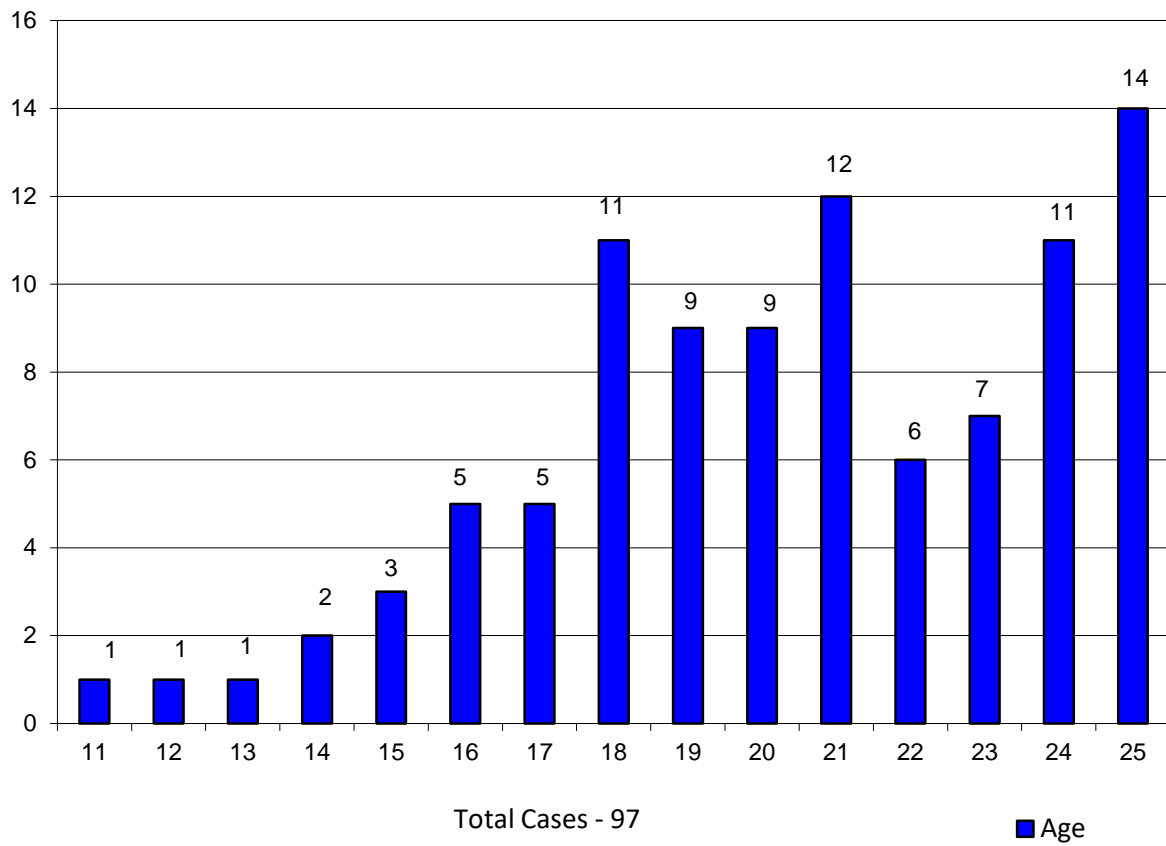
Manner of Death

Cause of Death	Accident	Homicide	Natural	Undeter- mined	Total
Asphyxiation	3				3
Strangulation/Asphyxiation	3				3
Chemical/Drug/Alcohol Intoxication/Abuse/Use		1			1
Narcotic intoxication/use		1			1
Circulatory system			5		5
Cardiac arrhythmia			1		1
Cardiovascular disease			1		1
Cerebrovascular disease			1		1
Other cardiac			2		2
Congenital / Perinatal			2	38	40
Congenital/Perinatal			2		2
Sudden Unexplained Death in Infancy (SUDI)				38	38
Infectious disease			2		2
Other infectious disease			2		2
Other natural cause			4		4
Other natural cause			4		4
Respiratory system			6		6
Other respiratory			4		4
Pneumonia			2		2
Traumatic injury		4			4
Blunt force		1			1
Head/Chest injuries		1			1
Multiple injuries		2			2
Unknown cause				1	1
Unknown cause				1	1
Grand Total	3	5	19	39	66

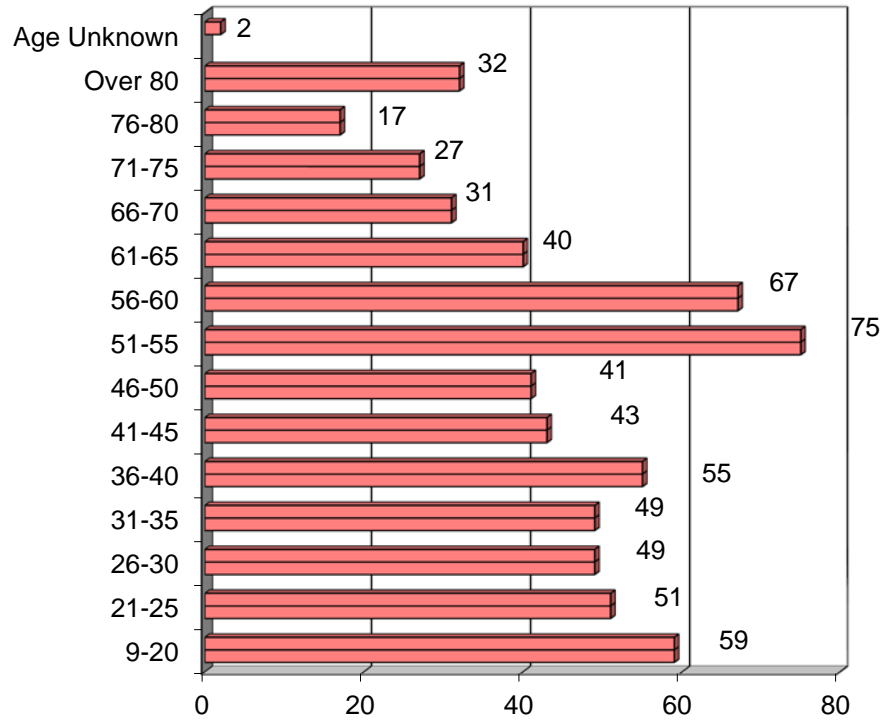
2019 Suicide Deaths Classified by Cause of Death



2019 Youth Suicides 25 Years of Age and Under

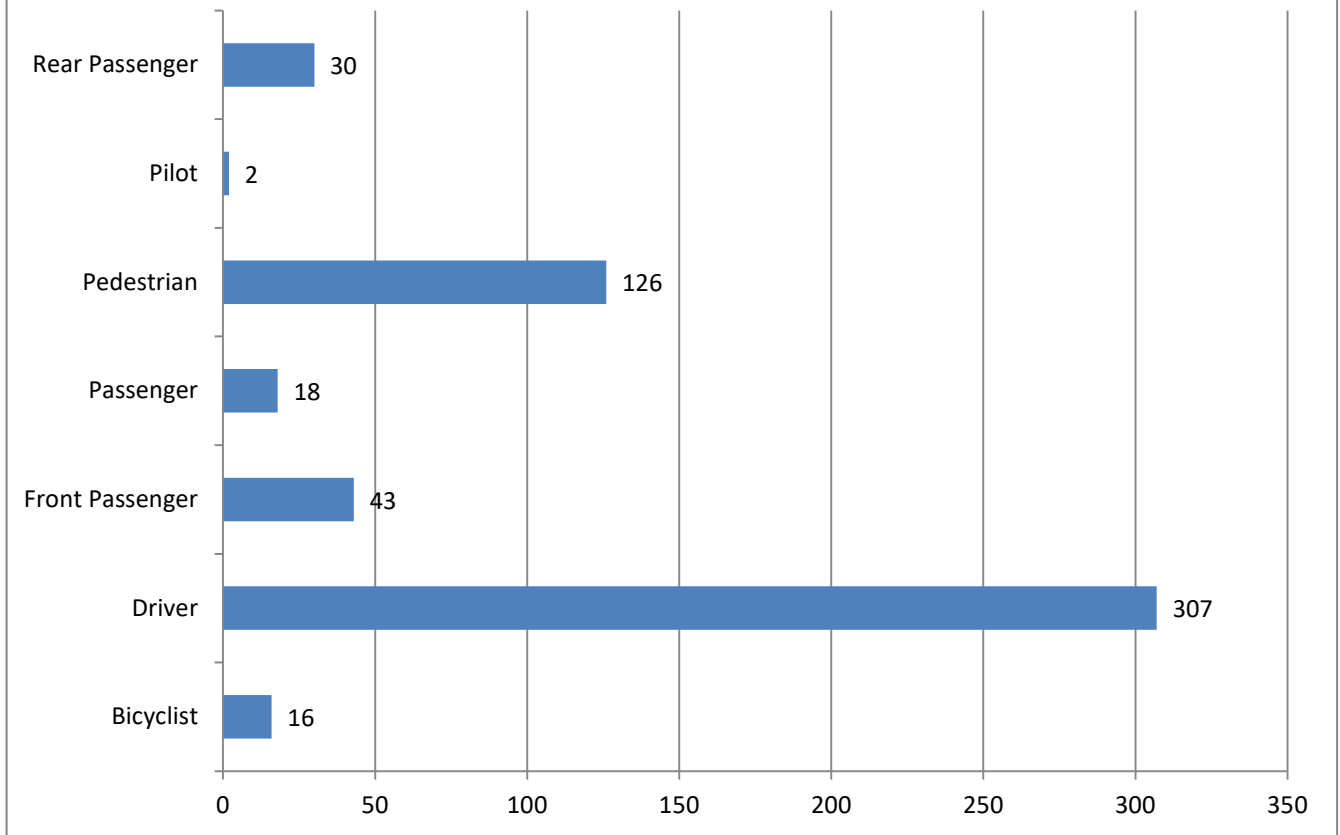


2019 Suicide Deaths by Age



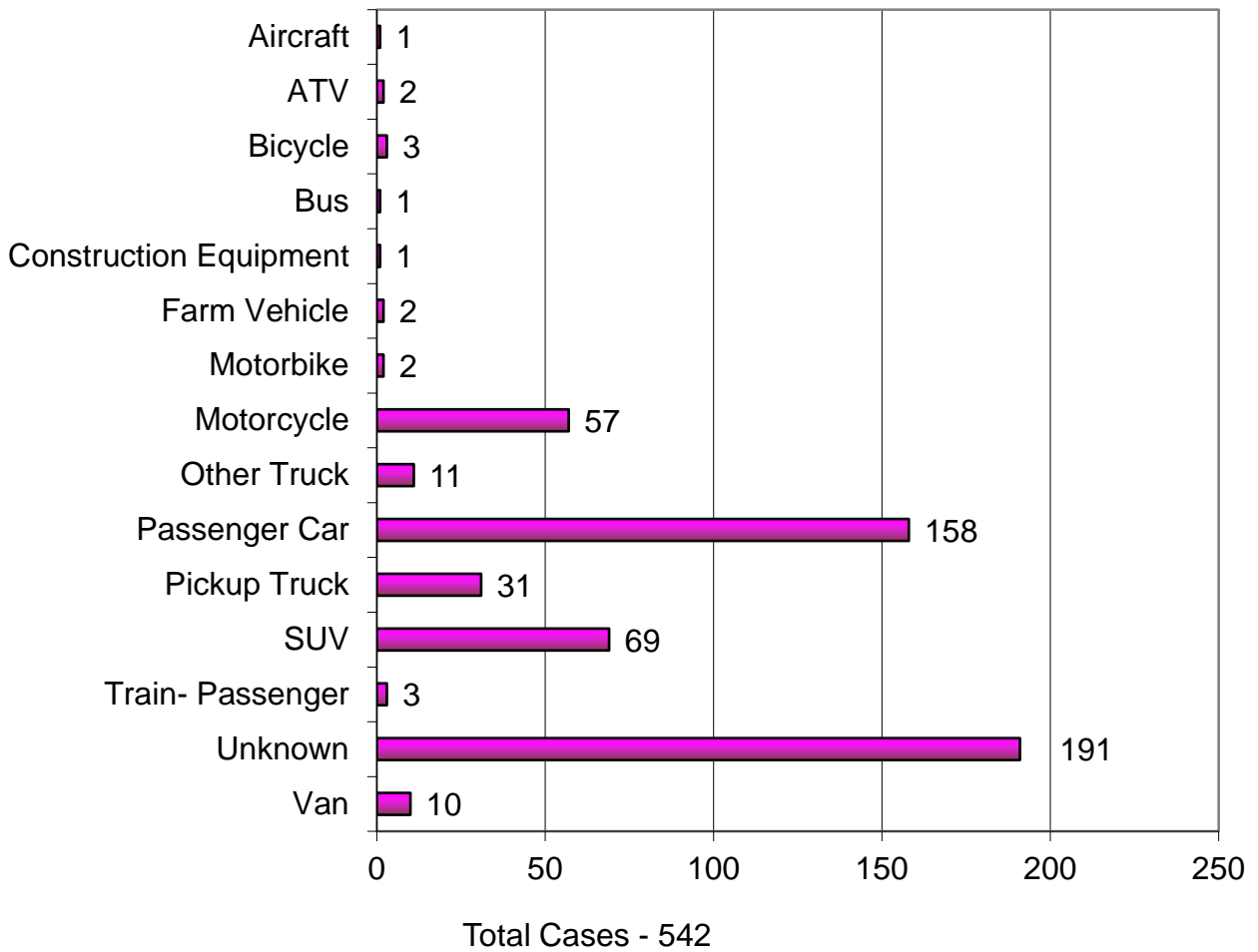
Total Deaths - 638

2019 Transportation Accidents Classified by Activity

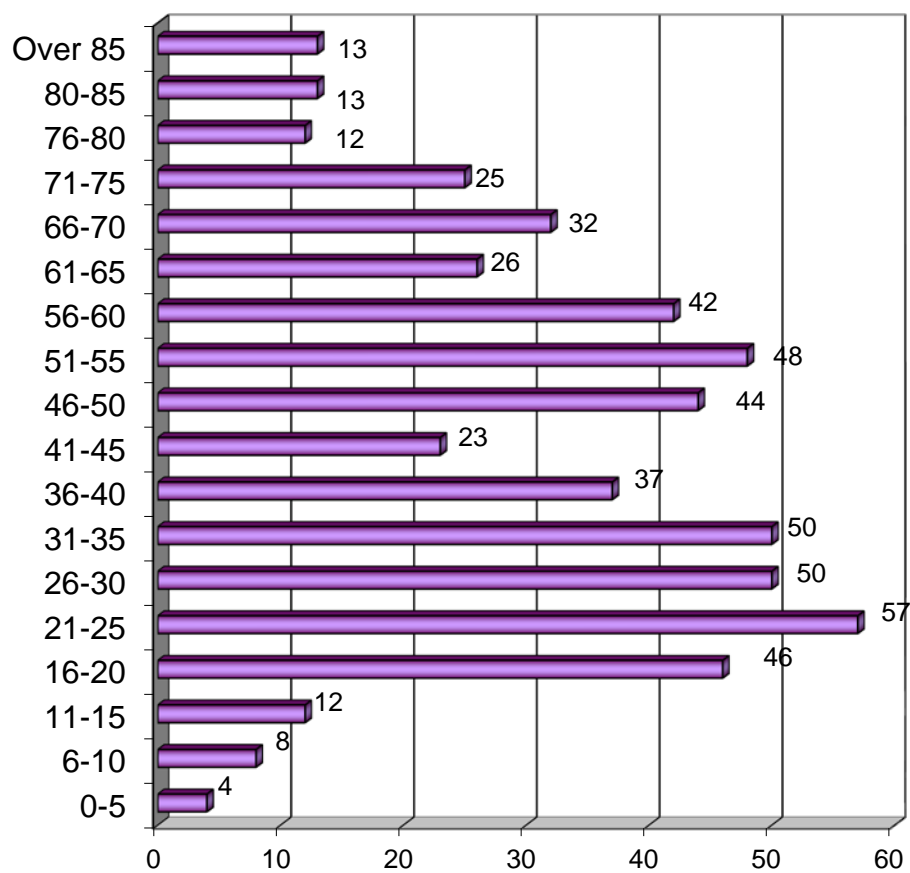


Total Cases – 542

2019 Transportation Deaths Type of Vehicle

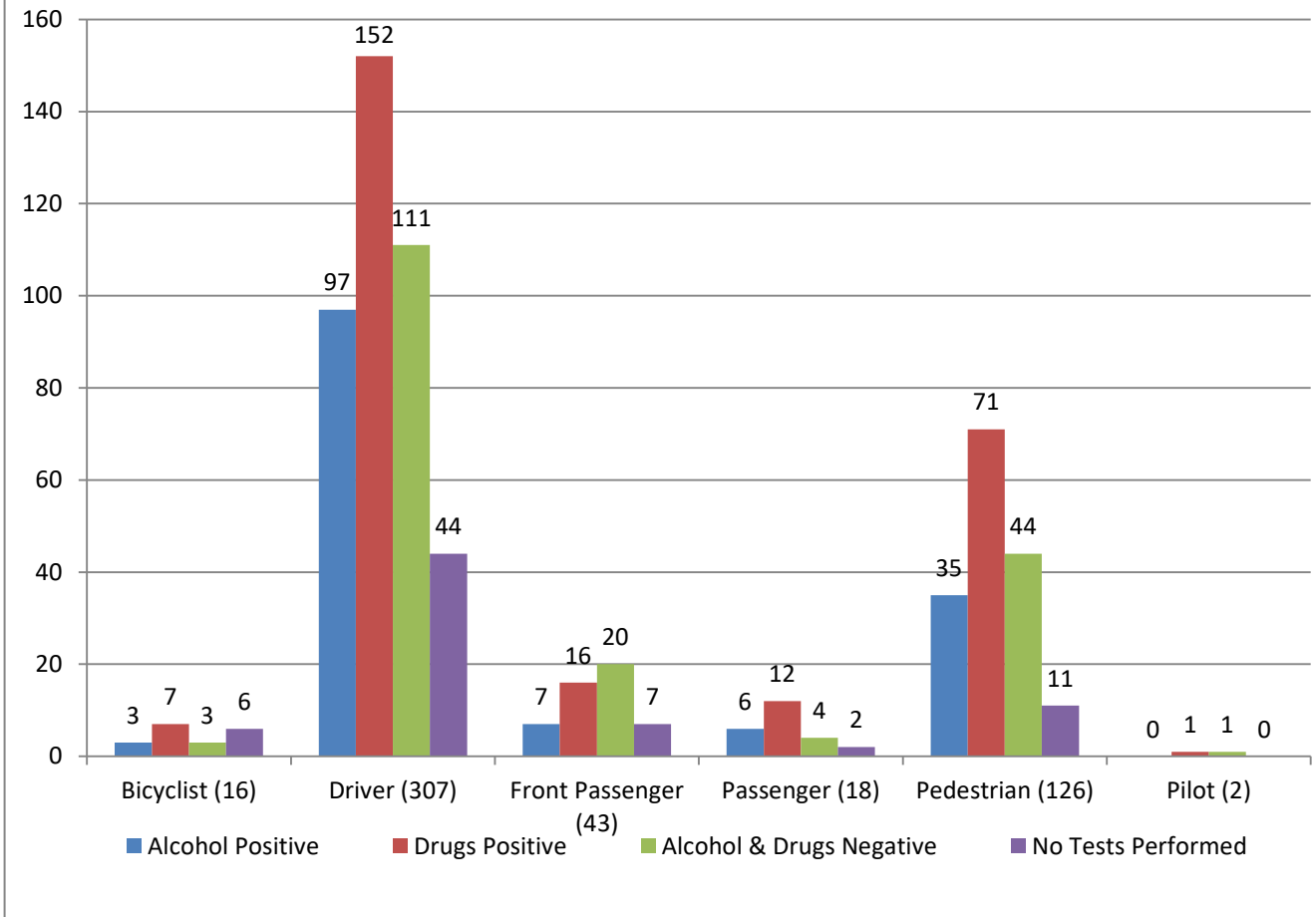


2019 Transportation Deaths by Age



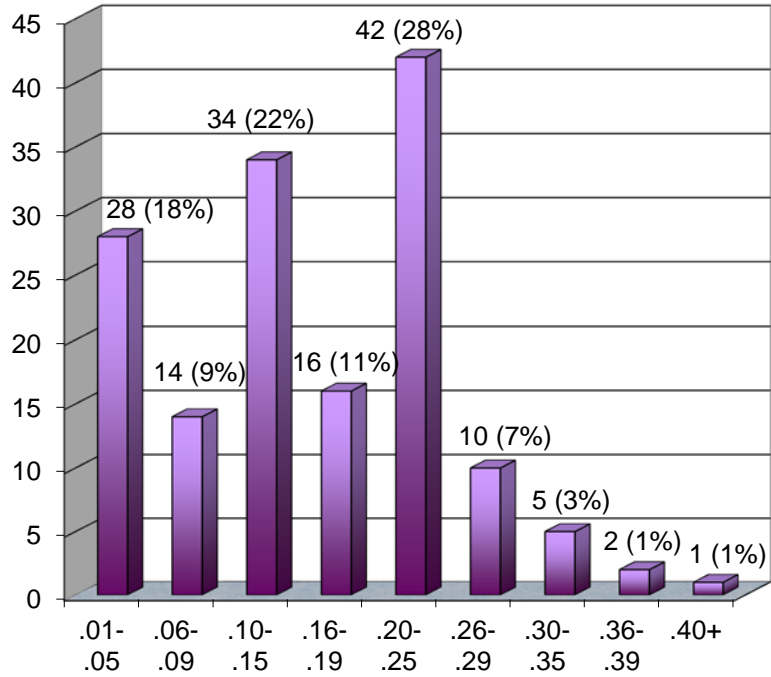
Total Cases - 542

2019 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.

**2019 Transportation Deaths
Blood Alcohol Concentration in 152 Cases
32%* Tested Positive**



542 Transportation Deaths
319 Negative for Alcohol
71 No Testing Performed

*Percent based on total cases tested for alcohol

ADDENDUM

Miscellaneous Data

1. Number of Autopsies	3989
Number of Partial Autopsies	1748
Number of CT Autopsies	53
2. Organ donations	125
3. Unclaimed bodies released to State Anatomy Board	333
4. Exhumations	0
5. Bodies transported to the OCME	6033
6. Infant deaths certified (age live born to 1 year)	67
7. Infants autopsied	66

2019 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
Etizolam
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
Eutylone
MDPV
N-Ethylpentylone
Pentylone