



2020

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

State of Maryland

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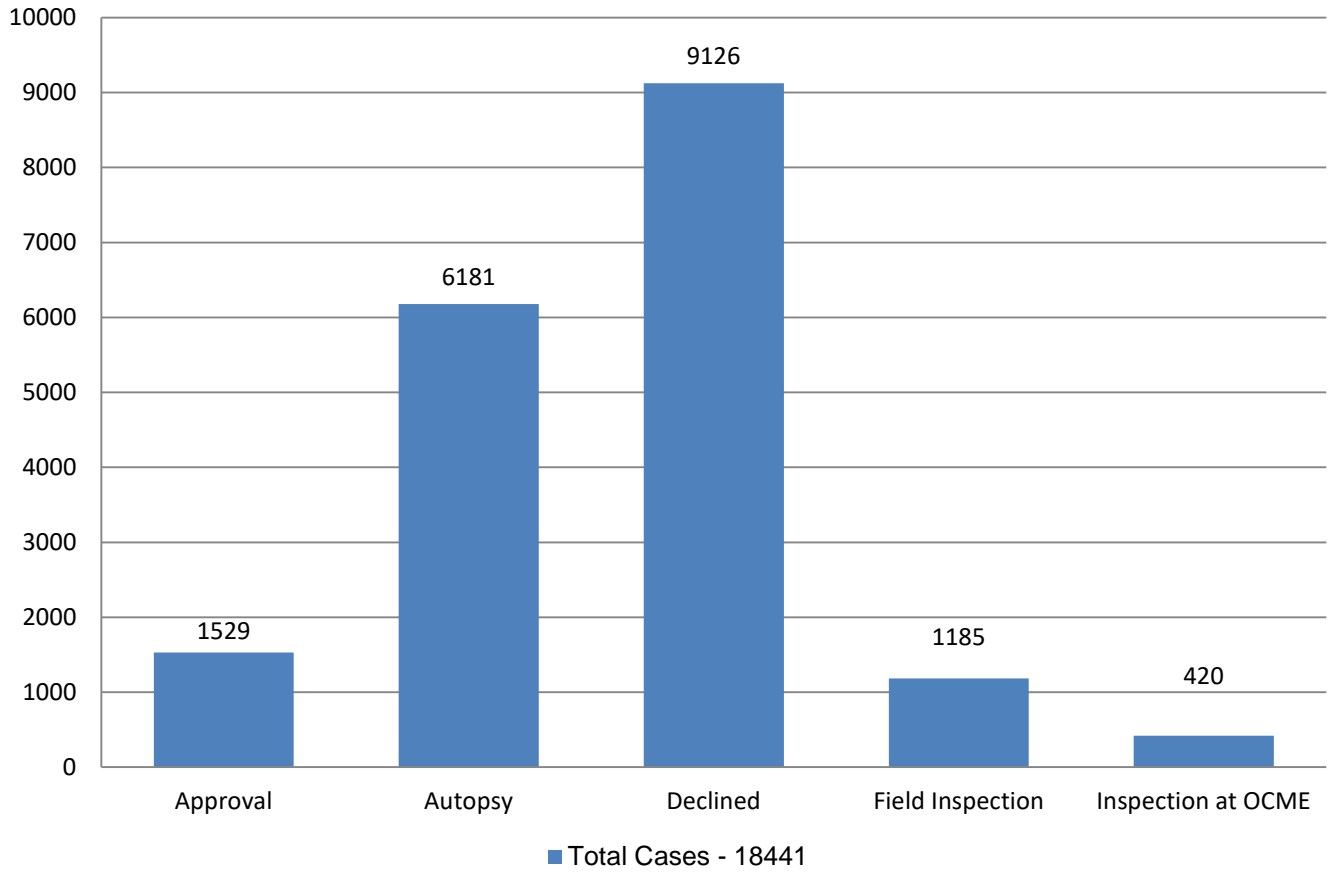
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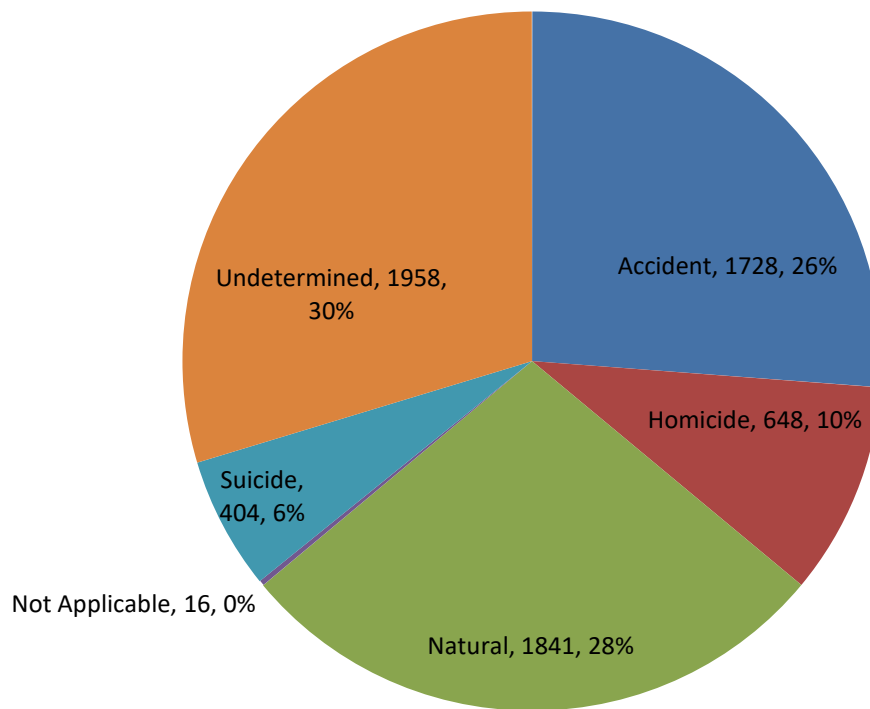
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2020 Cases Reported to OCME - Action Taken



2020 Medical Examiner Cases Autopsied*

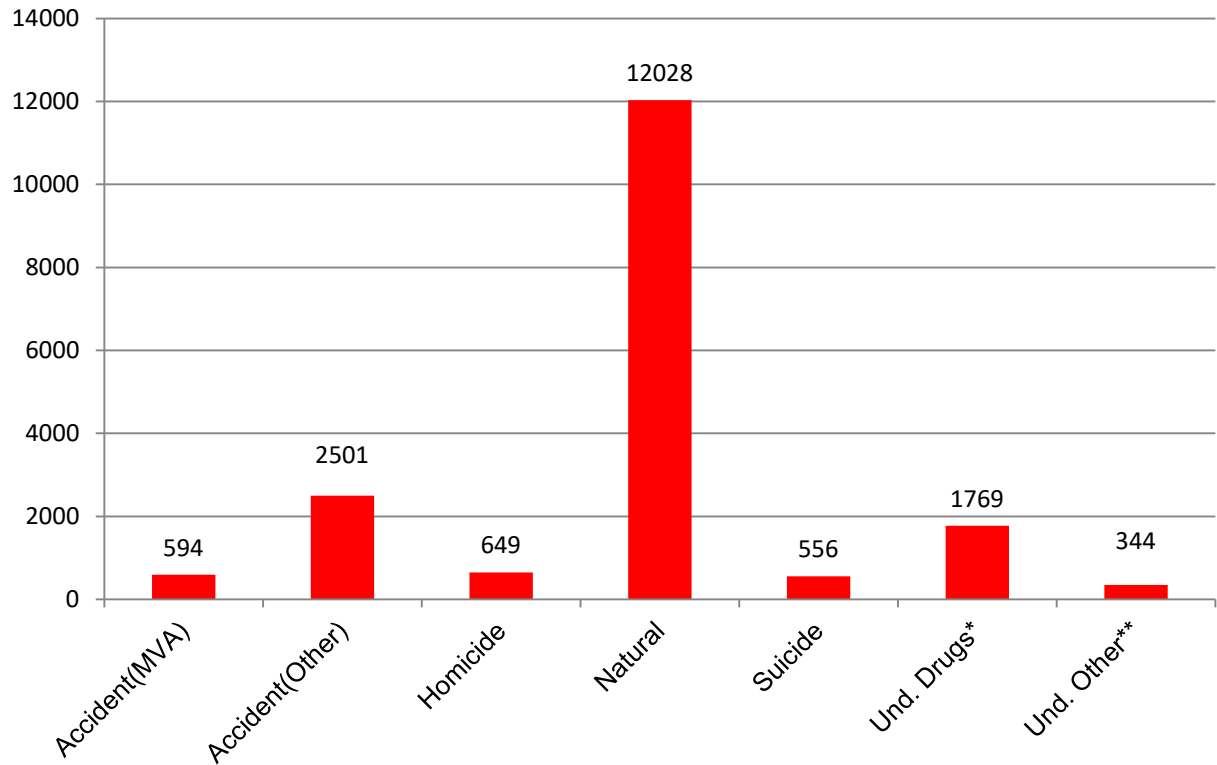


Total Cases Autopsied - 6595

*16 cases were classified as "not applicable" (e.g. stillborn & non-human remains).

**One homicide was not autopsied

2020 Cases Reported to OCME Manner of Death

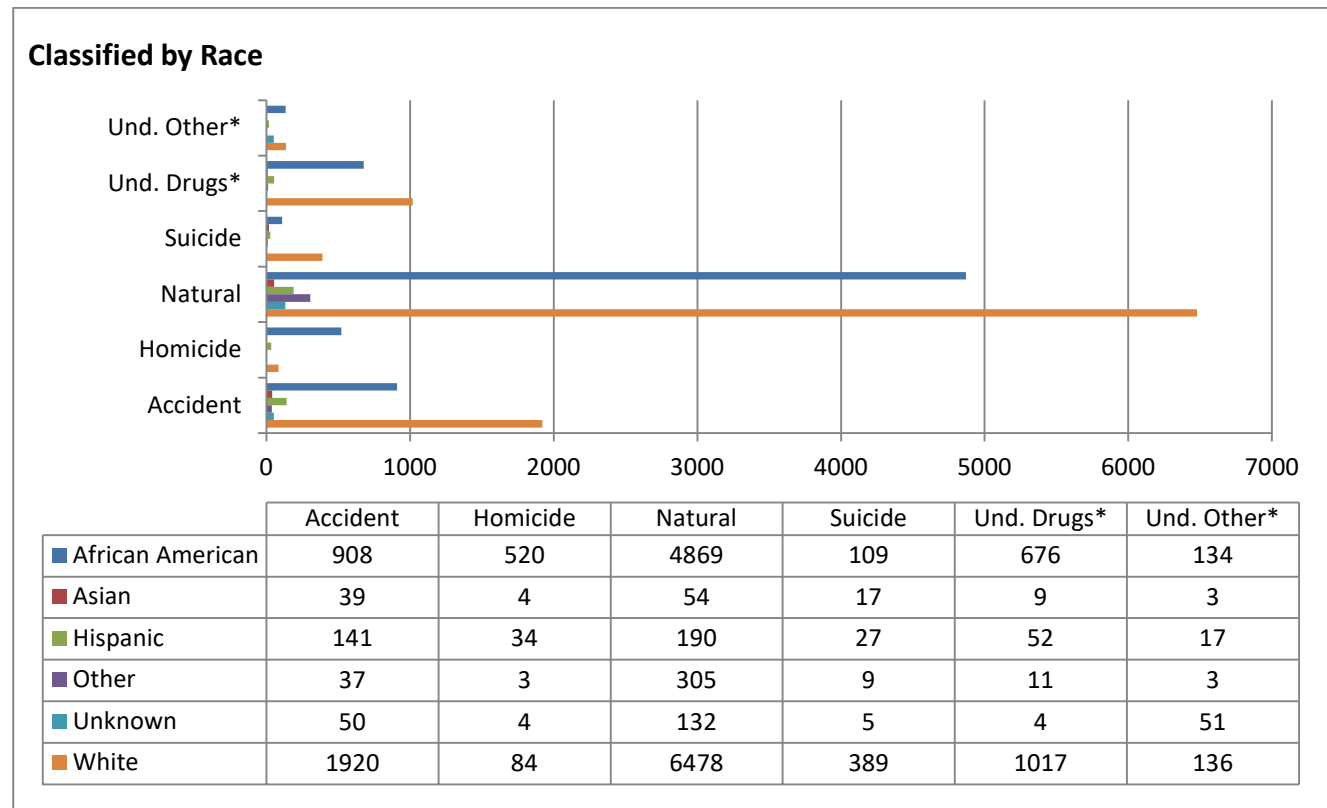
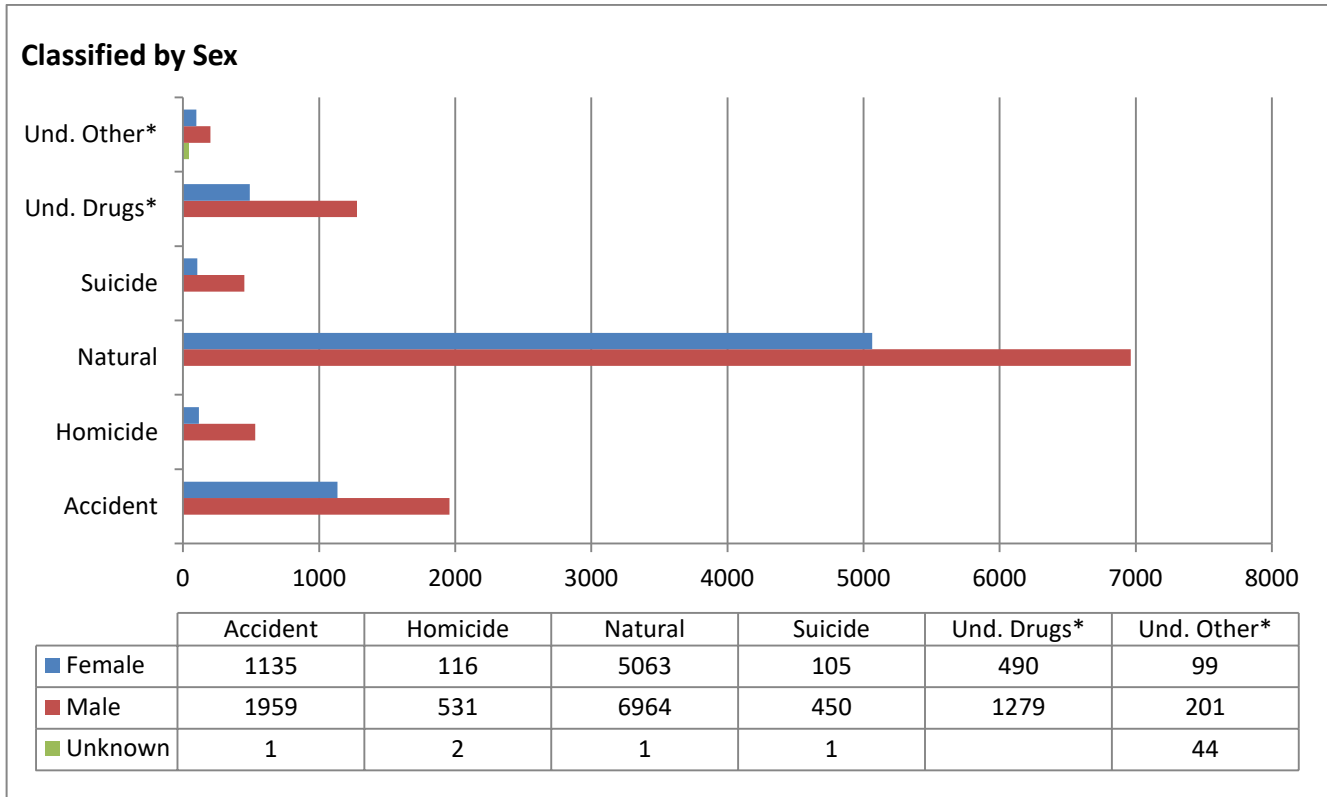


Total Cases – 18441

*Undetermined Manner: Drugs/Narcotics

** Undetermined Manner: Other

2020 Manner of Death



*Undetermined Manner: Drugs/Narcotics

** Undetermined Manner: Other

Manner of Death

Cause of Death	Accident	Homicide	Natural	Not Applicable	Suicide	Undetermined	Total
Asphyxiation	104	7	1		102	18	232
Airway obstruction/Aspirated stomach content	6		1				7
Drowning	72				9	17	98
Hanging					78		78
Smoke inhalation	10					1	11
Strangulation/Asphyxiation	16	6			15		37
Suffocation		1					1
Chemical/Drug/Alcohol Intoxication/Abuse/Use	860	7	124		61	1825	2877
Alcohol abuse/use	5		102			2	109
Alcohol and drug intoxication/use	5		1		4	11	21
Alcohol intoxication/use	26		3			2	31
Carbon monoxide	6				4		10
Cocaine and alcohol intoxication/use	3					6	9
Cocaine intoxication/use	34		5		1	17	57
Drug intoxication/abuse/use	42		7		32	61	142
Narcotic and alcohol intoxication/use	129	1	1		4	320	455
Narcotic intoxication/use	610	6	5		16	1406	2043
Circulatory system	35	4	1359			4	1402
Aneurysm			3				3
Cardiac arrhythmia	1		67				68
Cardiomyopathy			18				18
Cardiovascular disease	13	2	950			2	967
Cerebrovascular disease	2		31			2	35
Hemorrhage	3		9				12
Other cardiac	7	2	220				229
Pulmonary embolism	9		61				70
Congenital / Perinatal		1	1	1		49	52
Congenital/Perinatal		1		1			2
Sudden Unexplained Death in Infancy (SUDI)			1			49	50
Digestive system disease			42			1	43
Cirrhosis			12				12
Gastrointestinal hemorrhage			18				18
Liver Disease			5			1	6
Other digestive			6				6
Fatty liver			1				1
Electrocution	3						3
Electrocution	3						3
Endocrine and metabolic disease			62				62
Diabetes			56				56
Other Endocrine and metabolic			6				6
Hyperthermia	18						18
Hyperthermia	18						18
Hypothermia	46						46
Hypothermia	46						46
Infectious disease			71				71
Other infectious disease			8				8
AIDS/HIV			1				1
COVID-19			62				62

Manner of Death

Cause of Death	Accident	Homicide	Natural	Not Applicable	Suicide	Undetermined	Total
Malignant neoplasms (Cancer)			24			1	25
Malignant neoplasms (Cancer)			24			1	25
Nervous system disease	1	2	19			3	25
Meningitis			2				2
Other CNS			8			1	9
Seizure disorder	1	2	9			2	14
Non-human remains				4			4
Non-human remains				4			4
Other natural cause			65				65
Other natural cause			65				65
Other non-natural cause	5	2		11	6		24
Other non-natural cause	5	2		11	6		24
Respiratory system	6	1	72			1	80
Asthma			10				10
Chronic obstructive pulmonary disease	1		9				10
Other respiratory			8			1	9
Pneumonia	3	1	45				49
Anaphylaxis	2						2
Thermal Injuries (Burns)	19	1			1	2	23
Thermal Injuries (Burns)	19	1			1	2	23
Traumatic injury	631	623	1		234	29	1518
Blunt force	46	13			3	1	63
Fracture	18				1	2	21
Gunshot wound		521			199	1	721
Head/Chest injuries	80	7				6	93
Multiple injuries	475	21			19	15	530
Other trauma	12	1	1			3	17
Sharp force/cutting		60			12	1	73
Unknown cause						25	25
Unknown cause						25	25
Grand Total	1728	648	1841	16	404	1958	6595

Manner of Death - 3 Year Comparison

Medical Examiner Cases: Manner of Death, Maryland 2020

Manner of Death	Number	%
Accident	3095	16.8%
Homicide	649	3.5%
Natural	12028	65.2%
Suicide	556	3.0%
Undetermined	2113	11.5%
Total	18441	100%

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%

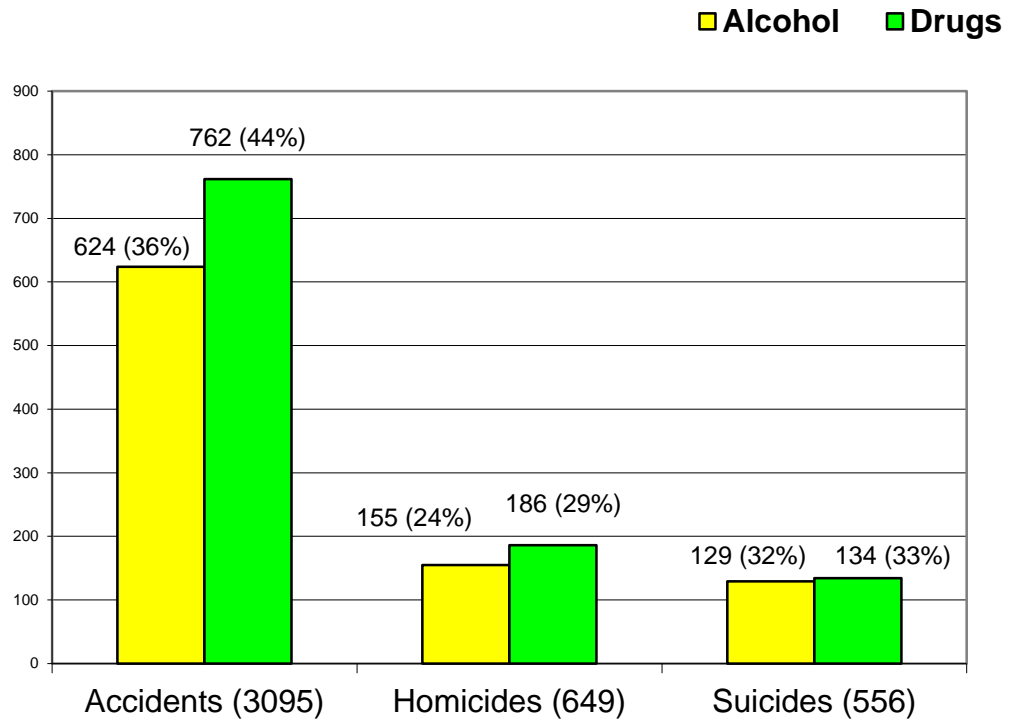
2020 Manner of Death by County

2020 - Manner	Accident	Homicide	Natural	Suicide	Undetermined	Total
Allegany	32	2	38	5	39	116
Anne Arundel	135	17	170	50	186	558
Baltimore City	532	377	431	62	740	2142
Baltimore County	189	27	265	46	245	772
Calvert	22	1	12	5	16	56
Caroline	7		3	3	12	25
Carroll	31	5	43	13	31	123
Cecil	47	4	49	12	64	176
Charles	44	16	27	11	34	132
Dorchester	10	4	12	1	13	40
Frederick	40	11	39	16	52	158
Garrett	18	1	14	3	4	40
Harford	52	4	61	18	52	187
Howard	46	6	45	13	46	156
Kent	10		8	1	6	25
Montgomery	131	20	186	49	92	478
Prince George's	192	131	277	39	164	803
Queen Anne's	12	1	8	7	5	33
Saint Mary's	26	5	18	8	25	82
Somerset	9	1	8	3	9	30
Talbot	14		10	5	9	38
Washington	62	9	59	23	79	232
Wicomico	31	5	42	8	35	121
Worcester	36	1	16	3	16	72
Grand Total	1728	648	1841	404	1974	6595

2020 - Case Type	Autopsy	OCME Insp.	Total	County	Autopsy	OCME Insp.	Total
Allegany	110	6	116	Washington	220	13	233
Anne Arundel	516	41	557	Wicomico	114	7	121
Baltimore City	2004	139	2143	Worcester	68	4	72
Baltimore County	730	42	772	Grand Total	6176	419	6595
Calvert	53	3	56				
Caroline	25		25				
Carroll	112	11	123				
Cecil	170	6	176				
Charles	123	9	132				
Dorchester	38	2	40				
Frederick	145	13	158				
Garrett	34	6	40				
Harford	176	11	187				
Howard	146	10	156				
Kent	24	1	25				
Montgomery	450	28	478				
Prince George's	748	54	802				
Queen Anne's	32	1	33				
Saint Mary's	75	7	82				
Somerset	29	1	30				
Talbot	34	4	38				

2020 Toxicology Testing

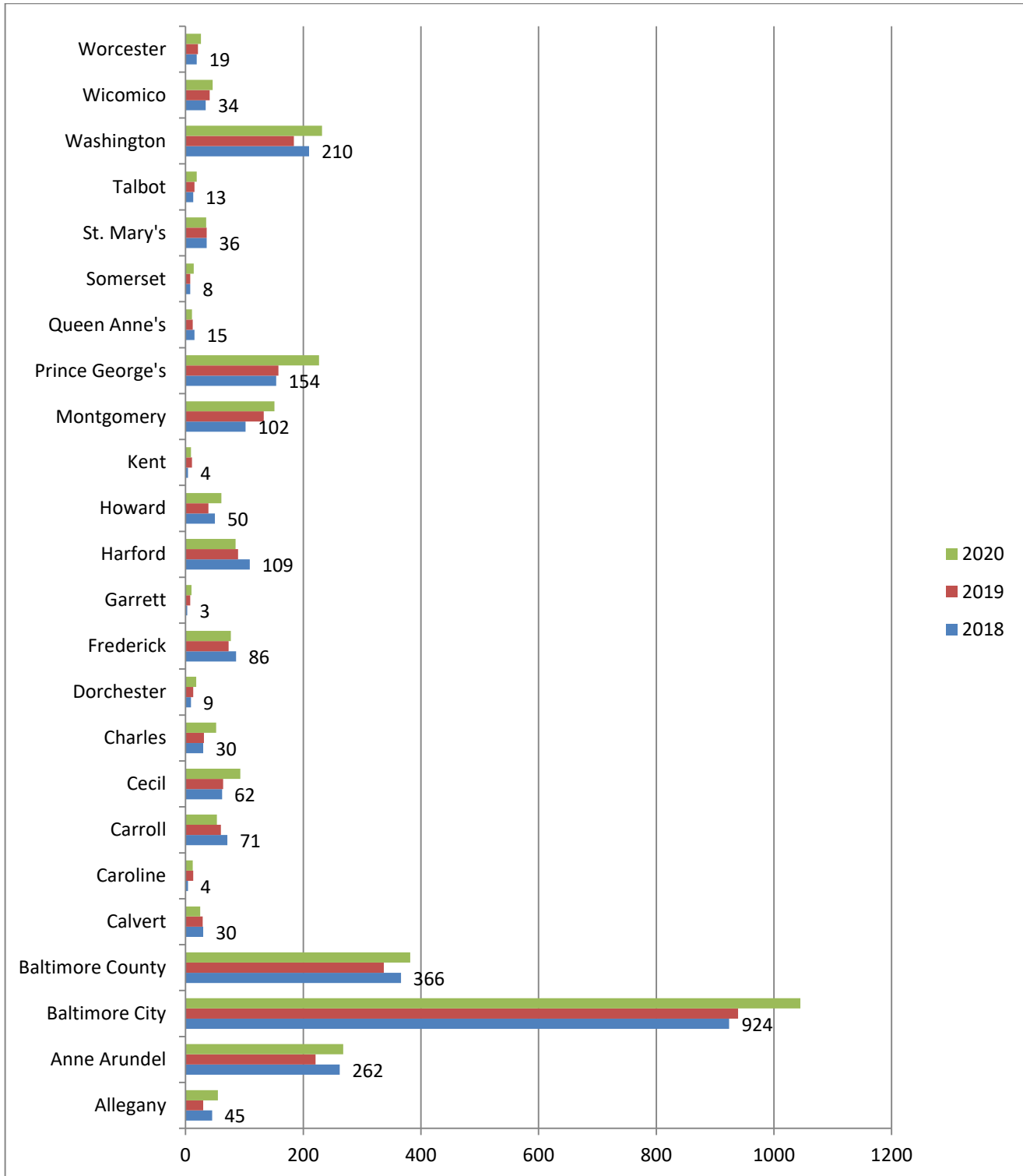
of Cases Positive for Alcohol and/or Drugs (Percentage of the Manner of Death)



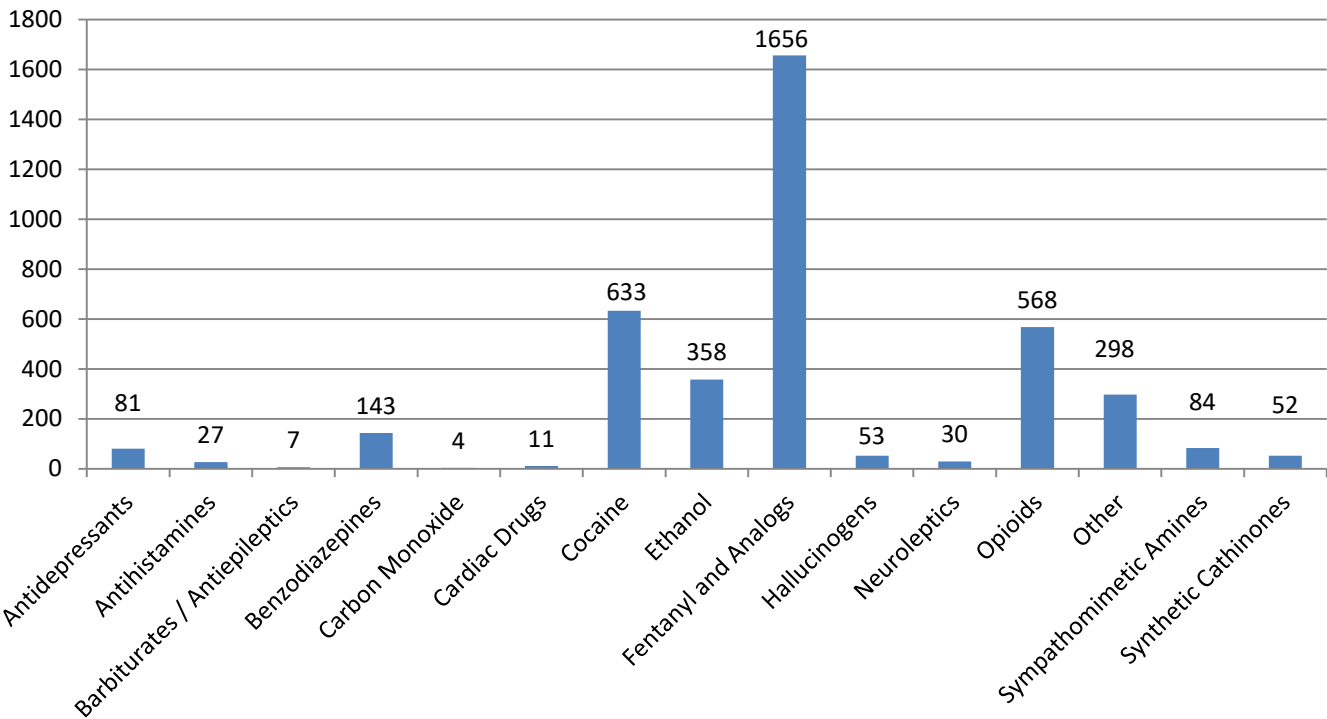
Manner of Death

Drug Deaths

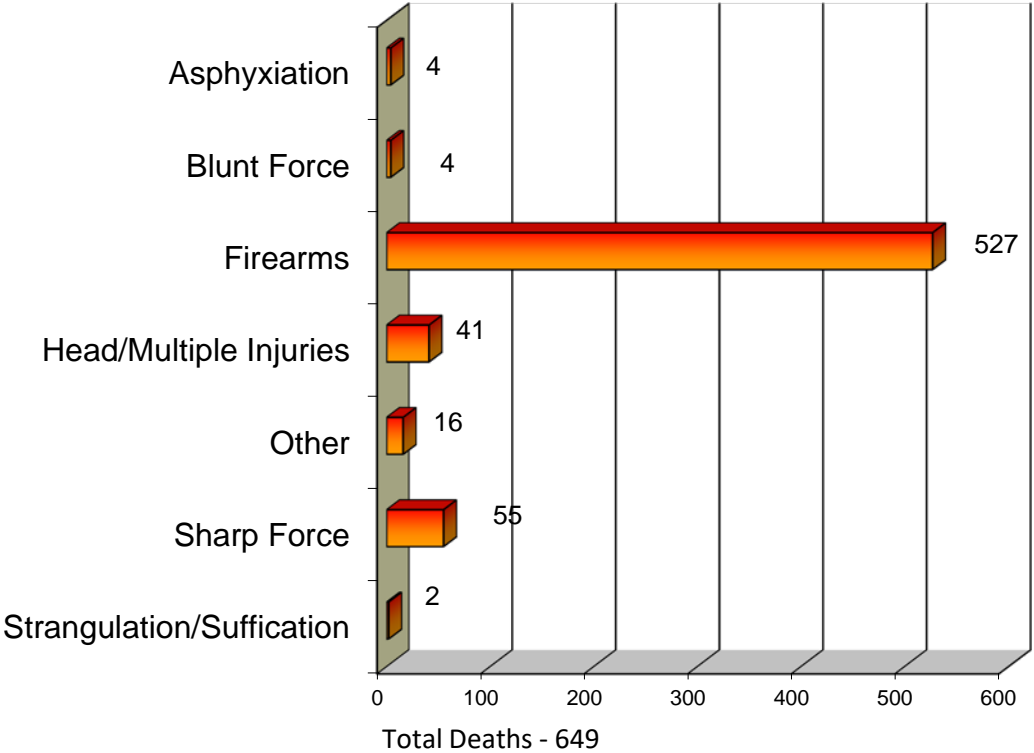
3 Year Comparison by Jurisdiction 2018-2020



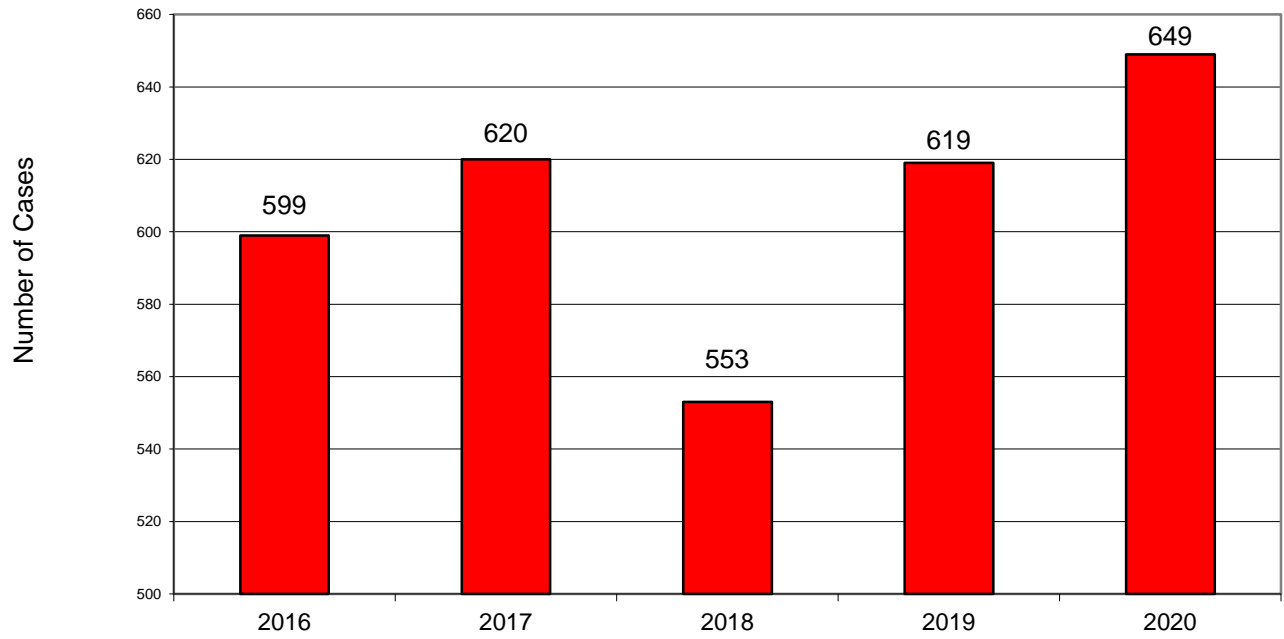
2020 Drug Deaths Undetermined Manner



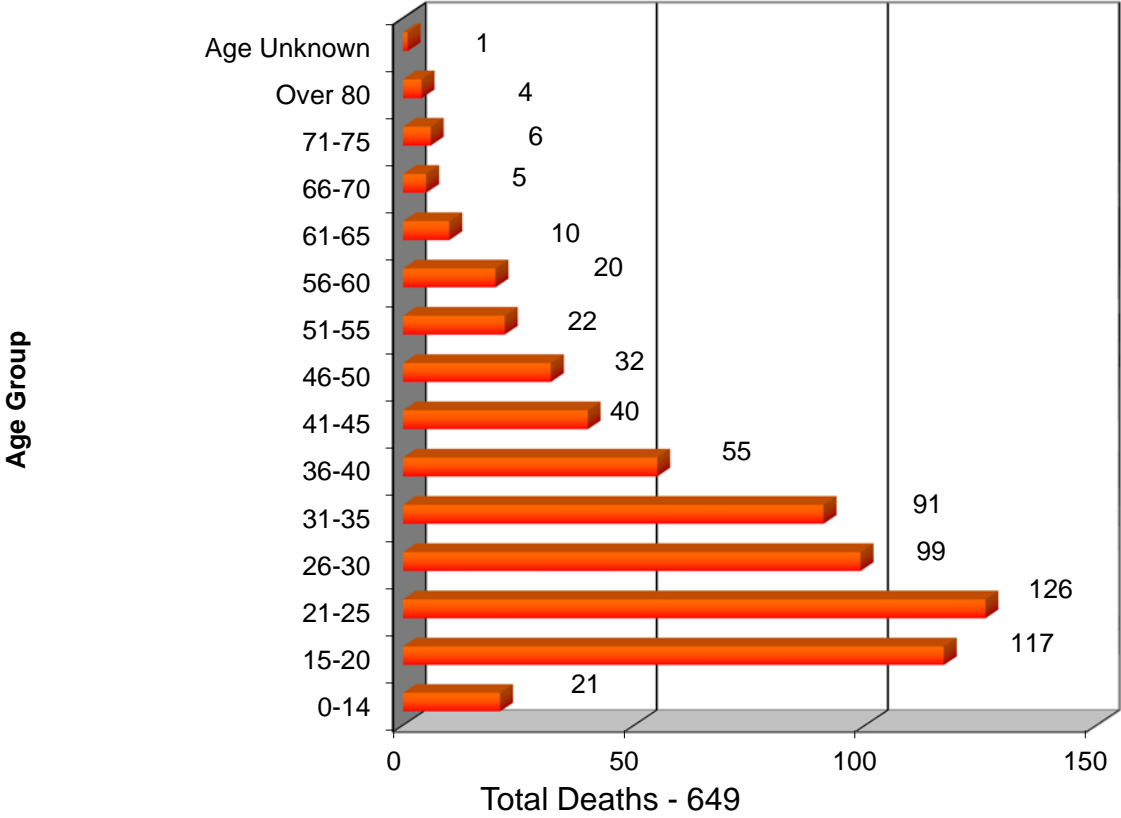
2020 Homicide Deaths Cause of Death



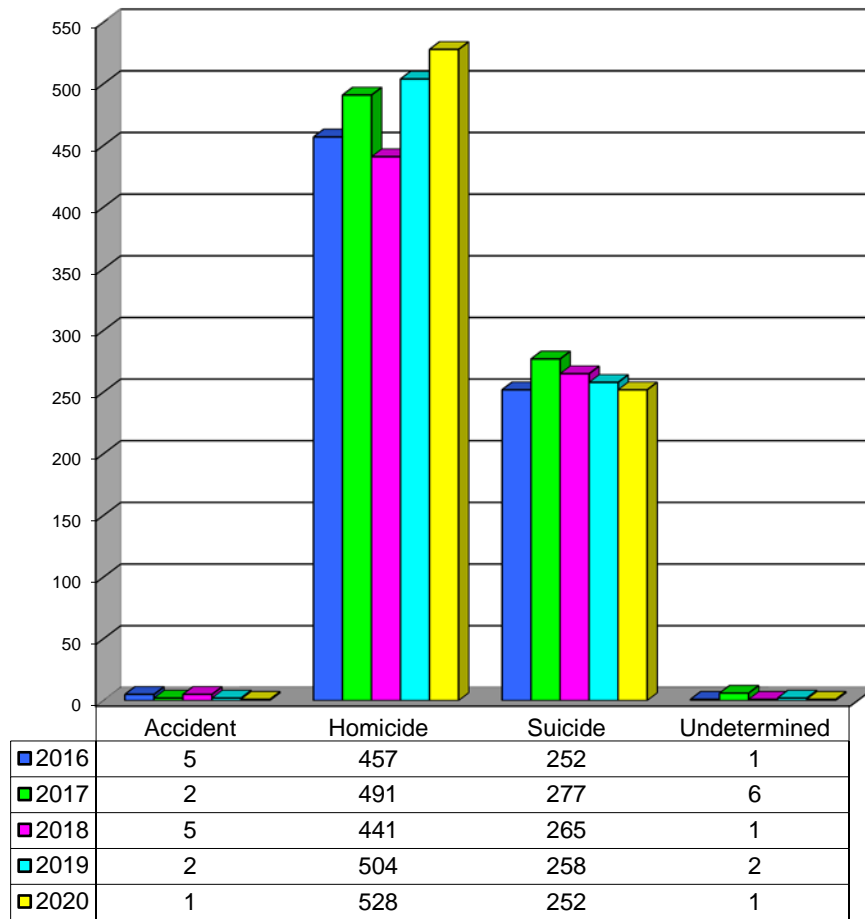
Homicides 5 Year Comparison 2016 - 2020



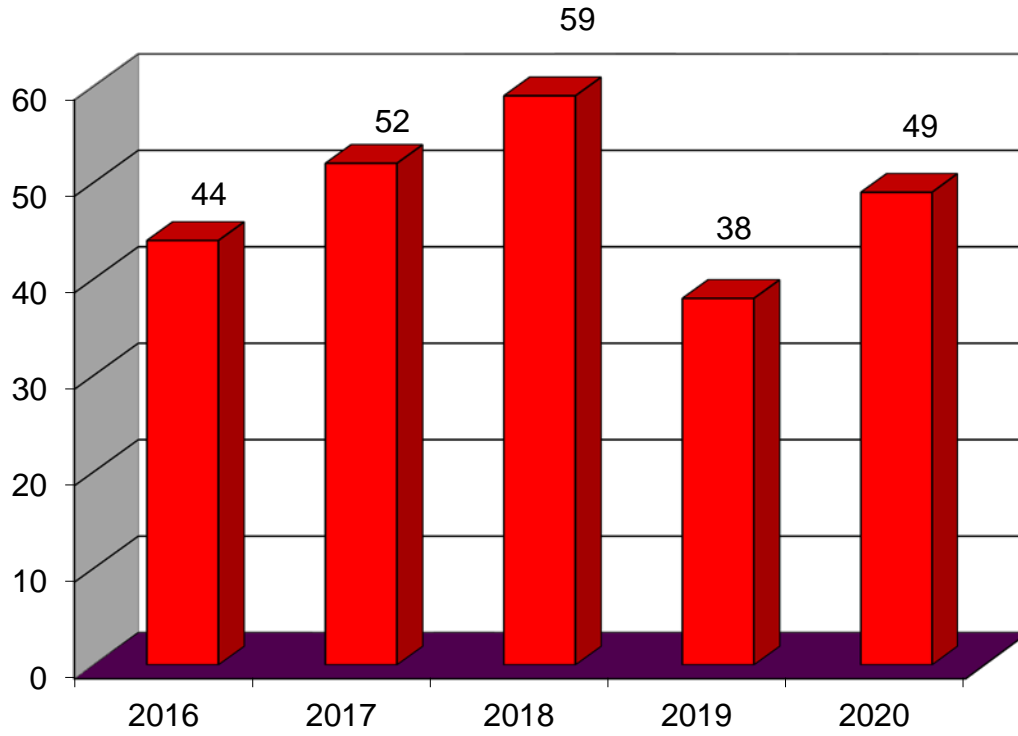
2020 Homicide Deaths by Age



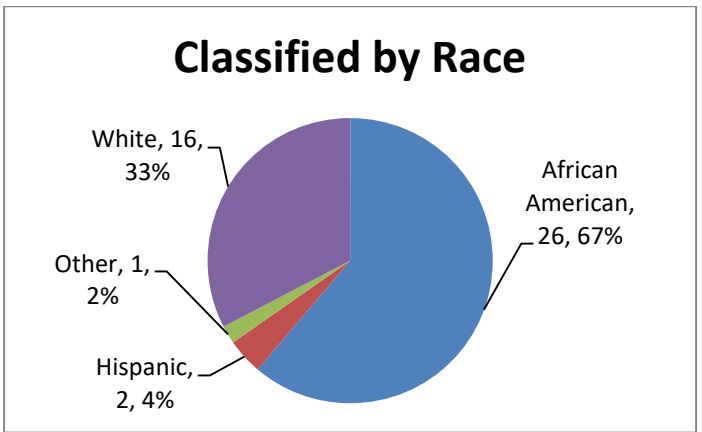
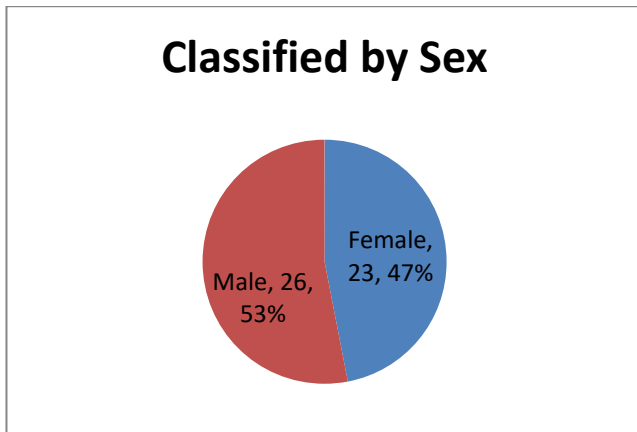
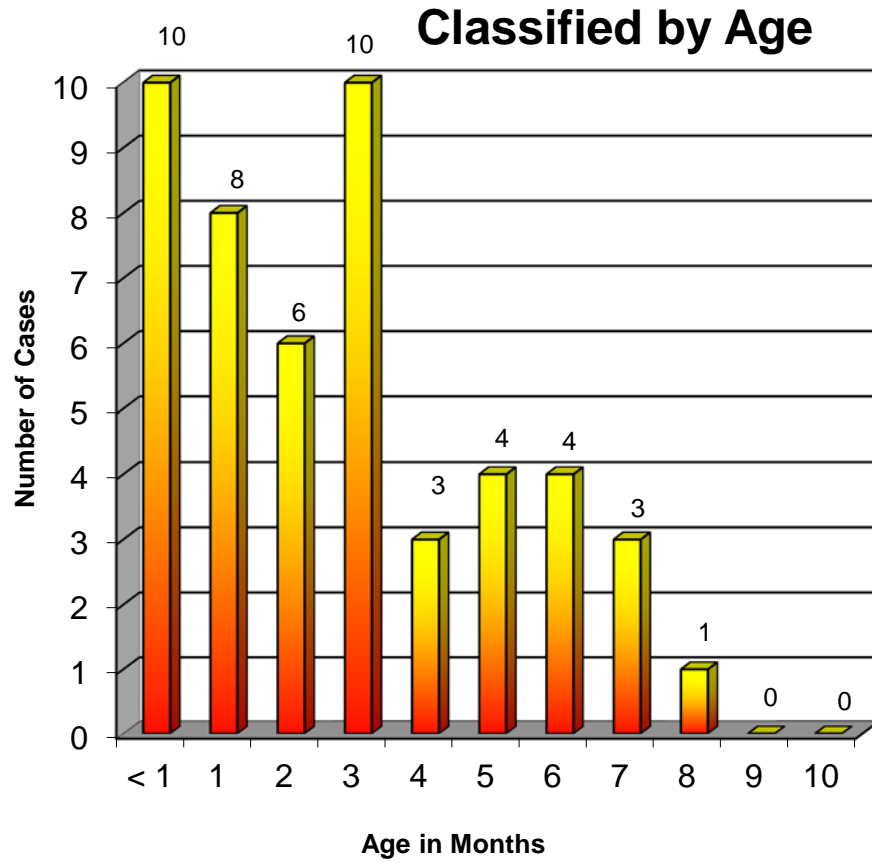
Firearm Deaths 2016 - 2020



SUDI Deaths 2016 - 2020 Comparison



Sudden Unexplained Death in Infancy – 2020



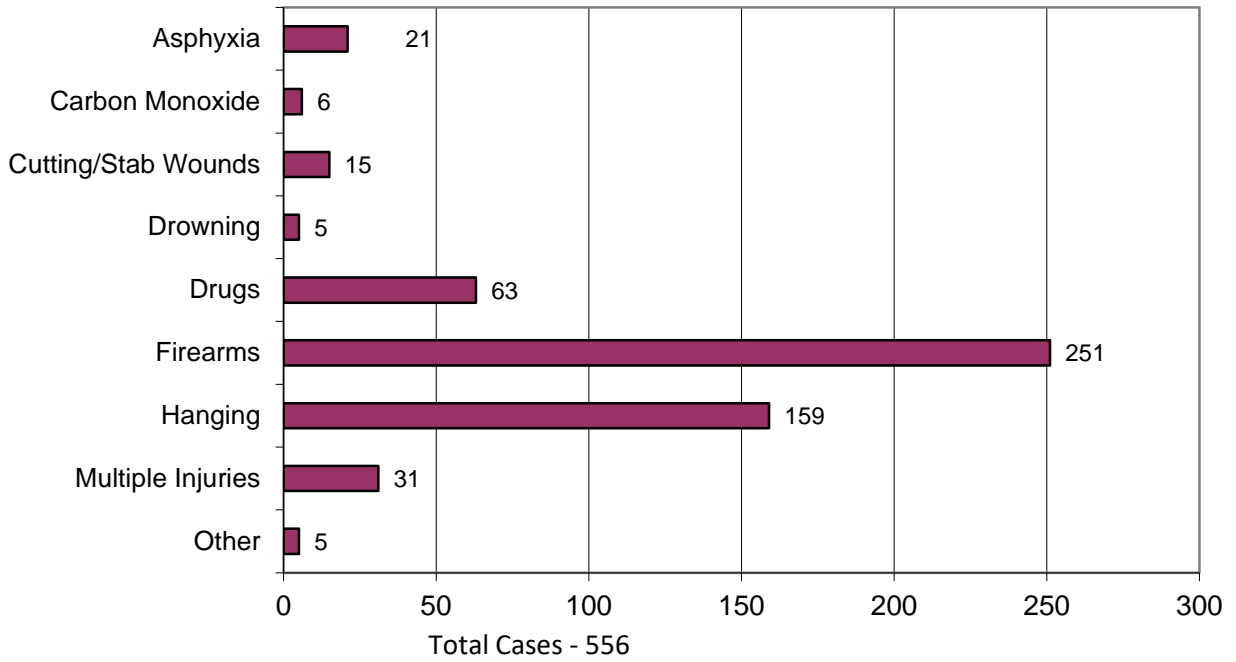
Total of 49 Deaths

Infant Deaths (age live birth to one year)

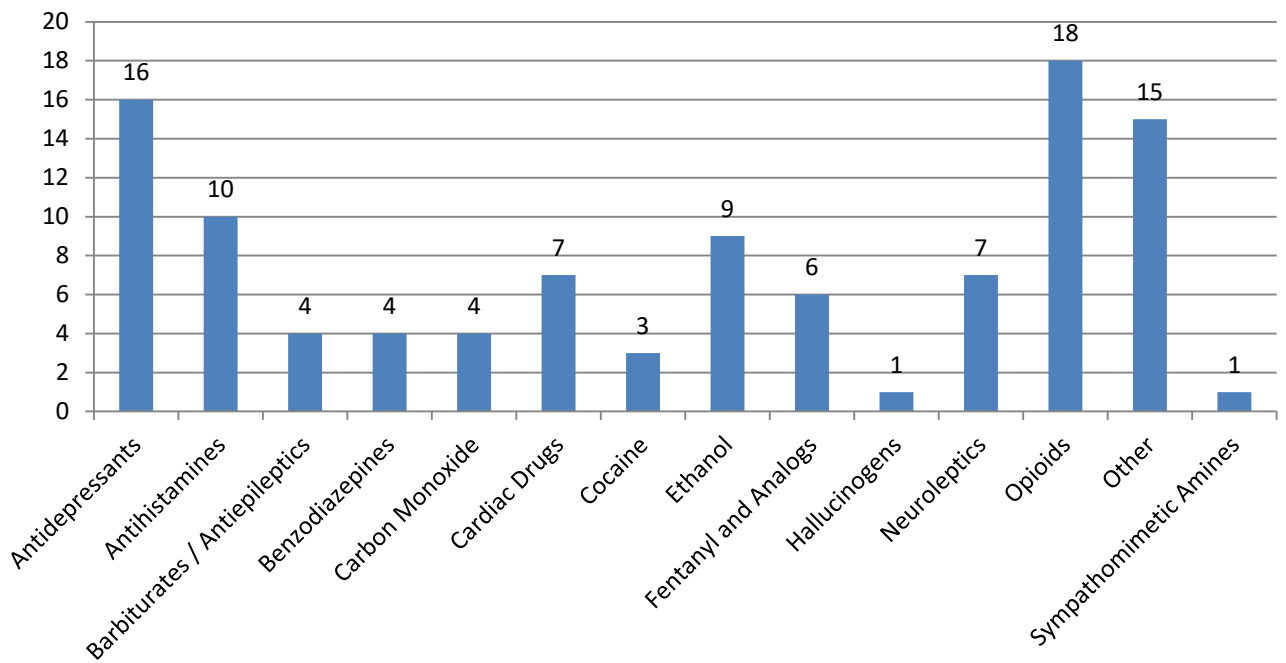
Manner of Death

Cause of Death	Accident	Homicide	Natural	Undeter- mined	Total
Asphyxiation	3	1			4
Strangulation/Asphyxiation	3				3
Suffocation		1			1
Chemical/Drug/Alcohol Intoxication/Abuse/Use	1	2		2	5
Drug intoxication/abuse/use				1	1
Narcotic intoxication/use	1	2		1	4
Congenital / Perinatal				49	49
Sudden Unexplained Death in Infancy (SUDI)				49	49
Electrocution	1				1
Electrocution	1				1
Other natural cause			1		1
Other natural cause			1		1
Respiratory system			3		3
Other respiratory			1		1
Pneumonia			2		2
Traumatic injury	1				1
Multiple injuries	1				1
Unknown cause				1	1
Unknown cause				1	1
Grand Total	6	3	4	52	65

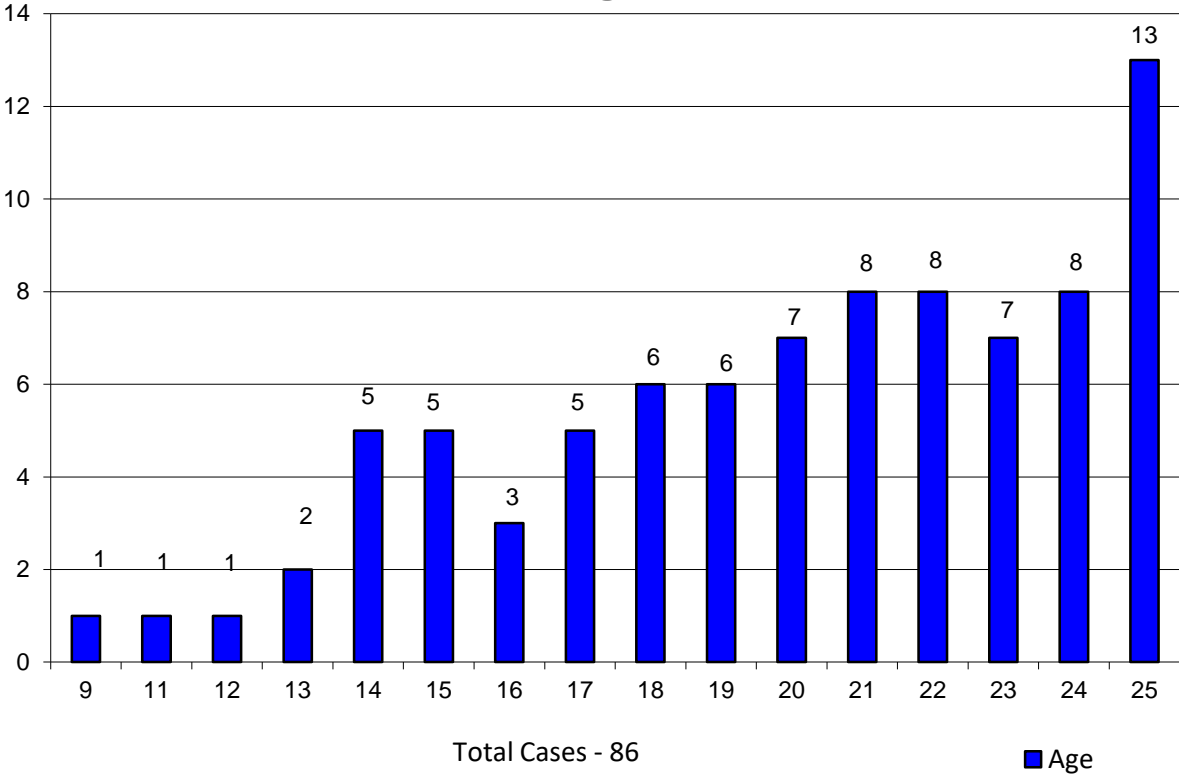
2020 Suicide Deaths Classified by Cause of Death



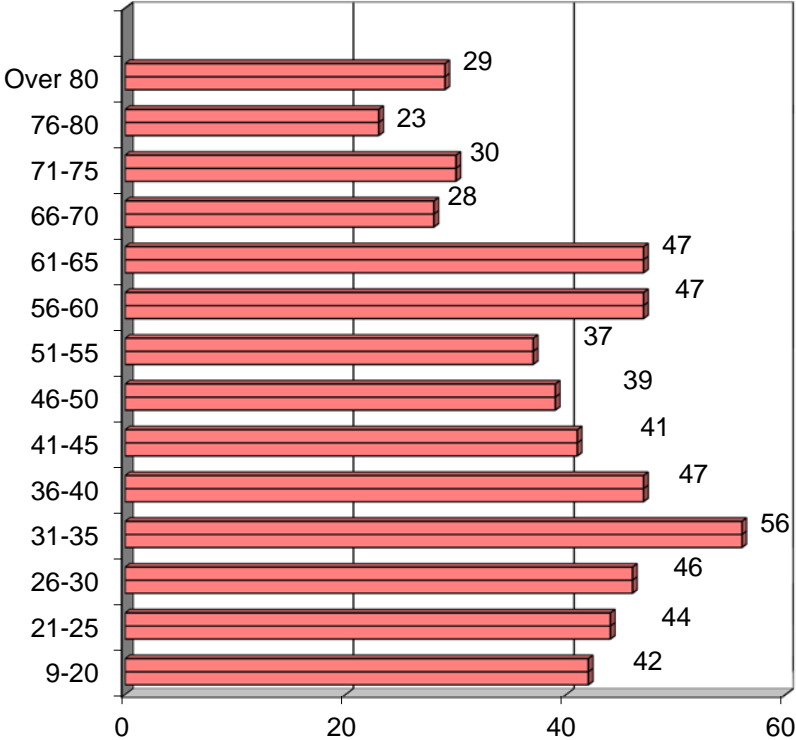
By Drug Classification



2020 Youth Suicides 25 Years of Age and Under

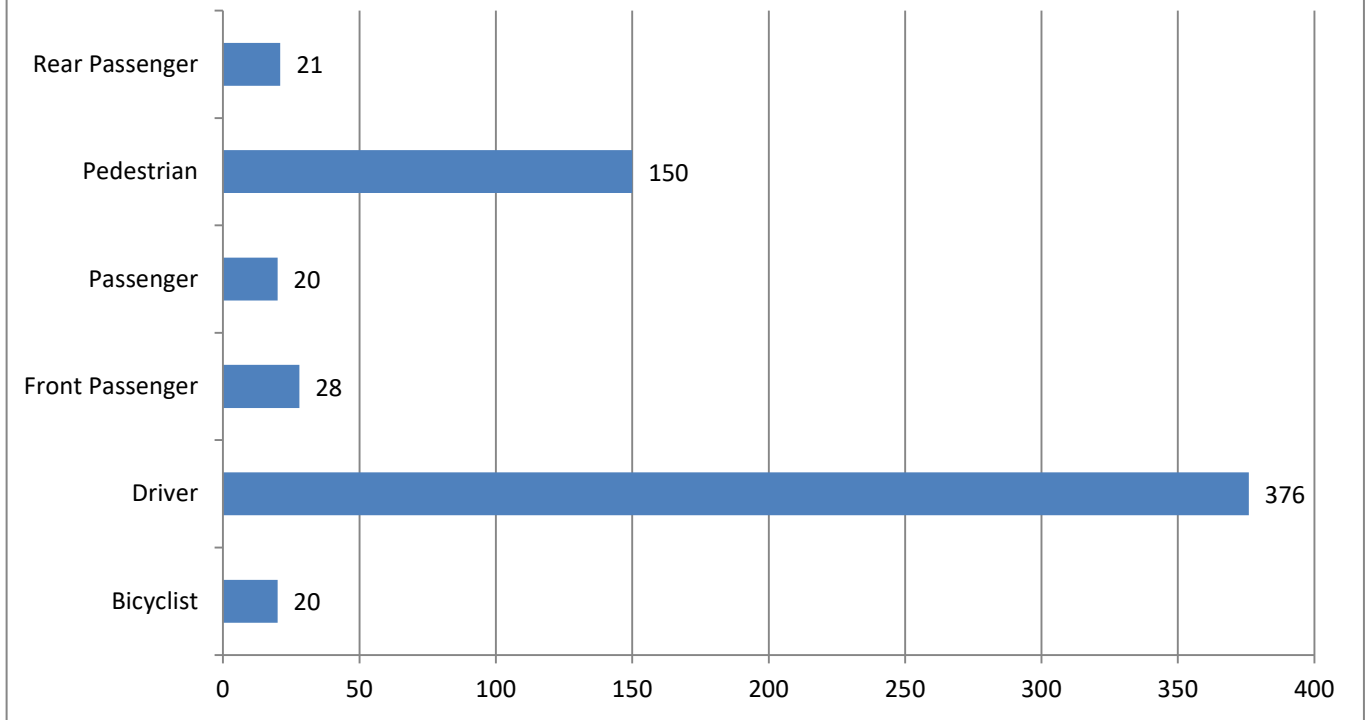


2020 Suicide Deaths by Age



Total Deaths - 556

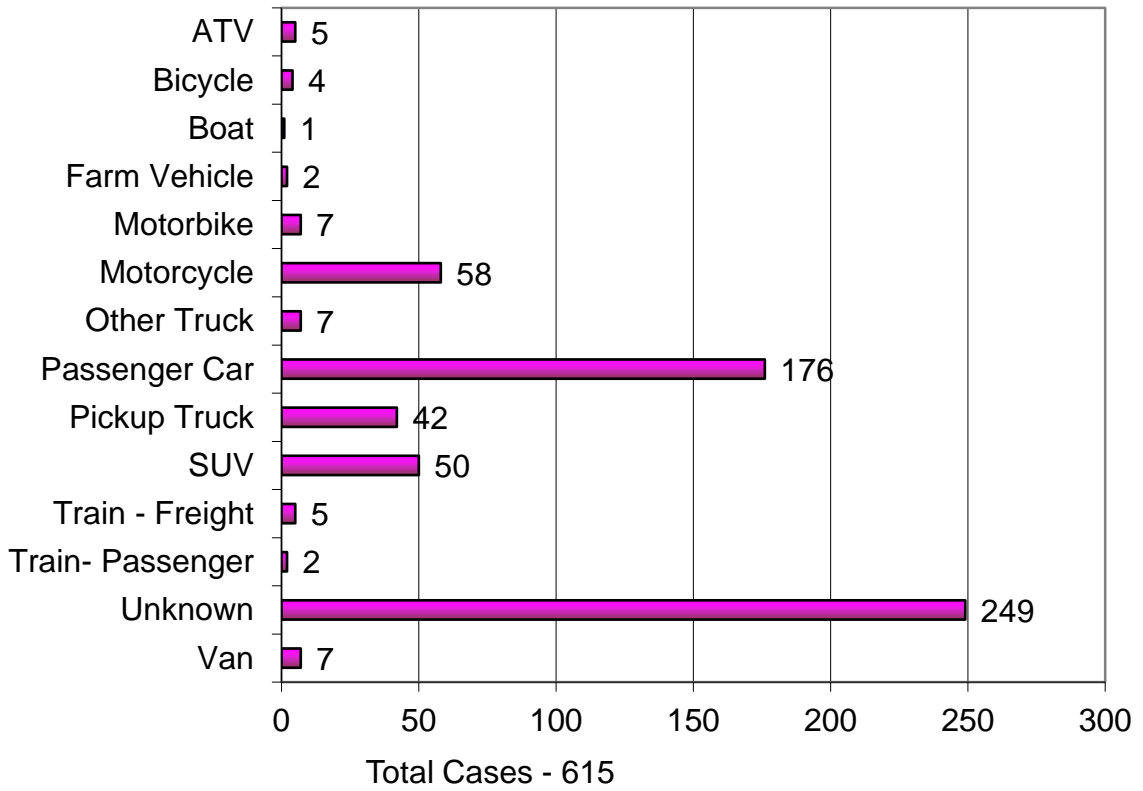
2020 Transportation Accidents Classified by Activity



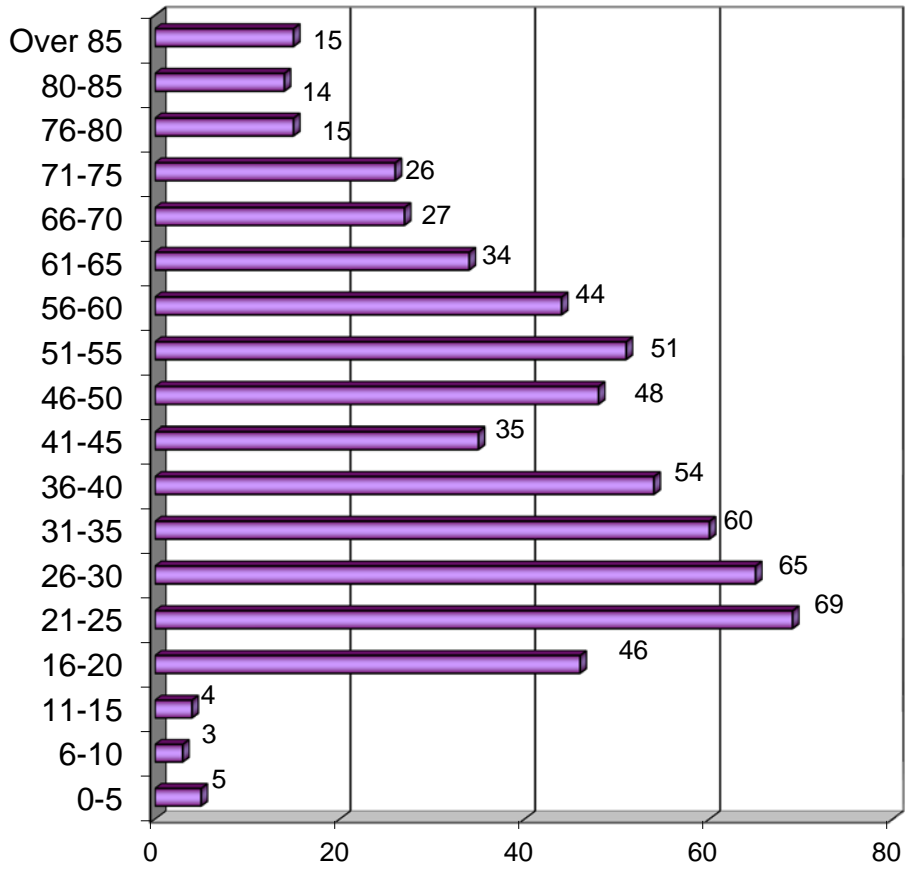
Total Cases – 615

2020 Transportation Deaths

Type of Vehicle

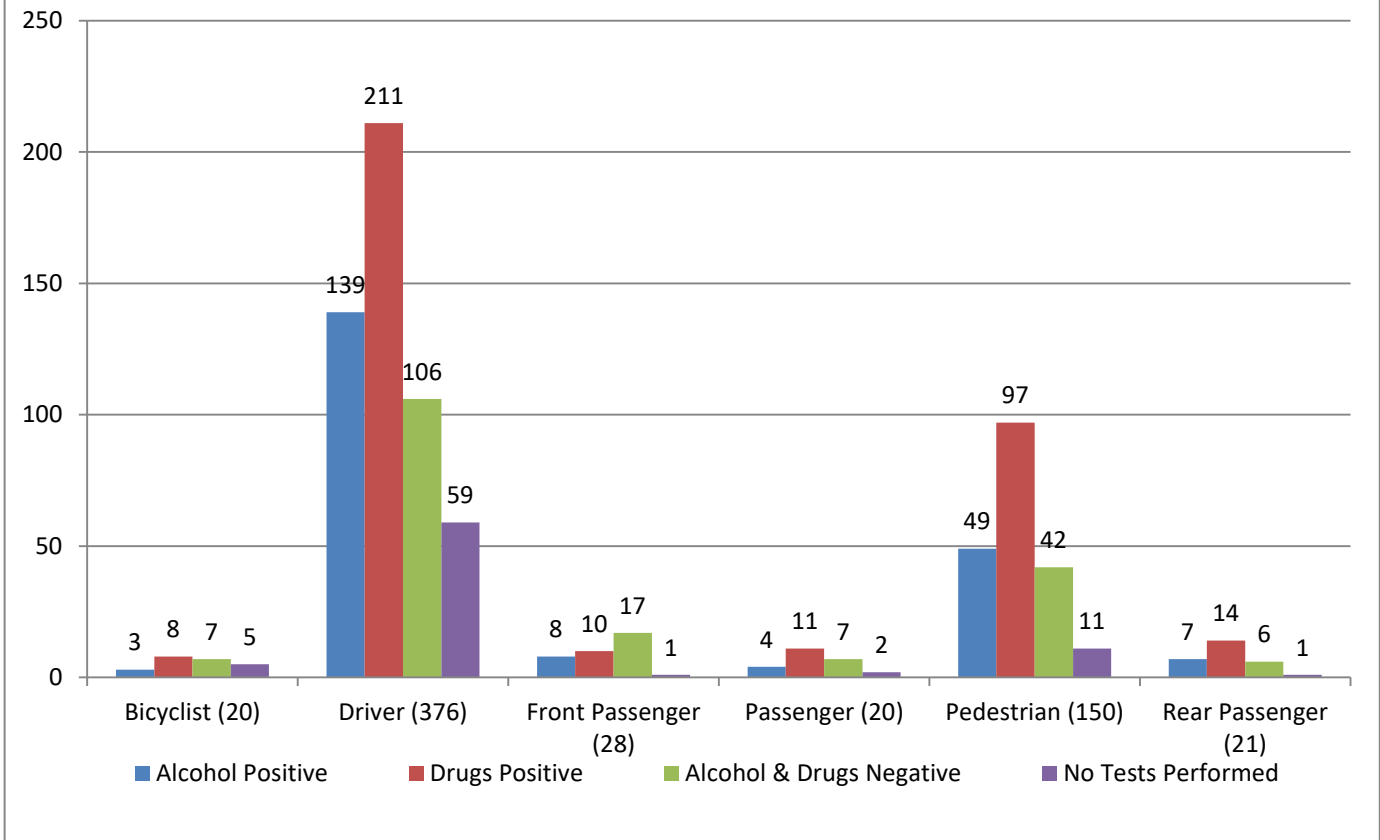


2020 Transportation Deaths by Age



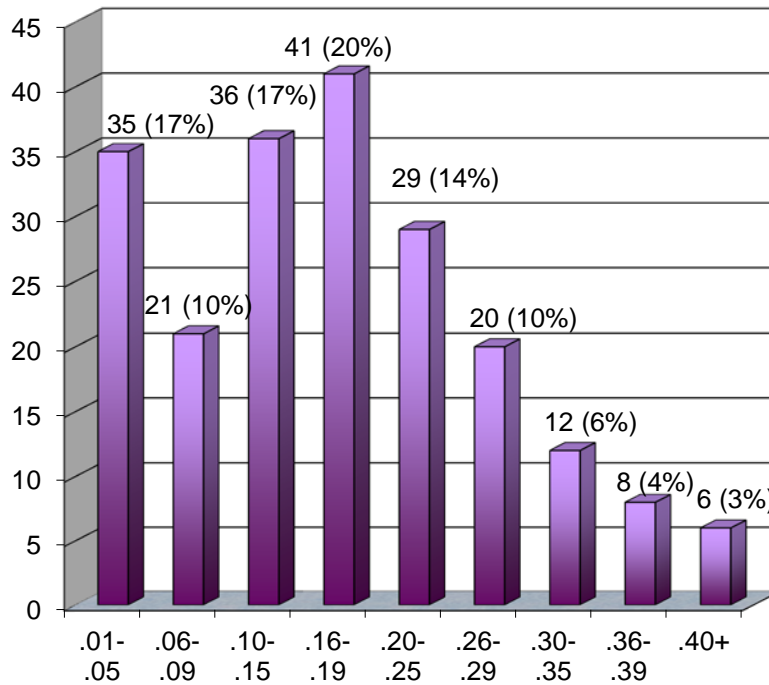
Total Cases - 615

2020 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.

**2020 Transportation Deaths
Blood Alcohol Concentration in 208 Cases
39%* Tested Positive**



615 Transportation Deaths
322 Negative for Alcohol
85 No Testing Performed

*Percent based on total cases tested for alcohol

ADDENDUM

ADDENDUM

Miscellaneous Data

1. Number of Autopsies	4025
Number of Partial Autopsies	1835
Number of CT Autopsies	321
2. Organ donations	118
3. Unclaimed bodies released to State Anatomy Board	416
4. Exhumations	0
5. Bodies transported to the OCME	6606
6. Infant deaths certified (age live born to 1 year)	67
7. Infants autopsied	66
8. Drug-related accidental deaths certified	992
9. Drug-related accidental deaths autopsied	900
10. Non-MVA, non-drug related accidents certified	1519
11. Non-MVA, non-drug related accidents autopsied	314

2020 Drug Classifications

Antidepressants

Amitriptyline
Bupropion
Citalopram
Clomipramine
Desipramine
Desmethylvenlafaxine
Doxepin
Fluoxetine
Fluvoxamine
Imipramine
Mirtazapine
Nordoxepin
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-Fluoroisobutyl 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