



2023

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

State of Maryland

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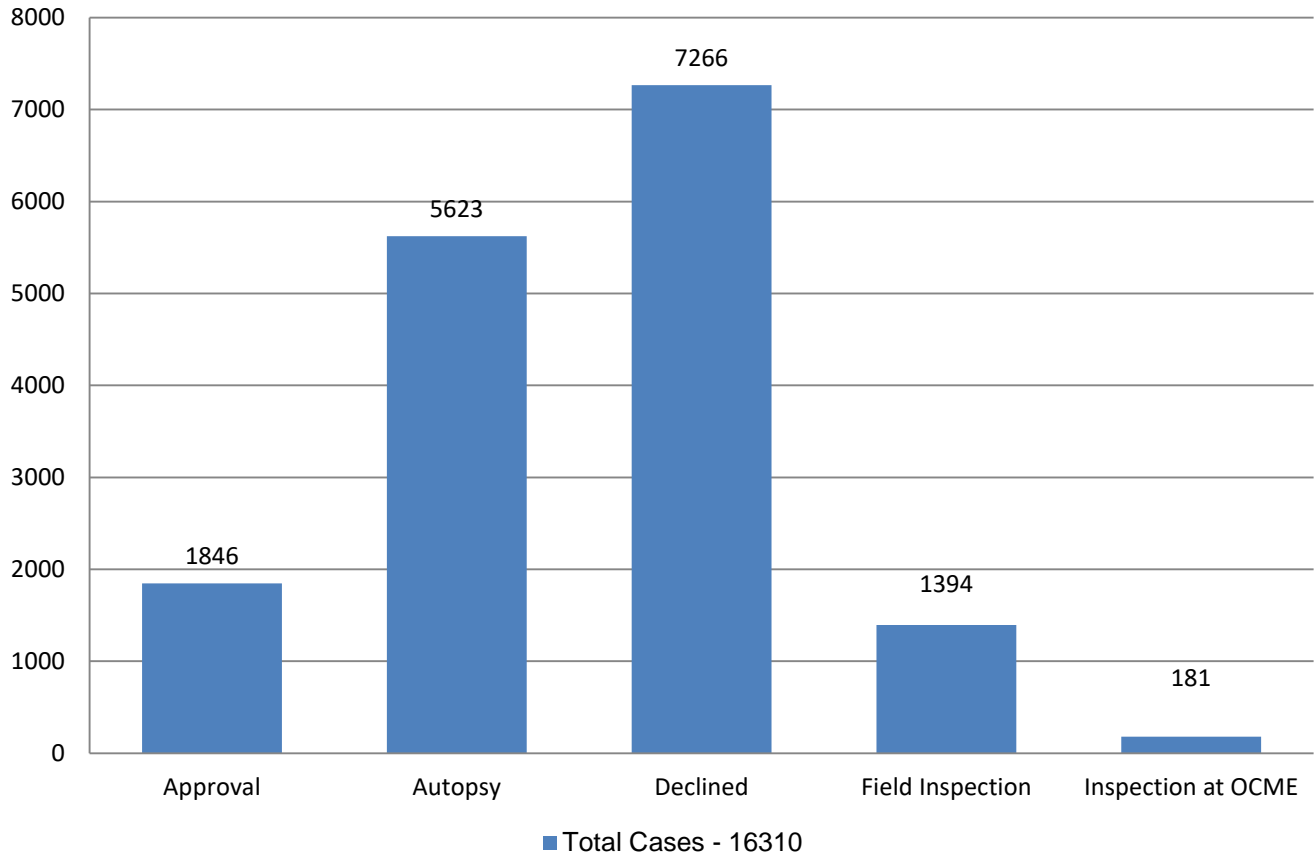
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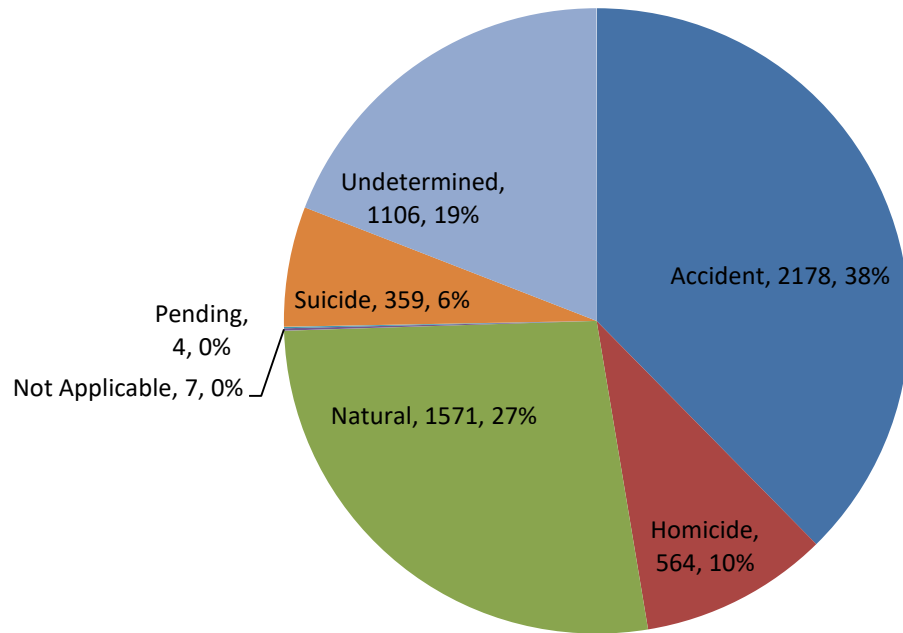
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2023 Cases Reported to OCME - Action Taken



2023 Medical Examiner Cases Autopsied*

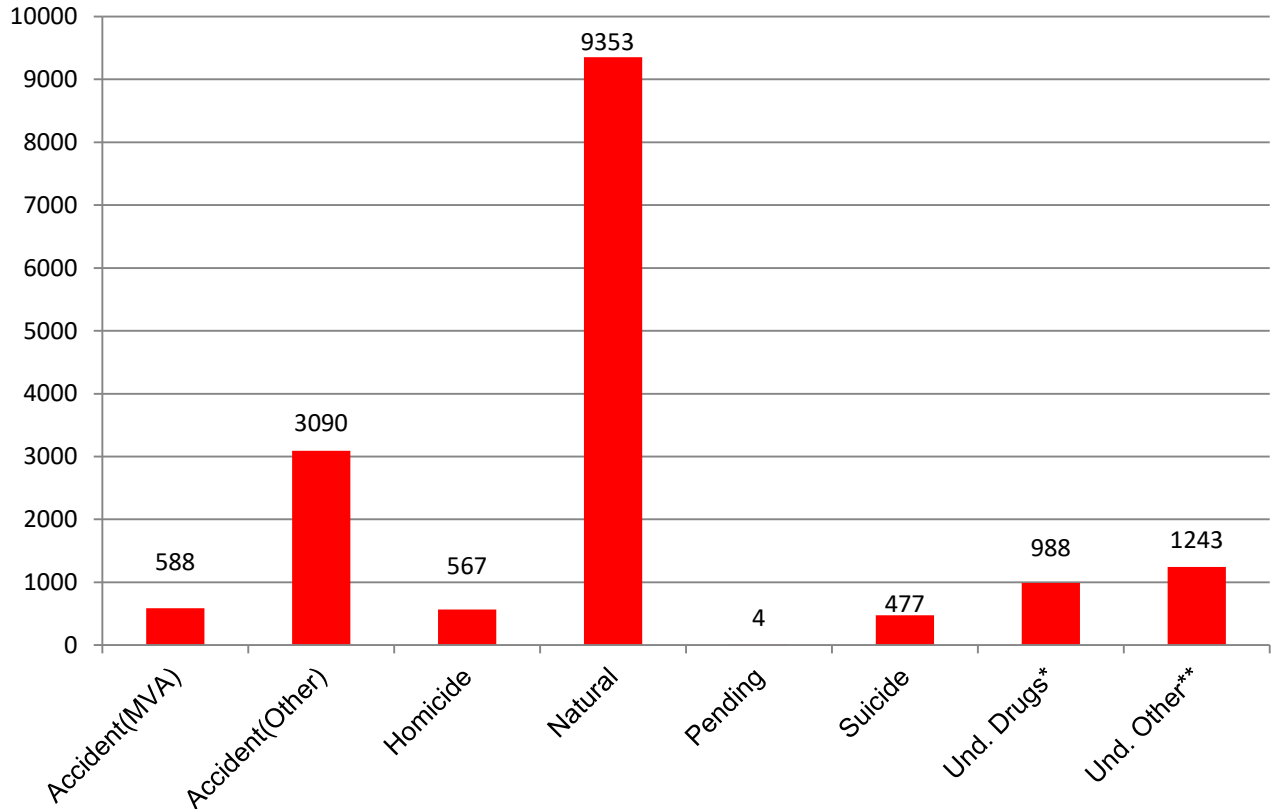


Total Cases Autopsied - 5789

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

**Three homicides were not autopsied

2023 Cases Reported to OCME Manner of Death

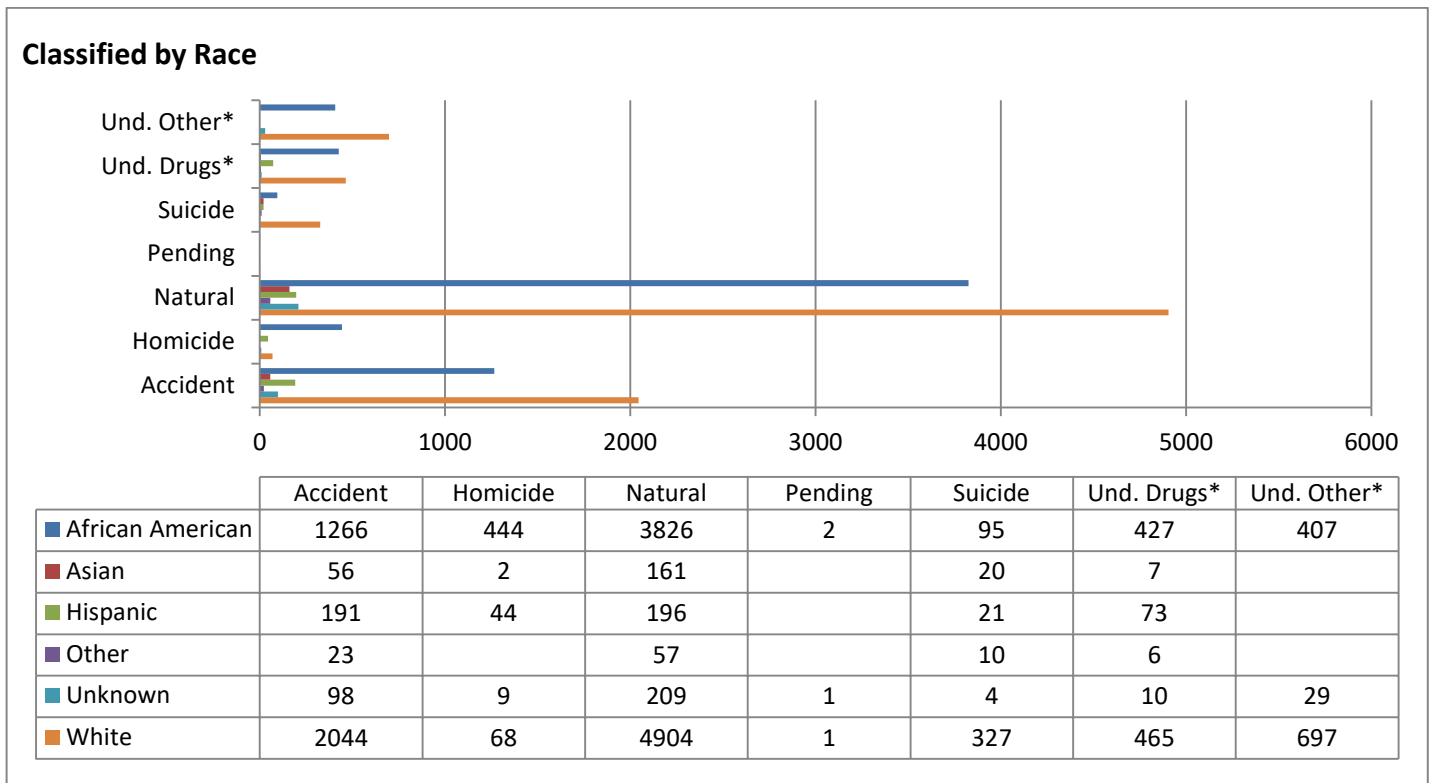
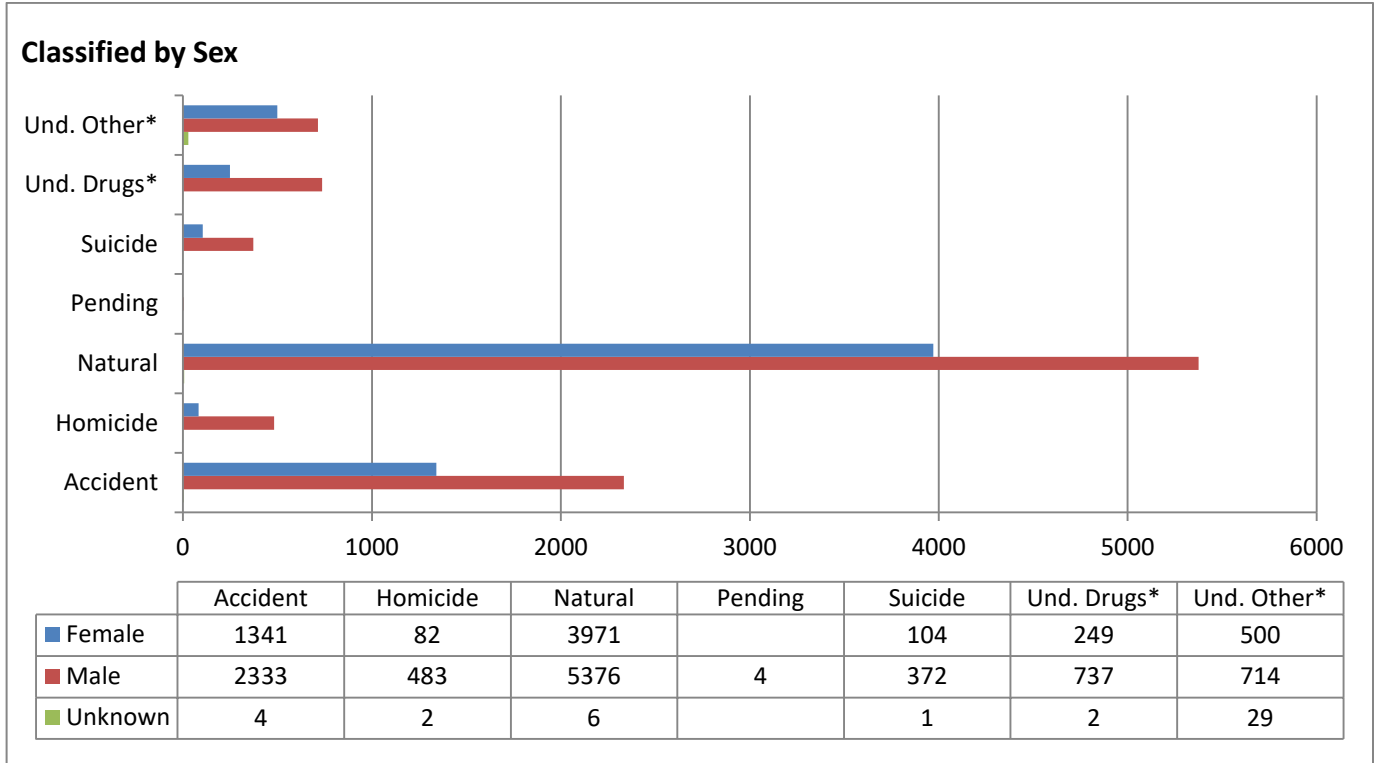


Total Cases – 16310

*Undetermined Manner: Drugs/Narcotics

** Undetermined Manner: Other

2023 Manner of Death



*Undetermined Manner: Drugs/Narcotics

** Undetermined Manner: Other

Manner of Death

Cause of Death	Accident	Homicide	Natural	Not Applicable	Suicide	Undetermined	Pending	Total
Asphyxiation	87	6			87	15		195
Airway obstruction/Aspirated stomach content	5					2		7
Drowning	61				9	11		81
Hanging					64	2		66
Smoke inhalation	10	1			1			12
Strangulation/Asphyxiation	11	5			13			29
Chemical/Drug/Alcohol Intoxication/Abuse/Use	1342	4	102		66	970		2484
Alcohol abuse/use	20		74			1		95
Alcohol and drug intoxication/use	5		1		1	8		15
Alcohol intoxication/use	10		12			7		29
Carbon monoxide	10				7	2		19
Cocaine and alcohol intoxication/use	4					5		9
Cocaine intoxication/use	74		8		2	27		111
Drug intoxication/abuse/use	48		6		29	37		120
Narcotic and alcohol intoxication/use	195				4	130		329
Narcotic intoxication/use	976	4	1		23	753		1757
Circulatory system	26	3	1181		3	7		1220
Aneurysm			7					7
Cardiac arrhythmia			53					53
Cardiomyopathy			16					16
Cardiovascular disease	15	1	839			1		856
Cerebrovascular disease	3		41			2		46
Hemorrhage	3		6		2	1		12
Other cardiac	3		172		1	3		179
Pulmonary embolism	2	2	47					51
Congenital / Perinatal			2	5		56		63
Congenital/Perinatal			2	5		2		9
Sudden Unexplained Death in Infancy (SUDI)						54		54
Digestive system disease			23					23
Cirrhosis			9					9
Gastrointestinal hemorrhage			10					10
Other digestive			4					4
Electrocution	2	1						3
Endocrine and metabolic disease	1		63					64
Diabetes	1		51					52
Other Endocrine and metabolic			12					12
Hyperthermia	8							8
Hypothermia	28					1		29
Infectious disease			14					14
Other infectious disease			10					10
COVID-19			4					4
Malignant neoplasms (Cancer)			13					13
Nervous system disease	5		46			2		53
Meningitis			2					2
Other CNS			9			1		10
Seizure disorder	5		35			1		41

Manner of Death

Cause of Death	Accident	Homicide	Natural	Not Applicable	Suicide	Undetermined	Pending	Total
Other natural cause			72					72
Other non-natural cause	9	10		2	7	2	4	34
Respiratory system	3		55			1		59
Asthma			8					8
Chronic obstructive pulmonary disease			8					8
Other respiratory	1		8					9
Pneumonia	2		31			1		34
Thermal Injuries (Burns)	31	1			4	6		42
Traumatic injury	636	539			192	12		1379
Blunt force	219	21			11	3		254
Fracture	6	1						7
Gunshot wound	3	446			145	2		596
Head/Chest injuries	58	7			1	4		70
Multiple injuries	345	15			26	2		388
Other trauma	3	1			1	1		6
Sharp force/cutting	2	48			8			58
Unknown cause						34		34
Grand Total	2178	564	1571	7	359	1106	4	5789

Manner of Death - 3 Year Comparison

Medical Examiner Cases: Manner of Death, Maryland 2023

Manner of Death	Number	%
Accident	3678	22.6%
Homicide	567	3.5%
Natural	9353	57.3%
Pending	4	0.0%
Suicide	477	2.9%
Undetermined	2231	13.7%
Total	16310	100%

Medical Examiner Cases: Manner of Death, Maryland 2022

Manner of Death	Number	%
Accident	3274	19.0%
Homicide	620	3.6%
Natural	10457	60.8%
Pending	2	0.0%
Suicide	488	2.8%
Undetermined	2356	13.7%
Total	17197	100%

Medical Examiner Cases: Manner of Death, Maryland 2021

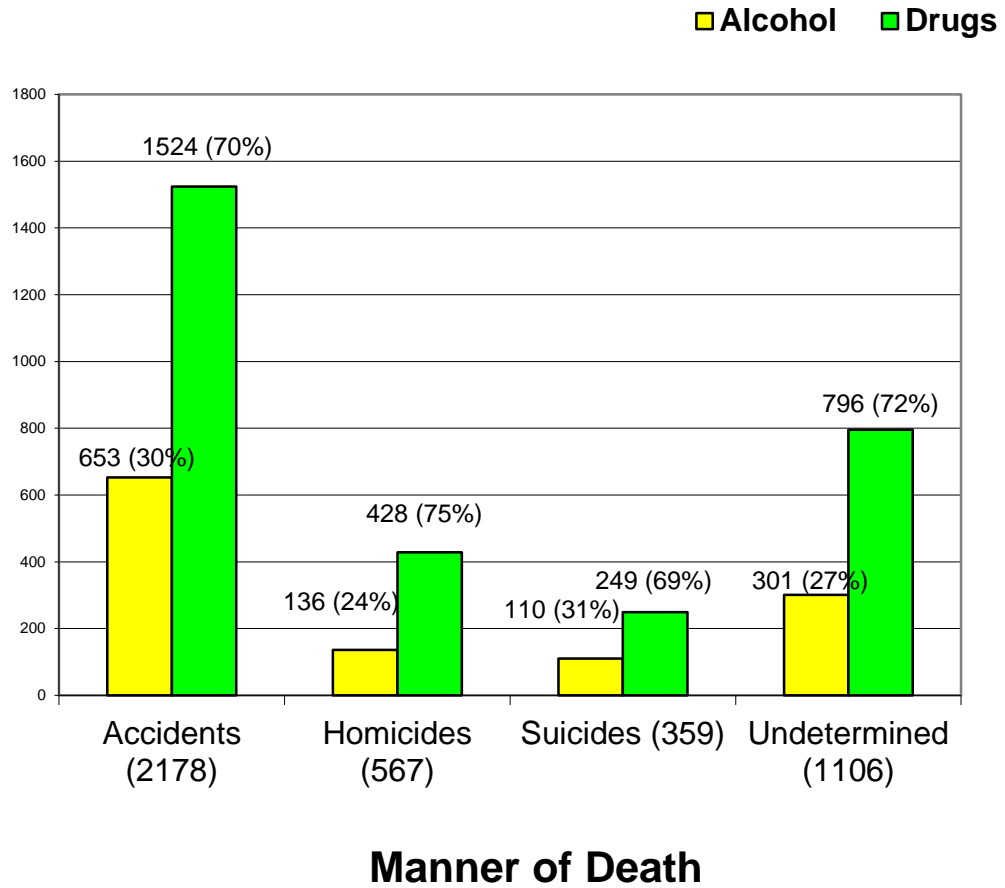
Manner of Death	Number	%
Accident	2921	17.0%
Homicide	704	4.1%
Natural	10564	61.4%
Suicide	524	3.0%
Undetermined	3003	17.5%
Total	17716	103%

2023 Manner of Death by County

2023 - Manner	Accident	Homicide	Natural	Suicide	Undetermined	Pending	Total
Allegany	42	6	32	6	23		109
Anne Arundel	150	21	141	37	75		424
Baltimore City	721	281	382	55	442		1881
Baltimore County	226	25	184	43	118		596
Calvert	24	4	26	8	10		72
Caroline	20	1	10	3	8		42
Carroll	36	3	37	14	17	1	108
Cecil	66	5	21	6	25	1	124
Charles	47	11	36	7	20		121
Dorchester	20	3	13	6	6		48
Frederick	63	8	28	20	18		137
Garrett	14		8	2	4		28
Harford	65	9	48	15	41		178
Howard	46	4	43	20	14		127
Kent	6		3	2	3		14
Montgomery	122	27	174	39	75		437
Prince George's	284	130	224	31	94	2	765
Queen Anne's	15		11	2	6		34
Saint Mary's	37	4	14	7	16		78
Somerset	14	2	12	1	9		38
Talbot	13	2	12	3	6		36
Washington	74	12	40	15	44		185
Wicomico	45	5	41	7	28		126
Worcester	28	1	31	10	11		81
Grand Total	2178	564	1571	359	1113	4	5789
2023 - Case Type	Autopsy	OCME Insp.	Total	County	Autopsy	OCME Insp.	Total
Allegany	106	3	109	Washington	179	6	185
Anne Arundel	407	17	424	Wicomico	123	3	126
Baltimore City	1824	57	1881	Worcester	76	5	81
Baltimore County	575	21	596	Grand Total	5608	181	5789
Calvert	71	1	72				
Caroline	40	2	42				
Carroll	101	7	108				
Cecil	123	1	124				
Charles	117	4	121				
Dorchester	45	3	48				
Frederick	131	6	137				
Garrett	27	1	28				
Harford	174	4	178				
Howard	120	7	127				
Kent	13	1	14				
Montgomery	427	10	437				
Prince George's	750	15	765				
Queen Anne's	32	2	34				
Saint Mary's	75	3	78				
Somerset	37	1	38				
Talbot	35	1	36				

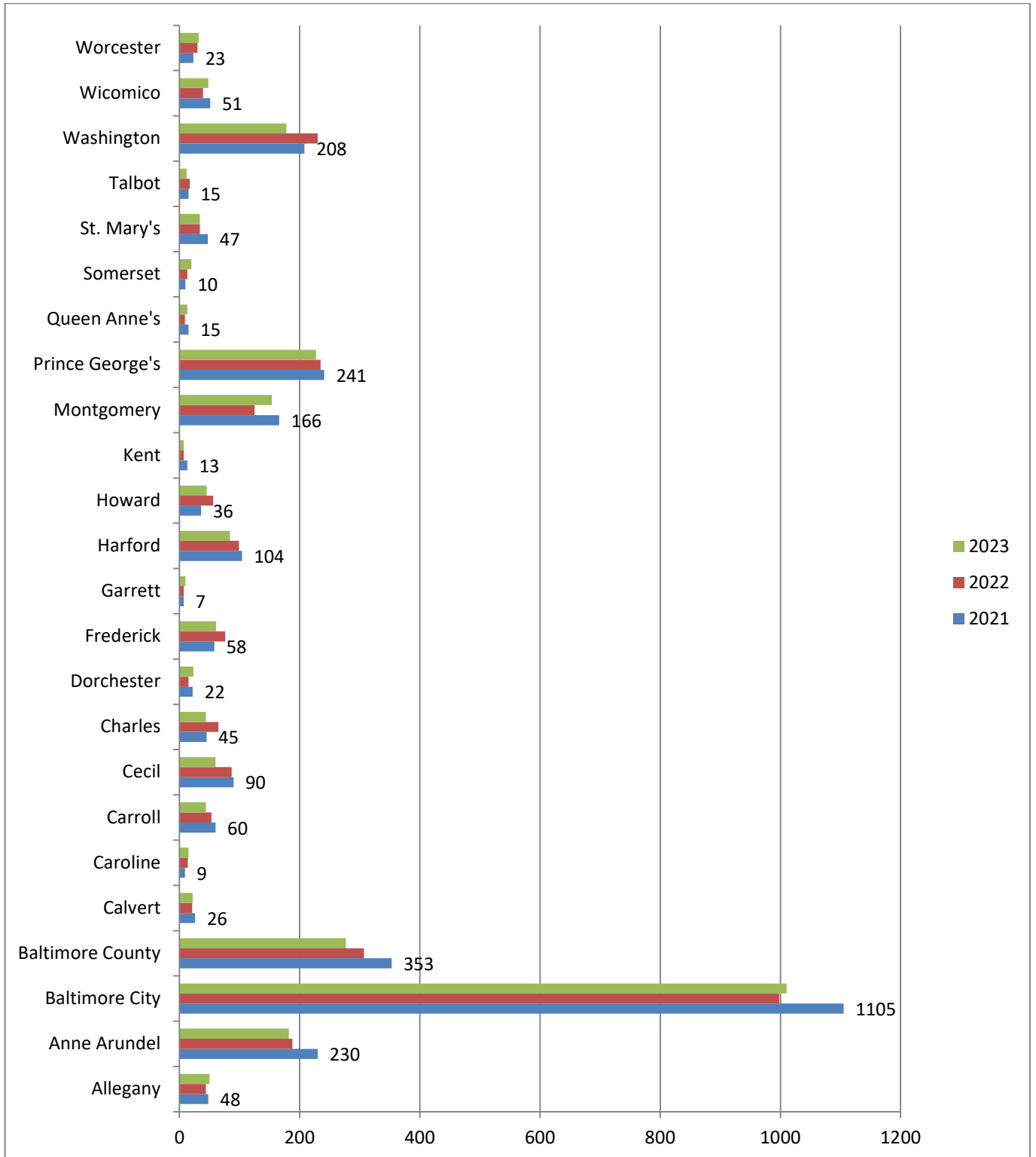
2023 Toxicology Testing

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

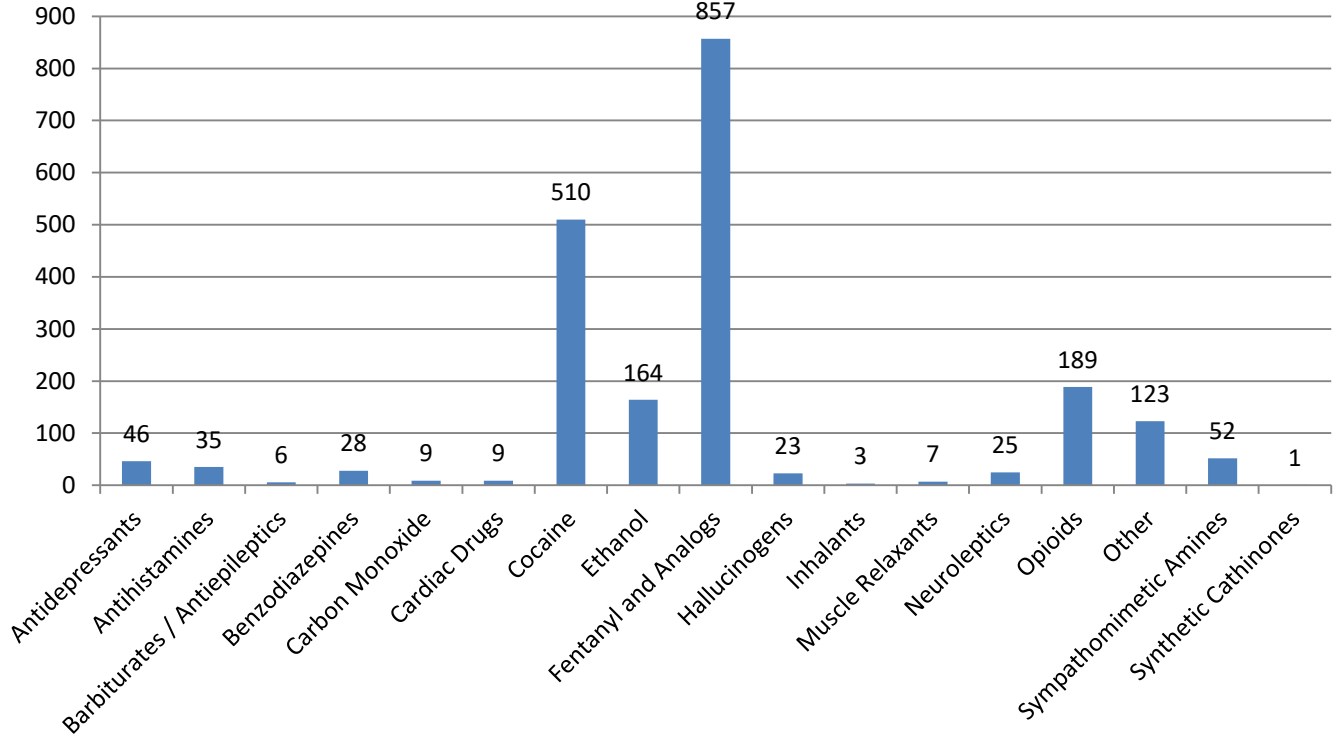


Drug Deaths

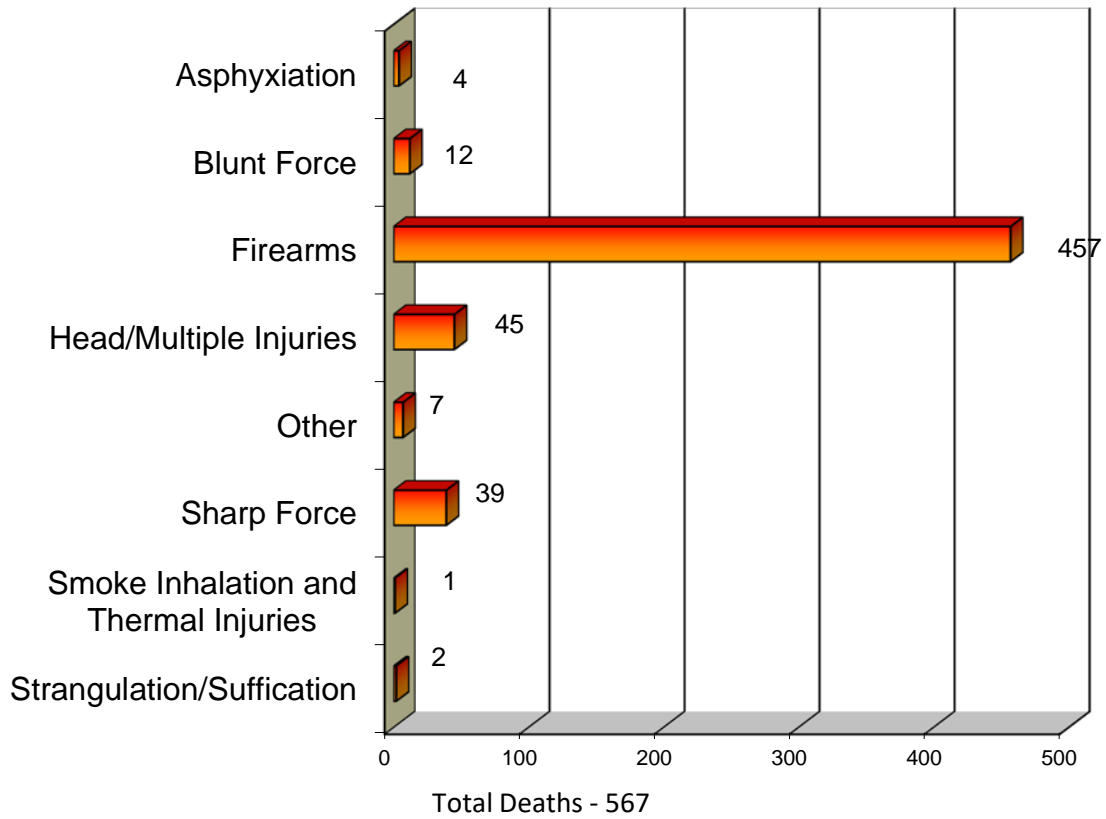
3 Year Comparison by Jurisdiction 2021-2023



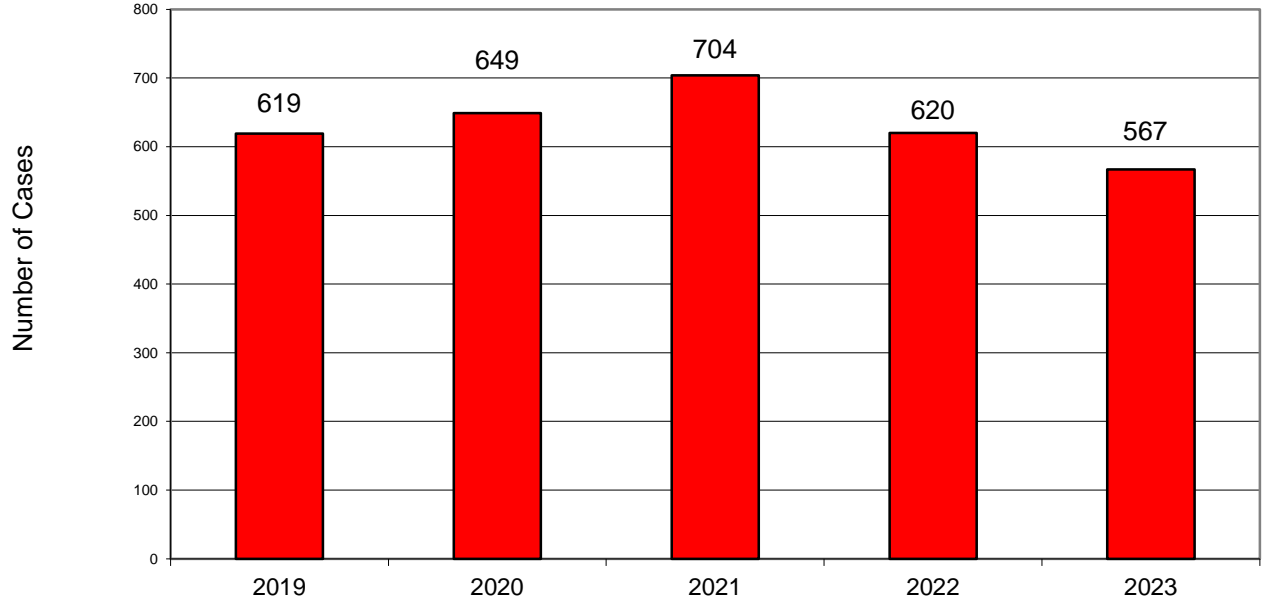
2023 Drug Deaths Undetermined Manner



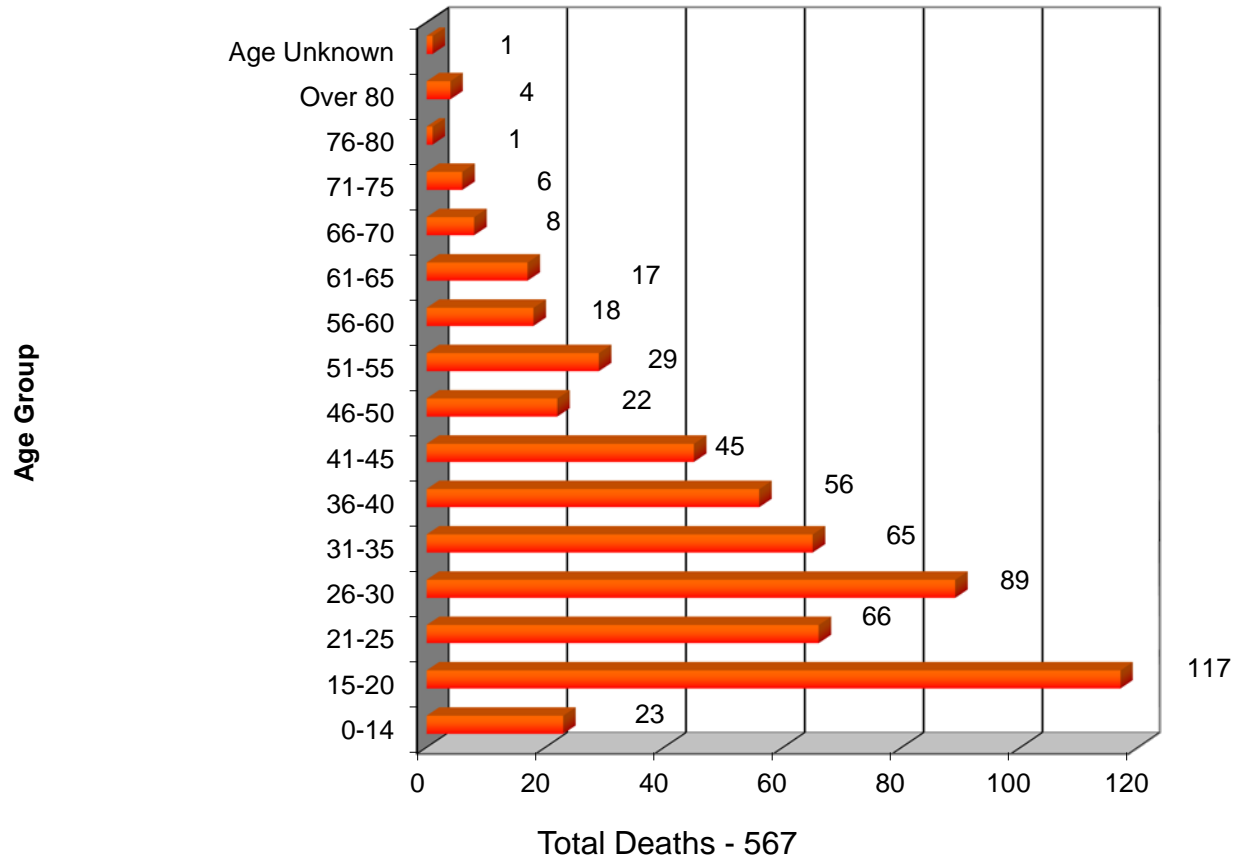
2023 Homicide Deaths Cause of Death



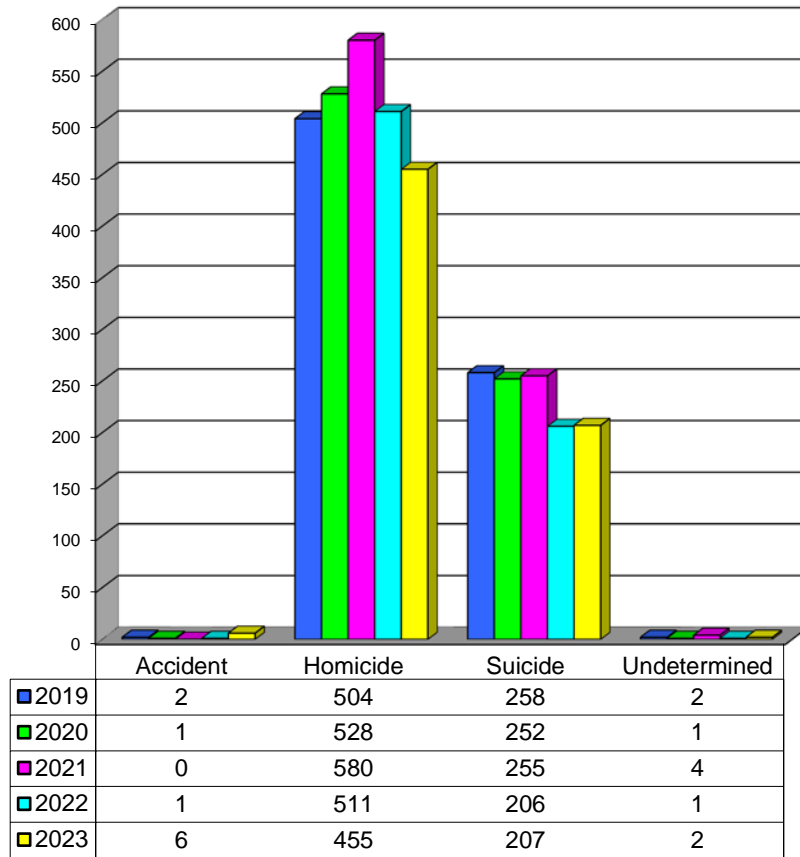
Homicides 5 Year Comparison 2019 - 2023



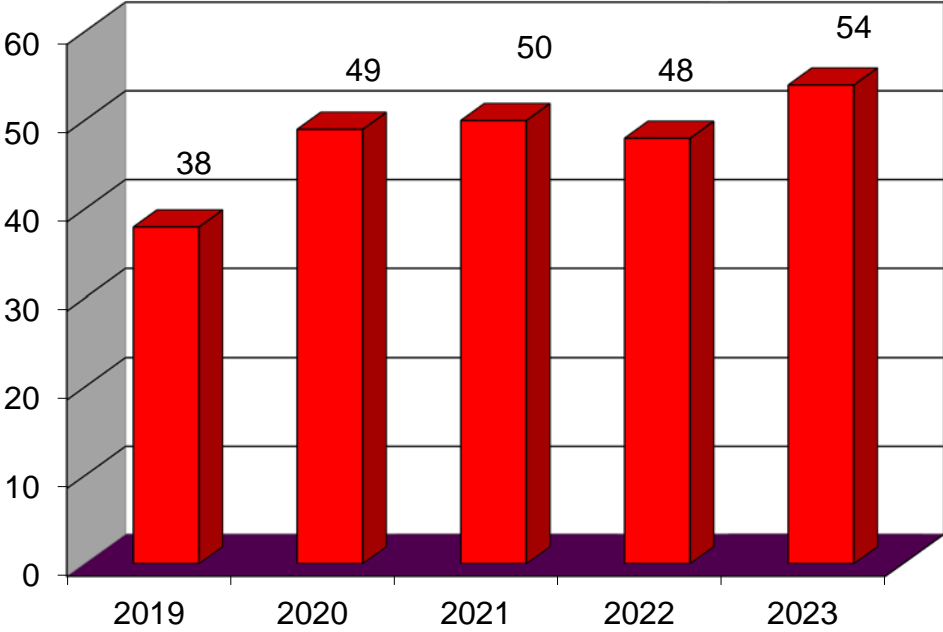
2023 Homicide Deaths by Age



Firearm Deaths 2019 - 2023

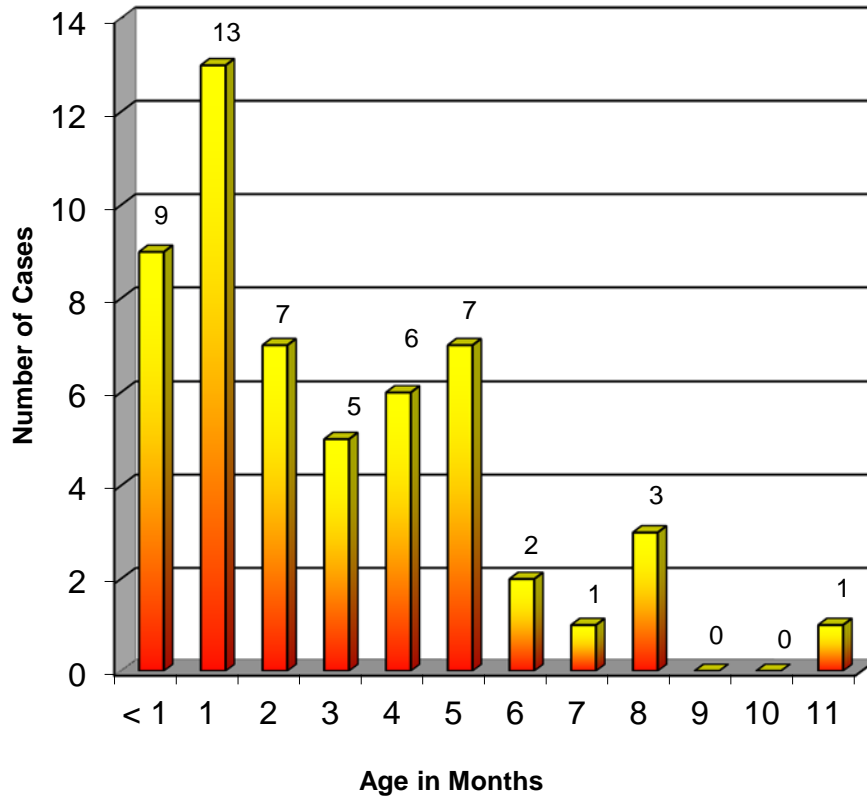


SUDI Deaths 2019 - 2023 Comparison

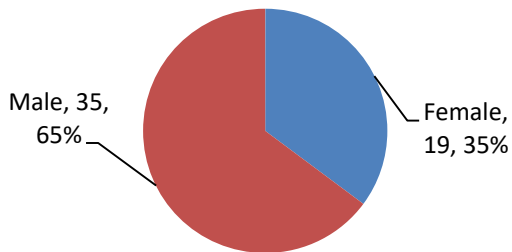


Sudden Unexplained Death in Infancy – 2023

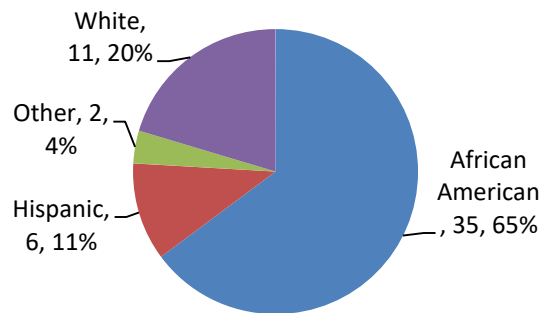
Classified by Age



Classified by Sex



Classified by Race



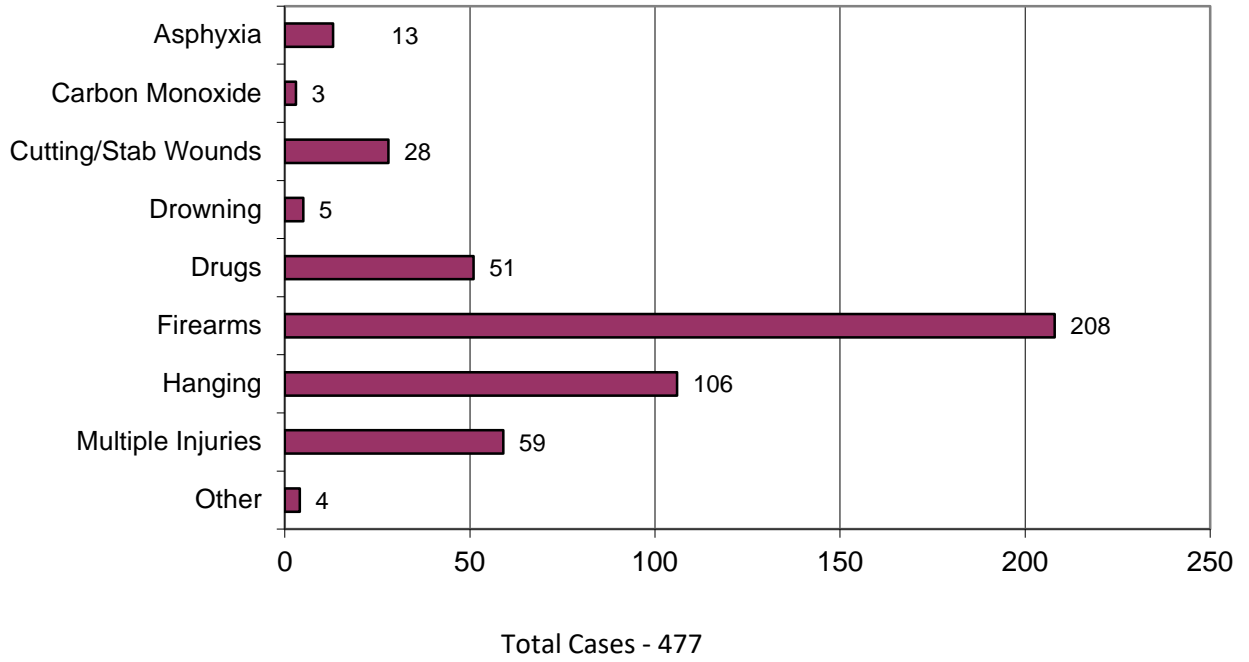
Total of 54 Deaths

Infant Deaths (age live birth to one year)

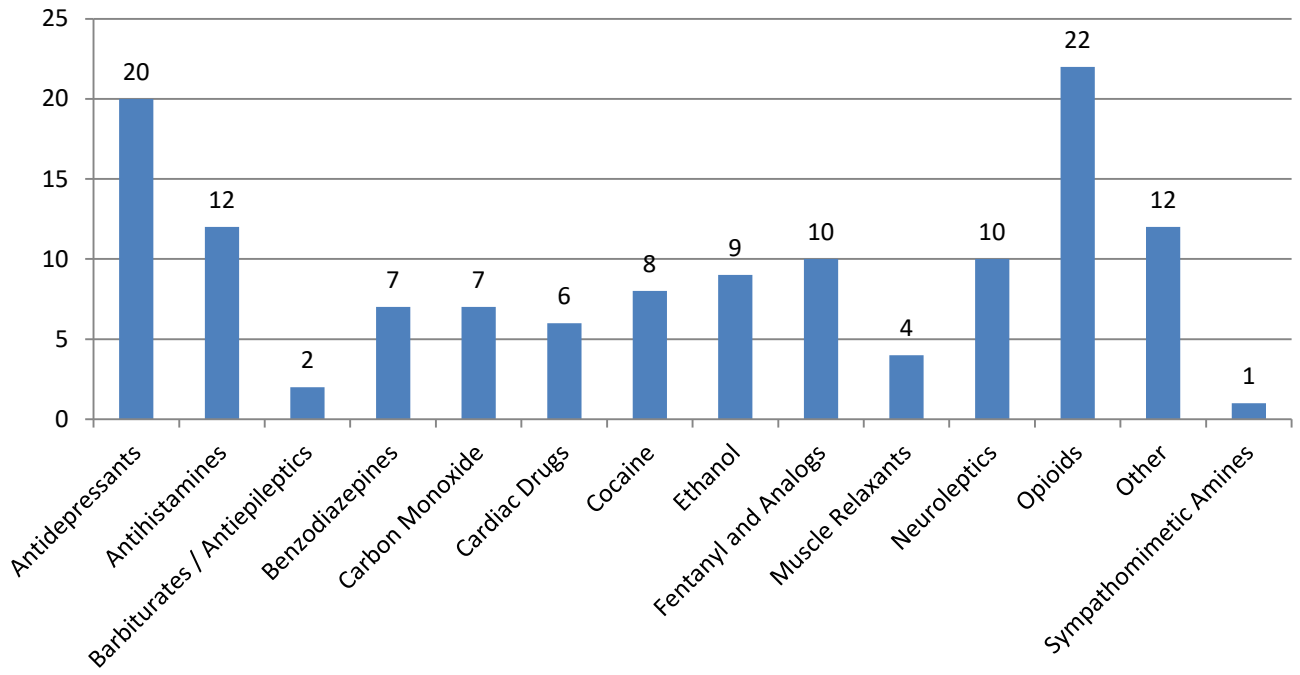
Manner of Death

Cause of Death	Accident	Homicide	Natural	Undeter- mined	Total
Asphyxiation	6				6
Strangulation/Asphyxiation	4				4
Drowning	2				2
Circulatory system			2		2
Cardiomyopathy			1		1
Other cardiac			1		1
Congenital / Perinatal			2	56	58
Sudden Unexplained Death in Infancy (SUDI)				54	54
Congenital/Perinatal			2	2	4
Infectious disease			1		1
Nervous system disease			1		1
Meningitis			1		1
Other natural cause			1		1
Other non-natural cause		1		1	2
Respiratory system			4		4
Pneumonia			4		4
Traumatic injury	1	1			2
Head/Chest injuries	1				1
Multiple injuries		1			1
Unknown cause				2	2
Grand Total	7	2	11	59	79

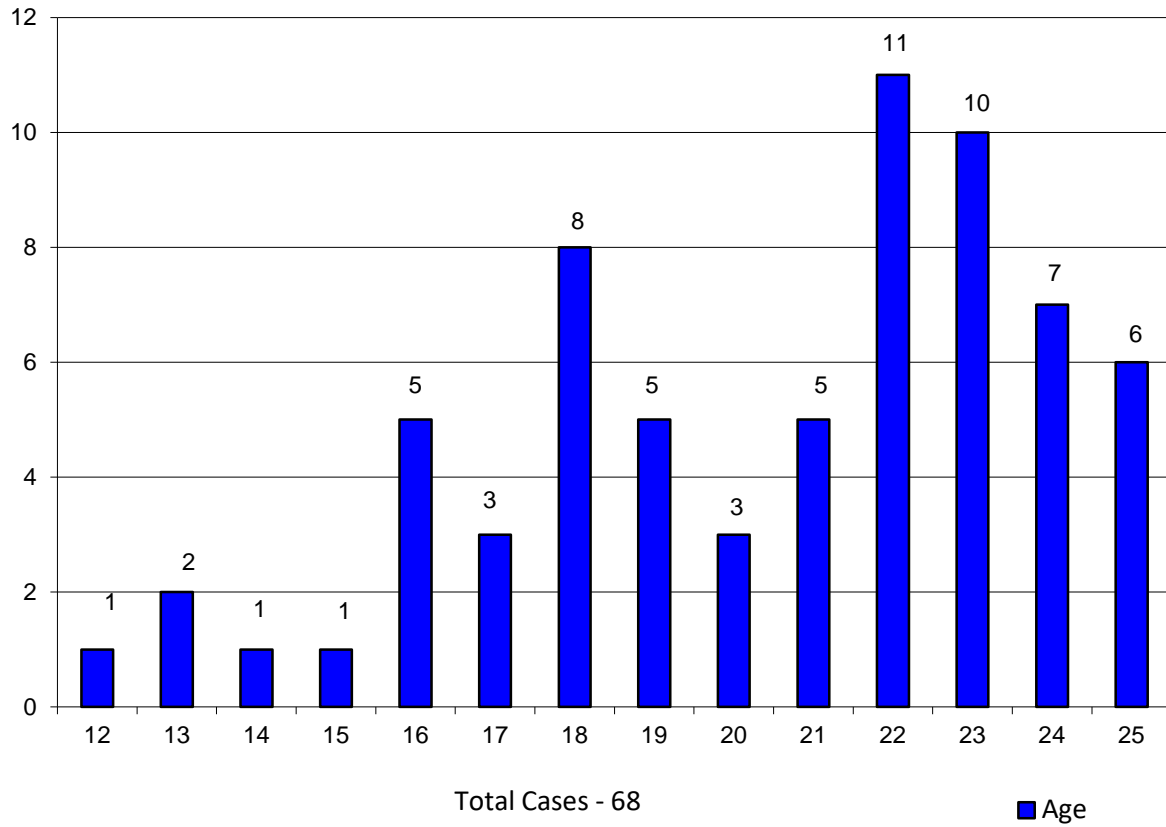
2023 Suicide Deaths Classified by Cause of Death



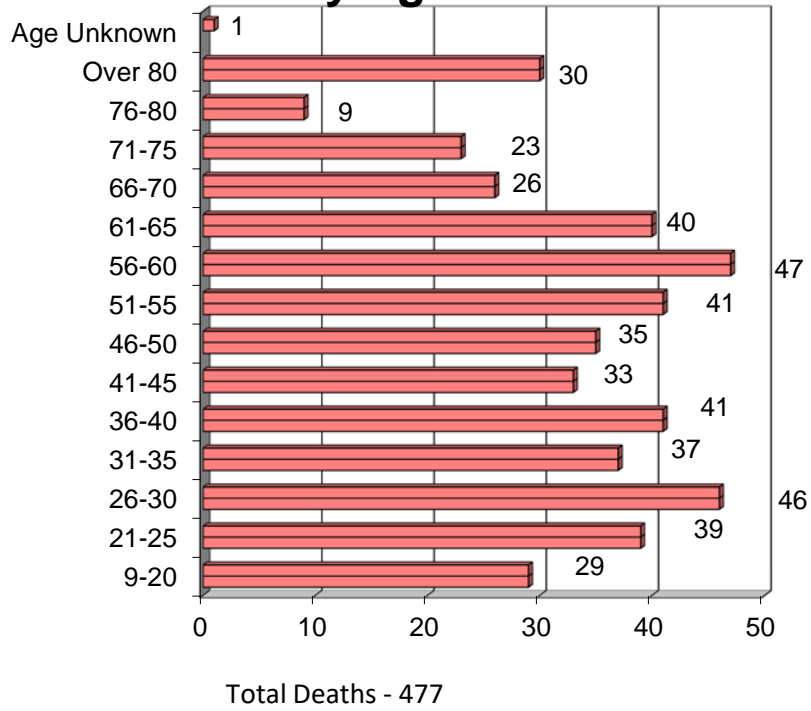
By Drug Classification



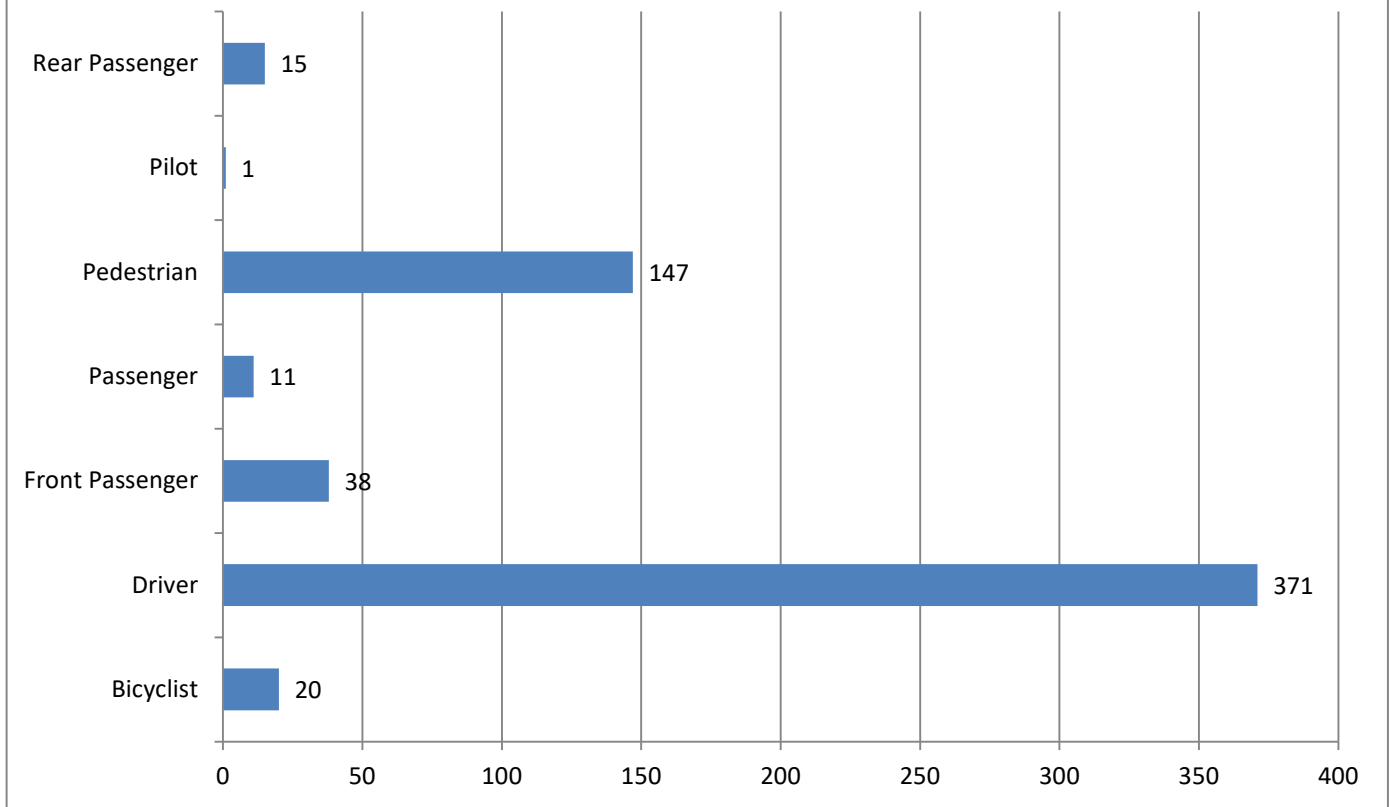
2023 Youth Suicides 25 Years of Age and Under



2023 Suicide Deaths by Age

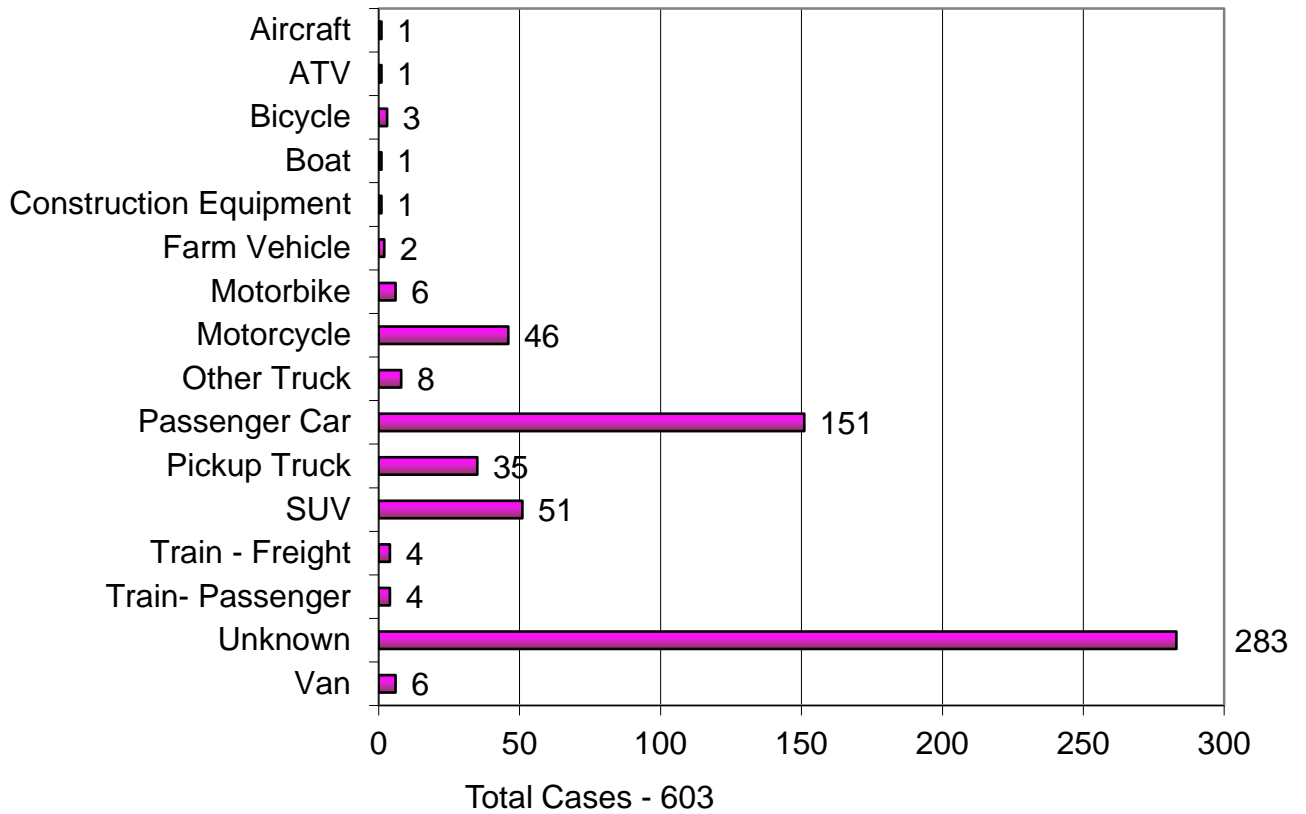


2023 Transportation Accidents Classified by Activity

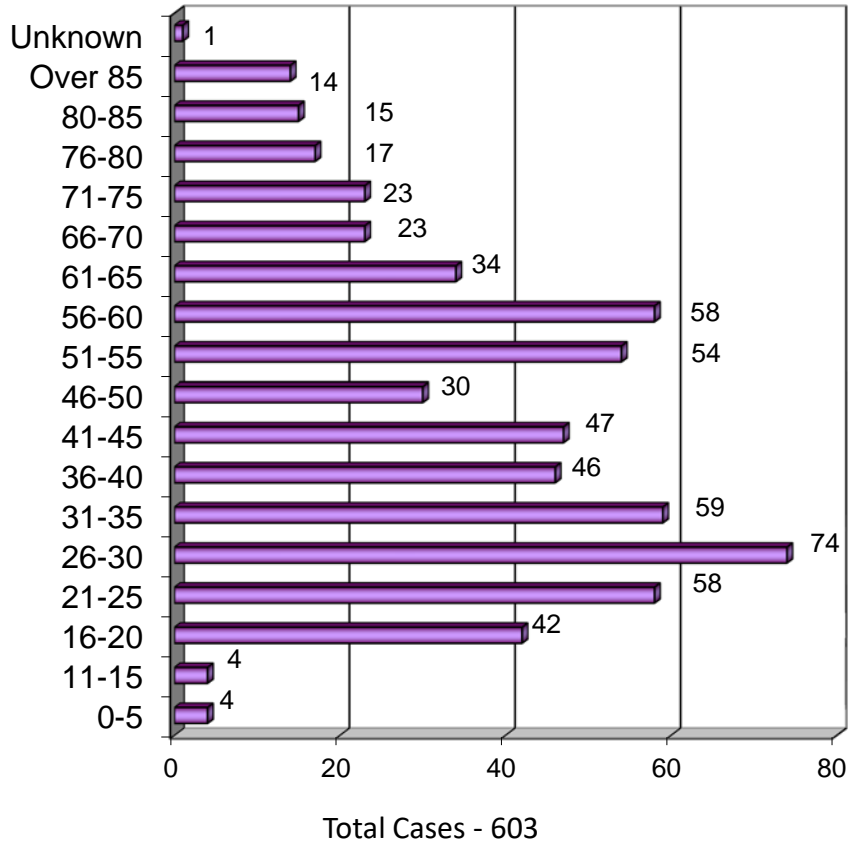


Total Cases – 603

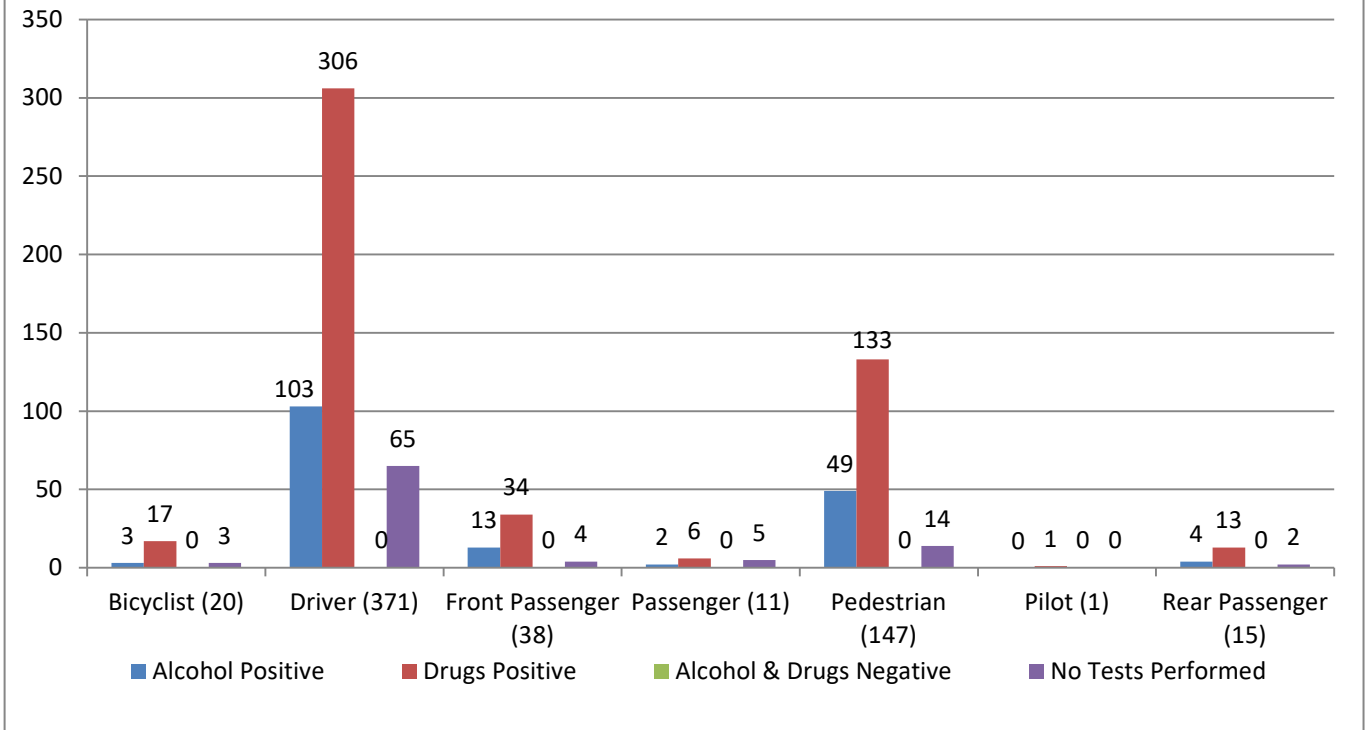
2023 Transportation Deaths Type of Vehicle



2023 Transportation Deaths by Age

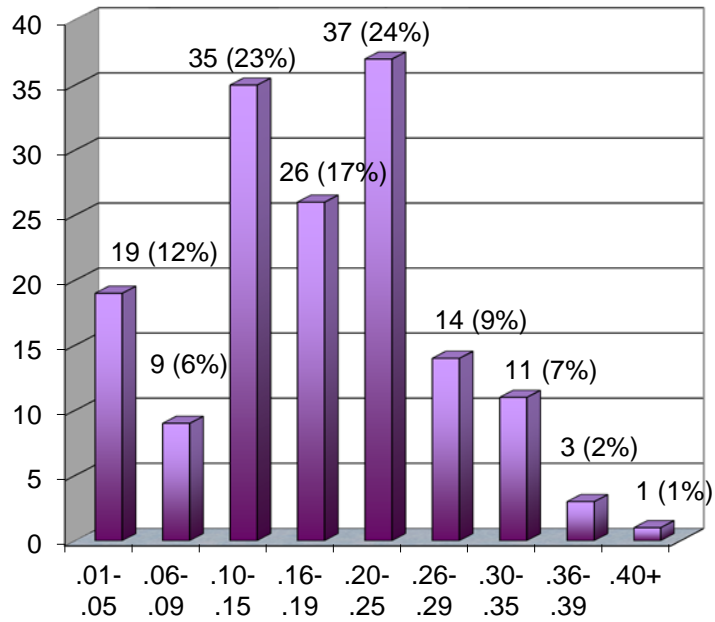


2023 Transportation Accidents Alcohol/Drug Results



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.

**2023 Transportation Deaths
Blood Alcohol Concentration in 155 Cases
30%* Tested Positive**



603 Transportation Deaths
355 Negative for Alcohol
93 No Testing Performed

*Percent based on total cases tested for alcohol

ADDENDUM

Miscellaneous Data

1. Number of Autopsies	4300
Number of Partial Autopsies	1209
Number of CT Autopsies	99
2. Organ donations	88
3. Unclaimed bodies released to State Anatomy Board	376
4. Exhumations	0
5. Bodies transported to the OCME	5780
6. Infant deaths certified (age live born to 1 year)	96
7. Infants autopsied	79
8. Drug-related accidental deaths certified	1565
9. Drug-related accidental deaths autopsied	1363
10. Non-MVA, non-drug related accidents certified	1540
11. Non-MVA, non-drug related accidents autopsied	331

2023 Drug Classifications

Antidepressants

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

Antihistamines

Brompheniramine
Chlorpheniramine
Cyproheptadine
Diphenhydramine
Doxylamine
Hydroxyzine
Meclizine
Pheniramine

Barbiturates / Antiepileptics

Butalbital
Carbamazepine
Gabapentin
Hydroxycarbazepine
Lamotrigine
Levetiracetam
Pentobarbital
Phenobarbital
Phenytoin
Primidone
Topiramate

Benzodiazepines

7-Aminoclonazepam
Alprazolam

Benzodiazepines (continued)

Chlordiazepoxide
Clonazepam
Diazepam
Etizolam
Flubromazepam
Flurazepam
Lorazepam
Midazolam
Nordiazepam
Oxazepam
Temazepam
Triazolam

Carbon Monoxide

Cardiac Drugs

Amlodipine
Diltiazem
Flecainide
Metoprolol
Procainamide
Propranolol
Verapamil

Cocaine and Metabolites

Benzoyllecgonine
Cocaethylene

Fentanyl and Analogs

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

Hallucinogens

Phencyclidine
Tenocyclidine

Inhalants

1,1-Difluoroethane
Halogenated Hydrocarbons
Nitrous Oxide

Muscle Relaxants

Carisoprodol
Cyclobenzaprine
Metaxalone
Tizanidine

Neuroleptics

Amoxapine
Aripiprazole
Buspirone
Chlorpromazine
Clozapine
Haloperidol
Loxapine
Olanzapine
Prochlorperazine
Promethazine
Quetiapine
Thioridazine

Opioids

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

Other

Acetaminophen
Amantadine
Atomoxetine
Atropine
Benzoyllecgonine
Benztropine
Bupivacaine
Caffeine
Carisoprodol
Dextromethorphan
Ethylene Glycol
GHB
Isopropanol
Ketamine
Meprobamate
Propane
Propofol
Quinine
Synthetic Cannabinoids
Vecuronium
Xylazine
Zolpidem

Sympathomimetic Amines

Amphetamine
Ephedrine
MDMA
Methamphetamine
Methylenedioxyamphetamine
Methylenedioxymethamphetamine
Phentermine
Phenylpropanolamine
Pseudoephedrine

Synthetic Cathinones

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