

Nevada Opioid Surveillance

2010 - 2016



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Emergency Department Encounters and Inpatient Visits

Data Source: Division of Public and Behavioral Health, Hospital Inpatient and Emergency Department Billing Data.

Data Provided by: Center for Health Information Analysis.

In October 2015, ICD-10-CM codes were implemented. Previous to October 2015, ICD-9-CM codes were used for medical billing. Therefore, 2015 data consists of two distinct coding schemes, ICD-9-CM and ICD-10-CM respectively. Due to this change in coding schemes, hospital billing data from October 2015 forward may not be directly comparable to previous data.

The following ICD Codes are included in these data:

Opioid Related Disorders

All Diagnosis

304.0	Opioid type dependence ICD-9-CM
304.7	Combinations of opioid type drug with any other drug dependence ICD-9-CM
305.5	Nondependent opioid abuse ICD-9-CM
F11	Opioid related disorders ICD-10-CM

Opiate Poisoning

Principal Diagnosis

965.0	Poisoning by opiates and related narcotics ICD-9-CM
T40.0	Poisoning by, adverse effect of and underdosing of opium ICD-10-CM
T40.1	Poisoning by and adverse effect of heroin ICD-10-CM
T40.2	Poisoning by, adverse effect of and underdosing of other opioids ICD-10-CM
T40.3	Poisoning by, adverse effect of and underdosing of methadone ICD-10-CM
T40.4	Poisoning by, adverse effect of and underdosing of other synthetic narcotics ICD-10-CM
T40.6	Poisoning by, adverse effect of and underdosing of other and unspecified narcotics ICD-10-CM

All Diagnosis

E850.0-E850.2	Accidental poisoning by heroin, methadone, and other opiates ICD-9-CM
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Deaths

**Data are preliminary and are subject to changes.*

Data Source: Division of Public and Behavioral Health, Electronic Death Registry System.

Deaths with any of the following ICD-10 codes as an underlying cause of death were first selected:

X40-X44	Accidental poisonings by drugs
X60-X64	Intentional self poisoning by drugs
X85	Assault by drug poisoning
Y10-Y14	Drug poisoning of undetermined intent

The following axis (contributing causes of death) ICD-10 Codes are included in these data:

T40.0	Opium~
T40.1	Heroin
T40.2	Natural and semi-synthetic opioids
T40.3	Methadone
T40.4	Synthetic opioids
T40.6	Other and unspecified opioids
T42.4	Benzodiazepine

~Opium was included in analysis, since there have been 0 deaths related to opium it is not included in the tables and charts.

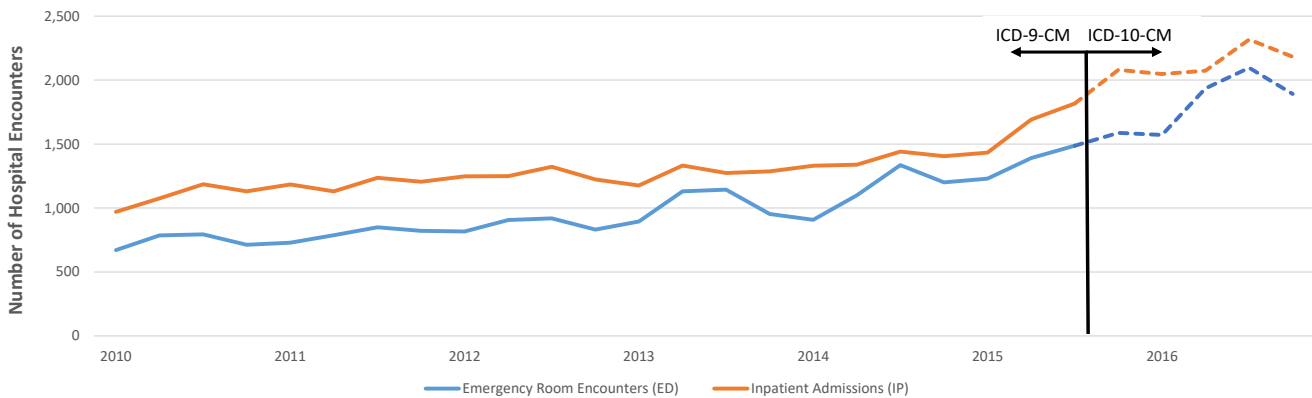
Opioid-Related Hospital Data, Nevada Residents, 2010-2016

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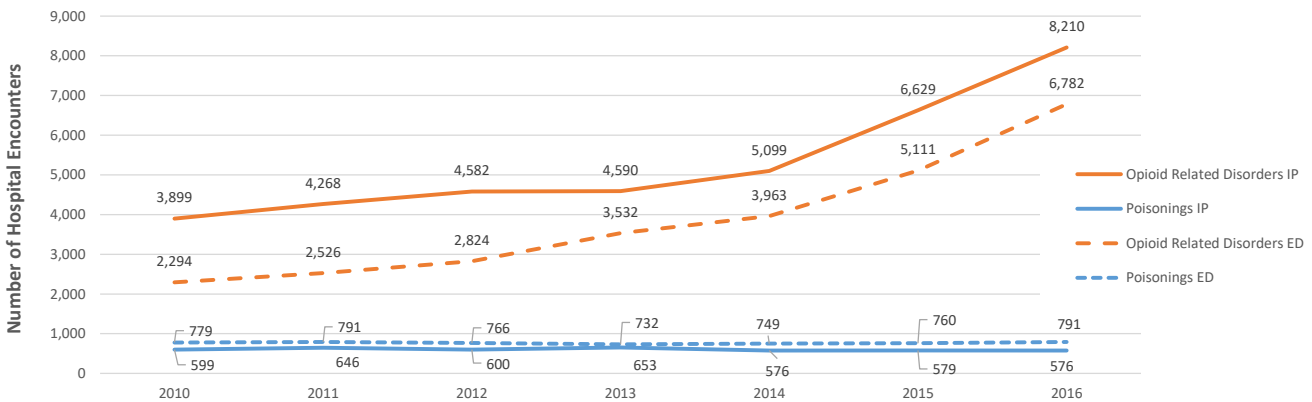
Year	Emergency Room Encounters (ED)	Emergency Room Crude Rates	Percent Change	Inpatient Admissions (IP)	Inpatient Crude Rates	Percent Change
2010	2,963	109.5		4,362	161.2	
2011	3,188	117.1	7%	4,755	174.7	8%
2012	3,473	126.3	8%	5,042	183.3	5%
2013	4,122	147.2	17%	5,067	180.9	-1%
2014	4,543	159.8	9%	5,517	194.0	7%
2015	5,695	198.2	24%	7,022	244.3	26%
2016	7,495	258.2	30%	8,621	297.0	22%
Percent Change 2010-2016			136%			84%

Rates are per 100,000 Nevada Population.

Opioid-Related Hospitalizations by Quarter, Nevada Residents, 2010-2016



Opioid-Related Hospitalizations by ICD Group and Year, Nevada Residents, 2010-2016



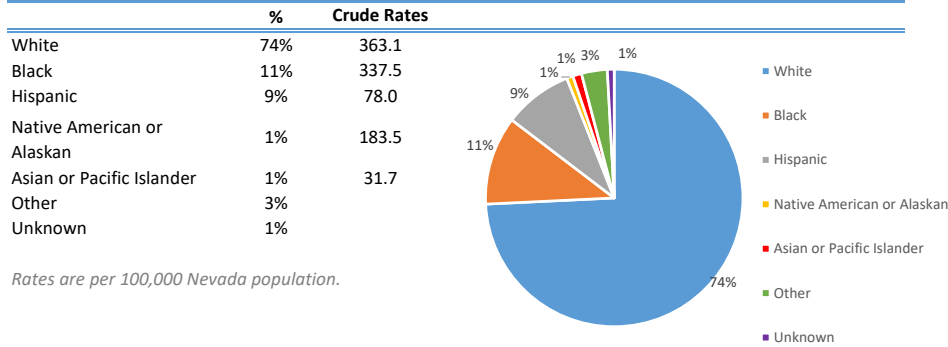
A person can be included in more than one drug group, and therefore the counts above are not mutually exclusive.

Opioid-Related Hospitalization (Inpatient) Visits by Length of Stay (Days), Nevada Residents, 2010-2016

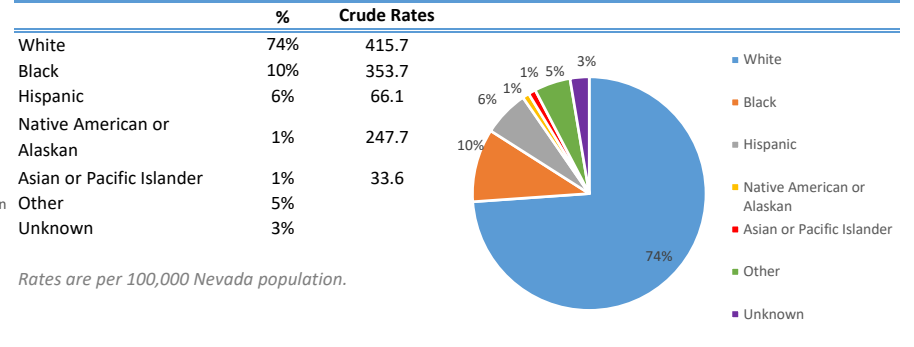
Year	0-1	2-4	5-9	10-14	15-19	20-24	25+
2010	648	1,833	1,158	380	132	97	114
2011	691	1,977	1,339	403	132	74	139
2012	670	1,953	1,531	467	160	102	159
2013	754	1,952	1,483	411	192	111	164
2014	740	2,124	1,604	505	215	111	218
2015	880	2,771	2,196	592	245	117	221
2016	985	3,209	2,916	721	312	169	309

In October 2015, ICD-10-CM codes were implemented. Previous to October 2015, ICD-9-CM codes were used for medical billing. Therefore, 2015 data consists of two distinct coding schemes, ICD-9-CM and ICD-10-CM respectively. Due to this change in coding schemes, hospital billing data from October 2015 forward may not be directly comparable to previous data.

Opioid-Related Emergency Department Encounters by Race/Ethnicity, Nevada Residents, 2016



Opioid-Related Inpatient Admissions by Race/Ethnicity, Nevada Residents, 2016



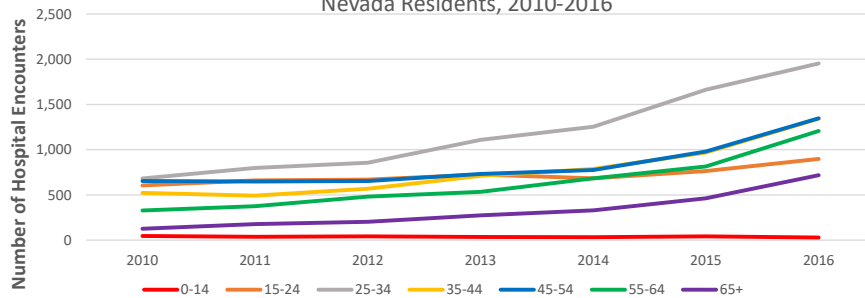
Opioid-Related Emergency Department Encounters by Age Group, Nevada Residents, 2010-2016

Year	0-14	15-24	25-34	35-44	45-54	55-64	65+
2010	46	605	682	522	654	328	126
2011	37	661	798	492	648	375	177
2012	42	669	855	569	653	481	204
2013	35	726	1,109	712	731	534	275
2014	33	683	1,253	786	776	683	329
2015	41	765	1,664	968	981	814	462
2016	29	898	1,953	1,343	1,347	1,207	718

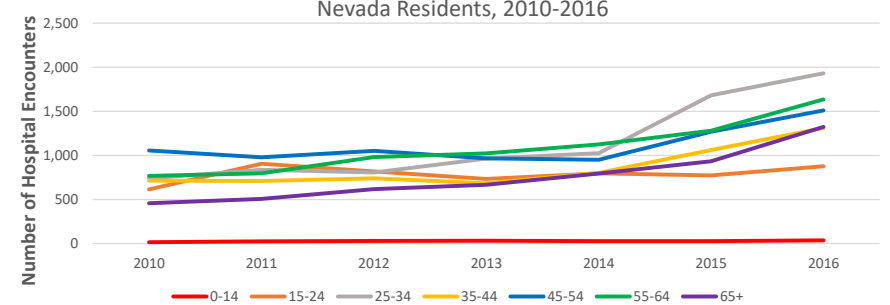
Opioid-Related Inpatient Admissions by Age Group, Nevada Residents, 2010-2016

Year	0-14	15-24	25-34	35-44	45-54	55-64	65+
2010	15	614	739	713	1,057	767	457
2011	25	905	837	708	979	796	505
2012	29	818	806	740	1,052	981	616
2013	31	733	963	684	967	1,022	667
2014	26	796	1,025	802	950	1,125	793
2015	26	773	1,681	1,061	1,268	1,279	934
2016	36	876	1,931	1,310	1,510	1,635	1,323

Opioid-Related Emergency Department Encounters by Age Group, Nevada Residents, 2010-2016

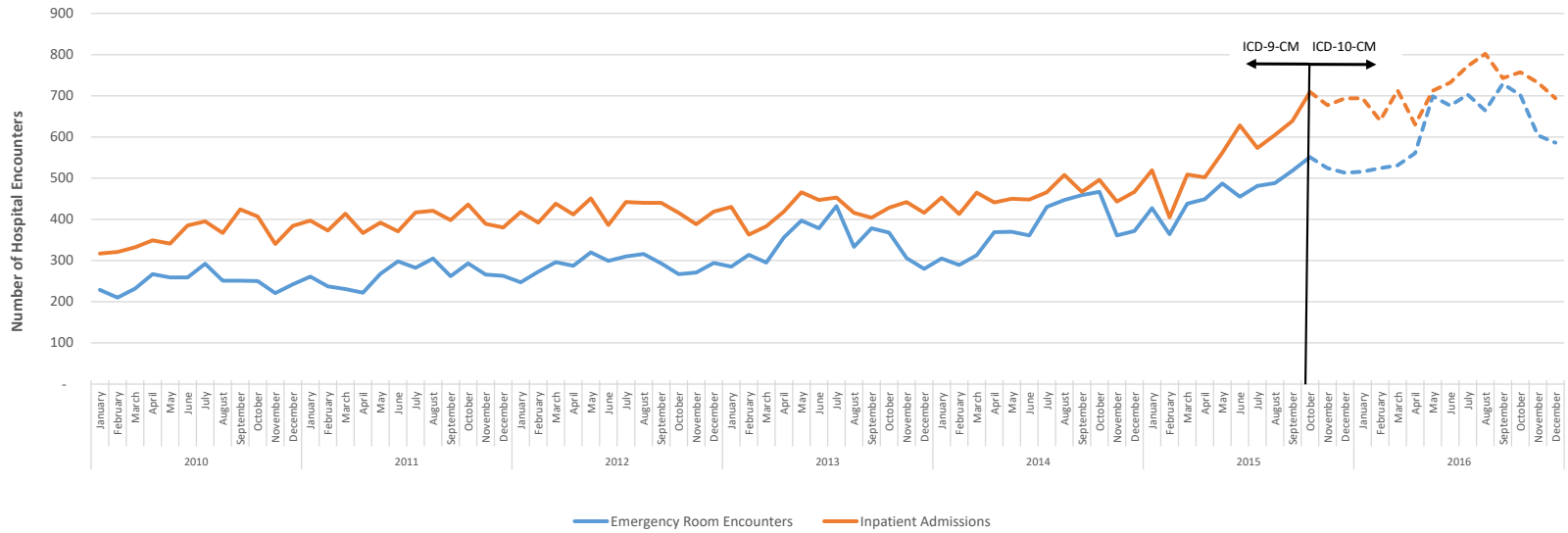


Opioid-Related Inpatient Admissions by Age Group, Nevada Residents, 2010-2016



Opioid-Related Hospital Data by Month, Nevada Residents, 2010-2016

In October 2015, ICD-10-CM codes were implemented. Previous to October 2015, ICD-9-CM codes were used for medical billing. Therefore, 2015 data consists of two distinct coding schemes, ICD-9-CM and ICD-10-CM respectively. Due to this change in coding schemes, hospital billing data from October 2015 forward may not be directly comparable to previous data.



In October 2015, ICD-10-CM codes were implemented. Previous to October 2015, ICD-9-CM codes were used for medical billing. Therefore, 2015 data consists of two distinct coding schemes, ICD-9-CM and ICD-10-CM respectively. Due to this change in coding schemes, hospital billing data from October 2015 forward may not be directly comparable to previous data.

Opioid-Related Emergency Department Encounters by Payer, Nevada Residents, 2010-2016

	Number of Encounters by Payer							Percent of Encounters by Payer						
	2010	2011	2012	2013	2014	2015	2016	2010	2011	2012	2013	2014	2015	2016
Medicaid	400	435	462	597	1,631	2,544	3,592	13%	14%	13%	14%	36%	45%	48%
Self Pay	1,126	1,094	1,216	1,445	850	701	669	38%	34%	35%	35%	19%	12%	9%
Medicare	405	480	597	744	844	1,081	1,633	14%	15%	17%	18%	19%	19%	22%
HMO	376	433	462	456	343	354	404	13%	14%	13%	11%	8%	6%	5%
Commercial Insurer	95	99	120	173	369	510	612	3%	3%	3%	4%	8%	9%	8%
Negotiated Discounts e.g. PPO	159	189	224	228	221	241	276	5%	6%	6%	6%	5%	4%	4%
Charity	160	166	176	125	87	58	127	5%	5%	5%	3%	2%	1%	2%
Miscellaneous	48	43	39	169	133	118	77	2%	1%	1%	4%	3%	2%	1%
County Indigent Referral	157	165	66	57	5	7	10	5%	5%	2%	1%	0%	0%	0%
CHAMPUS OR CHAMPVA	31	26	39	51	47	74	74	1%	1%	1%	1%	1%	1%	1%
All Workers Compensation e.g. (SIIS)	5	8	8	9	9	2	15	0%	0%	0%	0%	0%	0%	0%
Missing	1	43	52	34	3	5	4	0%	1%	1%	1%	0%	0%	0%
Unknown	-	7	12	34	1	-	2	0%	0%	0%	1%	0%	0%	0%
Total	2,963	3,188	3,473	4,122	4,543	5,695	7,495	100%	100%	100%	100%	100%	100%	100%

Opioid-Related Inpatient Hospital Admissions by Payer, Nevada Residents, 2010-2016

	Number of Admission by Payer							Percent of Admission by Payer						
	2010	2011	2012	2013	2014	2015	2016	2010	2011	2012	2013	2014	2015	2016
Medicare	1,303	1,353	1,631	1,760	1,816	2,077	2,618	30%	28%	32%	35%	33%	30%	30%
Medicaid	681	718	814	812	1,554	2,703	3,301	16%	15%	16%	16%	28%	38%	38%
HMO	575	593	801	812	774	743	659	13%	12%	16%	16%	14%	11%	8%
Commercial Insurer	327	697	361	171	345	375	546	7%	15%	7%	3%	6%	5%	6%
Self Pay	448	446	515	621	352	210	189	10%	9%	10%	12%	6%	3%	2%
Negotiated Discounts e.g. PPO	296	297	433	338	263	221	277	7%	6%	9%	7%	5%	3%	3%
CHAMPUS OR CHAMPVA	83	112	194	223	319	480	650	2%	2%	4%	4%	6%	7%	8%
County Indigent Referral	312	237	217	174	3	1	-	7%	5%	4%	3%	0%	0%	0%
Miscellaneous	76	82	37	58	48	97	320	2%	2%	1%	1%	1%	1%	4%
Charity	31	62	15	39	21	16	21	1%	1%	0%	1%	0%	0%	0%
All Workers Compensation e.g. (SIIS)	12	5	11	12	6	17	12	0%	0%	0%	0%	0%	0%	0%
Other Blue Cross/Blue Shield	1	-	-	-	-	-	-	0%	0%	0%	0%	0%	0%	0%
Missing	217	153	9	38	16	82	28	5%	3%	0%	1%	0%	1%	0%
Unknown	-	-	4	9	-	-	-	0%	0%	0%	0%	0%	0%	0%
Total	4,362	4,755	5,042	5,067	5,517	7,022	8,621	100%	100%	100%	100%	100%	100%	100%

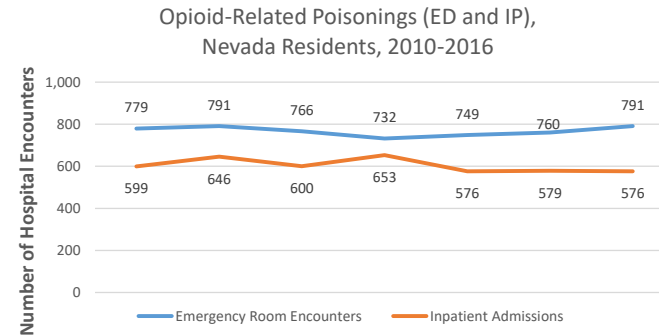
Opioid-Related Poisonings - Emergency Department Encounters and Inpatient Hospital Admissions, Nevada Residents, 2010-2016

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Opioid-related poisoning is a subset of the opioid-related hospitalization data. The following ICD-9-CM/ICD-10-CM for poisoning include the principal diagnosis: 965.0 ICD-9, T40.0-T40.4, and T40.6 ICD-10, and all E-code diagnosis: E850.0-E850.2 ICD-9.

Year	Emergency Room Encounters	Emergency Room Crude Rates	Percent Change	Inpatient Admissions	Inpatient Crude Rates	Percent Change
2010	779	28.8		599	22.1	
2011	791	29.1	1%	646	23.7	7%
2012	766	27.9	-4%	600	21.8	-8%
2013	732	26.1	-6%	653	23.3	7%
2014	749	26.3	1%	576	20.3	-13%
2015	760	26.4	0%	579	20.1	-1%
2016	791	27.2	3%	576	19.8	-2%
Percent Change 2010-2015			-6%			

Rates are per 100,000 Nevada population



Opioid-Related Poisonings - Emergency Department Encounters, Nevada Residents, 2010-2016

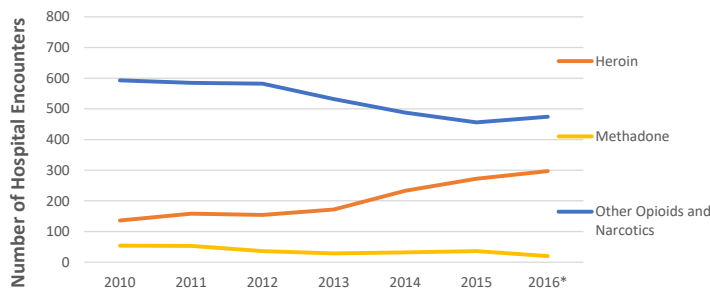
Year	Heroin	Methadone	Other Opioids and Narcotics
2010	136	54	593
2011	158	53	585
2012	154	36	582
2013	172	29	532
2014	233	32	488
2015	272	36	456
2016*	297	20	474

Opioid-Related Poisonings - Inpatient Admissions, Nevada Residents, 2010-2016

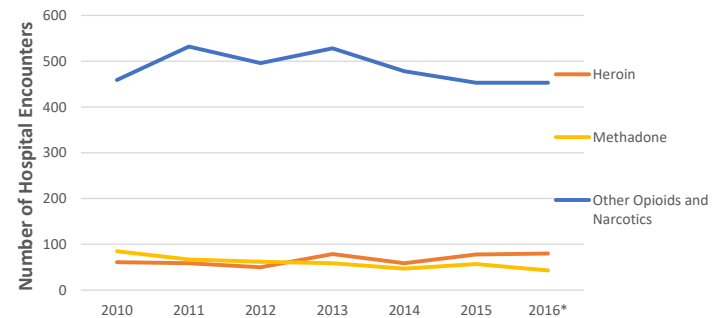
Year	Heroin	Methadone	Other Opioids and Narcotics
2010	61	85	459
2011	59	67	532
2012	50	62	496
2013	79	59	528
2014	59	47	478
2015	78	57	453
2016*	80	43	453

A person can be included in more than one drug group, and therefore the counts above are not mutually exclusive. In 2016, the use of E-Codes was eliminated and counts will be mutually exclusive.

Opioid-Related Poisonings - Emergency Department Encounters, Nevada Residents, 2010-2016



Opioid-Related Poisonings - Inpatient Admissions, Nevada Residents, 2010-2016



Opioid-Related Overdose Deaths, Nevada Residents, 2010-2016*

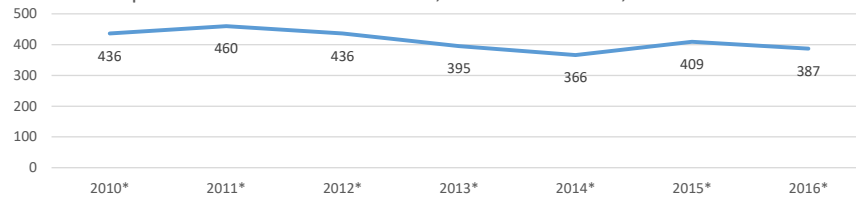
Year	Opioid-Related Overdose Deaths	Crude Rates	Percent Change	Benzodiazepine Related Overdose Deaths	Opioid and Benzodiazepine Related Overdose Deaths
2010*	436	16.1		161	139
2011*	460	16.9	5%	165	143
2012*	436	15.9	-6%	162	140
2013*	395	14.1	-11%	126	106
2014*	366	12.9	-9%	125	109
2015*	409	14.2	11%	129	117
2016*	387	13.3	-6%	155	126
Percent Change 2010-2015			-12%		

Rates are per 100,000 Nevada Population.

Each year:

- Roughly 85% of all benzodiazepine-related overdose deaths also involve opioids.
- Roughly 30% of all opioid-related overdose deaths also involve benzodiazepines.

Opioid-Related Overdose Deaths, Nevada Residents, 2010-2016*

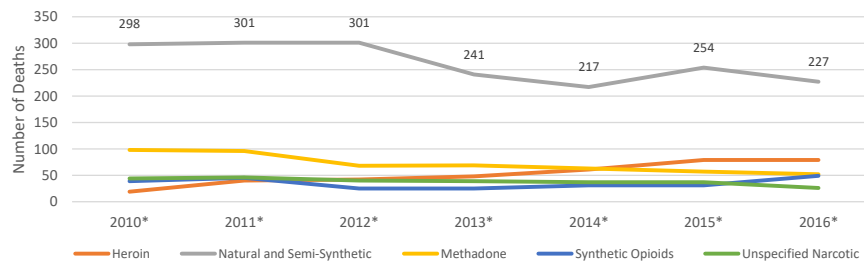


Opioid-Related Overdose Deaths by Drug Category, Nevada Residents, 2010-2016*

Year	Heroin	Natural and Semi-Synthetic	Methadone	Synthetic Opioids	Unspecified Narcotic
2010*	19	298	98	39	44
2011*	40	301	96	45	46
2012*	42	301	68	25	40
2013*	48	241	69	25	39
2014*	61	217	63	31	37
2015*	79	254	57	31	37
2016*	79	227	52	49	26

A person can be included in more than one drug group, and therefore the counts above are not mutually exclusive.

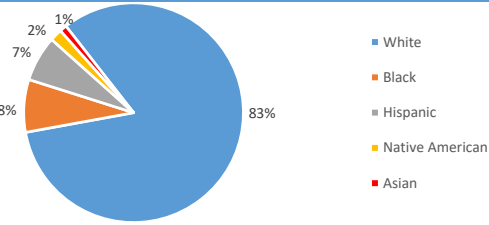
Opioid-Related Overdose Deaths by Drug Category, Nevada Residents, 2010-2016*



* Data are preliminary and are subject to changes.

Opioid-Related Deaths by Race/Ethnicity, Nevada Residents, 2016*

Race/Ethnicity	%	Crude Rates
White	83%	20.9
Black	8%	12.3
Hispanic	7%	3.2
Native American	2%	21.5
Asian	1%	1.6

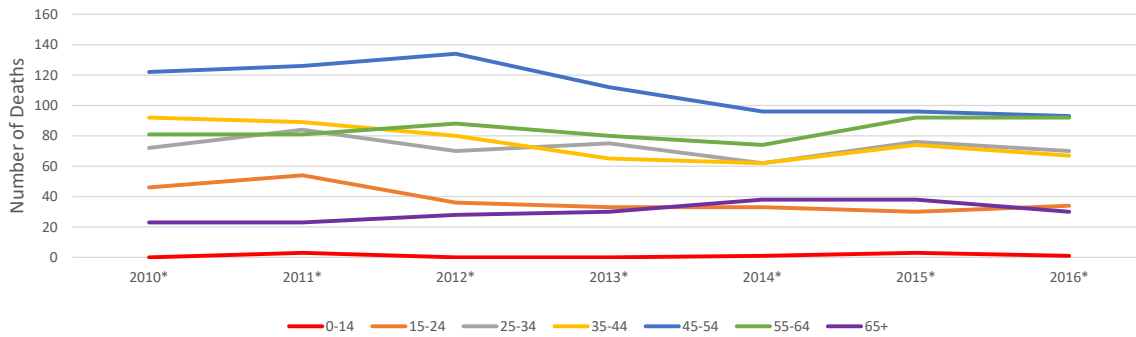


Rates are per 100,000 Nevada Population.

Opioid-Related Deaths by Age Group, Nevada Residents, 2010-2016*

Year	0-14	15-24	25-34	35-44	45-54	55-64	65+
2010*	0	46	72	92	122	81	23
2011*	3	54	84	89	126	81	23
2012*	0	36	70	80	134	88	28
2013*	0	33	75	65	112	80	30
2014*	1	33	62	62	96	74	38
2015*	3	30	76	74	96	92	38
2016*	1	34	70	67	93	92	30

Opioid-Related Deaths by Age Group, Nevada Residents, 2010-2016*



Opioid-Related Deaths by Intent, Nevada Residents, 2010-2016*

Cause of Death	N	%	Crude Rates
Accident	2,442	85%	12.5
Suicide	372	13%	1.9
Assault/Homicide	5	0%	0.0
Events of Undetermined Intent	70	2%	0.4
Total (2010-2015)	2,889	100%	14.7

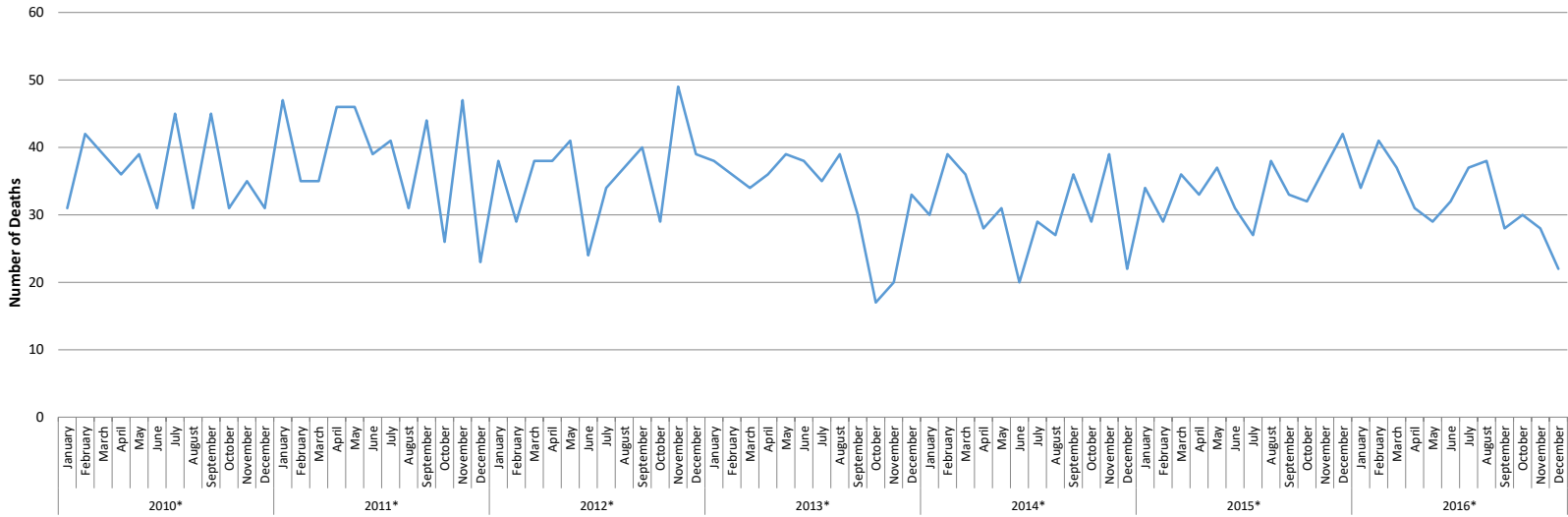
Opioid-Related Deaths by Sex, Nevada Residents, 2010-2016*

Year	Male	Crude Rates	Female	Crude Rates
2010*	239	17.5	197	14.7
2011*	278	20.2	182	13.5
2012*	226	16.3	210	15.4
2013*	214	15.2	181	13.0
2014*	196	13.7	170	12.0
2015*	220	15.2	189	13.2
2016*	212	14.5	175	12.1

Rates are per 100,000 Nevada Population.

*Data are preliminary and are subject to changes.

Opioid-Related Deaths by Month, Nevada Residents, 2010-2016*



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