Nevada Opioid Surveillance

2010 - 2015



Office of Public Health Informatics and Epidemiology
Division of Public and Behavioral Health
Department of Health and Human Services

Brian Sandoval Governor State of Nevada

Richard Whitley, MS

Director

Department of Health and Human Services

Cody L. Phinney, MPH

Administrator

Division of Public and Behavioral Health

John M. DiMuro, DO

Chief Medical Officer

Division of Public and Behavioral Health

Prepared By and Additional Information:

Division of Public and Behavioral Health State of Nevada 4126 Technology Way, Suite 201 Carson City, Nevada 89706 (775) 684.5282

Thank you to following for providing leadership, data and technical support for this report:

Kyra Morgan, MS

Chief Biostatistician

Department of Health and Human Services

Jen Thompson

Biostatistician

Division of Public and Behavioral Health

State of Novada

State of Nevada State of Nevada

James Kuzhippala, MPH

Health Program Specialist II

Division of Public and Behavioral Health

State of Nevada

Amy Lucas, MS

Health Program Specialist

Division of Public and Behavioral Health

State of Nevada

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.

In 2015, quarter 4, the ICD-10-CM codes were implemented. This includes codes for long term current use of an opiate and for opiate in the blood, neither of which existed in the ICD-9-CM codes. This may account for the increase in 2015.

Prior to December 2016, OPHIE commonly used only one parameter for Nevada Residents, Patient State (Patient State = NV). OPHIE recently added a new layer to the parameter of including only Nevada zip codes (Patient zip code 89%) therefore the counts may be slightly smaller from previous reports.

The following ICD Codes are included in these data:

Opioid Dependence

304.0 Opioid type dependence ICD-9-CM F11.2 Opioid dependence ICD-10-CM

Opiate and Other Dependence

304.7 Combinations of opioid type drug with any other drug dependence ICD-9-CM

F19.2 Other psychoactive substance dependence ICD-10-CM

Nondependent Opioid Abuse

305.5 Nondependent opioid abuse ICD-9-CM

F11.1 Opioid abuse ICD-10-CM

Opiate Poisoning

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

External Poisoning

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

Other Opioid Related Codes

F11.9 Opioid use, unspecified ICD-10-CM
R78.1 Finding of opiate drug in blood ICD-10-CM
Z79.891 Long Term Current Use of Opiate ICD-10-CM

Deaths

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

The following axis (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

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

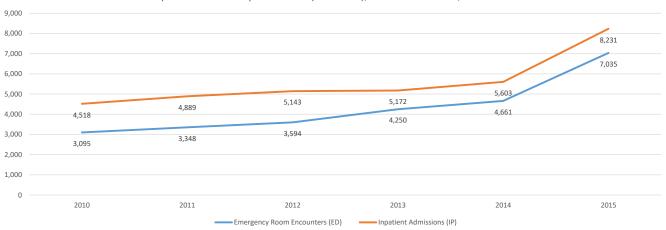
^{*2015} data are preliminary and are subject to changes.

Opioid-Related Hospitalization Data, Nevada Residents, 2010-2015

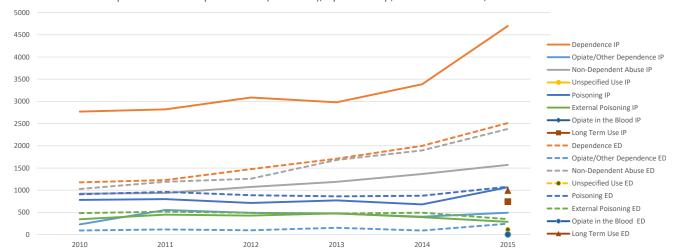
| Year | Emergency Room Encounters (ED) | Emergency Room Crude Rates | Percent Change | Inpatient Admissions (IP) | Inpatient Crude Rates | Percent Change |
|-----------------|-----------------------------------|-------------------------------|----------------|------------------------------|-----------------------|----------------|
| 2010 | 3,095 | 114.4 | | 4,518 | 167.0 | |
| 2011 | 3,348 | 123.0 | 8% | 4,889 | 179.6 | 8% |
| 2012 | 3,594 | 130.7 | 6% | 5,143 | 187.0 | 4% |
| 2013 | 4,250 | 151.7 | 16% | 5,172 | 184.7 | -1% |
| 2014 | 4,661 | 163.9 | 8% | 5,603 | 197.1 | 7% |
| 2015 | 7,035 | 244.8 | 49% | 8,231 | 286.4 | 45% |
| ercent Change 2 | 2010-2015 | | 114% | | | 72% |

Rates are per 100,000 Nevada Population.

Opioid-Related Hospitalizations (ED and IP), Nevada Residents, 2010-2015



Opioid-Related Hospitalizations (ED and IP), by ICD Group, Nevada Residents, 2010-2015



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

Opioid-Related Hospitalization (Inpatient) Visits by Length of Stay (Days), Nevada Residents, 2010-2015

| | 11001001110, 2020 2020 | | | | | | | | |
|------|------------------------|-------|-------|-------|-------|-------|-----|--|--|
| Year | 0-1 | 2-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25+ | | |
| 2010 | 684 | 1,897 | 1,189 | 390 | 140 | 100 | 118 | | |
| 2011 | 714 | 2,031 | 1,373 | 415 | 133 | 77 | 146 | | |
| 2012 | 693 | 1,986 | 1,555 | 478 | 163 | 106 | 162 | | |
| 2013 | 783 | 1,991 | 1,510 | 414 | 197 | 113 | 164 | | |
| 2014 | 757 | 2,158 | 1,617 | 514 | 221 | 113 | 223 | | |
| 2015 | 1,023 | 3,300 | 2,538 | 683 | 283 | 146 | 258 | | |

[^]In 2015, quarter 4, the ICD-10-CM codes were implemented. This includes codes for long term current use of an opiate and for opiate in the blood, neither of which existed in the ICD-9-CM codes. This may account for the increase in 2015.

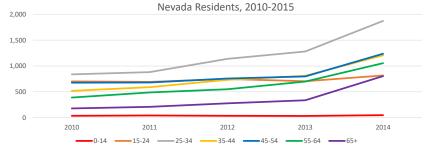
Opioid-Related Emergency Department Encounters by Race/Ethnicity, Nevada Residents, 2015

% Crude Rates White 74% 340.2 ■ White 303.5 Black 10% 9% 81.4 Hispanic Black Native American or Alaskan 1% 236.8 ■ Hispanic Asian or Pacific Islander 27.3 1% Other 3% Native American or Alaskan Unknown 1% Asian or Pacific Islander Rates are per 100,000 Nevada population. Other Unknown

Opioid-Related Emergency Department Encounters by Age Group, Nevada Residents, 2010-2015

| 0-14 | 15-24 | 25-34 | 35-44 | 45-54 | 55-64 | 65+ |
|------|----------------------------|--|--|--|--|--|
| 47 | 629 | 714 | 549 | 680 | 345 | 131 |
| 38 | 703 | 837 | 521 | 677 | 391 | 181 |
| 44 | 694 | 883 | 590 | 682 | 490 | 211 |
| 39 | 748 | 1,138 | 734 | 759 | 552 | 280 |
| 35 | 704 | 1,279 | 810 | 797 | 698 | 338 |
| 49 | 816 | 1,870 | 1,206 | 1,236 | 1,054 | 804 |
| | 47 38 44 39 35 | 47 629 38 703 44 694 39 748 35 704 | 47 629 714 38 703 837 44 694 883 39 748 1,138 35 704 1,279 | 47 629 714 549 38 703 837 521 44 694 883 590 39 748 1,138 734 35 704 1,279 810 | 47 629 714 549 680 38 703 837 521 677 44 694 883 590 682 39 748 1,138 734 759 35 704 1,279 810 797 | 47 629 714 549 680 345 38 703 837 521 677 391 44 694 883 590 682 490 39 748 1,138 734 759 552 35 704 1,279 810 797 698 |

Opioid-Related Emergency Department Encounters by Age Group,



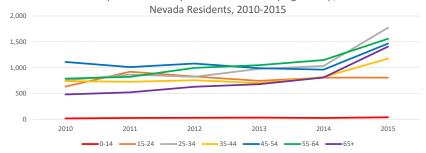
Opioid-Related Inpatient Admissions by Race/Ethnicity, Nevada Residents, 2015

| | % Cru | ıde Rates | | |
|---------------------------------|-----------|-----------|------|---------------------------|
| White | 74% | 395.5 | 1%3% | ■ White |
| Black | 10% | 323.7 2 | 2%5% | |
| Hispanic | 6% | 64.1 | 6% | Black |
| Native American or Alaskan | 2% | 522.9 | | ■ Hispanic |
| Asian or Pacific Islander | 1% | 39.8 | 10% | Native American or |
| Other | 5% | | | Alaskan |
| Unknown | 3% | | | Asian or Pacific Islander |
| | | | 74% | Other |
| Rates are per 100,000 Nevada po | pulation. | | | Unknown |

Opioid-Related Inpatient Admissions by Age Group, Nevada Residents, 2010-2015

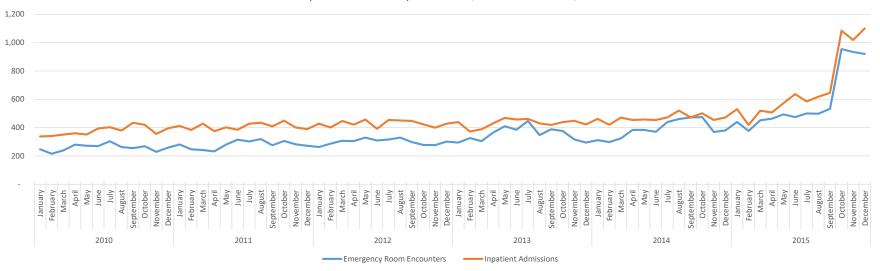
| Year | 0-14 | 15-24 | 25-34 | 35-44 | 45-54 | 55-64 | 65+ |
|------|------|-------|-------|-------|-------|-------|-------|
| 2010 | 15 | 632 | 754 | 738 | 1,109 | 789 | 481 |
| 2011 | 25 | 920 | 865 | 726 | 1,012 | 821 | 520 |
| 2012 | 29 | 829 | 823 | 756 | 1,078 | 997 | 631 |
| 2013 | 32 | 744 | 978 | 701 | 990 | 1,047 | 680 |
| 2014 | 26 | 807 | 1,032 | 818 | 962 | 1,148 | 810 |
| 2015 | 37 | 807 | 1,775 | 1,176 | 1,466 | 1,561 | 1,409 |
| | | | | | | | |

Opioid-Related Inpatient Admissions by Age Group,



Office of Public Health Informatics and Epidemiology Division of Public and Behavioral Health

Number of Opioid-Related Hospitalizations, Nevada Residents, 2010-2015



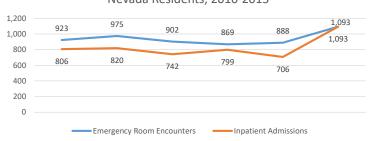
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Opioid-Related Poisonings - Emergency Department Encounters and Inpatient Hospital Admissions, Nevada Residents, 2010-2015

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

| Year | Emergency Room Encounters | Emergency Room Crude Rates | Percent Change | Inpatient Admissions | Inpatient Crude Rates | Percent Change |
|---------------|---------------------------------|----------------------------------|-------------------|-------------------------|--------------------------|-------------------|
| 2010 | 923 | 34.1 | | 806 | 29.8 | |
| 2011 | 975 | 35.8 | 5% | 820 | 30.1 | 1% |
| 2012 | 902 | 32.8 | -8% | 742 | 27.0 | -10% |
| 2013 | 869 | 31.0 | -5% | 799 | 28.5 | 6% |
| 2014 | 888 | 31.2 | 1% | 706 | 24.8 | -13% |
| 2015 | 1,093 | 38.0 | 22% | 1,093 | 38.0 | 53% |
| Percent Chang | e 2010-2015 | | 11% | | | 28% |

Opioid-Related Poisonings (ED and IP), Nevada Residents, 2010-2015

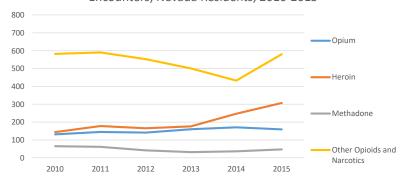


Rates are per 100,000 Nevada population

Opioid-Related Poisonings - Emergency Department Encounters, Nevada Residents, 2010-2015

| Year | Opium | Heroin | Methadone | Other Opioids and Narcotics |
|------|-------|--------|-----------|-----------------------------|
| 2010 | 132 | 144 | 65 | 582 |
| 2011 | 145 | 178 | 62 | 590 |
| 2012 | 141 | 166 | 42 | 553 |
| 2013 | 160 | 176 | 32 | 501 |
| 2014 | 171 | 247 | 37 | 433 |
| 2015 | 159 | 307 | 47 | 580 |

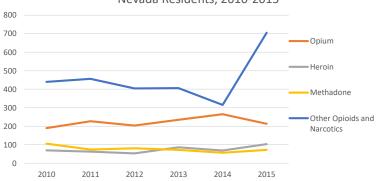
Opioid-Related Poisonings - Emergency Department Encounters, Nevada Residents, 2010-2015



Opioid-Related Poisonings - Inpatient Admissions, Nevada Residents, 2010-2015

| Year | Opium | Heroin | Methadone | Other Opioids and Narcotics |
|------|-------|--------|-----------|-----------------------------|
| 2010 | 190 | 70 | 106 | 440 |
| 2011 | 227 | 63 | 74 | 456 |
| 2012 | 204 | 53 | 81 | 404 |
| 2013 | 235 | 86 | 72 | 406 |
| 2014 | 265 | 69 | 57 | 315 |
| 2015 | 213 | 103 | 72 | 705 |

Opioid-Related Poisonings - Inpatient Admissions, Nevada Residents, 2010-2015



Opioid-Related Overdose Deaths, Nevada Residents, 2010-2015*

| Year | Opioid-Related Overdose Deaths | Crude Rates | Percent Change | Benzodiazepine Related Overdose Deaths | Opioid and Benzodiazepine Related Overdose Deaths |
|---------------|-----------------------------------|-------------|----------------|--|--|
| 2010 | 517 | 19.1 | | 175 | 148 |
| 2011 | 531 | 19.5 | 2% | 178 | 152 |
| 2012 | 483 | 17.6 | -10% | 174 | 148 |
| 2013 | 438 | 15.6 | -11% | 135 | 111 |
| 2014 | 402 | 14.1 | -10% | 135 | 115 |
| 2015* | 465 | 16.2 | 14% | 142 | 127 |
| Percent Chang | ge 2010-2015 | | -15% | | |

Rates are per 100,000 Nevada Population.

Each year:

- Roughly 85% of all benzodiazepine-related overdose deaths also involve opioids.
- Roughly 28% of all opioid-related overdose deaths also involve benzodiazepines.

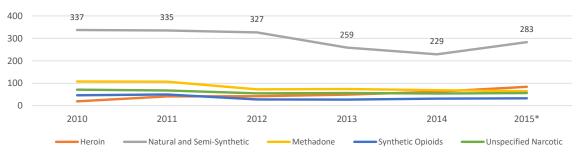
Opioid-Related Overdose Deaths, Nevada Residents, 2010-2015* 2015*

Opioid-Related Overdose Deaths by Drug Category, Nevada Residents, 2010-2015*

| | Year | Heroin | Natural and Semi- Synthetic | Methadone | Synthetic Opioids | Unspecified Narcotic |
|---|-------|--------|--------------------------------|-----------|-------------------|----------------------|
| Ī | 2010 | 19 | 337 | 108 | 46 | 71 |
| | 2011 | 41 | 335 | 107 | 50 | 68 |
| | 2012 | 42 | 327 | 73 | 28 | 55 |
| | 2013 | 49 | 259 | 74 | 27 | 56 |
| | 2014 | 62 | 229 | 69 | 31 | 54 |
| | 2015* | 84 | 283 | 64 | 33 | 56 |
| | _ | - | _ | | _ | _ |

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

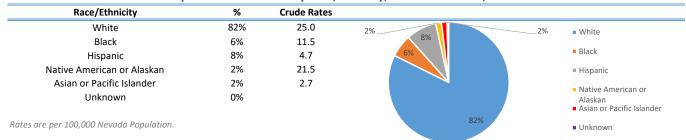
Opioid-Related Overdose Deaths by Drug Category, Nevada Residents, 2010-2015*



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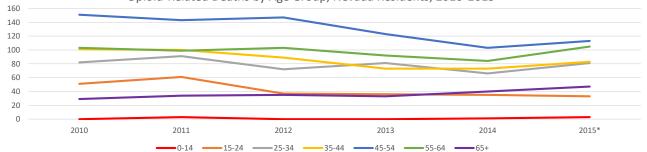
Opioid-Related Deaths by Race/Ethnicity, Nevada Residents, 2015*



Opioid-Related Deaths by Age Group, Nevada Residents, 2010-2015*

| Year | 0-14 | 15-24 | 25-34 | 35-44 | 45-54 | 55-64 | 65+ |
|-------|------|-------|-------|-------|-------|-------|-----|
| 2010 | 0 | 51 | 82 | 101 | 151 | 103 | 29 |
| 2011 | 3 | 61 | 91 | 100 | 143 | 99 | 34 |
| 2012 | 0 | 37 | 72 | 89 | 147 | 103 | 35 |
| 2013 | 0 | 36 | 81 | 73 | 123 | 92 | 33 |
| 2014 | 1 | 35 | 66 | 73 | 103 | 84 | 40 |
| 2015* | 3 | 33 | 81 | 83 | 113 | 105 | 47 |

Opioid-Related Deaths by Age Group, Nevada Residents, 2010-2015*



Opioid-Related Deaths by Cause of Death, Nevada Residents, 2010-2015*

| Cause of Death | N | % | Crude Rates |
|-----------------------|-------|-----|-------------|
| Accidents | 2,136 | 75% | 12.8 |
| Suicide | 328 | 12% | 2.0 |
| Diseases of the Heart | 252 | 9% | 1.5 |
| All Others | 120 | 4% | 0.7 |

Opioid-Related Deaths by Sex, Nevada Residents, 2010-2015*

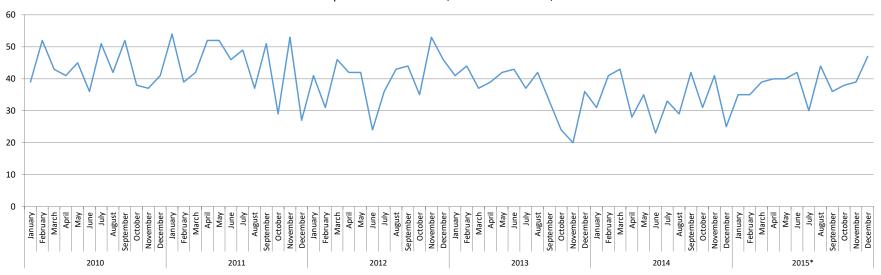
| Year | Male | Crude Rates | Female | Crude Rates |
|-------|------|-------------|--------|-------------|
| 2010 | 291 | 21.3 | 226 | 16.9 |
| 2011 | 323 | 23.5 | 208 | 15.4 |
| 2012 | 254 | 18.3 | 229 | 16.8 |
| 2013 | 240 | 17.0 | 198 | 14.3 |
| 2014 | 218 | 15.2 | 184 | 13.0 |
| 2015* | 257 | 17.8 | 208 | 14.6 |

Rates are per 100,000 Nevada Population.

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Office of Public Health Informatics and Epidemiology Division of Public and Behavioral Health

Number of Opioid-Related Deaths, Nevada Residents, 2010-2015*



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