

# Unintentional Poisonings In Snohomish County

## Definition

A **poison** is any substance that is harmful to your body when ingested (eaten), inhaled (breathed), injected, or absorbed through the skin...

**Unintentional poisoning** includes the excessive use of drugs or chemicals for nonrecreational purposes, such as by a toddler. It also includes the use of drugs or chemicals for recreational purposes in excessive amounts, such as an overdose.

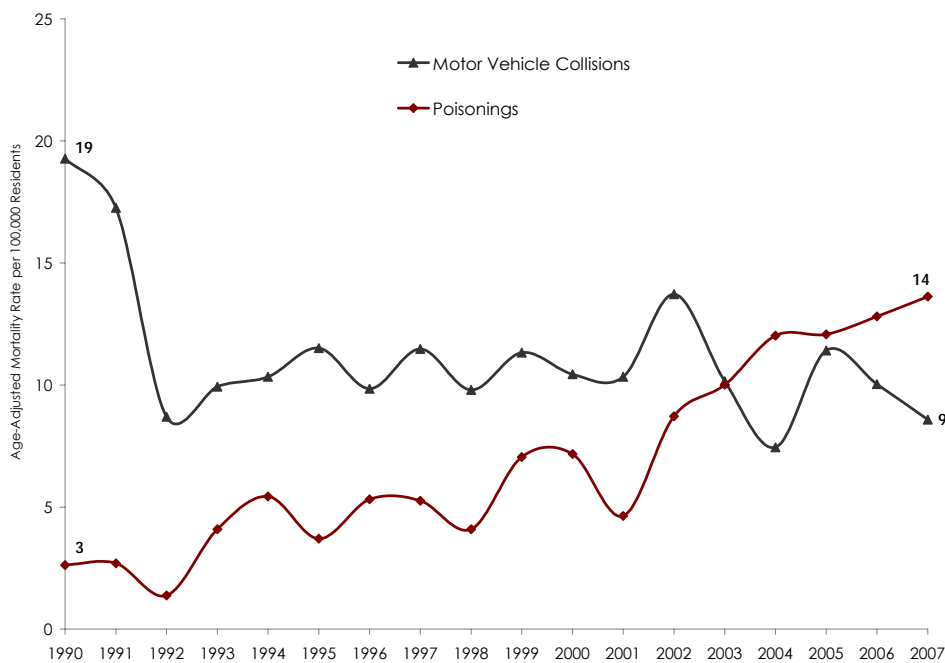
*(Poisoning in the United States: Fact Sheet, Centers for Disease Control and Prevention)*



Local, state, and federal agencies have recently taken note of the steady increase in unintentional poisoning deaths. Many of these deaths are related to drug use or abuse, especially of prescription drugs. This brief report is intended to educate the community about unintentional poisonings. A detailed report on this topic for health care professionals is also available online.

Unintentional injuries were the third leading cause of death and the leading cause of hospitalizations in Snohomish County in 2007. Unintentional poisonings became the leading cause of unintentional injury death in 2004 (Figure 1) surpassing motor vehicle collisions. The unintentional poisoning age-adjusted death rate was 14 deaths per 100,000 residents in 2007. The unintentional poisoning mortality rate increased five-fold since 1990. Hospitalization rates from unintentional poisoning doubled during this time. The unintentional poisoning age-adjusted hospitalization rate was 39 per 100,000 residents in 2007.

**Figure 1.** Unintentional Injury Deaths, Snohomish County, 1990 - 2007



Data Source: Washington State Death Certificates

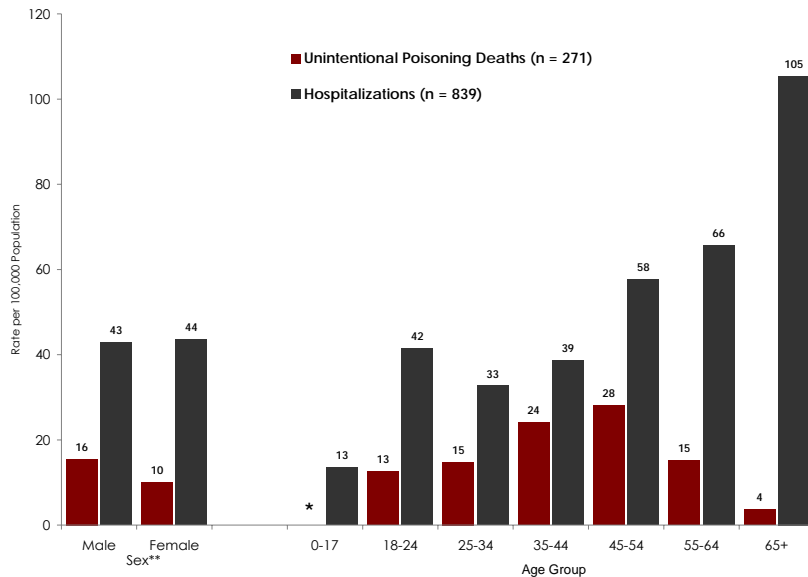
## Methods

For a detailed description of the statistical terms and methods used in this report, see the report on unintentional poisonings for health care professionals at [www.snohd.org/SnoHealthStats](http://www.snohd.org/SnoHealthStats).



## Pg. 2 Unintentional Poisonings

**Figure 2.** Unintentional Injury Deaths & Hospitalizations by Sex & Age, Snohomish County, 1990 - 2007



Age groups were affected differentially by unintentional poisoning in Snohomish County.

- Young adults (18-29 years) accounted for two-thirds of all admissions to substance abuse treatment centers for prescription pain reliever abuse in 2007 (data not shown).
- Middle-aged adults (35-54 years) had the highest death rate from unintentional poisoning (Figure 2).
- Older adults (65+ years) had the highest hospitalization rate from unintentional poisoning (Figure 2).

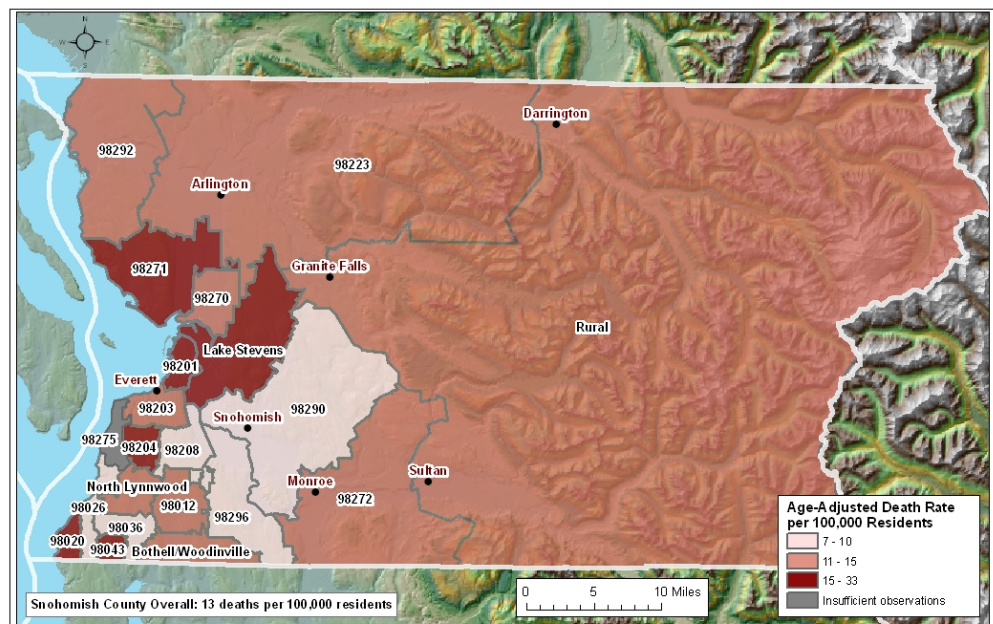
\* Rate could not be calculated because of the small number of occurrences  
 \*\* Rates are age-adjusted  
 Data sources: Washington State Death Certificates; Washington State Comprehensive Hospital Abstract Reporting System (CHARS)

**M**ales were more likely to die of unintentional poisoning than females, but equally likely to be hospitalized for this condition (Figure 2). Whites, blacks, and Native Americans had similar death rates for unintentional poisoning. Asians and Pacific Islanders had a lower death rate than whites. Hispanics were less likely than non-Hispanics to die of unintentional poisoning.

Areas with higher poverty rates also had higher rates of death (Figure 3) and hospitalization. From 2005 through 2007, the highest death rate (33 deaths per 100,000 residents) and hospitalization rate (86 hospitalizations per 100,000 residents) occurred in Everett (98201). Death rates in other Snohomish County Zip Codes are available in the Data Tables section of the online report for health care professionals. In addition, Washington State Medicaid clients accounted for 50% of all unintentional poisoning deaths related to prescription pain relievers, despite comprising only one-fifth of the state's population.

**Figure 3.** Unintentional Poisoning Death Rates by Zip Code, Snohomish County, 2005 - 2007

Because some ZIP Code areas have small populations, several contiguous areas were combined for this analysis. These combinations are: Bothell and Woodinville (98021, 98072, 98077 [Snohomish County residents only]), Lake Stevens (98205, 98258), North Lynnwood (98037, 98087), and Rural (98241, 98251, 98252, 98294).



Data source: Washington State Death Certificates



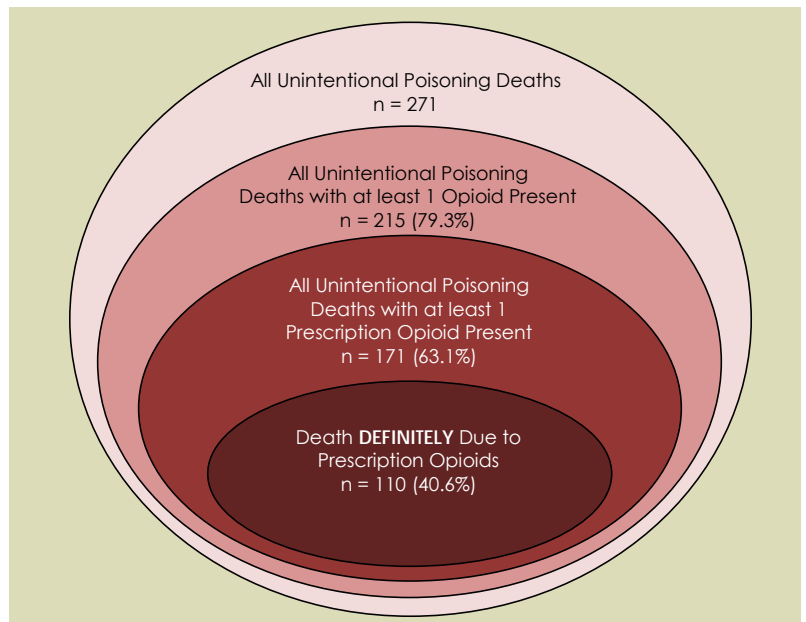
Most unintentional poisoning deaths (97%) were the result of a drug overdose. Whereas some of these deaths may be due to the overdose of illegal (illicit) drugs, such as cocaine, a growing percentage of these deaths may be linked to an overdose of prescription medications.

**Opioids** are a type of drug used to treat pain and certain types of drug addiction. However, these drugs may also induce feelings of intense pleasure leading some people to abuse this type of drug.

Examples of opioids include:

- methadone,
- morphine,
- oxycodone (OxyContin®), and
- hydrocodone.

**Figure 4.** Opioids in Unintentional Poisoning Deaths, Snohomish County, 2005 - 2007



Data source: Center for Health Statistics and Injury and Violence Prevention Program, Washington State Department of Health, unpublished data

Prescription opioids were reported in 63% of unintentional poisoning deaths from 2005 through 2007 (Figure 4). A single prescription opioid was seldom the only drug reported at the time of death (14%, 24 of 171 deaths). An average of 3.3 drugs was reported at the time of death in prescription opioid-related unintentional poisonings.

Opioids cause respiratory depression, in which breathing is slowed. If a high dosage of opioids is taken or if opioids are taken in combination with other drugs causing respiratory depression (antidepressants, benzodiazepines, or antihistamines), breathing may stop completely, potentially resulting in death. Other drugs that depress the respiratory system were used in combination with prescription opioids from 20% to 46% of deaths (Table 1). Cocaine and opioids have opposing effects – cocaine increases the heart rate, while opioids slow the heart rate. It is unknown exactly how these two drugs interact, but simultaneous usage is dangerous and may result in death.

**Table 1.** Top Five Drug Classes used in Combination with Prescription Opioids in Unintentional Poisoning Deaths, Snohomish County, 2005 - 2007

Drug Class	Example	Trade name	Deaths with 1 or More Prescription Opioids Present at the Time of Death (n = 143)	
			n	%
Antidepressant (all categories)	citalopram	Celexa	66	46.2
Opioid (>1 opioid present)	oxycodone	OxyContin	51	35.7
Antianxiety, benzodiazepine	diazepam	Valium	50	35.0
CNS stimulant	cocaine	n/a	34	23.8
Antihistamine, 1st generation	diphenhydramine	Benadryl	29	20.3

Data source: Center for Health Statistics and Injury and Violence Prevention Program, Washington State Department of Health, unpublished data

### Prevention

Health care providers, pharmacists, and patients all play a role in preventing unintentional poisonings. It is important for patients to discuss all medications with their health care provider. Understanding the dosing, use of multiple drugs, side effects, and proper storage for all medications is an important step in preventing unintentional poisonings.

### Pharmaceutical Take-Back Program

Three Bartell Drugs locations and two Group Health Pharmacy locations in Snohomish County currently participate in the Unwanted Medicine Return Program. Both prescription and nonprescription medications are accepted at return centers, but controlled substances such as opioids are not. To determine which medicines are accepted at the return center or to find a return center location near you, visit [www.medicinereturn.com](http://www.medicinereturn.com).

### Drug Addiction Treatment

Methadone and buprenorphine are used to treat addiction to opioids. Individuals enrolled in a Methadone Maintenance Treatment (MMT) program receive a daily, monitored dose of methadone. Twelve months is considered the minimum amount of time for MMT to be effective. There are three certified MMT programs in Snohomish County:

#### **Therapeutic Health Services**

Everett, WA  
[www.therapeutichealth.org](http://www.therapeutichealth.org)  
425.347.5121

#### **Island Crossing Counseling Services Stillaguamish Tribe of Indians**

Arlington, WA  
[www.iccs-otp.com/index.html](http://www.iccs-otp.com/index.html)  
360.652.9640

#### **WCHS, Inc. – Lynnwood Clinic CRC Health Corporation**

Lynnwood, WA  
[www.crcotp.com/index.php](http://www.crcotp.com/index.php)  
425.672.7293

Buprenorphine is a drug that may be prescribed to treat opioid addiction by a physician outside of a certified opioid treatment program. To find a physician that is certified to prescribe buprenorphine for opioid addiction treatment, visit [http://buprenorphine.samhsa.gov/bwns\\_locator/index.html](http://buprenorphine.samhsa.gov/bwns_locator/index.html).

If you or a friend are struggling with substance abuse and need help, call the Alcohol and Drug Help Line at 1.800.562.1240 (statewide) or 206.722.3700 (Seattle).

### Washington Poison Control Center

The Washington Poison Center is a nonprofit organization that answers questions from the public and health care professionals about poisonous and toxic substances. Pharmacists, nurses, and poison information providers staff the call center 24 hours a day. Information is available in more than 140 languages and TTY/TDD access for the hearing impaired is also available.

If you need poison help or information, call 1.800.222.1222. This is a national toll-free number that will connect you to the Washington Poison Center or any poison center in the nation.



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Health Statistics & Assessment

*For more information about data describing unintentional poisonings or other prevention programs see the complete report available at [www.snohd.org/snoHealthStats](http://www.snohd.org/snoHealthStats)*