

Utah Health Status Update:

Prescription Medication Overdose Deaths in Utah

November 2008

Utah Department of Health

Unintentional fatalities due to prescription medications are an increasing problem in Utah and the United States. The annual number of prescription-related drug overdose deaths began to increase substantially in 2001 and the increase has continued through 2007. In 2007, the number of deaths related to non-illicit medications (which includes both over-the-counter and prescription drugs) was 317, a slight increase from 307 in 2006. Prescription medication overdose deaths are the leading cause of injury death in Utah and one of the leading causes of death for 25–54 year olds in Utah.

Most medication-related deaths are due to prescription pain medications, such as oxycodone, hydrocodone, methadone and fentanyl. In 2007, the Medical Examiner investigated 467 overdose deaths related to drugs of any type. Of these, 62 decedents had strictly illicit drugs appear on the toxicology results while 317 had strictly non-illicit drugs in the toxicology results and 67 decedents had a combination of illicit and non-illicit drugs. The mean age of people who died from a drug overdose in 2007 was 40 years old. The mean age of people who died strictly of non-illicit drugs was higher (39.5 yrs) than those who died of illicit drugs (34.9 yrs). The individuals who died of strictly illicit drugs in 2007 were more frequently male (79%) than those who died of strictly non-illicit drugs (56% male). Deaths from only non-illicit drugs occurred in 11 of the 12 health districts showing that this is both an urban and rural problem and that it is impacting most counties across the state.

This Health Status Update presents information from an investigation of deaths from prescription pain medications using information from linking death records with records of prescriptions collected in the Controlled Substances Database (CSDB) maintained by the Division of Occupational and Professional Licensing.

Figure 2 illustrates the percentage of total deaths identified as being opioid poisonings

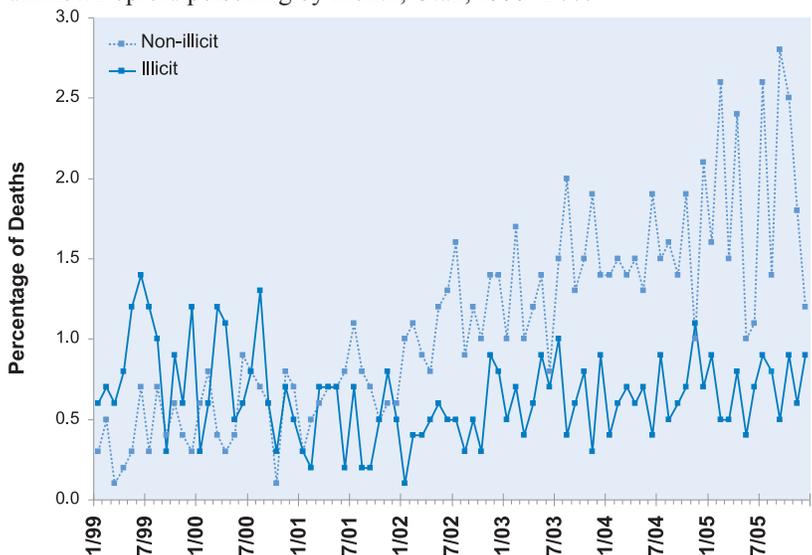
Non-illicit Drug Overdose Deaths

Figure 1. Number of non-illicit drug overdose deaths recorded in the Medical Examiner Database, Utah, 1991–2007



Opioid Poisoning Deaths

Figure 2. Percentage of total deaths that were due to accidental and unknown opioid poisoning by month, Utah, 1999–2005



of accidental or unknown intent. The dark blue solid line represents accidental and unknown intent poisonings where illicit drugs were found on toxicology and the light blue dashed line represents the same category of deaths where no illicit drugs were found on toxicology. It is evident that opioid poisonings of accidental and unknown intent where illicit drugs were found on toxicology have remained relatively stable over this seven year period. In contrast, the number of opioid

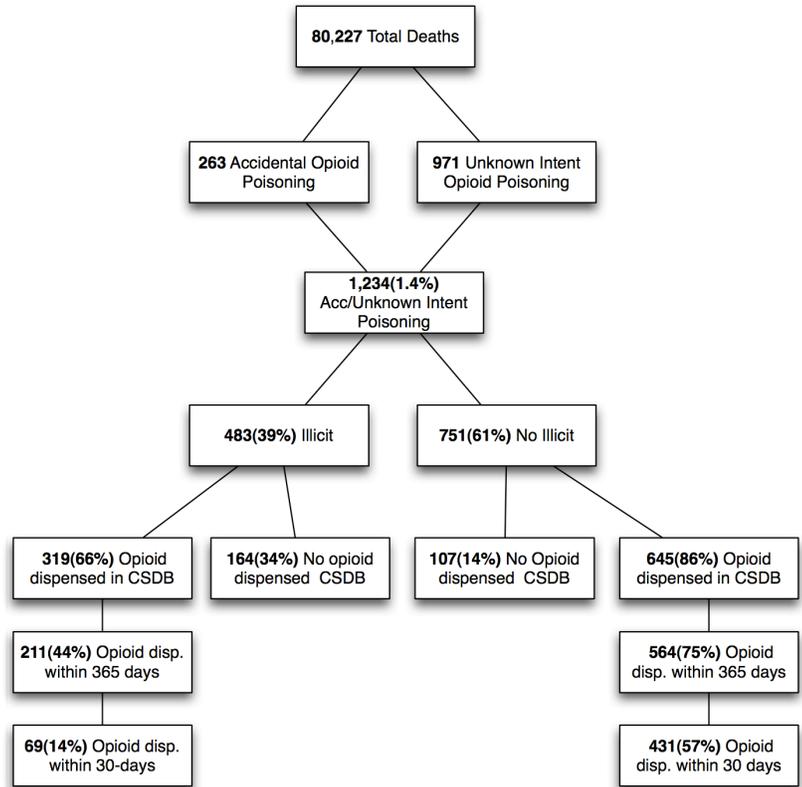
poisoning deaths where no illicit drugs were found on toxicology has been steadily increasing since 2001.

During the years of this investigation (1999 to 2004) there was a total of 80,227 deaths of Utah residents. Of those deaths, 263 were identified as accidental opioid poisonings and 971 were identified as opioid poisoning with undetermined intent resulting in 1,234 apparently non-intentional opioid poisonings. In 483 (39%) of the accidental and unknown opioid poisoning deaths illegal substances (e.g., cocaine, methamphetamine, marijuana) were found during toxicology examination, and in 751 (61%) no illegal substances were found. Based on the linkage of death records to the controlled substance prescription records contained in the CSDB, 69 of the 483 (14%) opioid deaths (accidental and undetermined intent) with illicit drug use had at least one opioid dispensed where the supply would have ended within 30 days of death if the drug was used as prescribed. In comparison, 431 of 751 (57%) of the deaths involving only non-illicit medications based on toxicology results had at least one opioid dispensed where the supply would have ended within 30 days of death.

These results indicate that a substantial proportion of the individuals who died of prescription pain medication overdose were receiving at least one of the implicated opioids by prescription from a health care provider. Those deaths represent an opportunity for prevention by better educating both patients and health care providers about the risks from these medications. These results also suggest that a substantial proportion of decedents obtained the implicated medications by some other means. Different interventions will be needed to prevent those deaths.

Legal Access to Opioid Poisoning Deaths

Figure 3. Breakdown of accidental and unknown opioid poisoning deaths and evidence of legal access to opioid medications, Utah, 1999–2004



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For additional information about this topic, contact the Prescription Pain Medication Program, (801) 538-6542 or (801) 538-6386, website: health.utah.gov/prescription or useonlyasdirected.org, FAX (801) 538-9923, email: erjohnso@utah.gov or rrolfs@utah.gov; or the Office of Public Health Assessment, Utah Department of Health, Box 142101, Salt Lake City, UT 84114-2101, (801) 538-6108, FAX (801) 538-9346, email: phdata@utah.gov

Breaking News, October 2008

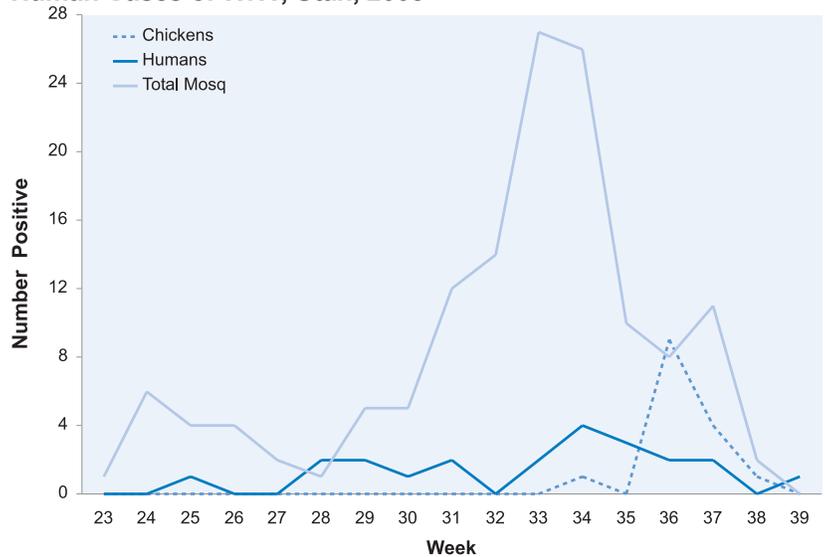
West Nile Virus

There was less West Nile Virus (WNV) activity detected in 2008 compared to 2007. A total of 14 counties had some type of WNV activity detected (human, mosquito, horse, or chicken testing positive for WNV) during the 2008 season. Major areas of activity included more populous regions of the state (Salt Lake County), and more rural areas in the central part of the state (Uintah and Duchesne Counties). During 2008, there were 27 human cases, 2 asymptomatic viremic blood donors, 8 positive horses, 16 positive sentinel chickens, 140 positive mosquito pools, and 3 positive wild birds reported in Utah.

In Utah, WNV surveillance involves human, mosquito, horse, and sentinel chicken populations. Due to budget constraints, routine wild bird surveillance was discontinued for 2008, except in Salt Lake County.

WNV activities during the 2008 season involved major contributions from many different agencies. These include as follows: blood banks of Utah, local health departments, Utah Department of Agriculture and Food, Utah Division of Wildlife Resources, Utah Mosquito Abatement Association, Utah Public Health Laboratory, and the Utah Veterinary Diagnostic Laboratory. All of these agencies contributed surveillance data and were involved in systematic planning and preparations for the 2008 season.

Number of Positive Mosquito Pools, Sentinel Chickens, and Human Cases of WNV, Utah, 2008



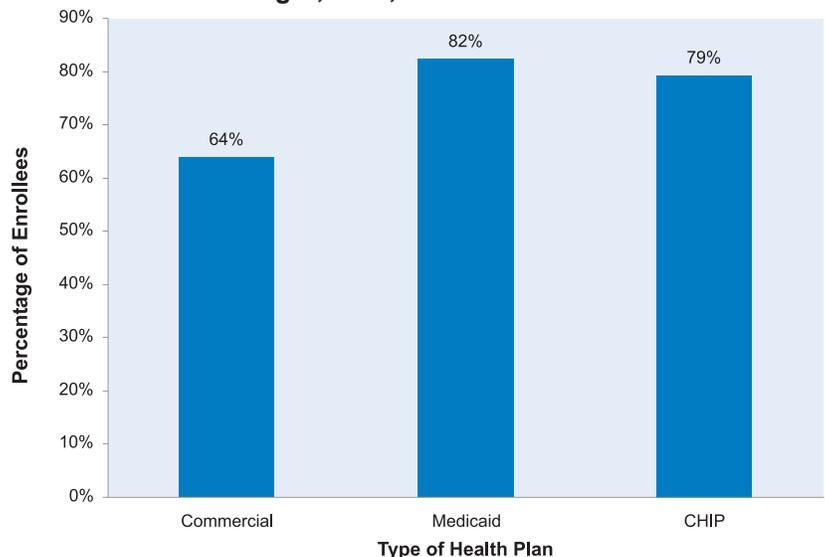
Community Health Indicators Spotlight, October 2008

HMO Satisfaction

The Utah Health Data Committee has conducted surveys to measure satisfaction with HMO care and service since 1996. The Consumer Assessment of Healthcare Providers and Systems (CAHPS) measures satisfaction with different services, such as HMO customer service, getting needed care, getting care quickly, how well doctors communicate, helpfulness of office staff, and overall ratings of the HMO. This year the survey was sent to caregivers of children enrolled in a commercial HMO, Medicaid HMO, or CHIP. One item on the survey concerns the overall satisfaction with the health plan. Caregivers rated their child's health plan on a 10-point scale, where 0 is the lowest rating, and 10 being the highest rating. The data in this update represent the caregivers of children that scored their child's health plan with an 8, 9, or 10.

The caregivers with children in CHIP and Medicaid gave significantly more positive ratings to their health plans, than did those caregivers with children belonging to commercial plans. When the caregivers were asked why they rated their health plans less than an 8, children's caregivers in commercial HMOs were focused on the cost of their healthcare, while children's caregivers in CHIP and Medicaid were focused on their benefits.

Percentage of Child Enrollees Whose Caregivers Scored the Child's Health Plan High*, Utah, 2008



* High is a score of 8,9, or 10 on a 10-point scale where 0 is the lowest rating and 10 is the highest.

Monthly Health Indicators Report

(Data Through September 2008)

Monthly Report of Notifiable Diseases, September 2008	Current Month # Cases	Current Month # Expected Cases (5-yr average)	# Cases YTD	# Expected YTD (5-yr average)	YTD Standard Morbidity Ratio (obs/exp)
Campylobacteriosis (Campylobacter)	33	31	313	234	1.3
Enterotoxigenic Escherichia coli (E. coli)	10	19	68	83	0.8
Hepatitis A (infectious hepatitis)	1	2	10	20	0.5
Hepatitis B (serum hepatitis)	3	1	25	24	1.0
Measles (Rubeola, Hard Measles)	0	0	0	0	--
Meningococcal Diseases	1	1	9	6	1.4
Norovirus	1	1*	9	14*	0.7
Pertussis (Whooping Cough)	10	41	188	312	0.6
Salmonellosis (Salmonella)	36	25	276	226	1.2
Shigellosis (Shigella)	4	4	28	36	0.8
Varicella (Chickenpox)	36	23*	569	493*	1.2
Viral Meningitis	5	45	45	126	0.4
West Nile (human cases)	5	59	19	17	1.1

Notifiable Diseases Reported Quarterly, 3rd Qtr 2008	Current Quarter # Cases	Current Quarter # Expected Cases (5-yr average)	# Cases YTD	# Expected YTD (5-yr average)	YTD Standard Morbidity Ratio (obs/exp)
HIV	34	21	82	60	1.4
AIDS	8	13	28	36	0.8
Chlamydia	1,471	1,166	4,449	3,327	1.3
Gonorrhea	111	168	390	491	0.8
Tuberculosis	5	10	19	27	0.7

Program Enrollment for the Month of September 2008	Current Month	Previous Month	% Change ^s From Previous Month	1 Year Ago	% Change ^s From 1 Year Ago
Medicaid	169,227	167,293	+1.2%	157,481	+7.5%
PCN (Primary Care Network)	19,842	20,177	-1.7%	19,049	+4.2%
CHIP (Children's Health Ins. Plan)	35,639	34,762	+2.5%	28,142	+26.6%

Medicaid Expenditures (in Millions) for the Month of September 2008	Current Month	Expected/Budgeted for Month	Fiscal YTD	Budgeted Fiscal YTD	Variance - over (under) budget
Capitated Mental Health	\$ 8.7	\$ 8.5	\$ 25.9	\$ 25.4	\$ 0.5
Inpatient Hospital	\$ 14.9	\$ 16.5	\$ 44.6	\$ 42.2	\$ 2.4
Outpatient Hospital	\$ 6.4	\$ 6.9	\$ 17.9	\$ 17.7	\$ 0.3
Long Term Care	\$ 17.4	\$ 16.2	\$ 45.3	\$ 44.2	\$ 1.0
Pharmacy	\$ 9.9	\$ 11.2	\$ 31.1	\$ 35.5	(\$ 4.3)
Physician/Osteo Services [‡]	\$ 5.4	\$ 5.5	\$ 14.5	\$ 13.7	\$ 0.8
TOTAL HCF MEDICAID	\$ 126.2	\$ 134.6	\$ 313.6	\$ 324.5	(\$ 10.8)

Health Care System Measures	Number of Events	Rate per 100 Population	% Change ^s From Previous Year	Total Charges in Millions	% Change ^s From Previous Year
Overall Hospitalizations (2006)	272,404	9.9%	-0.9%	\$ 3,874.8	+10.7%
Non-maternity Hospitalizations (2006)	161,398	5.7%	-2.5%	\$ 3,235.3	+11.0%
Emergency Department Encounters (2006)	670,168	24.7%	-1.3%	\$ 667.2	+20.6%
Outpatient Surgery (2006)	304,511	11.3%	-3.1%	\$ 1,020.9	+7.7%

Annual Community Health Measures	Current Data Year	Population at Risk	Number Affected	Percent/Rate	% Change ^s From Previous Year
Overweight and Obesity (Adults 18+)	2007	1,861,147	1,077,600	57.9%	+5.5%
Cigarette Smoking (Adults 18+)	2007	1,861,147	217,800	11.7%	+19.4%
Influenza Immunization (Adults 65+)	2007	227,928	173,700	76.2%	+5.7%
Health Insurance Coverage (Uninsured)	2007	2,699,554	287,200	10.6%	-10.4%
Motor Vehicle Crash Injury Deaths	2007	2,699,554	269	10.0 / 100,000	-12.0%
Suicide Deaths	2007	2,699,554	368	13.6 / 100,000	-0.1%
Diabetes Prevalence	2007	2,699,554	127,000	4.7%	+15.0%
Coronary Heart Disease Deaths	2007	2,699,554	1,531	56.7 / 100,000	-5.1%
All Cancer Deaths	2007	2,699,554	2,547	94.3 / 100,000	-5.1%
Births to Adolescents (Ages 15-17)	2007	62,174	1,165	18.7 / 1,000	+12.7%
Early Prenatal Care	2007	55,063	43,728	79.4%	+0.5%
Infant Mortality	2007	55,063	284	5.2 / 1,000	+2.5%
Childhood Immunization (4:3:1:3:3:1)	2007	51,869	40,500	78.1%	+14.7%

* Due to limited historical data, the average is based upon 4 years of data for norovirus and varicella.

§ % Change could be due to random variation.

‡ Medicaid payments reported under Physician/Osteo Services do not include enhanced physician payments.

Note: Data for notifiable diseases are preliminary and subject to change upon the completion of ongoing disease investigations. Active surveillance for influenza has ended until the 2008 season.