

Utah Health Status Update: *Hepatitis C and Drug Diversion*

April 2017

Healthcare worker drug diversion is defined as a healthcare worker stealing medications which were intended for patient use. Drug diversion is tracked by healthcare systems to quickly find healthcare workers who are diverting medications to prevent harm to patients. Pain medications are the drugs most commonly diverted. Drug diversion can affect patient care when healthcare workers are intoxicated at work resulting in poor healthcare and/or insufficient pain medication necessary to relieve patients' pain. When injectable pain medication is diverted, patients are also at an increased risk of being infected with hepatitis C virus (HCV) and other diseases that are

spread through blood-to-blood contact (bloodborne) because a provider may inject themselves, then a patient.

When drug diversion is suspected, it is important for healthcare systems to assess any potential harm to patients, consult with public health officials, and promptly report the incident to licensing and enforcement agencies. This requires collaboration with several stakeholders, including healthcare systems, professional licensing, public safety, and public health.

In Utah, drug diversion is reported by healthcare systems to the Utah Department of Commerce, Division of Professional Licensing (DOPL). In November 2014, a nurse, whose employment was terminated due to suspected diversion of injectable pain medication, was reported to DOPL. Using established processes, DOPL investigated the claim of drug diversion and placed the nurse's professional license in a probationary status.

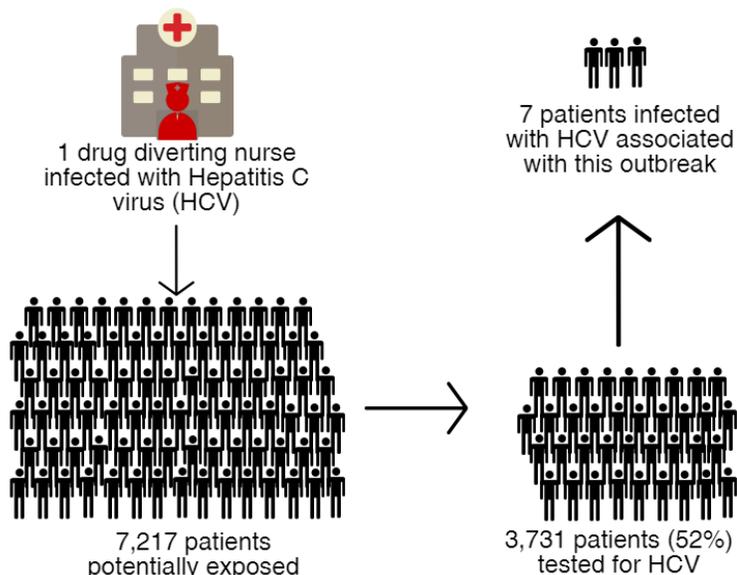
In December 2014, the Utah Department of Health (UDOH) identified a person recently infected with HCV. However, it wasn't until August 2015 the resulting public health investigation discovered the likely source of the HCV infection was the drug diverting nurse. Public health made this connection using DOPL public records. There were 7,217 potentially exposed patients for whom HCV testing was recommended: 52% (3,731) were tested. Testing results revealed the nurse's drug diversion activities likely resulted in seven patients being infected with HCV (Figure 1).

KEY FINDINGS

- When injectable pain medication is diverted, patients are at an increased risk of being infected with hepatitis C virus (HCV) and other bloodborne diseases because a provider may inject themselves, then a patient.
- In November 2014, a nurse, suspected of diversion of injectable pain medication, was reported to the DOPL. After investigating a December 2014 case of HCV, the UDOH found that the nurse's drug diversion activities likely resulted in seven patients being infected with HCV.
- After this event, the DOPL and the UDOH developed a formalized, collaborative agreement to share drug diversion investigation information, resulting in a united response, allowing the UDOH to quickly identify and assess risk to patients based on the method of drug diversion.
- The collaborative agreement has improved rapid public health notification of injectable drug diversion and increased the availability of information that is critical to assess risk and make patient notification decisions.

Impact of Drug Diversion

Figure 1. Hepatitis C virus transmission identified from incident reported to the UDOH in December 2014

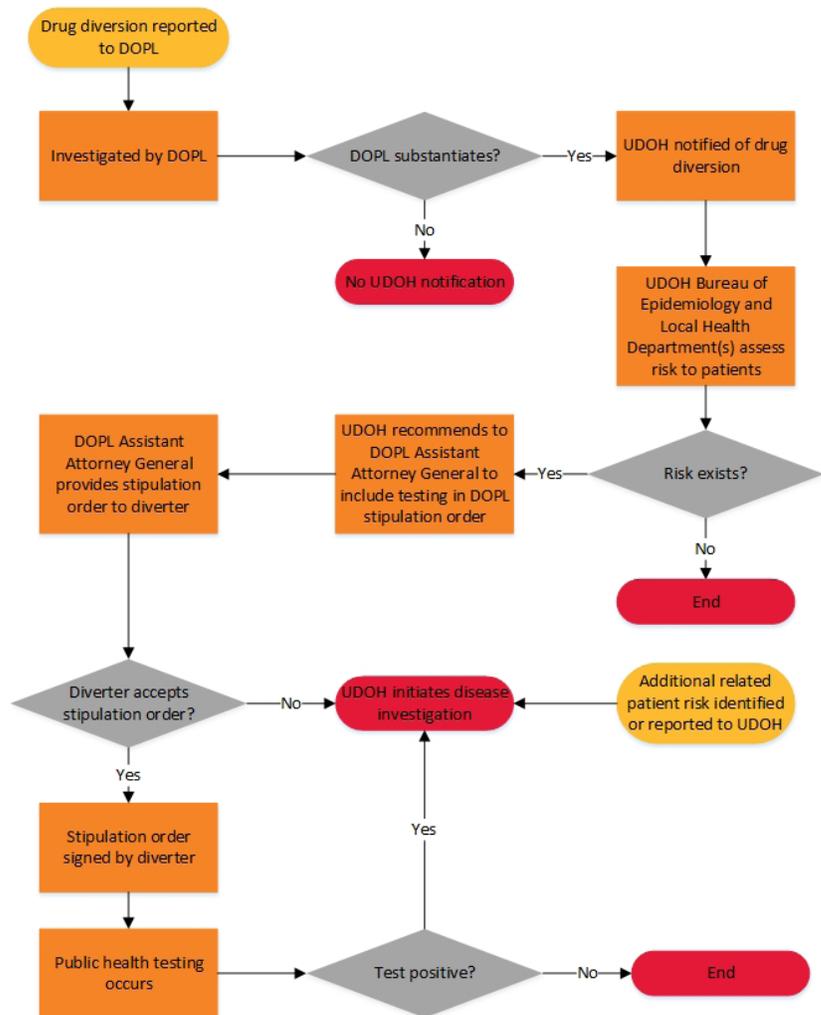


Post-outbreak collaboration between the DOPL and UDOH identified a communication gap in agency-specific processes that resulted in a delay of patient notification and HCV diagnosis for infected patients. The DOPL and the UDOH sought to improve response time to injectable drug diversion events by developing a formalized, collaborative agreement to share drug diversion investigation information. This agreement results in a united response when drug diversion events are reported to the DOPL, allowing the UDOH to quickly identify and assess risk to patients based on the method of drug diversion. Additionally, when a risk to patients exists, it allows the UDOH to recommend testing of drug-diverting healthcare workers for bloodborne diseases as a stipulation of the licensing probation enforced by the DOPL. Patient notification and testing recommendations are made based on the risk to patients and the bloodborne disease status of the healthcare worker (Figure 2). This process, if in place during the incident reported to the UDOH in December 2014, would have resulted in a more timely identification of drug diversion as the source of infection.

The collaborative agreement has been used twice since its implementation in December 2016. To date, there has been one recommendation made for healthcare worker bloodborne disease testing; these results are pending. However, the outcome of the collaborative agreement is apparent as it has improved rapid public health notification of injectable drug diversion and increased the availability of information that is critical to assess risk and make patient notification decisions. This will allow for better characterization of drug diversion incidents, more rapid identification of incidents and action for patients potentially impacted by them, and ultimately, an improvement of health outcomes for patients in Utah.

Drug Diversion Investigation Process

Figure 2. Diagram of the workflow for a hepatitis C drug diversion investigation involving the Division of Professional Licensing (DOPL) and the Utah Department of Health (UDOH)



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Breaking News, April 2017

San Juan River Long-Term Sampling

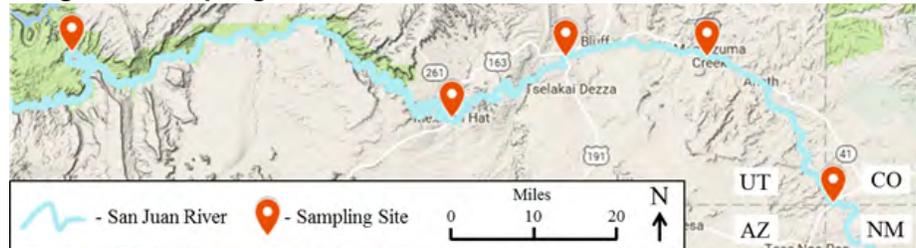
Mine wastewater is a problematic legacy of mining in the West and often contains heavy metals like copper, lead, and zinc. Contaminated wastewater can accumulate inside the mines and leak into nearby waterways. In August of 2015, approximately 3 million gallons of wastewater was released from the Gold King Mine in Colorado. This water flowed down the San Juan River in southern Utah before emptying into Lake Powell.

Initial sampling of the San Juan River did not indicate a risk to human health in the short term. The Utah Division of Water Quality (DWQ) undertook long-term monitoring of the San Juan River to determine chronic risks to human health, agricultural use, and aquatic life (see Figure). Thus far, there have been no exceedances of recreational human health criteria.

However, most sites regularly have aluminum concentrations that exceed aquatic life criteria, and the agricultural standard for total dissolved solids is also periodically exceeded. The heavy metal contamination might have settled in the upstream sediments and may slowly move downstream. High flow rates during storms and spring runoff may help push these sediments downstream. Monitoring and assessment efforts by the DWQ, Utah Department of Health, and other agencies remain ongoing.

For more information, visit deq.utah.gov/Topics/Water/goldkingmine and health.utah.gov/enviroepi/appletree/GKM.

Long-term Sampling Sites on the San Juan River



Community Health Spotlight, April 2017

Cultural and Linguistically Appropriate Services in Mental/Behavioral Health

The Office of Health Disparities (OHD) has developed an online tool to help providers and administrators implement Cultural and Linguistically Appropriate Services, otherwise known as CLAS standards, into mental/behavioral organizations and/or services. The tool is comprised of six chapters with specific information about reaching diverse communities.

The online tool is the result of an assessment conducted by OHD in 2016. OHD gathered baseline information to begin to address some of these issues regarding access to mental and behavioral, culturally and linguistically appropriate services, and barriers faced by diverse communities in Utah. The assessment consisted of three primary data collection parts:

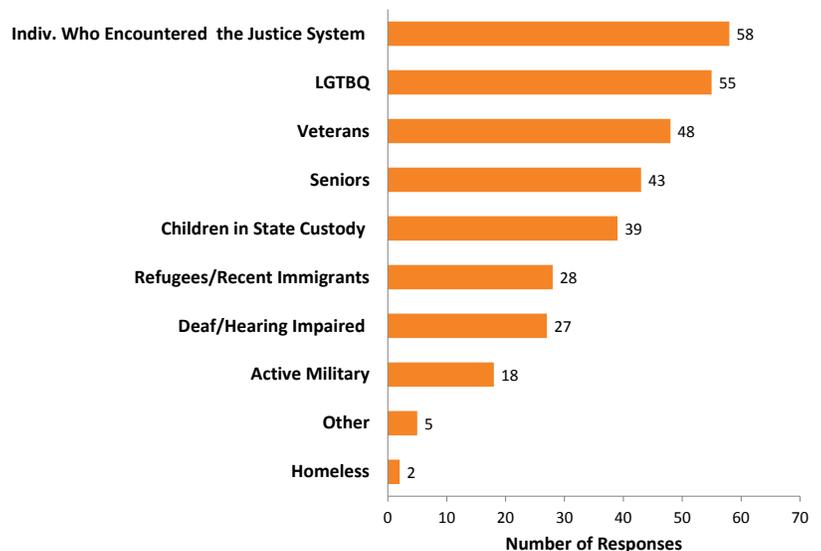
1. an online survey sent out to behavioral/mental health providers through agencies and professional networks throughout the state;
2. follow-up telephone conversations with providers; and
3. community focus group discussions with community members.

Most of the providers interviewed worked for county government (33%), non-profit (21%), private practice (17%), or state government (10%). The remainder (19%) was comprised of group practice, community clinics, university clinics, elementary school clinics, and other. The special populations

most often served by these providers were individuals who encountered the judicial system followed by LGBTQ and veterans.

The online tool can be accessed at <http://www.health.utah.gov/disparities/clas-mental-health/index.htm>.

Special Needs Populations Served* in 2015



*Served by providers who completed the assessment and are potential users of the tool.
Source: Behavioral and Mental Health Provider Assessment Summary.
<http://www.health.utah.gov/disparities/data/ohd/BHMHSummaryReport.pdf>.

Monthly Health Indicators Report

(Data Through February 2017)

Monthly Report of Notifiable Diseases, February 2017	Current Month # Cases	Current Month # Expected Cases (5-yr average)	# Cases YTD	# Expected YTD (5-yr average)	YTD Standard Morbidity Ratio (obs/exp)
Campylobacteriosis (<i>Campylobacter</i>)	30	24	59	52	1.1
Shiga toxin-producing <i>Escherichia coli</i> (<i>E. coli</i>)	1	1	2	4	0.5
Hepatitis A (infectious hepatitis)	1	0	1	0	2.5
Hepatitis B, acute infections (serum hepatitis)	0	2	2	2	1.0
Influenza*	Weekly updates at http://health.utah.gov/epi/diseases/influenza				
Meningococcal Disease	0	0	0	0	0.0
Pertussis (Whooping Cough)	8	64	17	136	0.1
Salmonellosis (<i>Salmonella</i>)	18	17	41	37	1.1
Shigellosis (<i>Shigella</i>)	3	3	4	6	0.6
Varicella (Chickenpox)	24	26	32	57	0.6
Quarterly Report of Notifiable Diseases, 4th Qtr 2016	Current Quarter # Cases	Current Quarter # Expected Cases (5-yr average)	# Cases YTD	# Expected YTD (5-yr average)	YTD Standard Morbidity Ratio (obs/exp)
HIV/AIDS†	23	29	108	113	1.0
Chlamydia	2,385	1,989	9,487	7,817	1.2
Gonorrhea	527	283	2,102	943	2.2
Syphilis	17	12	86	49	1.7
Tuberculosis	6	7	20	34	0.6
Medicaid Expenditures (in Millions) for the Month of February 2017	Current Month	Expected/Budgeted for Month	Fiscal YTD	Budgeted Fiscal YTD	Variance - over (under) budget
Capitated Mental Health	\$ 12.7	\$ 11.8	\$ 102.8	\$ 104.6	\$ (1.8)
Inpatient Hospital	\$ 4.0	\$ 3.6	\$ 63.5	\$ 64.3	\$ (0.8)
Outpatient Hospital	\$ 3.2	\$ 3.7	\$ 29.1	\$ 30.0	\$ (0.8)
Long Term Care	\$ 26.8	\$ 27.5	\$ 157.2	\$ 158.6	\$ (1.4)
Pharmacy	\$ 0.6	\$ 1.8	\$ 62.2	\$ 63.8	\$ (1.6)
Physician/Osteo Services	\$ 3.7	\$ 3.7	\$ 26.5	\$ 29.2	\$ (2.7)
TOTAL MEDICAID	\$ 186.6	\$ 186.4	\$ 1,676.6	\$ 1,679.4	\$ (2.8)

Program Enrollment for the Month of February 2017	Current Month	Previous Month	% Change‡ From Previous Month	1 Year Ago	% Change‡ From 1 Year Ago
Medicaid	288,871	288,371	+0.2%	293,967	-1.7%
PCN (Primary Care Network)	14,233	14,378	-1.0%	18,748	-24.1%
CHIP (Children's Health Ins. Plan)	19,195	18,951	+1.3%	17,347	+10.7%
Health Care System Measures	Annual Visits		Annual Charges		
Health Care System Measures	Number of Events	Rate per 100 Population	% Change‡ From Previous Year	Total Charges in Millions	% Change‡ From Previous Year
Overall Hospitalizations (2014)	281,302	8.9%	-0.8%	\$ 7,281.6	+11.8%
Non-maternity Hospitalizations (2014)	177,881	5.5%	-1.1%	\$ 6,200.8	+11.6%
Emergency Department Encounters (2014)	710,266	22.9%	+2.6%	\$ 1,760.5	+13.2%
Outpatient Surgery (2013)	404,303	13.1%	+7.3%	\$ 2,167.9	+11.5%
Annual Community Health Measures	Current Data Year	Number Affected	Percent/Rate	% Change‡ From Previous Year	State Rank§ (1 is best)
Obesity (Adults 18+)	2015	510,400	24.5%	-4.7%	8 (2015)
Cigarette Smoking (Adults 18+)	2015	189,600	9.1%	-6.2%	1 (2015)
Influenza Immunization (Adults 65+)	2015	181,600	59.0%	+1.9%	36 (2015)
Health Insurance Coverage (Uninsured)	2015	263,600	8.8%	-14.6%	n/a
Motor Vehicle Traffic Crash Injury Deaths	2015	247	8.2 / 100,000	+3.7%	19 (2015)
Poisoning Deaths	2015	697	23.3 / 100,000	+6.8%	43 (2015)
Suicide Deaths	2015	609	20.3 / 100,000	+7.8%	47 (2015)
Diabetes Prevalence (Adults 18+)	2015	145,800	7.0%	-1.4%	10 (2015)
Poor Mental Health (Adults 18+)	2015	333,300	16.0%	+0.6%	18 (2015)
Coronary Heart Disease Deaths	2015	1,619	54.0 / 100,000	+1.0%	2 (2015)
All Cancer Deaths	2015	3,091	103.2 / 100,000	+0.1%	1 (2015)
Stroke Deaths	2015	887	29.6 / 100,000	+2.0%	18 (2015)
Births to Adolescents (Ages 15-17)	2015	489	6.9 / 1,000	-11.7%	13 (2015)
Early Prenatal Care	2015	38,803	76.4%	+0.2%	n/a
Infant Mortality	2015	257	5.1 / 1,000	+3.2%	13 (2014)
Childhood Immunization (4:3:1:3:3:1)	2015	37,400	73.6%	-1.3%	35 (2015)

* Influenza-like illness activity is minimal in Utah. As of March 4, 2017, 1,174 influenza-associated hospitalizations have been reported to UDOH since the start of the influenza season on October 2, 2016. More information can be found at <http://health.utah.gov/epi/diseases/influenza/surveillance/index.html>.

† Diagnosed HIV infections, regardless of AIDS diagnosis.

‡ Relative percent change. Percent change could be due to random variation.

§ State rank based on age-adjusted rates where applicable.

Notes: Data for notifiable diseases are preliminary and subject to change upon the completion of ongoing disease investigations. Active surveillance for West Nile Virus will start in June for the 2017 season.