

# Utah Health Status Update: Fentanyl Abuse in Utah and Risks to First Responders

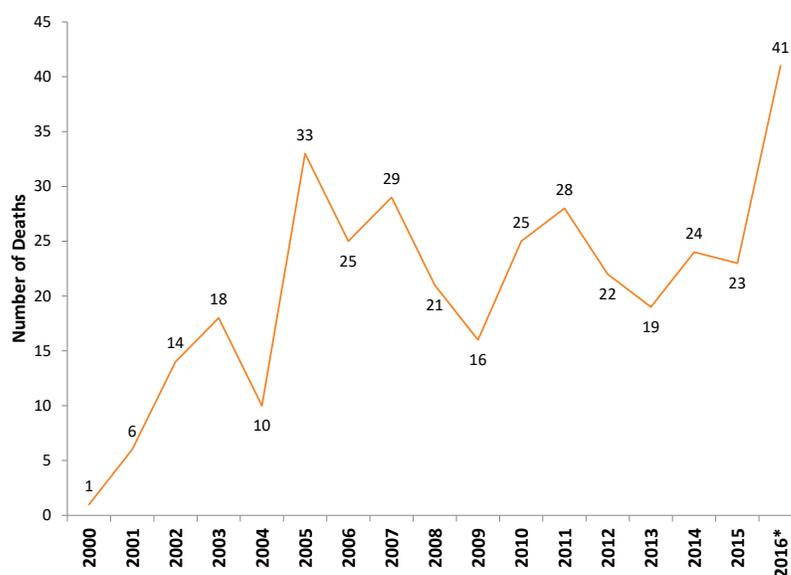
October 2017

Fentanyl and similar drug compounds (or analogs) are very powerful forms of opioids.<sup>1</sup> Fentanyl-related overdose deaths are increasing both nationally and within Utah. In 2016, there was a preliminary count of 41 fentanyl-related deaths in Utah, which is the highest number since the Utah Department of Health began tracking toxicology findings in unintentional and undetermined overdose deaths in 2000 (Figure 1). The majority of fentanyl-related deaths in Utah involve pharmaceutically-sourced fentanyl; however, beginning in 2016, there has been an increase in deaths from illicit fentanyl. Carfentanil, a synthetic opioid 100 times stronger than fentanyl and intended for use on large animals, has already caused one death in Utah in 2017. Lab-produced synthetic opioids are readily available online and may be pressed into pill form. While laws prohibit

certain formulations of fentanyl analogs, illegal labs in China and other locales develop new formulations on a regular basis to circumvent these restrictions.<sup>2</sup> Based on national-level trends, we expect to see increases in the number of deaths related to illicit fentanyl and fentanyl analogs in Utah. Similar to the rise of fentanyl-related deaths, dispatch calls to emergency medical services (EMS) agencies for suspected opioid overdoses (identi-

## Fentanyl-related Overdose Deaths

Figure 1. Number of fentanyl-related overdose deaths per year, Utah, 2000–2016



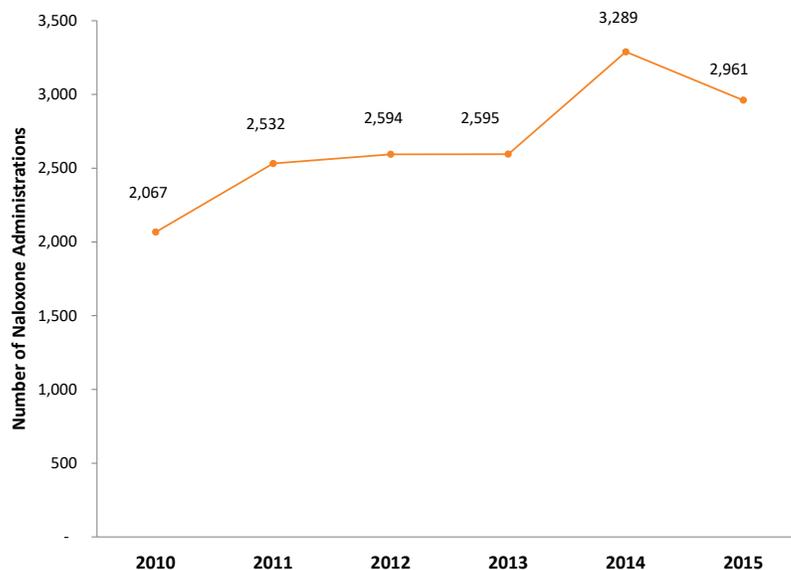
\*preliminary data and subject to change as additional toxicology results become available

### KEY FINDINGS

- In 2016, there was a preliminary count of 41 fentanyl-related deaths in Utah, which is the highest number since the Utah Department of Health began tracking toxicology findings in unintentional and undetermined overdose deaths in 2000.
- Naloxone administration by Utah EMS agencies increased steadily from 2010 to 2015, with the majority of administrations occurring in urban areas.
- Accidental exposure by first responders (law enforcement, public health workers, emergency medical responders, etc.) can occur under different circumstances.
- The American College of Medical Toxicology (ACMT) and American Academy of Clinical Toxicology (AACT), National Institute for Occupational Safety and Health (NIOSH) and the Drug Enforcement Administration (DEA) released recommendations regarding personal protective equipment (PPE).

## Naloxone Administration by Year

Figure 2. Number of naloxone administrations by Utah EMS agencies per year, Utah, 2010–2015



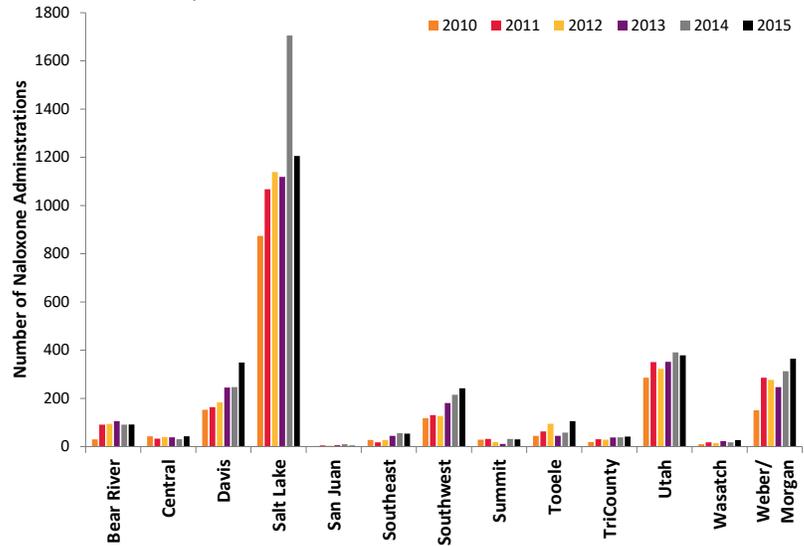
fied by naloxone administration) are on the rise. Naloxone is a safe and legal drug that can reverse opioid overdoses by blocking the effects of opiates on the brain and restoring breathing in minutes. Naloxone administration by Utah EMS agencies increased steadily from 2010 to 2015 (Figure 2). Suspected overdose calls to EMS include dispatch calls for “unknown problem, person down,” as well as “overdose, poisoning, ingestion,” in which naloxone was administered. Due to the complex nature of responding to a suspected overdose, EMS professionals do not determine the exact drug used, so the data cannot accurately describe opioid involvement in each case.

Trends in naloxone administration in Utah local health districts show similar increases, with the majority of naloxone administrations occurring in urban areas (Figure 3).

Accidental exposure to fentanyl by first responders (law enforcement, public health workers, emergency medical responders, etc.) can occur under different circumstances, including inhalation, absorption through the skin, or direct contact such as in the eyes or mouth. While fentanyl and its analogs are dangerous, the risk of clinically significant exposure to first responders is low.<sup>1</sup> Nonetheless, the American College of Medical Toxicology (ACMT) and American Academy of Clinical Toxicology (AACT), National Institute for Occupational Safety and Health (NIOSH), and the Drug Enforcement Administration (DEA) released recommendations regarding personal protective equipment (PPE). First responders who encounter suspected fentanyl-related substances should wear appropriate PPE before taking samples, disturbing any powder, or beginning decontamination procedures. Precautions include water resistant coveralls, nitrile gloves, goggles, and a fitted N95 respirator or P100 mask.<sup>1,3,4,5</sup> Exposed skin surfaces should be washed with water and soap. First responders who may encounter fentanyl should be trained to recognize the signs and symptoms of an opioid overdose, have naloxone readily available, and be trained to administer naloxone and provide medical assistance. While there is currently very little data available, the above recommendations should be adequate for first responders or anyone who may come in contact with fentanyl and its analogs.

## Naloxone Administration by Local Health District

Figure 3. Number of naloxone administrations by Utah EMS agencies by local health district and year, Utah, 2010–2015



1. ACMT and AACT position statement: preventing occupational fentanyl and fentanyl analog exposure to emergency responders. American College of Medical Toxicology. Available online at: [http://www.acmt.net/Library/Fentanyl\\_Position/Fentanyl\\_PPE\\_Emergency\\_Responders\\_.pdf](http://www.acmt.net/Library/Fentanyl_Position/Fentanyl_PPE_Emergency_Responders_.pdf).

2. Fentanyl: China's Deadly Export to the United States. U.S.-China Economic and Security Review Commission. Available online at: [https://www.uscc.gov/sites/default/files/Research/USCC%20Staff%20Report\\_Fentanyl-China%E2%80%99s%20Deadly%20Export%20to%20the%20United%20States020117.pdf](https://www.uscc.gov/sites/default/files/Research/USCC%20Staff%20Report_Fentanyl-China%E2%80%99s%20Deadly%20Export%20to%20the%20United%20States020117.pdf).

3. Fentanyl: a briefing guide for first responders. Drug Enforcement Administration. Available online at: [https://www.dea.gov/druginfo/Fentanyl\\_BriefingGuideforFirstResponders\\_June2017.pdf](https://www.dea.gov/druginfo/Fentanyl_BriefingGuideforFirstResponders_June2017.pdf).

4. Fentanyl: preventing occupational exposure to emergency responders. National Institute for Occupational Safety and Health. Available online at: <https://www.cdc.gov/niosh/topics/fentanyl/risk.html>.

5. Recommendations on selection and use of personal protective equipment and decontamination products for first responders against exposure hazards to synthetic opioids, including fentanyl and fentanyl analogues. InterAgency Board for Equipment Standardization and Interoperability. Available online at <https://www.interagencyboard.org/sites/default/files/publications/IAB%20First%20Responder%20PPE%20and%20Decontamination%20Recommendations%20for%20Fentanyl.pdf>.

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### UDOH ANNOUNCEMENT:

In Utah, suicide is the eighth leading cause of death. To help address this problem, the 2017 Utah Legislature passed HB0346 Suicide Prevention Programs. In part, HB0346 provides funding to the Office of Medical Examiner to study suicide deaths. This work will better inform suicide prevention efforts in Utah by identifying risk factors and trends related to suicide deaths. Epidemiologist Michael Staley was hired in August to carry out this important work.

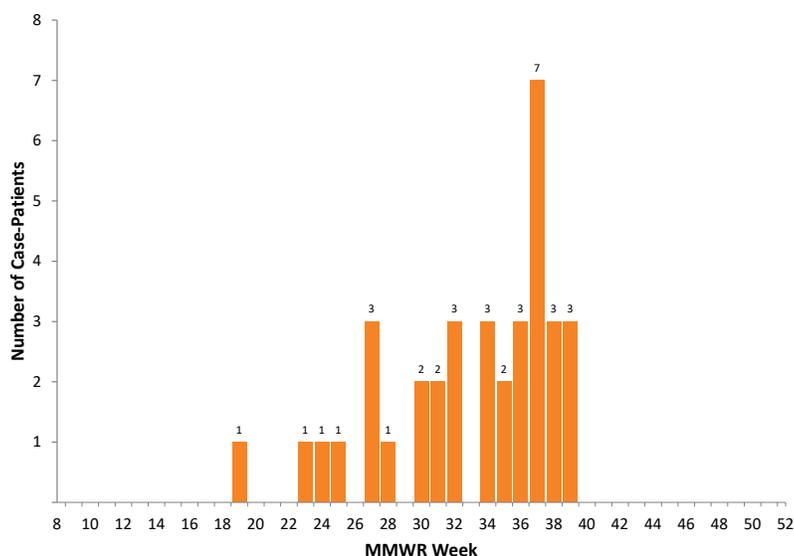
## Breaking News, October 2017

### Hepatitis A Outbreak

Since May 2017, Utah public health partners have investigated an outbreak of hepatitis A virus (HAV) infection among persons who are homeless and/or use illicit drugs. Cases in Utah have been linked by investigation or viral sequencing to a national outbreak involving California and Arizona. As of October 3, 2017, a total of 36 outbreak-associated cases have been identified in the state. Of the 36 cases, 55.6% reported homelessness and 66.7% reported illicit drug use; 61.1% were hospitalized, which is a higher rate of hospitalization than previous HAV outbreaks. In response to the outbreak, public health officials are working to identify cases and contacts, provide education, and ensure opportunities for vaccination of close contacts to cases and vulnerable populations.

HAV infection is a highly contagious, vaccine-preventable liver infection caused by the hepatitis A virus. HAV is primarily transmitted from person-to-person by the fecal-oral route and can range in severity from a mild illness lasting a few weeks, to a severe illness lasting several months. Symptoms may include fever, fatigue, vomiting, abdominal pain, dark urine, and jaundice (yellowing of the skin and eyes). Some people who are infected with HAV may not look or feel sick. HAV infection can cause liver failure and death in people with serious medical conditions. On average, less than 10 cases of HAV are identified in Utah every year. For more information on hepatitis A, visit <http://health.utah.gov/epi/diseases/hepatitisA>.

**Outbreak-associated Hepatitis A Cases by MMWR Week, Utah, 2017**



Source: Utah Department of Health Bureau of Epidemiology

## Community Health Spotlight, October 2017

### Combating Medicaid Fraud, Waste & Abuse with New Provider Enrollment Initiatives

Since 2011, the Center for Medicare and Medicaid Services (CMS) has implemented initiatives in Medicaid which have provided new critical safeguards and anti-fraud tools in efforts to better screen providers enrolling in and billing Medicaid. Provider enrollment is the gateway to billing the Medicaid program. Providers must enroll in Medicaid to be eligible to bill Medicaid for services rendered to Medicaid members.

Efforts such as site visits, periodic enrollment revalidations, and other initiatives have allowed the program to expand the capacity to fight fraud and abuse and further protect Medicaid by shifting from a “pay and chase” approach of fraud prevention. Effective enrollment screening helps to prevent Medicaid fraud, waste, and abuse upfront in the process. The roll-out of these initiatives have been in phases for the past five years; however, this has significantly impacted the provider community with more screening requirements and documentation to ensure a provider is safe to enroll. Utah Medicaid has proactively communicated and educated providers through outreach, trainings, direct assistance, and site visits. Ultimately, by screening all providers in accordance with the new requirements, the program is better protected, especially as it grows to serve more beneficiaries.

# Monthly Health Indicators Report

(Data Through August 2017)

Monthly Report of Notifiable Diseases, August 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> )	49	54	404	350	1.2
Shiga toxin-producing <i>Escherichia coli</i> ( <i>E. coli</i> )	12	16	70	62	1.1
Hepatitis A (infectious hepatitis)	11	0	27	7	4.1
Hepatitis B, acute infections (serum hepatitis)	0	1	6	6	0.9
Meningococcal Disease	0	0	1	3	0.4
Pertussis (Whooping Cough)	10	81	273	661	0.4
Salmonellosis ( <i>Salmonella</i> )	31	46	287	245	1.2
Shigellosis ( <i>Shigella</i> )	3	4	22	26	0.8
Varicella (Chickenpox)	12	11	137	161	0.9
West Nile (Human Cases)	19	3	21	4	5.5

Quarterly Report of Notifiable Diseases, 2nd Qtr 2017	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†	30	36	74	77	1.0
Chlamydia	2,353	1,981	4,984	4,106	1.2
Gonorrhea	627	273	1,191	569	2.1
Syphilis	33	17	57	32	1.8
Tuberculosis	8	8	19	14	1.3

Medicaid Expenditures (in Millions) for the Month of August 2017‡	Current Month	Expected/Budgeted for Month	Fiscal YTD	Budgeted Fiscal YTD	Variance - over (under) budget
Mental Health Services§	\$ 8.9	\$ 9.7	\$ 22.0	\$ 23.3	\$ (1.3)
Inpatient Hospital Services	\$ 15.7	\$ 14.6	\$ 20.1	\$ 20.5	\$ (0.5)
Outpatient Hospital Services	\$ 3.8	\$ 4.4	\$ 5.1	\$ 6.6	\$ (1.5)
Nursing Home Services	\$ 14.9	\$ 15.7	\$ 23.7	\$ 24.9	\$ (1.1)
Pharmacy Services	\$ 9.7	\$ 10.0	\$ 18.9	\$ 19.2	\$ (0.2)
Physician/Osteo Services	\$ 7.7	\$ 7.3	\$ 9.2	\$ 9.3	\$ (0.0)
Medicaid Expansion Services	\$ 1.7	\$ 1.6	\$ 2.8	\$ 3.7	\$ (0.9)
TOTAL MEDICAID#	\$ 200.0	\$ 200.3	\$ 423.8	\$ 428.7	\$ (4.8)

Program Enrollment for the Month of August 2017	Current Month	Previous Month	% Change** From Previous Month	1 Year Ago	% Change** From 1 Year Ago
Medicaid	285,047	283,595	+0.5%	292,186	-2.4%
PCN (Primary Care Network)	14,220	11,342	+25.4%	16,167	-12.0%
CHIP (Children's Health Ins. Plan)	19,380	19,253	+0.7%	18,371	+5.5%

Health Care System Measures	Annual Visits			Annual Charges	
	Number of Events	Rate per 100 Population	% Change** From Previous Year	Total Charges in Millions	% Change** From Previous Year
Overall Hospitalizations (2015)	291,216	8.8%	+2.9%	\$ 7,965.1	+9.4%
Non-maternity Hospitalizations (2015)	188,130	5.5%	+1.9%	\$ 6,838.5	+10.3%
Emergency Department Encounters (2015)	737,578	22.7%	+7.4%	\$ 1,878.3	+6.7%
Outpatient Surgery (2015)††	487,945	14.9%	+4.9%	\$ 3010.3	+38.9%

Annual Community Health Measures	Current Data Year	Number Affected	Percent/Rate	% Change** From Previous Year	State Rank** (1 is best)
Obesity (Adults 18+)	2016	538,700	25.3%	+3.3%	10 (2016)
Cigarette Smoking (Adults 18+)	2016	187,400	8.8%	-3.3%	1 (2016)
Influenza Immunization (Adults 65+)	2016	176,300	54.9%	-6.9%	41 (2016)
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+)	2016	153,300	7.2%	+2.9%	8 (2016)
Poor Mental Health (Adults 18+)	2016	362,000	17.0%	+6.3%	21 (2016)
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)

† Diagnosed HIV infections, regardless of AIDS diagnosis.

‡ This state fiscal year (SFY) 2018 report includes supplemental payments to better match the SFY 2018 Medicaid Forecast Budget which costs have not been included in previous years.

§ The SFY 2018 Medicaid Forecast Budget includes Mental Health and Substance Abuse services together while this report only accounts for Mental Health services. This is to stay consistent with the previous years reports.

# Medicaid Expansion Services was added to the Medicaid program in SFY 2018. Total Medicaid costs exclude the Prism Project.

\*\* Relative percent change. Percent change could be due to random variation.

†† Change was calculated from 2013 to 2015 for outpatient surgery.

\*\* 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 has ended for influenza until the 2017-2018 season.