

# Utah Health Status Update

## KEY FINDINGS

- Children ages 0–14 accounted for 6% of calls for 911 EMS assistance in Utah during 2018.
- The most common reasons for 911 calls for children were injuries (21.6% of calls).
- Of those children with injuries, approximately 430 (18.8%) had a head injury. A minority of these (6–10%) were considered severe by the EMS providers.
- Since 2001, the number of seriously injured patients (adults and children) in Utah doubled from 7,182 to 14,839 patients per year. However, during that same period, the percentage of patients who died from their injuries decreased by nearly half, from 4.1% to 2.6%.

## 2018 Pediatric Emergency Update

Thirty percent of the Utah population is younger than 18 years of age.<sup>1</sup> For the purposes of emergency medical care; however, “pediatric” is defined as ages 0–14 and “adult” is defined as 15 years of age and older. The reason for this is that children ages 15 and older are physiologically similar to adults. Fortunately, of all the calls for 911 Emergency Medical Services (EMS) assistance in Utah in 2018, children 14 years of age and younger accounted for only 6% so they have relatively low 911/EMS use. Children are generally healthier than adults which can pose challenges to EMS providers. Because pediatric emergency 911 calls are relatively rare, prehospital care providers must remain current in protocols and procedures for children despite encountering pediatric patients a minority of the time.

The Utah Department of Health EMS for Children Program (EMS-C) receives support and funding from the Health Resources Services Administration to develop, implement, and disseminate information about pediatric emergency care and ensure children receive the most safe and effective emergency care possible.

EMS-C coordinators are located throughout Utah and provide local and regional expertise and education for EMS providers in their areas, including free training and access to pediatric emergency care expertise. This helps EMS providers maintain their pediatric medical care skills.

### Snapshot of Utah Pediatric EMS Care in 2018

There were approximately 172,000 EMS calls in Utah in 2018.<sup>2</sup> Approximately 6% of EMS calls (n=10,600) were for children ages 0–14 (Figure 1).

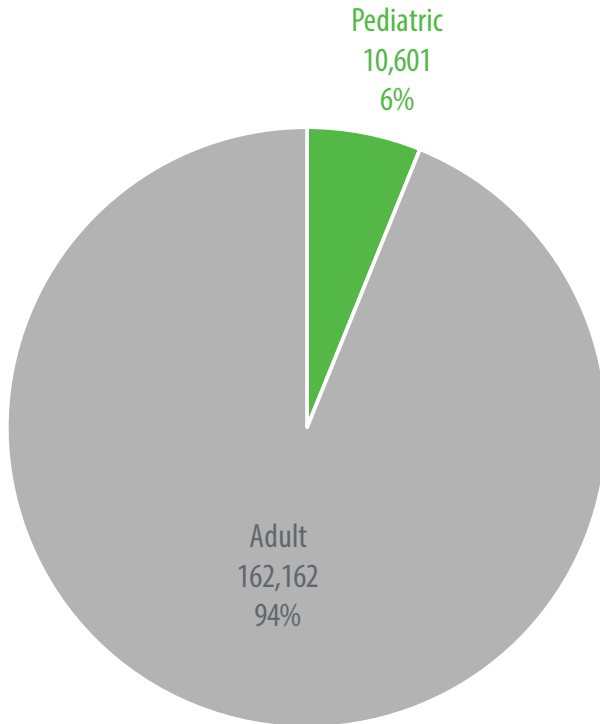
The most common reasons for 911 calls for children were injuries (21.6% of calls). Other common reasons for pediatric emergency calls included neurological problems (such as seizures), respiratory problems, and behavioral health issues (Figure 2).

Of those children with injuries, 18.8% (n=430) were head injuries. Fortunately, only a minority of these (6–10%) were considered severe by the EMS providers, defined as a significant decrease in consciousness on a standardized scale (the

Feature Article Continued

### Number of 911 Emergency Calls\*

Figure 1. Of the 172,763 911 calls received in Utah during 2018, 6% were for pediatric patients.



\*Excludes 911 calls which resulted in cancellation or absence of the patient at the scene.

Source: 2018 pediatric prehospital data retrieved from <https://prehospital.utah.gov/elite>.

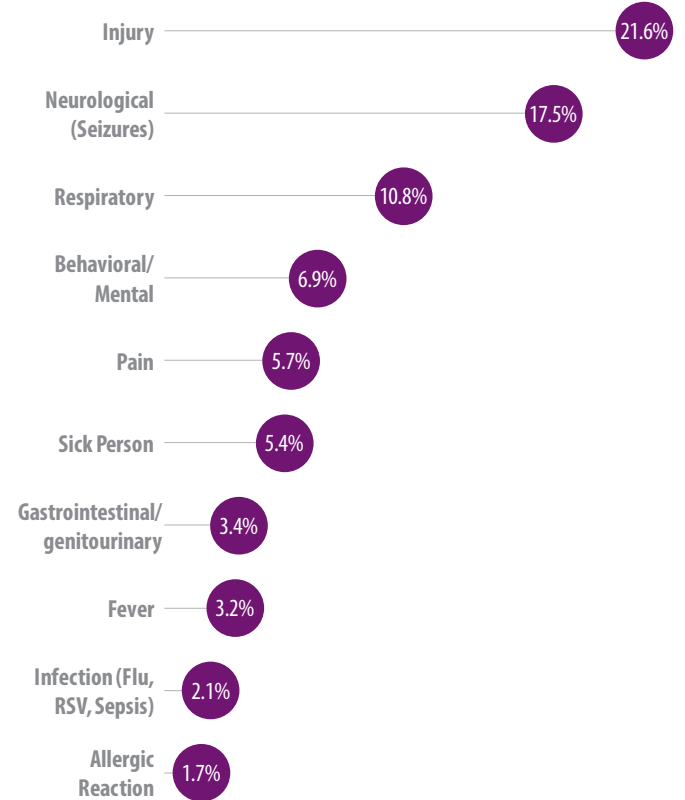
Glasgow Coma Scale). Of those with more serious head injuries, the vast majority (80%) were transported by EMS directly to state-designated trauma centers for evaluation and stabilization. The most serious of these children were cared for at Primary Children's Hospital in Salt Lake City, the only Level 1 Pediatric Trauma Center (highest designation available) in the state. Patients may receive a variety of medications during their emergency treatment by EMS, including medications for pain, IV fluids, oxygen, and medications to halt seizures.

### The Utah Trauma System Works

The Utah Trauma System was originally initiated by the Utah State Legislature in 2000.<sup>3</sup> The Utah Trauma

### Top 10 Reasons for 911 Calls for Children

Figure 2. Injury was the most common reason for 911 emergency calls for children. The top 10 reasons accounted for 78% of all pediatric 911 calls.



Source: 2018 pediatric prehospital data retrieved from <https://prehospital.utah.gov/elite>.

System is a coordinated system of care involving close coordination between 911 phone dispatchers, EMS and ambulance providers, and hospital emergency departments and trauma services. These individual components of the trauma system ensure a seamless and coordinated response to 911 calls. In addition, hospitals voluntarily agree to meet state and national standards for trauma care which are then designated as trauma centers by the Utah Department of Health.

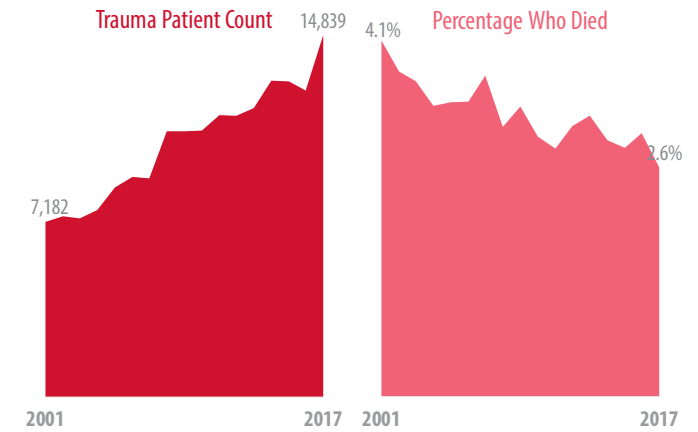
As part of the legislation which created the Utah Trauma System, the Trauma System Advisory Committee<sup>4</sup> (TSAC) was also appointed to advise the Utah Department of Health on improving the efficiency and quality of trauma care in Utah. This

committee is comprised of representatives from Utah hospitals, EMS agencies, and other trauma experts.

The Utah Trauma System, with the complex coordination and minute-to-minute cooperation of emergency dispatchers, EMS personnel, and hospitals, is an unequivocal success. Since 2001, the number of seriously injured patients (adults and children) in Utah doubled<sup>5</sup> from 7,182 to 14,839 patients per year. However, during that same period, the percentage of patients who died from their injuries decreased by nearly half from 4.1% to 2.6% (Figure 3). In other words, compared with 2001, twice as many seriously injured patients are cared for by EMS but only half as many will die from their injuries. The dedication and cooperation of emergency care responders and EMS experts across the state has resulted in remarkable improvements in trauma care and the lives of Utahns.

### Number of Trauma Patients and Death Rate

Figure 3. From 2001–2017, the number of trauma patients in Utah doubled, yet the percentage of patients who died from their injuries decreased by nearly half.



Source: Utah Trauma Registry

1. QuickFacts, Utah, United States retrieved from <https://www.census.gov/quickfacts/fact/table/UT,US/PST045218>.

2. 2018 Pediatric prehospital data retrieved from <https://prehospital.utah.gov/elite>.

3. Utah Health Code 26-8a-252 retrieved from <https://le.utah.gov/xcode/Title26/Chapter8A/26-8a-S252.html>.

4. Utah Health Code 26-8a-251 retrieved from [https://le.utah.gov/xcode/Title26/Chapter8A/26-8a-S251.html?v=C26-8a-S251\\_2019051420190514](https://le.utah.gov/xcode/Title26/Chapter8A/26-8a-S251.html?v=C26-8a-S251_2019051420190514).

5. Utah Trauma Registry Data 2001–2017. (2018). [Data file]. Salt Lake City: Intermountain Injury Control and Research Center.

## Out-of-hospital Births

The planned out-of-hospital\* birth rate in Utah is among the top five in the nation and continues to increase. The Out-of-hospital Birth Committee is part of the Utah Women and Newborns Quality Collaborative (UWNQC), a statewide network of medical professionals from hospitals and clinics dedicated to improving health outcomes for Utah women and babies using evidence-based practice guidelines and quality improvement processes. The goals of the committee are to 1) analyze current data for out-of-hospital births in Utah, 2) identify maternal and neonatal safety issues related to out-of-hospital births, and 3) create statewide action items addressing the recognized safety issues.

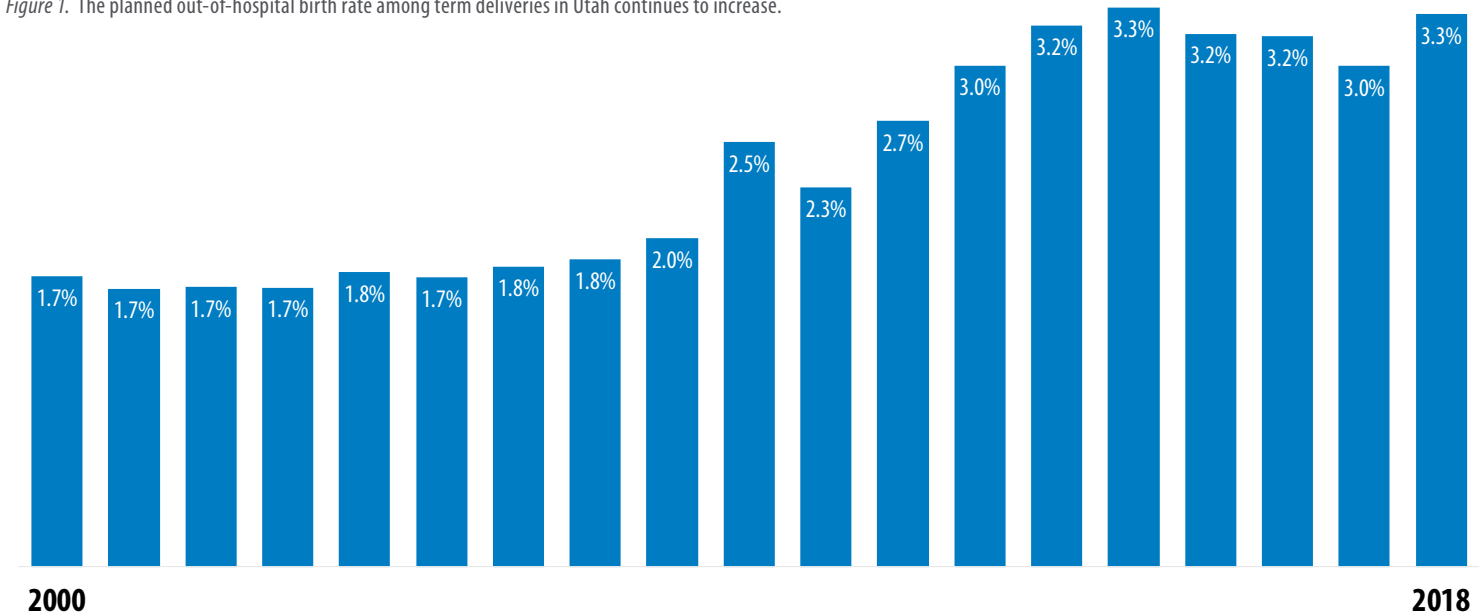
Recent successes for the committee include:

- Reporting data on out-of-hospital birth transfers—Utah now has the most comprehensive information in the nation on out-of-hospital births.
- Working with the University of Utah to offer critical neonatal resuscitation training for out-of-hospital midwives.
- Planning inter-professional transfer simulations with emergency medical services agencies in Layton, Salt Lake City, and Nephi
- Educating hospitals and birth centers on their individual transfer data and feedback.
- Hosting an Out-of-hospital Birth Telehealth Symposium, conducted in three sessions by local experts, with a goal of educating multi-disciplinary healthcare providers on recommended best practices.

For more information on out-of-hospital births or the UWNQC, visit <https://mihp.utah.gov/uwnqc> or email [uwnqc@utah.gov](mailto:uwnqc@utah.gov).

## Percentage of Planned Out-of-hospital\* Births in Utah

Figure 1. The planned out-of-hospital birth rate among term deliveries in Utah continues to increase.



\* Birth that is planned to take place and occurred at home or in a birth center. Does not include home births that were unplanned or occurred in other locations, such as an ambulance or parking lot.

## Spotlights Continued

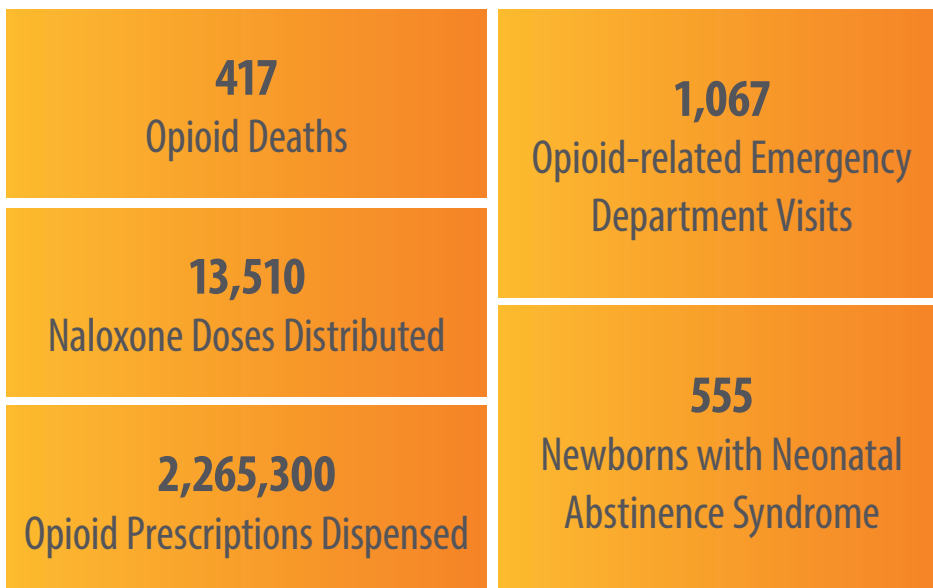
### Opioid Public Data Dashboard Coming Soon

The Utah Public Opioid Dashboard is an interactive visual presentation of opioid-related data indicators. The intent is to provide timely, quality, and actionable data related to the opioid epidemic in Utah. The Utah Public Opioid Dashboard will summarize the most recent publicly available data related to opioids and will include additional data visualization options for overall opioid deaths, opioid-related emergency department visits, opioid prescriptions dispensed, newborns with neonatal abstinence syndrome, and naloxone doses distributed by the Utah Department of Health. These data will have the ability to filter by year, age group, sex, local health district, or county. The opioid prescriptions data will be able to be filtered by high dose ( $\geq 90$  morphine milligram equivalents) or low dose ( $< 90$  morphine milligram equivalents) prescriptions. Accessible data for use by the public, partners, and the media is vital as efforts to address the opioid epidemic continue to increase.

For more information, contact Anna Fondario with the Utah Department of Health Violence and Injury Prevention Program, at [afondario@utah.gov](mailto:afondario@utah.gov).

### Opioids by the Numbers: 2018

Figure 1. Snapshot of 2018 opioid-related indicators included in the Utah Public Opioid Dashboard.



# Monthly Health Indicators

Monthly Report of Notifiable Diseases, August 2019	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> )	44	56	371	376	1.0
Shiga toxin-producing <i>Escherichia coli</i> ( <i>E. coli</i> )	30	17	115	81	1.4
Hepatitis A (infectious hepatitis)	2	4	16	35	0.5
Hepatitis B, acute infections (serum hepatitis)	0	8	15	17	0.9
Meningococcal Disease	1	0	3	2	1.9
Pertussis (Whooping Cough)	15	39	193	355	0.5
Salmonellosis ( <i>Salmonella</i> )	35	50	212	272	0.8
Shigellosis ( <i>Shigella</i> )	7	5	37	32	1.1
Varicella (Chickenpox)	11	11	94	144	0.7
West Nile (Human Cases)	12	9	14	10	1.4
Quarterly Report of Notifiable Diseases, 2nd Qtr 2019	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 <sup>†</sup>	25	29	51	62	0.8
Chlamydia	2,759	2,248	5,529	4,659	1.2
Gonorrhea	616	498	1,271	985	1.3
Syphilis	89	62	187	125	1.5
Tuberculosis	7	6	13	13	1.0
Medicaid Expenditures (in Millions) for the Month of August 2019	Current Month	Expected/ Budgeted for Month	Fiscal YTD	Budgeted Fiscal YTD	Variance over (under) Budget
Mental Health Services	\$ 20.5	\$ 21.3	\$ 30.8	\$ 32.3	\$ (1.5)
Inpatient Hospital Services	15.6	16.7	18.5	20.4	(1.9)
Outpatient Hospital Services	7.0	7.2	9.1	10.2	(1.1)
Nursing Home Services	18.3	18.6	29.0	30.2	(1.3)
Pharmacy Services	11.7	12.6	19.7	21.2	(1.5)
Physician/Osteo Services <sup>‡</sup>	9.1	9.4	10.5	11.1	(0.6)
Medicaid Expansion Services	43.4	43.9	60.1	61.5	(1.4)
<b>TOTAL MEDICAID</b>	<b>356.0</b>	<b>357.6</b>	<b>509.3</b>	<b>517.9</b>	<b>(8.6)</b>

<sup>†</sup> Diagnosed HIV infections, regardless of AIDS diagnosis.

**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 2019–2020 season.

<sup>‡</sup> Medicaid payments reported under Physician/Osteo Services does not include enhanced physician payments

# Monthly Health Indicators

Program Enrollment for the Month of August 2019	Current Month	Previous Month	% Change\$ From Previous Month	1 Year Ago	% Change\$ From 1 Year Ago
Medicaid	289,287	287,849	+0.5%	274,596	+5.4%
CHIP (Children's Health Ins. Plan)	17,490	17,512	-0.1%	18,852	-7.2%
Commercial Insurance Payments#	Current Data Year	Number of Members	Total Payments	Payments per Member per Month (PMPM)	% Change\$ From Previous Year
Medical	2017	8,347,707	\$ 2,558,930,212	\$ 306.54	new measure
Pharmacy	2017	7,551,975	483,316,448	64.00	new measure
Annual Community Health Measures	Current Data Year	Number Afflicted	Percent \ Rate	% Change\$ From Previous Year	State Rank** (1 is Best)
Obesity (Adults 18+)	2018	618,400	27.8%	+10.1%	7 (2017)
Child Obesity (Grade School Children)	2018	38,100	10.6%	+11.6%	n/a
Cigarette Smoking (Adults 18+)	2018	200,100	9.0%	+0.9%	1 (2017)
Vaping, Current Use (Grades 8, 10, 12)	2017	32,000	11.1%	+6.3%	n/a
Binge Drinking (Adults 18+)	2018	236,700	10.6%	-7.7%	1 (2017)
Influenza Immunization (Adults 65+)	2018	182,300	52.0%	-7.1%	40 (2017)
Health Insurance Coverage (Uninsured)	2017	304,000	9.8%	+12.6%	n/a
Motor Vehicle Traffic Crash Injury Deaths	2017	280	9.0 / 100,000	+6.9%	14 (2017)
Drug Overdose Deaths Involving Opioids	2017	400	12.9 / 100,000	-7.2%	25 (2017)
Suicide Deaths	2017	663	21.4 / 100,000	+6.3%	46 (2017)
Unintentional Fall Deaths	2017	224	7.2 / 100,000	+7.2%	20 (2017)
Traumatic Brain Injury Deaths	2017	634	20.4 / 100,000	-8.4%	32 (2017)
Asthma Prevalence (Adults 18+)	2018	205,500	9.2%	+3.6%	15 (2017)
Diabetes Prevalence (Adults 18+)	2018	185,900	8.3%	+17.5%	6 (2017)
High Blood Pressure (Adults 18+)	2017	532,900	24.5%	+3.8%	3 (2017)
Poor Mental Health (Adults 18+)	2018	418,300	18.8%	+3.1%	22 (2017)
Coronary Heart Disease Deaths	2017	1,692	54.5 / 100,000	+1.8%	5 (2017)
All Cancer Deaths	2017	3,160	101.9 / 100,000	-0.4%	1 (2017)
Stroke Deaths	2017	888	28.6 / 100,000	-6.0%	21 (2017)
Births to Adolescents (Ages 15-17)	2017	420	5.8 / 1,000	-7.6%	13 (2017)
Early Prenatal Care	2017	37,395	77.0%	+2.3%	n/a
Infant Mortality	2017	282	5.8 / 1,000	+7.0%	24 (2017)
Childhood Immunization (4:3:1:3:3:1)	2017	35,600	70.2%	-4.6%	46 (2017)

§ Relative percent change. Percent change could be due to random variation. # Figures subject to revision as new data is processed.

\*\* State rank based on age-adjusted rates where applicable