

Utah Health Status Update

KEY FINDINGS

- In Utah, birth rates decreased from 19.8 in 2009 to 14.9 in 2018. Abortion rates declined from 5.5 in 2009 to 4.2 in 2018 (Figure 1).
- Among women with failed contraceptive methods, 49.0% used less effective contraception (condoms, withdrawal, sponge, spermicide, family planning) and 4.7% used highly effective contraceptive methods (IUD or Implant) (Figure 2).
- The most reported reason for not using contraception at the time of conception was “unknown.” For those where a reason was noted, lack of access to contraception, lack of financial means, and not desiring to use were the most indicated reasons (Figure 3).

Abortion and Effective Contraceptive Use in Utah

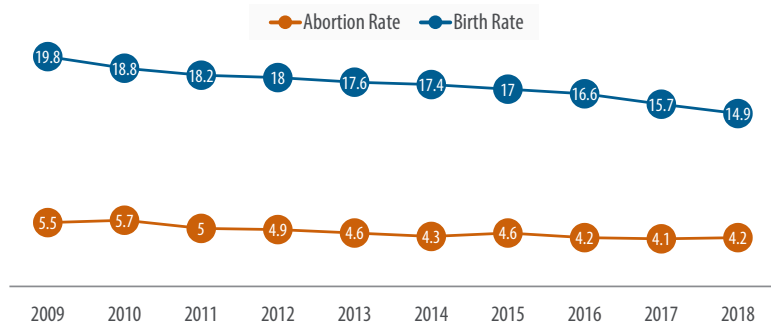
While the topic of abortion generates different opinions, it is important to increase understanding about a woman’s decision to electively terminate a pregnancy and the use or non-use of contraception. This will help identify opportunities to prevent unplanned pregnancies. [Utah state law §78-7-313](#) requires physicians to report information to the Utah Department of Health for each abortion performed using the Report of Induced Termination of Pregnancy (ITOP) form. Information on the ITOP form does not contain identifying information.

Pregnancy Trends in Utah

In 2016, Utah reported the second lowest abortion rate in the U.S., according to the Centers for Disease Control and Prevention¹. Utah trends in abortion rates² over the last decade declined by 23.7% and birth rates³ declined by 25%. Additionally, teen birth rates decreased by 57.3% in these years. This decline in both birth and abortion rates indicate women in Utah are experiencing fewer pregnancies.

Utah Abortion Rates and Birth Rates by Year, 2009-2018

Figure 1. In Utah, abortion rates declined from 5.5 in 2009 to 4.2 in 2018 and birth rates decreased from 19.8 in 2009 to 14.9 in 2018.



Note: Abortion Rate = $\frac{\text{Total Number of Induced Abortions to Resident Females (1,000)}}{\text{Total Number of Resident Females 15-44 Years of Age}}$ Birth rate = $\frac{\text{Total Number of Births to Resident Females (1,000)}}{\text{Total Number of People in the Population}}$

Utah Department of Health IBIS Website, 2009-2018.

Contraceptive Use

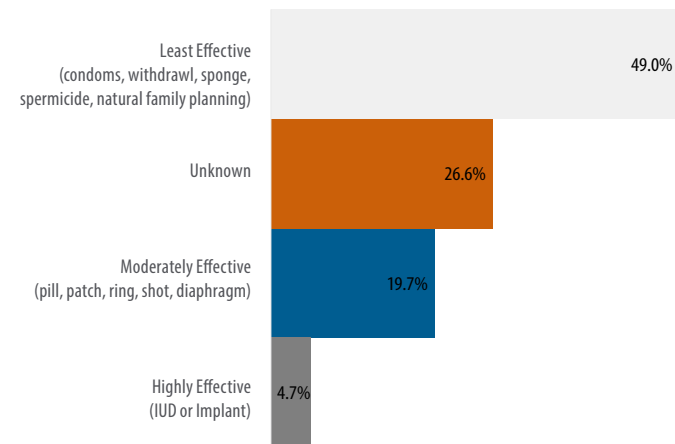
In 2018, the Utah Department of Health updated the ITOP form to better understand the connection between contraception and abortion. The questions added to the revised form first asks if the patient used contraception at the time of conception. If yes, the method is noted. If no, barriers to contraceptive use are also asked.

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This report does not include abortions of women who had a termination for lethal/grave fetal defect, rape, maternal life endangerment, those whose ages were 15 or less or unknown, or indicated the pregnancy was wanted. Among the 2,937 women included in this report who terminated pregnancy in 2018, 26.7% indicated that they or their partner were using contraception at the time of conception, 71.3% were not using contraception, and 1.9% indicated contraception use was unknown. Use of contraception at the time of conception indicates contraceptive failure or misuse. Looking further into contraceptive methods used, 4.7% were noted to be using highly effective contraceptive methods (IUD or implant), 19.7% were using moderately effective methods (pill, patch, ring, shot, diaphragm), and 49.0% were using least effective methods (condoms, withdrawal, sponge, spermicide, natural family planning) (Figure 2). For the remaining 26.6%, type of method was unknown.

Failed Contraceptive Methods Used Among Women with Abortion, 2018

Figure 2. Among the women with failed contraceptive methods, 49.0% used less effective contraception and 4.7% used highly effective contraceptive methods.



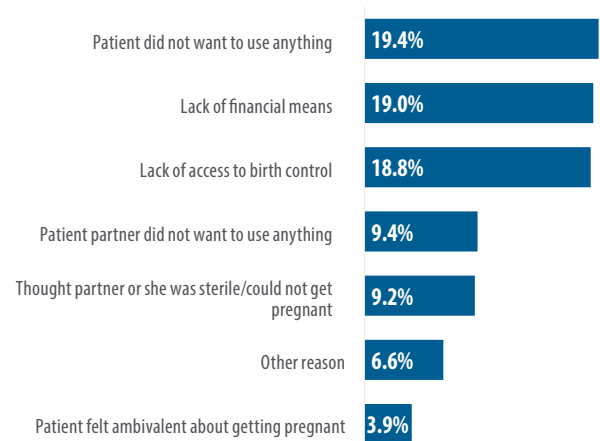
Utah Department of Health Abortion Data, 2018.

For results where contraceptive use was not used, 78.1% indicated that the reason was unknown. Among records where a reason for not using contraception was given, results are outlined in Figure 3.

The Women’s Preventive Services Initiative (WPSI) recommends that women have access to a full range of female-controlled contraceptives to prevent unintended pregnancy and improve birth outcomes.⁴ WPSI recommends counseling that emphasizes patient-centered decision-making and allows for discussion on several contraceptive options. In some cases, more than one visit is needed in order to identify the patient’s contraception method of choice and education of use to increase effectiveness of the method chosen.

Primary Reason for Not Using Contraception Among Women with Abortion in 2018

Figure 3. Top reasons given for not using contraceptives were not wanting to use anything, lack of financial means, and lack of access to birth control.



Utah Department of Health Abortion Data, 2018.

The most effective contraceptive methods are the costliest. However, with the 2020 expansion of Medicaid, more Utahans may qualify for coverage of contraceptives. For those ineligible for Medicaid, or insurance does not cover contraceptives, the University of Utah Family Planning Elevated Contraceptive Access Program covers the cost of family planning services for uninsured and under-insured clients who have household incomes between 139%–250% of the Federal Poverty Level.

More information about the Family Planning Elevated Program can be found at: <https://myfpe.org/patients/#clinic-locations>.

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1. Jatlaoui TC, Eckhaus L, Mandel MG, et al. Abortion Surveillance — United States, 2016. *MMWR Surveill Summ* 2019;68(No. SS-11):1–41. DOI: <http://dx.doi.org/10.15585/mmwr.ss6811a1>
 2. Utah Public Health Indicator Based Information System (IBIS). <https://ibis.health.utah.gov/ibisph-view/query/builder/birth/BirthPopCnty/BirthRate.html>
 3. Utah Vital Records. <https://vitalrecords.utah.gov/wp-content/uploads/Abortions-2018-Utah-Vital-Statistics.pdf>
 4. Women’s Preventive Services Initiative (WPSI). <https://www.womenspreventivehealth.org/recommendations/contraception/>

KEY FINDINGS

- Non-Hispanic Black and Asian or Pacific Islander residents in Utah had the highest rates of neonatal mortality between 2015–2017. Non-Hispanic Asian or Pacific Islander and American Indian or Alaska Native* residents in Utah had the highest rates of postneonatal mortality between 2015–2017 (Figure 2).
- Congenital malformations were the leading cause of neonatal death, at a rate of 116.8 neonatal deaths per 100,000 live births. Sudden Infant Death Syndrome was the leading cause of postneonatal death in Utah at a rate of 58 per 100,000 live births, followed by congenital malformations at 30 per 100,000 live births (Figure 3).

Infant Mortality in Utah by Age at Death, 2015–2017

Introduction

Infant mortality is an important indicator of public health and is on the decline in the United States.¹ Utah has seen an increase of infant mortality rates specifically in neonatal deaths. Factors for infant mortality within the neonatal period during the first 27 days of life reflect maternal health, prenatal care, congenital malformations, and hospital facilities. However, factors for infant mortality in the post-neonatal period during 28–364 days of life include infant sleep conditions, breastfeeding, and maternal health characteristics such as diabetes, obesity, and age which contributed to infant mortality.³ This report examines infant mortality rates and leading causes of death for infants born to Utah residents between 2015–2017.²

Methods

Birth certificate and death certificate data collected by the Utah Office of Vital Records and Statistics (OVRs) were used in this report which helped determine maternal demographics and Utah residency at the time of birth. The primary cause of death listed on the death certificate was used for cause of death in this report. Cause of death categorization was adopted from the Centers for Disease Control and Prevention (CDC).² All national infant mortality rates were obtained from the CDC and National Center for Health Statistics.⁴ The age at time of death was split between neonatal (<28 days) and postneonatal death (28–364 days) due to various risk factors related to age at death, and to help better understand contributing factors to the increase of infant mortality rates in Utah.

Results

How Utah Compares

In 2012, the national neonatal mortality rate met the Healthy People 2020 Maternal, Infant, and Child objective of no more than 4.1 neonatal deaths per 1,000 live births.^{4,5} Neonatal mortality rates in Utah met the objective with 4.1 in 2016 and exceeded the rate for the objective with 4.5 in 2017. This ranked in the worst 25% of all 50 states plus District of Columbia.⁴

Trends in Utah's Infant Mortality Rates

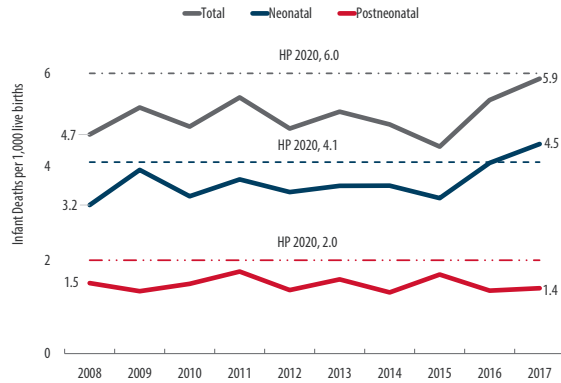
In Utah between 2008–2017, the overall infant, neonatal, and postneonatal mortality rates did not display a significant linear increase. However, the

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neonatal mortality rate increased by 36.4% from 2015 to 2017 (see Figure 1).

Total Infant, Neonatal, and Postneonatal Mortality Rates: Utah Residents, 2008–2017

Figure 1. Neonatal mortality rates increased from 3.2 in 2008 to 4.5 per 1,000 live births in 2017, while postneonatal mortality rate decreased from 1.5% in 2008 to 1.4 per 1,000 live births in 2017.



Note. The referenced Healthy People 2020 (HP 2020) goals are the following: Maternal, Infant, and Child (MICH) 1.3: Reduce the rate of all infant deaths (within 1 year); MICH 1.4: Reduce the rate of neonatal deaths (within the first 28 days of life); MICH 1.5: Reduce the rate of postneonatal deaths (between 28 days and 1 year). Source: Center of Disease Control and Prevention, WONDER online database.

Maternal Race and Hispanic Origin

Between 2015–2017, the mortality rate among infants born to non-Hispanic black women was 9.5 deaths per 1,000 births, compared with 8.5 among Asian or Pacific Islander, 5.5 among Hispanic, 5.0 among non-Hispanic white, and 3.6 among American Indian or Alaska Native infants (see Figure 2). Infants born to non-Hispanic black women also displayed the highest neonatal mortality rates at 8.0 per 1,000 births. American Indian or Alaska Native women displayed the lowest overall infant mortality rate, although, the postneonatal mortality rate was highest in these infants at 2.9 per 1,000 live births.

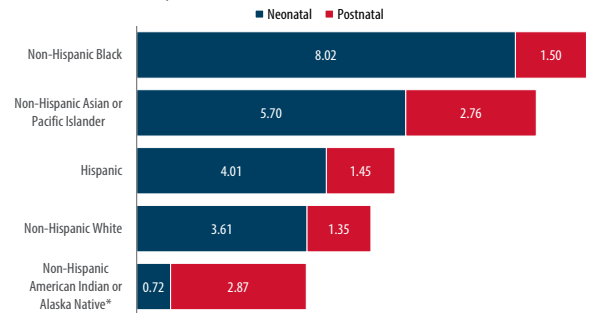
Infant Cause of Death Neonatal Mortality

For infants who died within the first 28 days of life, congenital malformations were the leading cause of neonatal death, at a rate of 117 neonatal deaths per 100,000 live births (see Figure 3). Additionally, the neonatal mortality rate from congenital malformations in Utah was significantly higher than the United States at a rate of 87 per 100,000 live births. The next highest

cause of neonatal death was low birthweight or short gestation (69 per 100,000 live births).

Total Neonatal and Postneonatal Mortality Rates, by Race/ Hispanic Origin: Utah Residents, 2015–2017

Figure 2. Non-Hispanic Black and Asian or Pacific Islander residents in Utah had the highest rates of neonatal mortality between 2015–2017. Non-Hispanic Asian or Pacific Islander and American Indian or Alaska Native* residents in Utah had the highest rates of postneonatal mortality between 2015–2017.



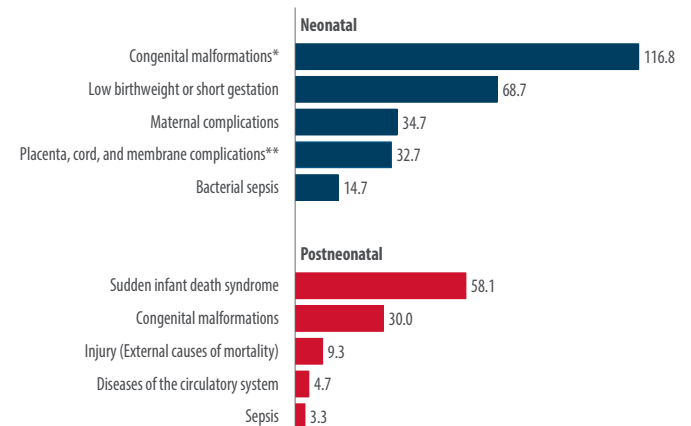
*Use caution in interpreting, the estimate has a coefficient of variation >30% and is therefore deemed unreliable by Utah Department of Health data reporting standards. Source: Center of Disease Control and Prevention, WONDER online database.

Postneonatal Mortality

Between 2015–2017, Utah’s postneonatal mortality rate of 1.5 per 1,000 births, was well below the national rate of 2.0. Among infants born to Utah residents, who died at 28–364 after birth, the leading cause of death was Sudden Infant Death Syndrome (58 per 100,000 live births), followed by congenital malformations (30 per 100,000 live births).

Cause of Infant Death per 1,000 Live Births in Utah, 2015–2017

Figure 3. Congenital malformations was the leading cause of neonatal deaths at 117 per 100,000 live births. SIDS was the leading cause of postneonatal deaths at 58 per 100,000 live births, followed by congenital malformations at 30 per 100,000 live births.



Note. All Cause of Death categories were adopted based on groupings made by the CDC and selected ICD-10 codes. *Utah was significantly greater than the U.S. rate of 87.1 (p < .01). **Utah was significantly greater than the U.S. rate of 21.7 (p < .01). Source: Center of Disease Control and Prevention, WONDER online database.

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Conclusion

Consistent with the nation as a whole, the postneonatal mortality rate decreased in Utah. However, the neonatal mortality rate in Utah has continued to be high at 4.5 per 1,000 live births in 2017, which was higher than the national rate of 3.9 and did not meet the Healthy People 2020 objective of 4.1. Utah also displayed a significantly higher rate of neonatal death due to congenital malformations compared to the national rate. Multiple factors may contribute to this, including a low abortion ratio compared to other states.⁶ Between 2007–2017, the Utah abortion rate significantly decreased. However, neither the overall neonatal mortality rate, nor the cause specific neonatal mortality rate due to congenital malformations displayed a significant change during this same period. Research indicates that as abortion rates increase, neonatal mortality rates decrease.⁷ As the expected linear relationship between abortion and neonatal mortality was not found, further investigation into the neonatal mortality rate in Utah is needed.

The Maternal and Infant Health Program (MIHP) works to address infant mortality in multiple ways including 1) reviewing data obtained from the Pregnancy Risk Assessment Monitoring System (PRAMS) and the Perinatal Mortality Review (PMR) program to identify modifiable risk factors for infant mortality and develop appropriate interventions; 2) making health information available on-line for researchers, students, health care professionals and the general public to increase awareness of factors associated with infant death (i.e. the Utah Indicator Based Information System [IBIS] and the MIHP websites); 3) promoting preconception and interconception health care for all women of childbearing age; 4) working to ensure high-risk infants are delivered at the most appropriate facility; and 5) collaborating with the Office of Health Disparities on targeted interventions toward decreasing infant mortality in populations most at-risk.

1. Jacob J. A. (2016). US infant mortality rate declines but still exceeds other developed countries. *JAMA*, 315(5), 451–452.
2. Ely, D. M., Driscoll, A. K., & Mathews, T. J. (2018). Infant mortality by age at death in the United States, 2016. *NCHS Data Brief*, no 326. Hyattsville, MD: National Center for Health Statistics.
3. Peck, M. G., Sappenfield, W. M., & Skala, J. (2010). Perinatal Periods of Risk: A Community Approach for Using Data to Improve Women and Infants' Health. *Matern Child Health J*, 14(6), 864–874.
4. United States Department of Health and Human Services (US DHHS), Centers of Disease Control and Prevention (CDC), National Center for Health Statistics (NCHS), Division of Vital Statistics (DVS). *Linked Birth / Infant Death Records 2007-2017*, on CDC WONDER On-line Database. Accessed at <http://wonder.cdc.gov/lbd-current.html>.
5. Healthy People 2020 [Internet]. Washington, DC: U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. Available from: <https://www.healthypeople.gov/2020/data-search/Search-the-Data#objid=4826>;
6. Jatlaoui, T. C., Eckhaus, L., Mandel, M. G., Nguyen, A., Oduyebo, T., Petersen, E., & Whiteman, M. K. (2019). Abortion Surveillance — United States, 2016. *MMWR Surveill Summ*, 68(11).
7. Farrant, B. M., Stanley, F.J., Hardelid, P., & Shepard, C.J. (2016). Stillbirth and neonatal death rates across time: the influence of pregnancy terminations and birth defects in a Western Australian population-based cohort study. *BMC Pregnancy and Childbirth*, 16(112), 1-11.

Emergency Department Visits During the COVID-19 Pandemic

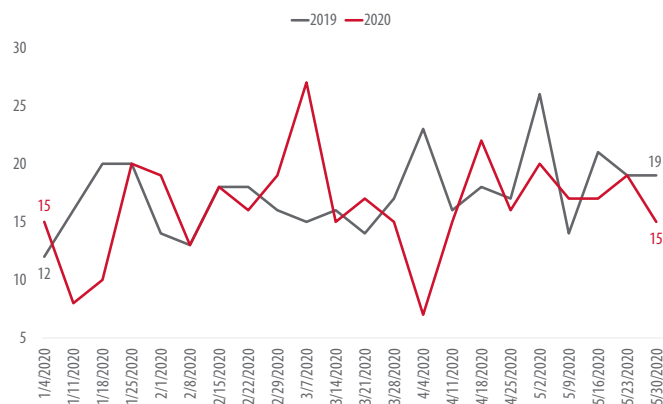
During periods of COVID-19 related stay-at-home orders and social distancing, some hospitals and healthcare systems across the nation have seen less patients visit emergency departments for serious health issues such as heart attack and stroke. Some researchers hypothesize these decreases could indicate patients are delaying or not seeking necessary care, with possible negative long-term health consequences. Preliminary data from the Utah Healthcare Facilities Database, maintained by the Office of Health Care Statistics at the Utah Department of Health, have not shown a decrease in the number of emergency department patients with primary diagnoses of cerebral infarction (stroke) or acute myocardial infarction (heart attack) over the period of January through May of this year (Figure 1).

While more emergency department data are needed for a complete status on these visits, early trends suggest that Utahns are still using the emergency department for the most serious health concerns at predictable levels. Future analyses may provide more conclusive evidence.

For more information and updated reports, please visit the Office of Health Care Statistics website at <https://stats.health.utah.gov>.

Acute Myocardial Infarction Emergency Department Visits in 7 Day Increments, Utah, 2019 vs. 2020

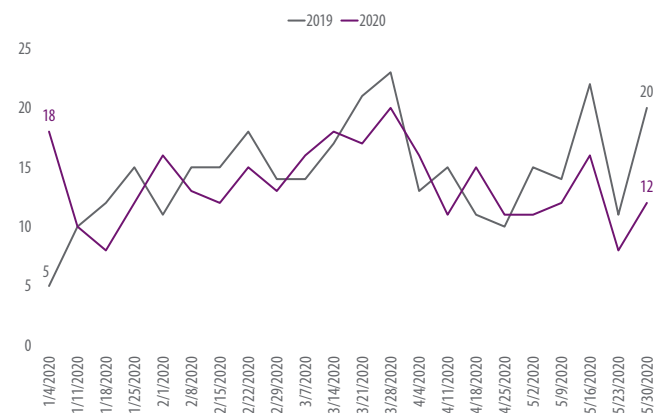
Figure 1. Emergency department visits with a primary diagnosis of acute myocardial infarction/cerebral infarction January 4th, 2020–May 29, 2020 have not shown a decrease compared to 2019.



Source: Utah Healthcare Facilities Databases, July 31, 2020

Cerebral Infarction Emergency Department Visits in 7 Day Increments, Utah, 2019 vs. 2020

Figure 2. Emergency department visits with a primary diagnosis of cerebral infarction January 4th, 2020–May 29, 2020 have not shown a decrease compared to 2019.



Source: Utah Healthcare Facilities Databases, July 31, 2020

1. "The Covid-19 Pandemic and the Incidence of Acute Myocardial Infarction", The New England Journal of Medicine. May 19, 2020.
2. "Delayed presentation of acute ischemic strokes during the COVID-19 crisis" Journal of NeuroInterventional Surgery. May 28, 2020.
3. "Reduction in ST-Segment Elevation Cardiac Catheterization Laboratory Activations in the United States During COVID-19 Pandemic", Journal of the American College of Cardiology. June 9, 2020.

Monthly Health Indicators

Monthly Report of Notifiable Diseases, July 2020	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>)	35	64	181	255	0.7
COVID-19 (SARS-CoV-2)	Cases updated at https://coronavirus.utah.gov/case-counts/ .				
Shiga toxin-producing <i>Escherichia coli</i> (<i>E. coli</i>)	15	20	83	53	1.6
Hepatitis A (infectious hepatitis)	0	2	7	2	2.9
Hepatitis B, acute infections (serum hepatitis)	1	2	2	8	0.2
Influenza*	Weekly updates at http://health.utah.gov/epi/diseases/influenza .				
Meningococcal Disease	0	0	1	0	--
Pertussis (Whooping Cough)	0	38	50	38	1.3
Salmonellosis (<i>Salmonella</i>)	30	38	118	170	0.7
Shigellosis (<i>Shigella</i>)	2	6	21	26	0.8
Varicella (Chickenpox)	2	10	49	114	0.4
West Nile (Human cases)	0	0	0	0	--
Quarterly Report of Notifiable Diseases, 2nd Qtr 2020	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†	17	33	52	61	0.8
Chlamydia	2,171	2,400	4,851	4,943	1.0
Gonorrhea	634	558	1,298	1,113	1.2
Syphilis	18	28	46	54	0.8
Tuberculosis	5	6	14	13	1.1
Medicaid Expenditures (in Millions) for the Month of July 2020	Current Month	Expected/ Budgeted for Month	Fiscal YTD	Budgeted Fiscal YTD	Variance over (under) Budget
Mental Health Services	-\$ 6.8	\$ 7.1	\$ 181.7	\$ 182.9	\$ (1.2)
Inpatient Hospital Services	7.9	8.5	203.9	205.7	(1.9)
Outpatient Hospital Services	1.7	1.6	43.6	44.8	(1.1)
Nursing Home Services	36.1	36.2	342.6	344.2	(1.6)
Pharmacy Services	1.6	1.8	124.1	125.6	(1.4)
Physician/Osteo Services‡	2.0	1.7	63.7	64.8	(1.1)
Medicaid Expansion Services	-10.4	-5.0	506.3	512.9	(6.6)
TOTAL MEDICAID	61.3	61.8	3,310.3	3,312.8	(2.5)

|| Updates for COVID-19 can be found at <https://coronavirus.utah.gov>. This includes case counts, deaths, number of Utahns tested for disease, and latest information about statewide public health measures to limit the spread of COVID-19 in Utah.

* More information and weekly reports for Influenza can be found at <http://health.utah.gov/epi/diseases/influenza>.

† 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 for West Nile Virus will start in June for the 2020 season.

Monthly Health Indicators

Program Enrollment for the Month of July	Current Month	Previous Month	% Change§ From Previous Month	1 Year Ago	% Change§ From 1 Year Ago
Medicaid	336,104	326,851	+2.8%	287,141	+17.1%
CHIP (Children's Health Ins. Plan)	16,354	16,524	-1.0%	17,528	-6.7%
Commercial Insurance Payments#	Current Data Year	Number of Members	Total Payments	Payments per Member per Month (PMPM)	% Change§ From Previous Year
Medical	2018	10,355,207	\$ 3,146,492,372	\$ 303.86	-0.9%
Pharmacy	2018	8,195,234	543,507,290	66.32	+3.6%
Annual Community Health Measures	Current Data Year	Number Affected	Percent \ Rate	% Change§ From Previous Year	State Rank** (1 is Best)
Obesity (Adults 18+)	2018	618,400	27.8%	+10.1%	13 (2018)
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 (2018)
Vaping, Current Use (Grades 8, 10, 12)	2019	37,100	12.4%	+11.3%	n/a
Binge Drinking (Adults 18+)	2018	236,700	10.6%	-7.7%	1 (2018)
Influenza Immunization (Adults 65+)	2018	182,300	52.0%	-7.1%	16 (2018)
Health Insurance Coverage (Uninsured)	2018	300,300	9.5%	-3.1%	n/a
Motor Vehicle Traffic Crash Injury Deaths	2018	239	7.6 / 100,000	-16.2%	8 (2018)
Drug Overdose Deaths Involving Opioids	2018	404	12.8 / 100,000	-0.9%	24 (2018)
Suicide Deaths	2018	665	21.0 / 100,000	-1.5%	46 (2018)
Unintentional Fall Deaths	2018	262	8.3 / 100,000	+14.8%	31 (2018)
Traumatic Brain Injury Deaths	2018	604	19.1 / 100,000	-6.5%	28 (2018)
Asthma Prevalence (Adults 18+)	2018	205,500	9.2%	+3.6%	21 (2018)
Diabetes Prevalence (Adults 18+)	2018	185,900	8.3%	+17.5%	12 (2018)
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%	20 (2018)
Coronary Heart Disease Deaths	2018	1,624	51.4 / 100,000	-5.8%	4 (2018)
All Cancer Deaths	2018	3,262	103.2 / 100,000	+1.3%	1 (2018)
Stroke Deaths	2018	919	29.1 / 100,000	+1.6%	24 (2018)
Births to Adolescents (Ages 15-17)	2018	363	4.9 / 1,000	-15.3%	10 (2018)
Early Prenatal Care	2018	35,975	76.2%	-1.0%	n/a
Infant Mortality	2018	255	5.4 / 1,000	-7.0%	24 (2017)
Childhood Immunization (4:3:1:3:3:1:4)††	2018	36,400	72.0%	+5.9%	22 (2018)

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

§ 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.

†† Data from 2018 NIS for children aged 24 months (birth year 2016).