Utah Health Status Update

KEY FINDINGS

- **Tele-Auditory Brainstem Response (ABR) testing is available in six sites across Utah: the Uintah Basin Hospital in Roosevelt, the Blue Mountain Hospital in Blanding, the public health departments in Fillmore, Price, and Moab, and the Integrated Services Program in Ogden (Figure 2).**
- **Due to the availability of tele-audiology, 100% of infants in Roosevelt who needed tele-auditory brainstem Response testing completed a full diagnostic audiological evaluation in 2020 (Figure 3).**

Use of Tele-Audiology for Diagnostic Testing After Failed Newborn Hearing Screening

Newborns undergo their first hearing screening approximately 10-12 hours after birth.[1] If the test indicates a failed hearing screening, the infant is tested again before discharge during the inpatient stage. Approximately 5% of newborns will fail as an inpatient.[2] Infants with failed hearing screenings during the inpatient stage receive another hearing screening by 14 days of age as an outpatient. Approximately 10% of the infants who fail inpatient screenings will also fail outpatient screenings.[2] Data collected over the 23 years of universal newborn hearing screening in Utah show one in four infants who fail both the inpatient and outpatient screenings will be diagnosed with permanent hearing loss.

Infants who fail newborn inpatient and outpatient hearing screenings undergo Auditory Brainstem Response (ABR) testing to assess the functional status of the auditory neural pathway to determine the presence of hearing loss. Auditory brainstem response tests are conducted by an audiologist with expertise in testing infants to diagnose typical or atypical hearing. It is a specialized hearing test where recordings are made of the infant's brain waves in response to sound. Audiologists from the Utah Department of Health Early Hearing Detection and Intervention (EHDI) program offer remote testing to facilitate timely diagnostic testing. The Utah Early Hearing Detection and Intervention program is the only program in the nation to offer this remote service and was the first to study whether tele-auditory brainstem response tests were a feasible option for rural and frontier families to obtain their diagnostic audiological evaluation after a failed newborn hearing screening.

Tele-auditory brainstem response tests are completed by a remote audiologist and a trained host at the testing site who welcomes the family and helps them be comfortable. The site host prepares the infant for testing by placing electrodes on their head and inserting earphones in their ears (Figure 1). Then the audiologist takes over the test equipment remotely and conducts the evaluation. The audiologist, host, and family communicate throughout the testing process. The host remains with the family ensuring connections and conducts troubleshooting if needed.

Feature article continued

Tele-Auditory Brainstem Response Testing

Figure 1. The infants in the photos are an example of an infant undergoing auditory brainstem response testing via tele-audiology.

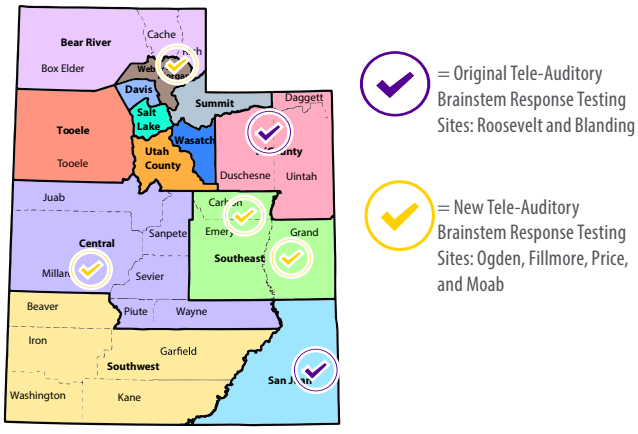
Source: The Utah Department of Health Early Hearing Detection & Intervention program.

After testing is complete, the audiologist explains the results to the family and answers any questions. There are a limited number of audiologists who can complete this test.

Currently, six sites across Utah have the equipment and training to act as the host for the tele-auditory brainstem response testing (Figure 2). The longest running sites include the Uintah Basin Hospital in Roosevelt since 2017 and the Blue Mountain Hospital in Blanding since 2018. More recently added sites include public health department sites located in Fillmore, Price, and Moab (since 2021); and the Integrated Services Program in Ogden (since 2021).

Tele-Auditory Brainstem Response Test Sites in Utah

Figure 2. The map of the 13 Utah Local Health Districts shows the locations available to perform tele-auditory brainstem response testing via tele-audiology.

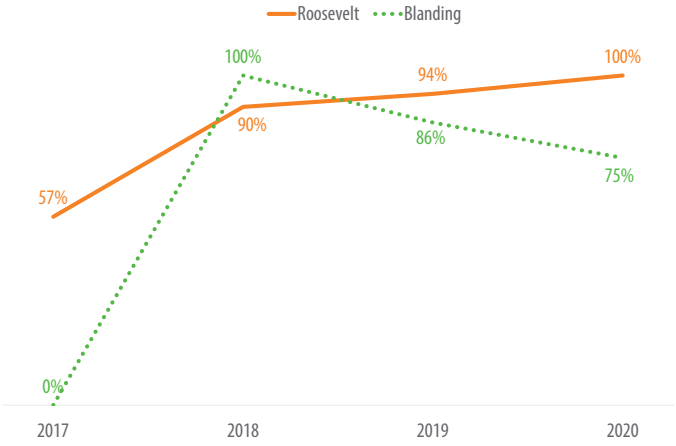


Source: The Utah Department of Health Early Hearing Detection & Intervention program.

In 2017, 57% of infants received auditory brainstem response testing in Roosevelt. Out of the five infants who needed testing in Blanding, not one was tested. No tele-audiology sites were available. The introduction of tele-auditory brainstem response testing in these areas helped increase testing to 75% in Blanding and 100% in Roosevelt as of 2020 (Figure 3).

Percentage of Infants Who Received Auditory Brainstem Response Testing Who Needed It, Roosevelt and Blanding, Utah, 2017–2020

Figure 3. The percentage of infants who received auditory brainstem response testing who needed it increased in Roosevelt from 2017 to 2020.



Source: The Utah Department of Health Early Hearing Detection & Intervention, HiTrack data management system.

These data indicate the availability of tele-auditory brainstem response tests for families in rural areas could increase their ability to complete diagnostic audiological testing for their infant.

For more resources or information on the Utah Early Hearing Detection and Intervention Program visit, https://health.utah.gov/cshcn/programs/ehdi.html.

1. Utah Department of Health Early hearing Detection and Intervention. Accessed 01/21/2022. https://health.utah.gov/cshcn/pdf/EHDI/Utah%20EHDI%20Well-baby%20NBHS%20and%20Diagnostic%20Protocol.pdf
2. The Utah Department of Health Early Hearing Detection & Intervention HiTrack Data Management System (Utah Births 2002–2021)

Spotlights

Identifying the Top Drivers of Hospitalizations in Utah, 2020

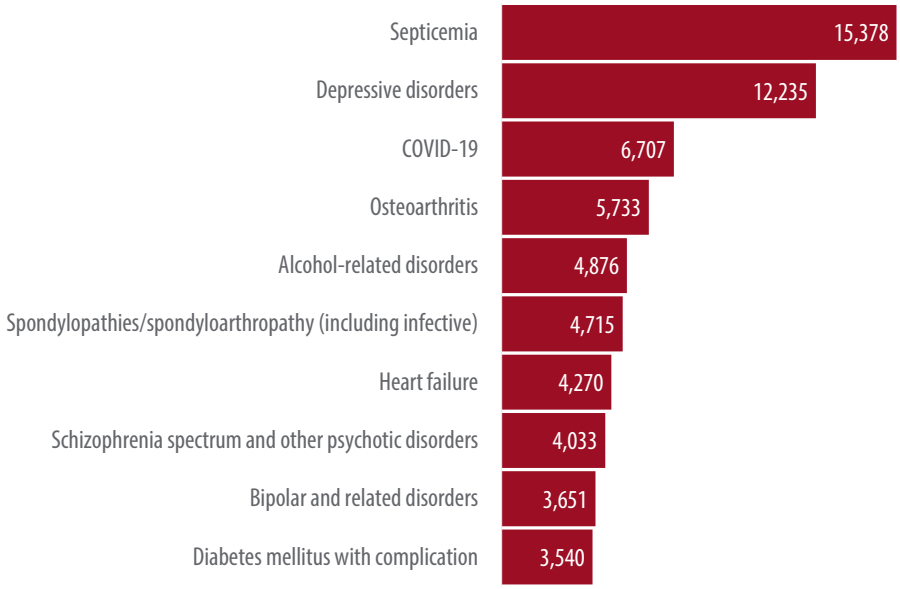
The Utah Department of Health Office of Health Care Statistics (OHCS) collects, analyzes, and disseminates health care data to help understand cost, quality, access, and value in Utah healthcare systems and identify opportunities for improvement. The Office of Health Care Statistics used the Healthcare Facility Database to identify the top drivers of hospitalizations in 2020. The Healthcare Facility Database contains encounter records for all licensed hospitals, emergency rooms, and ambulatory surgery centers in Utah. Inpatient records date from 1992 and other encounters date from 1996. These data represent all hospitalizations, emergency department visits and ambulatory surgeries, and diagnostic procedures performed in Utah regardless of payer contribution and contain information about providers, patients, and billed charges.

According to a publication by the Agency for Healthcare Research and Quality (AHRQ), "Identifying the most frequent primary conditions for which patients are admitted to the hospital is important to the implementation and improvement of healthcare delivery, quality initiatives, and health policy."[1] Identification of the top diagnoses for inpatient stays in Utah helps focus on needs for healthcare delivery and quality with establishing health priorities, initiatives, and action plans to inform planning and allocate resources for high priority conditions.[1]

The Office of Health Care Statistics uses Clinical Classifications Software Refined, which is a database field supplied by a vendor. This field organizes Principal Diagnosis Code values into clinical categories. The following graph contains the top ten most frequent principal diagnoses among non-maternal, non-neonatal inpatient stays using Utah 2020 inpatient data. In 2020, the top three principal diagnoses were septicemia (15,378 encounters), depressive disorders (12,235 encounters), and COVID-19 (6,707 encounters).

Top Ten Most Frequent Principal Diagnoses Among Non-maternal and Non-neonatal Inpatient Stays, Utah, 2020

Figure 1. Septicemia, depressive disorders, and COVID-19 were the top three most diagnisosed reasons for inpatient stays in Utah.



Source: 2020 Utah Healthcare Facility Database Inpatient data.

1. Most Frequent Principal Diagnoses for Inpatient Stays in U.S. Hospitals, 2018, Agency for Healthcare Research and Quality, McDermott and Roemer, 2021. https://www.hcup-us.ahrq.gov/reports/statbriefs/sb277-Top-Reasons-Hospital-Stays-2018.pdf

Monthly Health Indicators

Monthly Report of Notifiable Diseases, December 2021	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)*	23	32	543	532	1.0
COVID-19 (SARS-CoV-2)||	Cases updated at https://coronavirus.utah.gov/case-counts/.				
Shiga toxin-producing *Escherichia coli (E. coli)*	9	9	225	158	1.4
Hepatitis A (infectious hepatitis)	2	10	12	68	0.2
Hepatitis B, acute infections (serum hepatitis)	1	1	15	20	0.8
Influenza*	Weekly updates at http://health.utah.gov/epi/diseases/influenza.				
Meningococcal Disease	0	0	1	2	0.4
Pertussis (Whooping Cough)	1	17	81	310	0.3
Salmonellosis *(Salmonella)*	24	20	323	353	0.9
Shigellosis *(Shigella)*	4	4	61	60	1.0
Varicella (Chickenpox)	5	18	68	187	0.4
Quarterly Report of Notifiable Diseases, 4th Qtr 2021	**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†	34	29	132	129	1
Chlamydia	2,633	2,614	11,206	10,342	1.1
Gonorrhea	907	728	3,620	2,699	1.3
Syphilis	45	32	212	130	1.6
Tuberculosis	10	7	17	25	0.7
Medicaid Expenditures (in Millions) for the Month of December 2021	**Current Month**	**Expected/ Budgeted for Month**	**Fiscal YTD**	**Budgeted Fiscal YTD**	**Variance over (under) Budget**
Mental Health Services	$7	$7	$108	$110	($1.5)
Inpatient Hospital Services	$15	$16	$94	$96	($1.8)
Outpatient Hospital Services	$3	$3	$17	$19	($1.4)
Nursing Home Services	$18	$17	$112	$113	($0.8)
Pharmacy Services	$12	$11	$69	$71	($1.5)
Physician/Osteo Services‡	$4	$3	$33	$34	($0.9)
Medicaid Expansion Services	$89	$87	$544	$544	($0.3)
***TOTAL MEDICAID	**$296**	**$295**	**$2,121**	**$2,122**	**($0.3)**

|| Comparisons include previous data year 2020. 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.

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

***The Total Medicaid Program costs do not include costs for the PRISM project.

Monthly Health Indicators

Program Enrollment for the Month of December	Current Month	Previous Month	% Change§ From Previous Month	1 Year Ago	% Change§ From 1 Year Ago
Medicaid	449,645	445,195	+1.0%	382,186	+17.7%
CHIP (Children's Health Insurance Plan)	8,263	8,458	-2.3%	15,906	-48.1%
Commercial Insurance Payments#	**Current Data Year**	**Number of Members**	**Total Payments**	**Payments per Member per Month (PMPM)**	**% Change§ From Previous Year**
Dental	2020	5,667,256	$ 154,748,044	$27.31	N/A
Medical	2020	11,631,161	$ 3,365,207,356	$289.33	-3.8%
Pharmacy	2020	10,845,512	$ 889,492,538	$82.01	+9.4%
Annual Community Health Measures	**Current Data Year**	**Number Affected**	**Percent \ Rate**	**% Change From Previous Year**	**State Rank** (1 is Best)**
Suicide Deaths	2020	651	20.0 / 100,000	-1.90%	40 (2019)
Asthma Prevalence (Adults 18+)	2020	250,600	10.80%	9.10%	39 (2020)
Poor Mental Health (Adults 18+)	2020	540,700	23.30%	7.90%	37 (2020)
Influenza Immunization (Adults 65+)	2020	261,400	68.50%	7.20%	23 (2020)
Drug Overdose Deaths Involving Opioids	2020	432	13.3 / 100,000	7.30%	20 (2019)
Unintentional Fall Deaths	2020	651	20.0 / 100,000	-1.90%	17 (2019)
Infant Mortality	2020	366	11.3 / 100,000	4.60%	17 (2018)
Traumatic Brain Injury Deaths	2020	2,272	69.9 / 100,000	6.10%	15 (2019)
Obesity (Adults 18+)	2020	663,700	28.60%	-2.10%	13 (2020)
Diabetes Prevalence (Adults 18+)	2020	188,000	8.10%	1.30%	17 (2020)
Births to Adolescents (Ages 15–17)	2020	318	4.1 / 1,000	7.70%	10 (2018)
Childhood Immunization (4:3:1:3:3:1:4)††	2019	49,400	80.00%	17.60%	7 (2019)
Motor Vehicle Traffic Crash Injury Deaths	2020	299	9.2 / 100,000	27.60%	7 (2019)
High Blood Pressure (Adults 18+)	2020	598,700	25.80%	5.70%	7 (2019)
Cigarette Smoking (Adults 18+)	2020	206,500	8.90%	1.10%	1 (2020)
Binge Drinking (Adults 18+)	2020	264,500	11.40%	0.90%	1 (2020)
Coronary Heart Disease Deaths	2020	1,853	57.0 / 100,000	12.00%	1 (2020)
All Cancer Deaths	2020	3,459	106.4 / 100,000	3.70%	1 (2020)
Stroke Deaths	2020	916	28.2 / 100,000	-1.00%	1 (2020)
Child Obesity (Grade School Children)	2018	38,100	10.60%	11.60%	n/a
Vaping, Current Use (Grades 8, 10, 12)	2019	37,100	12.40%	11.30%	n/a
Health Insurance Coverage (Uninsured)	2020	383,500	11.80%	-6.30%	n/a
Early Prenatal Care	2020	34,716	75.90%	0.00%	n/a

§ Relative percent change. Percent change could be due to random variation.
# Figures subject to revision as new data is processed.
** State rank in the United States based on age-adjusted rates where applicable.
†† Data from 2019 NIS for children aged 24 month (birth year 2017).