Utah health status update

Key findings

- In 2019, 98.4% of all Utah newborns were screened by 1 month, 75.6% of infants with failed screening received diagnostic testing by 3 months, and 49.5% of infants with hearing loss were enrolled in early intervention services by 6 months of age which exceeded national averages (Figure 1).

- Infants of mothers with lower levels of education, mothers who identify as American Indian, Medicaid recipients, and infants who live in rural counties were less likely to achieve hearing screening, diagnostic, and intervention goals (Figure 2).
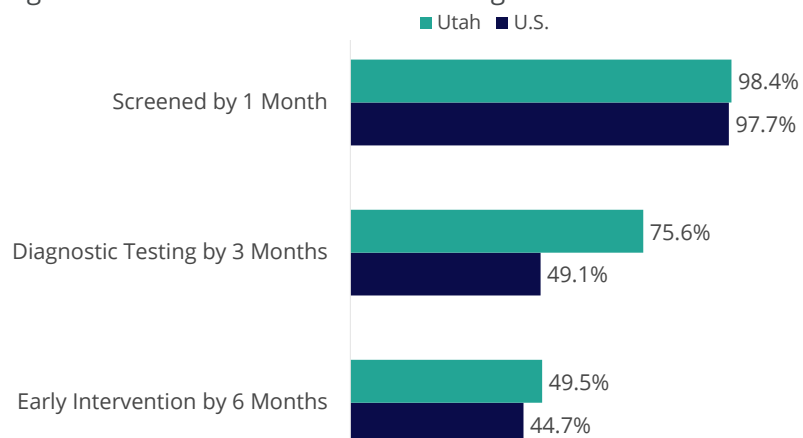
Newborn hearing screening in underserved populations

The first months of life are a critical period for brain development especially for infants who are born deaf or hard of hearing.[1] If identified early and provided timely and appropriate intervention services, these infants demonstrate better outcomes in the areas of vocabulary development,[1] receptive language,[2] expressive language,[3] and social-emotional development.[4] As a result, every state in the U.S. has an early hearing detection and intervention (EHDI) program. These programs strive to meet the national EHDI 1-3-6 guidelines, defined as 1–screening all infants for hearing loss no later than 1 month of age, 3–ensuring those who failed their hearing screen receive a diagnostic audiologic evaluation no later than 3 months of age, and 6–enrolling infants with identified hearing loss in early intervention services no later than 6 months of age.[5]

In 2019, 98.4% of all Utah newborns were screened by 1 month, 75.6% of infants who did not pass their screening received diagnostic testing by 3 months, and 49.5% of infants with hearing loss were enrolled in early intervention services by 6 months of age (Figure 1). Rates in Utah were above the national averages of 97.7%, 49.1%, and 44.7% (Figure 1).

Percentage of infants who received early hearing detection and intervention 1-3-6 guidelines, Utah vs. U.S., 2019
Figure 1. The percentage of children achieving each EHDI 1-3-6 guideline is higher in Utah than the national average.

Legend: Utah ■ U.S.

	Utah	U.S.
Screened by 1 Month	98.4%	97.7%
Diagnostic Testing by 3 Months	75.6%	49.1%
Early Intervention by 6 Months	49.5%	44.7%

Source: The Utah Department of Health early hearing detection & intervention, HiTrack data management system.
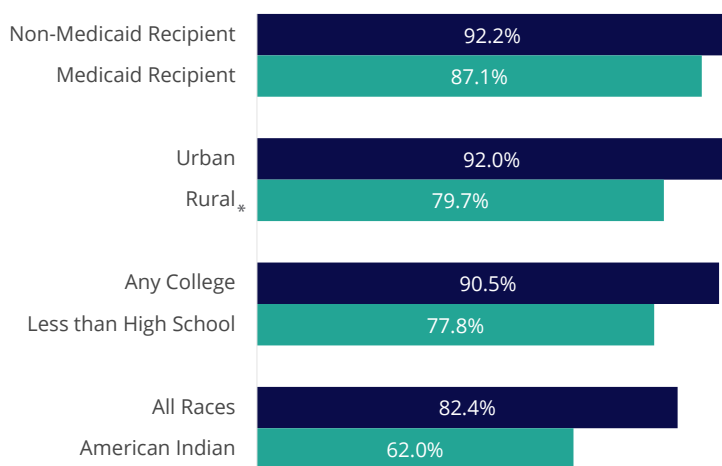
Feature article continued

The Utah Department of Health and Human Services (DHHS) EHDI program's focus is to improve rates of timely hearing testing and intervention. To understand the highest need among Utah populations, 1-3-6 data were analyzed from infants born during 2017 to 2021, focusing on underserved populations such as mothers with lower levels of formal education, racial and ethnic minorities, rural[7] households, or those receiving Medicaid. Infants of mothers with lower levels of education, mothers who identify as American Indian, Medicaid recipients, and infants who live in rural counties were less likely to achieve hearing screening, diagnostic, and intervention goals (Figure 2).

Percentage of infants who failed initial hearing screening who received diagnostic evaluation by 3 months of age, by demographic characteristics, Utah, 01/01/2017–06/30/2021

Figure 2. Infants of mothers with lower levels of education, mothers who identify as American Indian, Medicaid recipients, and infants who live in rural counties were less likely to have follow-up diagnostic evaluation by 3 months of age.

Demographic	Percentage
Non-Medicaid Recipient	92.2%
Medicaid Recipient	87.1%
Urban	92.0%
Rural*	79.7%
Any College	90.5%
Less than High School	77.8%
All Races	82.4%
American Indian	62.0%

Source: The Utah Department of Health Early Hearing Detection & Intervention, HiTrack data management system.
*Rural counties have a population density of fewer than 99 people per square mile, but greater than 6 people per square mile.[7]

Tailored services to assist populations who most often fail to meet these benchmarks will help families in need. Targeted services for people who are American Indian and people who live in rural areas, as well as Medicaid recipients and individuals with less than a high school education, would provide more services for families who need them most. The DHHS EHDI program works collaboratively with families and health providers to ensure all children who are diagnosed as deaf or hard of hearing complete 1-3-6 goals to improve outcomes for speech, language, academic, social, and emotional development.

For more resources or information about the DHHS EHDI program visit, https://health.utah.gov/cshcn/programs/ehdi.html.

1. Mayne AM, Yoshinaga-Itano C, Sedey AL, Carey A. Expressive vocabulary development of infants and toddlers who are deaf or hard of hearing. Volta Rev. 1998;100(5):1-28.

2. Kennedy CR, McCann DC, Campbell MJ, et al. Language ability after early detection of permanent childhood hearing impairment. N Engl J Med. 2006;354(20):2131-2141. doi:10.1056/NEJMoa054915.

3. Watkin P, McCann D, Law C, et al. Language ability in children with permanent hearing impairment: the influence of early management and family participation. Pediatrics. 2007;120(3):e694-e701. doi:10.1542/peds.2006-2116.

4. Yoshinaga-Itano C, Sedey A, Coulter D, Mehl A. Language of early-and later-identified children with hearing loss. Pediatrics. 1998;102(5):1161-1171. doi:10.1542/peds.102.5.1161.

5. Year 2019 Position Statement: Principles and Guidelines for Early Hearing Detection and Intervention Programs. Journal of Early Hearing Detection and Intervention, 4(2), 1-44. DOI: https://doi.org/10.15142/fptk-b748

6. Centers for Disease Control and Prevention. (2022, February 2). 2019 annual data early hearing detection and intervention (EHDI) program. Centers for Disease Control and Prevention. Retrieved March 3, 2022, from https://www.cdc.gov/ncbddd/hearingloss/ehdi-data2019.html

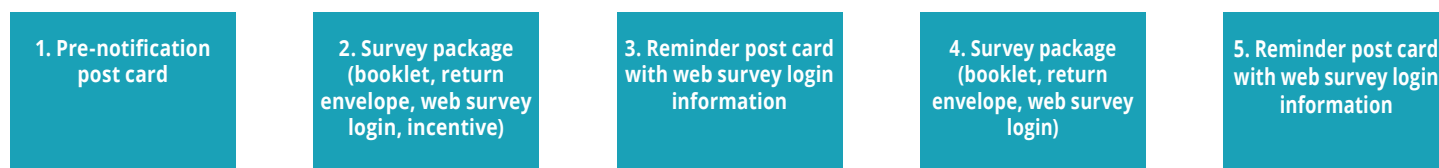7. Utah Department of Health Office of Primary Care and Rural Health. (2018). County Classifications Map. Utah Department of Health. Retrieved March 3, 2022, from https://ruralhealth.health.utah.gov/portal/county-classifications-map/

Use of address-based sampling to conduct Utah's adult tobacco surveys

Monitoring trends in tobacco-related behaviors and attitudes is critical for Utah's efforts to reduce tobacco-related disease and deaths. Due to the high cost of reaching small populations of people who smoke cigarettes or use other tobacco products with telephone surveys, the Utah Department of Health and Human Services (DHHS) Tobacco Prevention and Control Program (TPCP) worked with its independent evaluation team at RTI International to explore the feasibility of surveying Utah adult tobacco users with an address-based sampling (ABS) method.

The ABS method is a probability-based sampling approach using address lists such as the United States Postal Service Computerized Delivery Sequence file.[1] The ABS frame has the advantage of allowing stratification by geography since the frame contains the address of each frame member. The RTI and TPCP teams used geographic stratification from Utah Health Improvement Index (HII) classifications. The methodology used to create Utah HII is based on Singh's Area Deprivation Index (ADI).[2] Utah HII is a measure of health equity for Utah's 99 small heath areas. Areas with higher HII scores, which indicate greater health disparities, were oversampled to obtain more responses from communities with a greater risk for tobacco use and other health disparities. A multi-step weighting process was used to reflect the demographic characteristics of Utah adults.

Tobacco survey process using the address-based sampling method
Figure 1. The ABS survey included five mailings to recruit households to participate in the survey via booklet or web login.

1. Pre-notification post card	2. Survey package (booklet, return envelope, web survey login, incentive)	3. Reminder post card with web survey login information	4. Survey package (booklet, return envelope, web survey login)	5. Reminder post card with web survey login information

Source: Utah Department of Health, Tobacco Prevention and Control Program (TPCP)

The DHHS TPCP ABS pilot project was completed in the fall of 2020 with a response rate of 54.2%. Most respondents completed the web survey (81.4%) and 18.6% completed the survey booklet. The 2021 response rate was slightly lower at 48.8% with comparable proportions of respondents choosing the web survey and booklet options. Web survey respondents received a higher incentive of $20 because they had more questions to answer compared with respondents who received $10 from the completed survey booklets. The Utah DHHS TPCP uses the survey results to plan and evaluate policies and interventions to prevent tobacco and nicotine addiction and increase access to quit services for all Utahns.

1.   United States Postal Service https://about.usps.com/postal-bulletin/2001/html/pb22057/a-d.html#:~:text=The%20Delivery%20Sequence%20File%20(DSF,to%20all%20USPS%20addressing%20standards.

2.   Singh, GK. Area deprivation and widening inequalitites in US mortality, 1969–1998. American Journal of Public Health. 2003; 93(7):1137–1143.

Utah Department of Health & Human Services

Monthly health indicators

Monthly report of notifiable diseases, April 2022	Current month # cases	Current month # expected cases (5-yr average)	# cases YTD	# expected cases YTD (5-yr average)	YTD standard morbidity Ratio (obs/exp)
Campylobacteriosis (Campylobacter)	37	41	142	144	1.0
COVID-19 (SARS-CoV-2)||	Weekly updates at				
Shiga toxin-producing Escherichia coli (E. coli)	11	10	43	37	1.2
Hepatitis A (infectious hepatitis)	<5	<5	<5	25	0.2
Hepatitis B, acute infections (serum hepatitis)	<5	<5	<5	6	0.2
Influenza*	Updates at http://health.utah.gov/epi/diseases/influenza				
Meningococcal disease	<5	<5	<5	<5	n/a
Pertussis (whooping cough)	<5	25	24	135	0.2
Salmonellosis (salmonella)	38	24	108	84	1.3
Shigellosis (shigella)	6	3	24	16	1.5
Varicella (chickenpox)	10	15	25	62	0.4

Quarterly report of notifiable diseases, 4th quarter 2021	Current quarter # cases	Current quarter # expected cases (5-yr average)	# cases YTD	# expected cases 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 April 2022	Current month	Expected/ budgeted for month	Fiscal YTD	Budgeted fiscal YTD	Variance over (under) budget
Mental health services	$32	$32	$192	$193	($1.3)
Inpatient hospital services	$20	$21	$205	$206	($1.3)
Outpatient hospital services	$3	$3	$30	$32	($2.0)
Nursing home services	$113	$113	$282	$282	($0.8)
Pharmacy services	$16	$16	$124	$125	($0.9)
Physician/osteo services‡	$22	$21	$76	$77	($0.6)
Medicaid expansion services	$166	$166	$935	$937	($1.7)
***Total Medicaid	$693	$692	$3,797	$3,797	($0.2)

|| 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 April	Current month	Previous month	% change§ from previous month	1 year ago	% change§ from 1 year ago
Medicaid	466,728	463,131	+0.8%	409,039	+14.1%
CHIP (Children's Health Insurance Plan)	7,381	7,621	-3.1%	15,207	-51.5%

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)††	2020	47,970	74.6%	-2.5%	19 (2020)
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 2020 NIS for children aged 24 month (birth year 2018).