Utah health status update

The link between Utah Healthy Places Index and health outcomes

Chronic disease in Utah

Chronic diseases, like diabetes and heart disease, are the leading causes of death and disability in the U.S. and in Utah. These diseases also contribute to high healthcare costs and worse quality of life. Tobacco use, lack of exercise, and poor diet all contribute to chronic diseases. These behaviors and other risk factors are influenced by the social and community conditions into which people are born, live, work, and play. This includes things like education, income, transportation, and housing. Utah has developed a tool to help map community conditions.

Utah Healthy Places Index

The Utah Healthy Places Index (HPI) is a mapping tool that helps community leaders understand how community conditions affect health. These conditions include things like jobs, education, and transportation. The Utah HPI looks at 22 factors that impact health and life expectancy (Figure 1), which can be very different between neighborhoods. Each geographic area across Utah gets a Utah HPI score, ranking it to other parts of the state. The map shows the score

Figure 1. 22 factors in 8 policy action areas make up the Utah HPI composite score

Transportation	Economic	Housing
• automobile access • bike lane access • traffic volume	• above poverty • employed • per capita income	• homeownership • housing habitability • low-income homeowner sever-housing cost burden • low-income renter severe housing cost burden • uncrowded housing
Clean environment • diesel PM • ozone • PM 2.5	**Social** • census self-response rate • voting	
Neighborhood • park access • tree canopy	**Healthcare access** • insured adults	**Education** • Bachelor's education • high school enrollment • preschool enrollment

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by quartiles, with dark blue showing the least healthy conditions (quartile 1) and dark green showing the most healthy conditions (quartile 4) (Figure 2).

The community conditions that impact health can be very different within each area. For instance, an area with a high overall Utah HPI score, indicating more healthy community conditions, may have gaps in some conditions. For example they may have excellent access to healthcare, jobs, and education, but have less healthy conditions related to transportation or housing (Figure 2).

The impact of community conditions

The Utah HPI score measures community conditions that are known to impact health. This project looked at how Utah HPI scores relate to health outcomes and risk factors. Behavioral Risk Factor Surveillance System (BRFSS) data from 2020–2022 was used to compute rates of chronic disease per Utah HPI quartile. Utah HPI quartile was compared to Utah rates of diabetes, obesity, asthma, cigarette smoking, lack of exercise, and overall health to better understand the link between Utah HPI scores and chronic disease related health

Figure 2. Utah Healthy Places Index (HPI) map example
The Utah HPI displays detailed data on community conditions across the 8 policy action areas. Community conditions range from less healthy (dark blue) to more healthy (dark green).
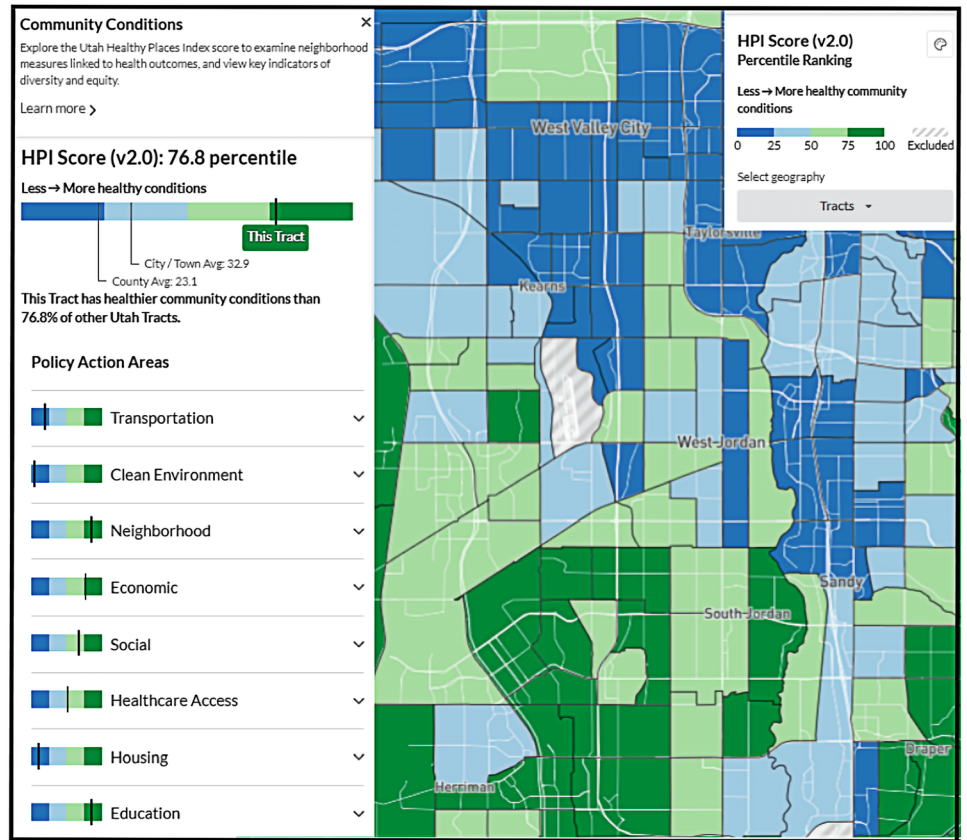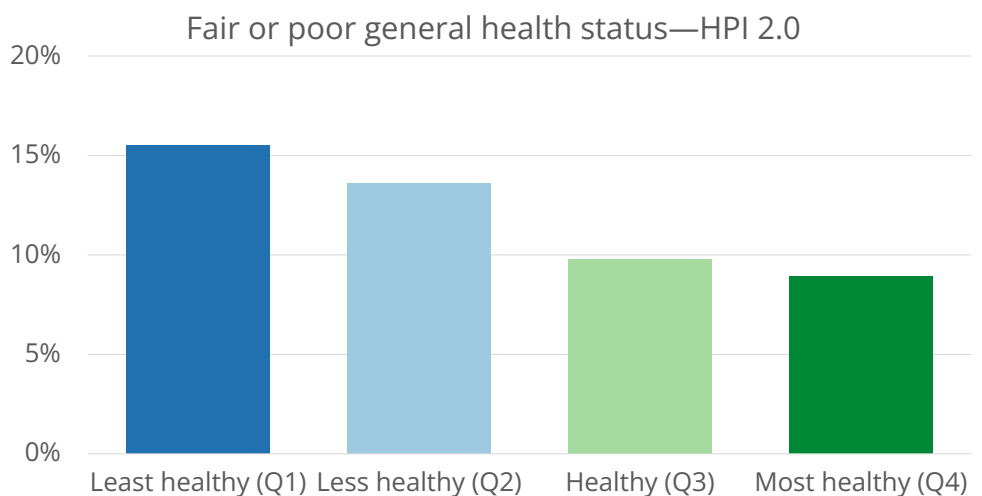

Figure 3. The rate of Utahns reporting fair or poor general health status by Healthy Places Index quartile, 2020–2022
Communities with the least healthy conditions had the highest rate of people reporting fair or poor general health, with the rate dropping with each quartile.

Source: Utah Healthy Places Index

outcomes at the community level.

Communities with the least healthy community conditions had the highest rate of people reporting fair or poor general health (15.5%) with the rate dropping as community conditions improved (Figure 3). Current smoking rate follows the same trend. Among Utahns living in the least healthy communities, 11.1% of people reported smoking. In contrast, only 4.6% of Utahns living in the most healthy communities reported smoking (Figure 4). The rates of self-reported diabetes, obesity, and lack of exercise also improved as the HPI quartile increased. Current asthma was the only health outcome evaluated that did not vary by Utah HPI quartile as expected. The percentage of people who reported current asthma between 2020 and 2022 ranged from 11.7% in Q2 to 9.4% in Q4 (Figure 5).

There was a strong link between Utah HPI score quartiles and 5 of the 6 selected risk factors and health outcomes. This suggests that the Utah HPI tool can be used to support investments in community conditions that may improve many health outcomes. A focus on community conditions may impact a number of chronic diseases and other conditions in Utah.

Community-level, rather than individual-level, approaches can have a larger impact and support neighborhoods where everyone has the chance to make healthy choices and lead full lives. Strategies like

Figure 4. The rate of Utahns reporting current cigarette smoking by Healthy Places Index quartile, 2020–2022
11.1% of people in Q1 reported smoking compared to 4.6% of people living in Q4.

Current smoking—HPI 2.0
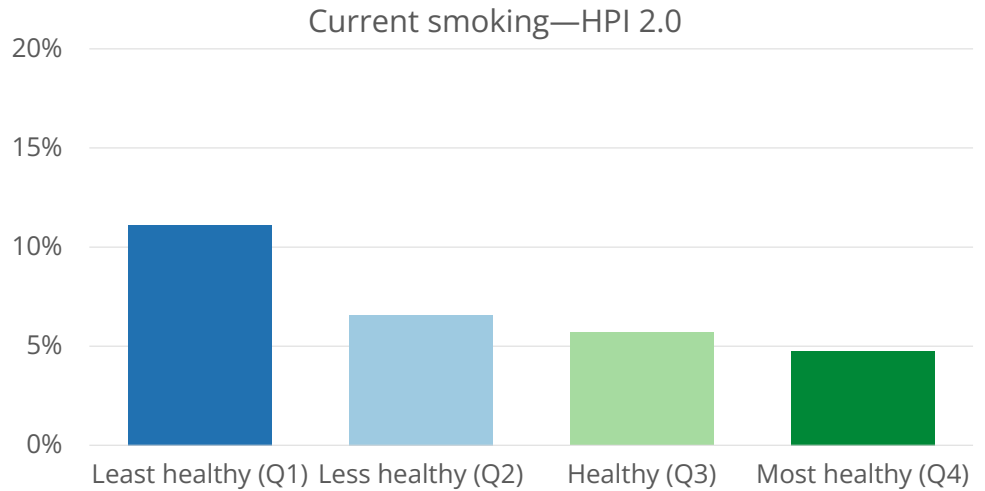
Source: Utah Healthy Places Index

Figure 5. The rate of Utahns reporting current asthma by Healthy Places Index quartile, 2020–2022
The percentage of people that reported current asthma in 2020–2022 ranged from 11.7% in Q2 to 9.4% in Q4.

Current asthma—HPI 2.0
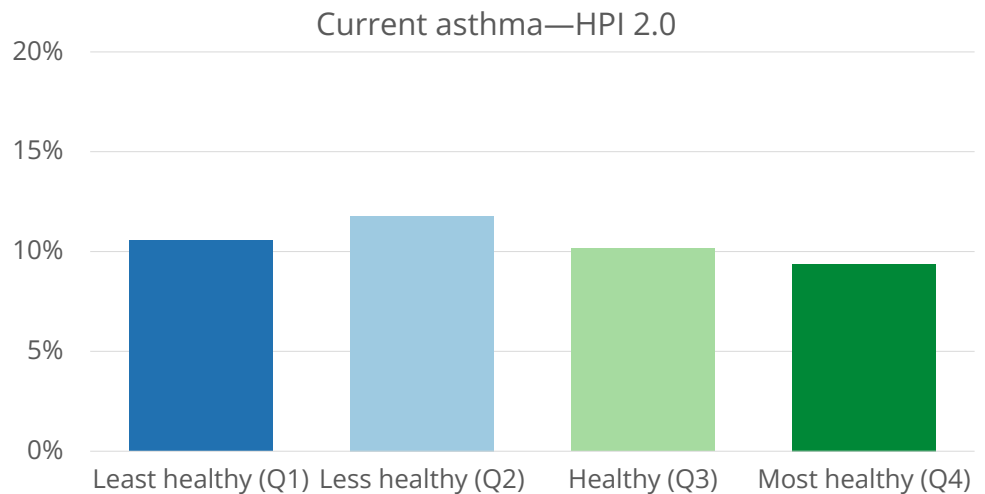
Source: Utah Healthy Places Index

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Housing partners have used the Utah HPI to:	Transportation partners have used the Utah HPI to:	Municipal partners have used the Utah HPI to:
Add to the scoring criteria for the Utah Housing Corporation's Utah Housing Credit Program.	Educate transportation planners on the ties between the transportation network and quality of life. Direct programs and planning resources. Identify policy opportunities to improve the health of communities through transportation networks.	Create profiles for the 5 Provo neighborhood districts. The profiles helped start conversations with city leadership about community assets and potential policy opportunities.

adding parks and safe walking routes and increasing access to healthy foods can improve many health outcomes. These approaches require collaboration since this work is often led by non-health sectors. The Utah HPI can be used to highlight areas where changes in the community could have the most impact (see text box). The Utah HPI policy guides provide a wide range of evidence-based actions to make changes at the community level (Figure 6).

Prior work has shown that focusing on social drivers of health, such as access to food, transportation, and housing can have a large rate of return in healthcare cost savings. The benefits of prevention-focused public health are far reaching. Focusing on community-level approaches helps support Utahns across the lifespan and helps to make sure that all Utahns live in healthy and thriving communities.

Accessing the Utah HPI

Anyone can access the platform and use it for free. To access the map and more resources visit http://dhhs.utah.gov/UtahHPI. The Utah HPI was developed by the Utah Department of Health and Human Services in partnership with the Public Health Alliance of Southern California, creators of the California Healthy Places Index™.

1. Chronic disease in Utah:
https://www.cdc.gov/nchs/pressroom/states/utah/ut.htm.

Figure 6. Utah HPI policy guides
The Utah HPI policy guides provide evidence-based opportunities to improve community conditions.

Preterm birth

Key findings

- Mothers who don't get enough healthcare while they are pregnant* have nearly 3 times higher risk of a preterm birth.

- Medical conditions including high blood pressure, diabetes, and infections** dramatically increase the risk of preterm birth.

- Other risk factors for preterm birth include not gaining enough weight during pregnancy and having a gap of less than a year between pregnancies.

- Improved access to reproductive healthcare and education addresses several risk factors for preterm birth, such as teenage pregnancies, short periods of time between pregnancies, and sexually transmitted infections.

Understanding preterm birth

Babies born before 37 weeks of pregnancy are preterm which means they are born too early. Preterm birth is the leading cause of death and disability in infants in the U.S.[1] For every 1,000 preterm births, 29 result in an infant death, compared to 2 out of 1,000 term births.[2] Preterm birth also costs much more than other births. Preterm births cost the nation $25 billion more per year ($64,815 more per preterm birth) than the average cost of term births.[3]

Over the last decade, the rate of preterm births has gone up slightly in Utah, from 9.3% between 2014 and 2016 to 9.5% between 2021 and 2023. In 2021, the rate reached a high of 9.9% for all births.[4]

Analysis of preterm birth risk factors

We used data from birth certificates and the Pregnancy Risk Assessment Monitoring System (PRAMS) survey to understand who is at higher risk of preterm birth in Utah. Our study focused on births to Utah residents that took place between 2019 and 2022, and did not include multiple births, such as twins or triplets. We looked at factors shown by prior research to increase risk of preterm birth. These factors include chronic health conditions, mother's age, prenatal care, weight gain during pregnancy, mental health conditions, stressful life events, the time between pregnancies, smoking habits, and certain types of infections.

Results from birth certificate data

Between 2019 and 2022, 7.7% of the 178,333 single births in Utah were preterm. We found that the most significant risk factor of preterm birth is the presence of high blood pressure, which nearly triples the risk. Pregnant women with more than one chronic condition have more than double the risk of preterm birth. We found that many other factors cause a smaller increase in the risk of preterm birth, including age, not gaining enough weight during pregnancy, and having a gap of less than a year between pregnancies (Figure 1).

*Having enough healthcare during pregnancy is based on when prenatal care starts and the total number of visits.
**Infections included chlamydia, cytomegalovirus (CMV), gonorrhea, hepatitis A, B, and C, herpes, HIV/AIDS, and syphilis.

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Results from PRAMS data

We used PRAMS data to look at other risk factors for preterm birth. These risk factors either are not found on birth certificates or are more likely to be reported truthfully in a survey than on a medical form. Out of the 177,850 single births in the sample, 7.3% were preterm.

The most significant risk factor found is not getting enough healthcare during pregnancy, which nearly triples the risk of preterm birth. Women who smoke during pregnancy also have two times higher risk of preterm birth than those who do not. Additional risk factors include stress, depression, and anxiety (Figure 2).

Reducing preterm birth in Utah

These results highlight many risk factors that should be addressed to reduce preterm birth in Utah. The Utah Department of Health and Human Services (DHHS) will continue to work with health systems and providers to promote preventive health visits before pregnancy, work to prevent and help manage chronic conditions, improve access to healthcare during pregnancy, and provide resources for mental health and substance use to reduce preterm birth in Utah.

Figure 1. Age-adjusted relative risk of preterm birth by risk factors, singleton births to Utah residents, Utah Birth Certificate Database, 2019–2022 (N = 178,333)
The greatest risk factors for preterm birth in this study include having one or more chronic conditions, younger maternal age, a maternal infection, and not gaining enough weight.
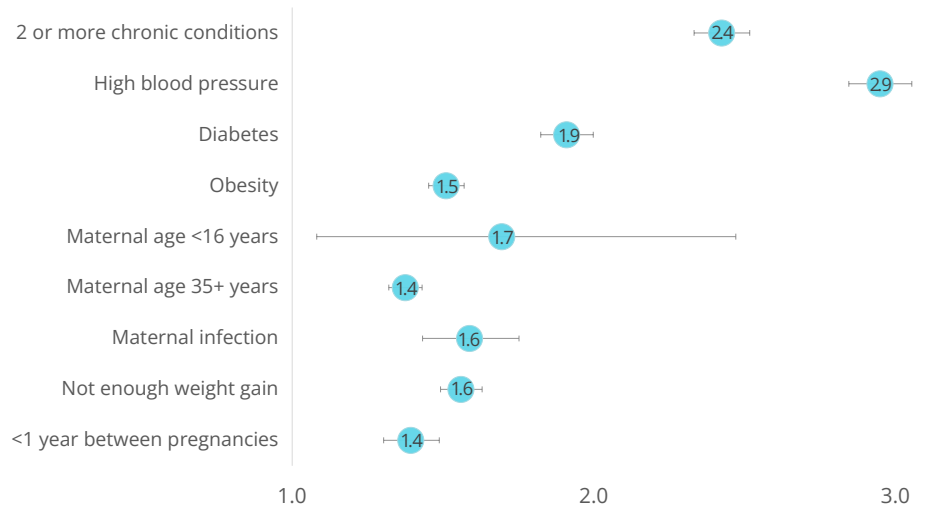
Data notes: Risk ratios for age are unadjusted; all other estimates are age-adjusted. High blood pressure and diabetes include both pre-existing or pregnancy-related conditions. Multiple chronic conditions include being obese or underweight, having pre-existing or pregnancy-related high blood pressure or diabetes, or thyroid disease. Enough weight gain uses CDC recommendations based on pre-pregnancy body mass index. Time between pregnancies (between the most recent delivery and subsequent conception) includes still and live births.

Figure 2. Age-adjusted relative risk of preterm birth by risk factors, singleton births in the Utah PRAMS sample, 2019–2022 (N = 177,850)
Not enough healthcare during pregnancy, smoking before or during pregnancy, partner stress, depression, and anxiety are the greatest risk factors for preterm birth in this study.
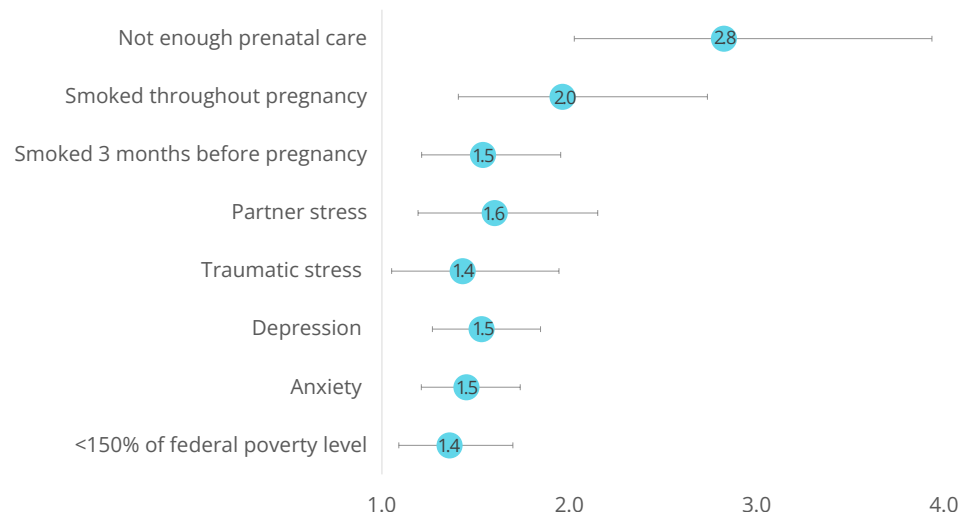
Data notes: Stress variables refer to the 12 months before the birth. Partner stress includes divorce or separation, or a partner not wanting the pregnancy. Traumatic stress includes going to jail or prison, a partner going to jail or prison, experiencing homelessness, or physical, emotional, or sexual abuse. Depression and anxiety include symptoms that occur during pregnancy or in the 3 months before.

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The DHHS Office of Maternal and Child Health works closely with hospitals, community and faith-based organizations, and clinics to promote understanding and best practices around maternal mental health and substance use. Between 2017 and 2019 this office also worked with hospitals to improve care for patients who have high blood pressure. Collectively, Utah will improve preterm birth rates and other poor outcomes linked to these conditions if we work collaboratively to maintain these efforts, expand them to other settings, and address other chronic health issues such as diabetes and obesity.

Another important way to reduce preterm birth is to help women quit smoking. The DHHS Office of Medicaid provides free tobacco cessation programs for pregnant women who are covered by Medicaid. The Utah Tobacco Quit Line also provides resources to quit smoking for women who are not covered by Medicaid.

Helping women get enough healthcare during their pregnancy is another important way to prevent preterm birth. There are a lot of reasons women do not get enough prenatal care. These may include not having insurance, not being able to afford care even with insurance, transportation barriers, living in an area where there are not enough providers or clinics, and having scheduling or childcare challenges. Offering telehealth services for prenatal care, especially in rural areas, could help reduce some of these barriers.

The Maternal Resource Guide has details about services offered in the community, many of which could help reduce the risk of preterm birth and other poor birth outcomes. These services include accessible transportation options and reimbursement for rural residents to attend prenatal care visits, help applying for Medicaid, childcare support, mental health and substance use services, domestic violence support, and housing aid.

Improved access to reproductive healthcare and education also addresses several risk factors for preterm birth, such as teenage pregnancies, short periods of time between pregnancies, and sexually transmitted infections.

1. March of Dimes. (2024). Prematurity Profile. Retrieved from Peristats: https://www.marchofdimes.org/peristats/tools/prematurityprofile.aspx?reg=99#:~:text=Consequences%20of%20Preterm%20Birth&text=Prematurity%20is%20the%20leading%20cause,and%20vision%20and%20hearing%20impairment.

2. Centers for Disease Control and Prevention, National Center for Health Statistics. National Vital Statistics System, Linked Birth / Infant Deaths on CDC WONDER Online Database. Data are from the Linked Birth / Infant Deaths Records 2017-2022, as compiled from data provided by the 57 vital statistics jurisdictions through the Vital Statistics Cooperative Program. Accessed at http://wonder.cdc.gov/lbd-current-expanded.html on Feb 18, 2025 03:34:01 PM

3. Waitzman NJ, Jalali A, Grosse SD. Preterm birth lifetime costs in the United States in 2016: An update. *Semin Perinatol.* 2021;45(3):151390. doi:10.1016/j.semperi.2021.151390

4. Utah Birth Certificate Database. (2014–2023). Retrieved Mon, 06 January 2025 from the Utah Department of Health and Human Services, Indicator-Based Information System for Public Health website: https://ibis.utah.gov/ibisph-view/

Next of kin interview results from the Office of Medical Examiner: sleep problems among people who died from an accidental overdose

Many people who use drugs struggle with sleep issues.[1] The relationship between sleep problems and drug use is involved. Drug use can lead to sleep problems. And, having trouble sleeping can make someone more likely to start using drugs or have more drug problems.[2]

In Utah, the Department of Health and Human Services (DHHS) Office of the Medical Examiner talks to the next of kin (family members or people close to the person who died) of people who died by suicide or from accidental drug overdoses. This is done to learn more about what happened before the death. When asked about sleep habits, more than half of the next-of-kin (54%) reported that the person who died had sleep problems. This finding highlights a possible missed opportunity for intervention.

You increase the risk of developing serious health problems when you don't get enough sleep.[3] Additionally, sleep issues can make things worse for people who use drugs. Poor sleep can lead to stronger cravings for drugs and make withdrawal symptoms worse.[1] It can also increase the chances of someone going back to drug use.[1] This information highlights why it's so important to recognize and treat sleep problems, especially for those who use drugs. Visit the Centers for Disease Control and Prevention sleep page to learn more about the importance of sleep habits and what to do if you commonly have trouble sleeping or have signs of a sleep disorder.

Just 14% of Utahns who died by an accidental overdose were reported to have no sleep problems.

Unknown sleep habits, but appeared tired 2.6%

No sleep problems 14.1%

Sleep problems 54.5%

Unknown sleep habits 28.8%
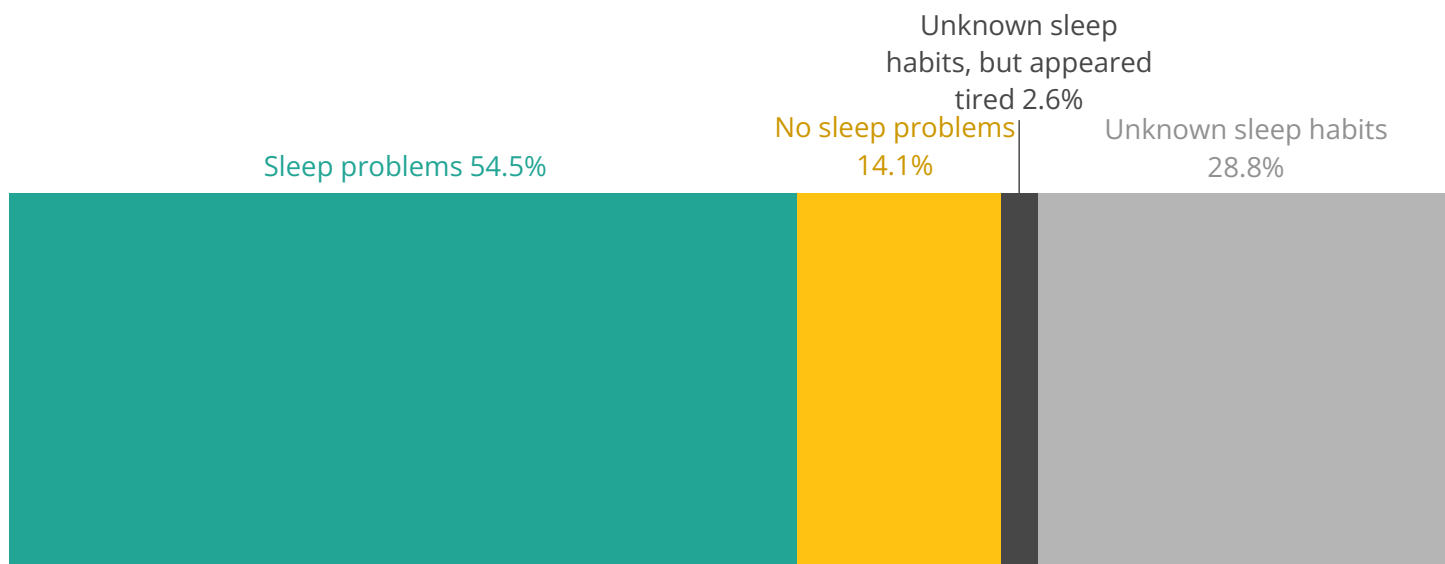
Source: Office of the Medical Examiner

1. National Institute on Drug Abuse. Co-Occurring Disorders and Health Conditions. https://nida.nih.gov/research-topics/co-occurring-disorders-health-conditions#treatment

2. National Heart, Lung, and Blood Institute. NIH HEAL Initiative: Science taking on pain, opioid misuse—and poor sleep. https://www.nhlbi.nih.gov/news/2019/nih-heal-initiative-science-taking-pain-opioid-misuse-and-poor-sleep

3. Sleep - Healthy People 2030. https://odphp.health.gov/healthypeople/objectives-and-data/browse-objectives/sleep