

# Traumatic Brain Injury (TBI)

Knowledge and Awareness Survey

Utah, 2017 Data



UTAH DEPARTMENT OF  
**HEALTH**  
Violence & Injury Prevention Program



**Increasing awareness and knowledge of TBIs can help prevent them from occurring in the first place.**



Almost 40% of Utahns reported low levels of TBI knowledge in 2017.



The majority (70%) of respondents were not aware of any services or treatment for a TBI.



Approximately one out of every 14 Utah households has an individual who has ever sustained or suffered a TBI.



The most difficult reported challenges due to a TBI were memory and thinking problems.



Behavioral issues and transportation are the two most commonly reported types of assistance needed by households with individuals who have suffered a TBI.

## Data Methods

In 2017, the Utah Department of Health Violence and Injury Prevention Program (UDOH VIPP) conducted a random digit dial survey among Utah adults aged 18+ to understand the level of awareness and knowledge of TBIs and to collect information regarding households which had one or more individuals who have suffered from a TBI. This report highlights some of the survey findings and recommendations.

A sample of 1,003 Utahns aged 18+ responded to the 2017 TBI survey. Response options “don’t know/not sure”, “other”, and “refused” were removed from the denominator when appropriate. Data was weighted using 2016 population estimates and household estimates. The survey was previously conducted in 2014. Hospitalization discharge data comes from the Utah Indicator Based Information System for public health. Etiology data comes from the Utah TBI Database.

The Utah State Legislature established a Traumatic Brain Injury Fund in 2008. The funds are used to: 1) educate Utahns on TBI treatment and prevention; 2) provide evaluations and coordinate short-term care for persons with a TBI and; 3) develop an information referral system for persons with a TBI and their families. To learn more, visit [health.utah.gov/tbi/](http://health.utah.gov/tbi/).

## Knowledge of TBIs

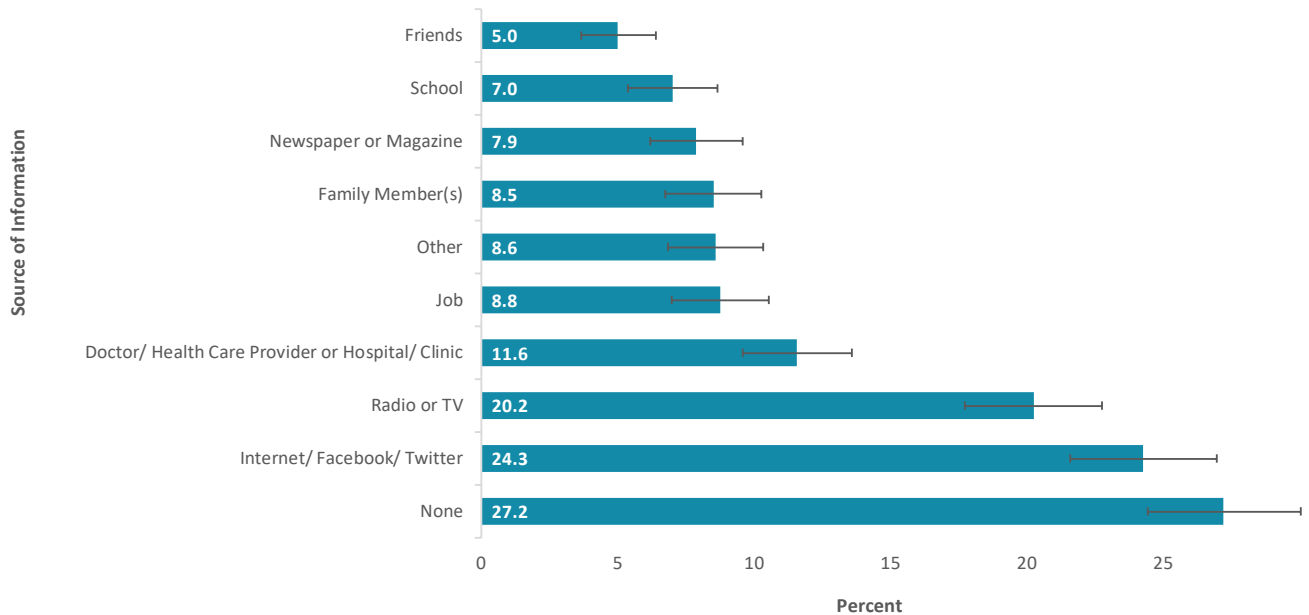
**Approximately 40 percent of Utahns reported that they were not very knowledgeable about TBIs in 2017.**

Fortunately, awareness and knowledge of TBIs had an upward trend over recent years. In 2014, only 20.3 percent of Utahns reported being knowledgeable, very knowledgeable, or extremely knowledgeable of TBIs compared to 26.2 percent in 2017.

## Source of TBI Information

Most Utahns got their information about TBIs from the Internet/Facebook/Twitter (24.3 percent) or radio/TV (20.2 percent) (**Figure 1**). **Over a quarter (27.2 percent) of Utahns responded having no source for TBI information (Figure 1).**

**Figure 1: Percentage of Respondents Reporting Source of TBI Information, Utah Adults, 2017 (N=1,003)**



**Note:** Categories are not mutually exclusive. Respondents were able to report all of their sources of TBI information (more than one) and were not given a predefined list.

\*Unable to recategorize the “other” responses.

## Recommendations

The following local resources provide TBI information:

- Brain Injury Alliance of Utah [biau.org](http://biau.org)
- Phoenix Services [www.phoenixservices.org](http://www.phoenixservices.org)
- Utah Home and Community Base Services Waiver Program [health.utah.gov/ltc](http://health.utah.gov/ltc)
- Utah TBI Fund [health.utah.gov/tbi](http://health.utah.gov/tbi)

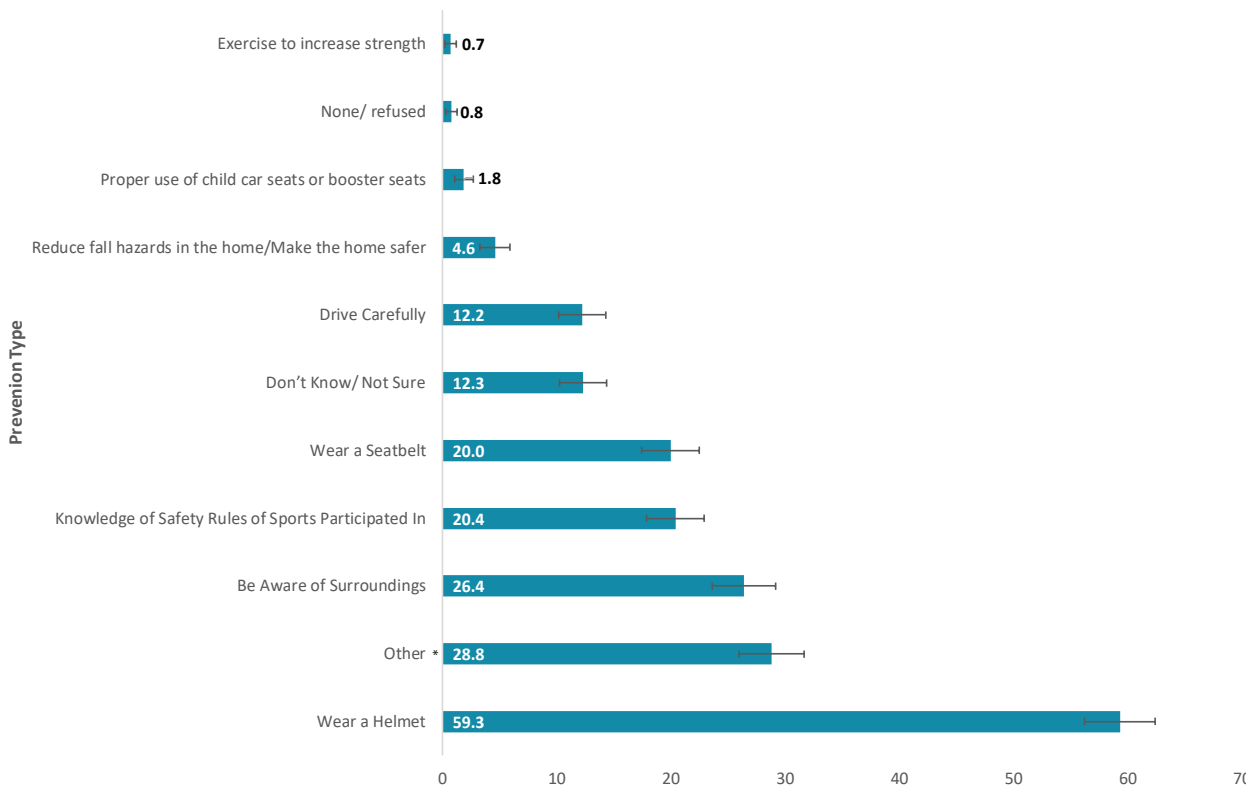
## Leading Causes of TBIs

In Utah in 2013, about half (52.2 percent) of TBI hospitalizations and deaths were the result of a fall. The majority of these injuries occurred among adults aged 65 and older. Motor vehicle traffic crashes (11.3 percent) and recreational activities (7.6 percent) were also leading causes of TBI hospitalizations and deaths in Utah. <sup>1</sup> Most Utahns (84.5 percent) were aware of at least one of the top three causes of a TBI. However, approximately one out of every nine (11.6 percent) Utahns could not identify one of the leading causes of a TBI.

## Preventing TBIs

Wearing a helmet was the most reported prevention strategy (59.3 percent) (Figure 2). Approximately one out of every eight Utahns (12.3 percent) did not know at least one way to prevent a TBI (Figure 2).

**Figure 2: Percentage of Respondents Reporting Ways to Prevent a TBI, Utah Adults, 2017 (N=1,003)**



**Note:** Respondents were asked for up to five prevention strategies of a TBI and were not given a predefined list.  
 \*Unable to recategorize the “other” responses.

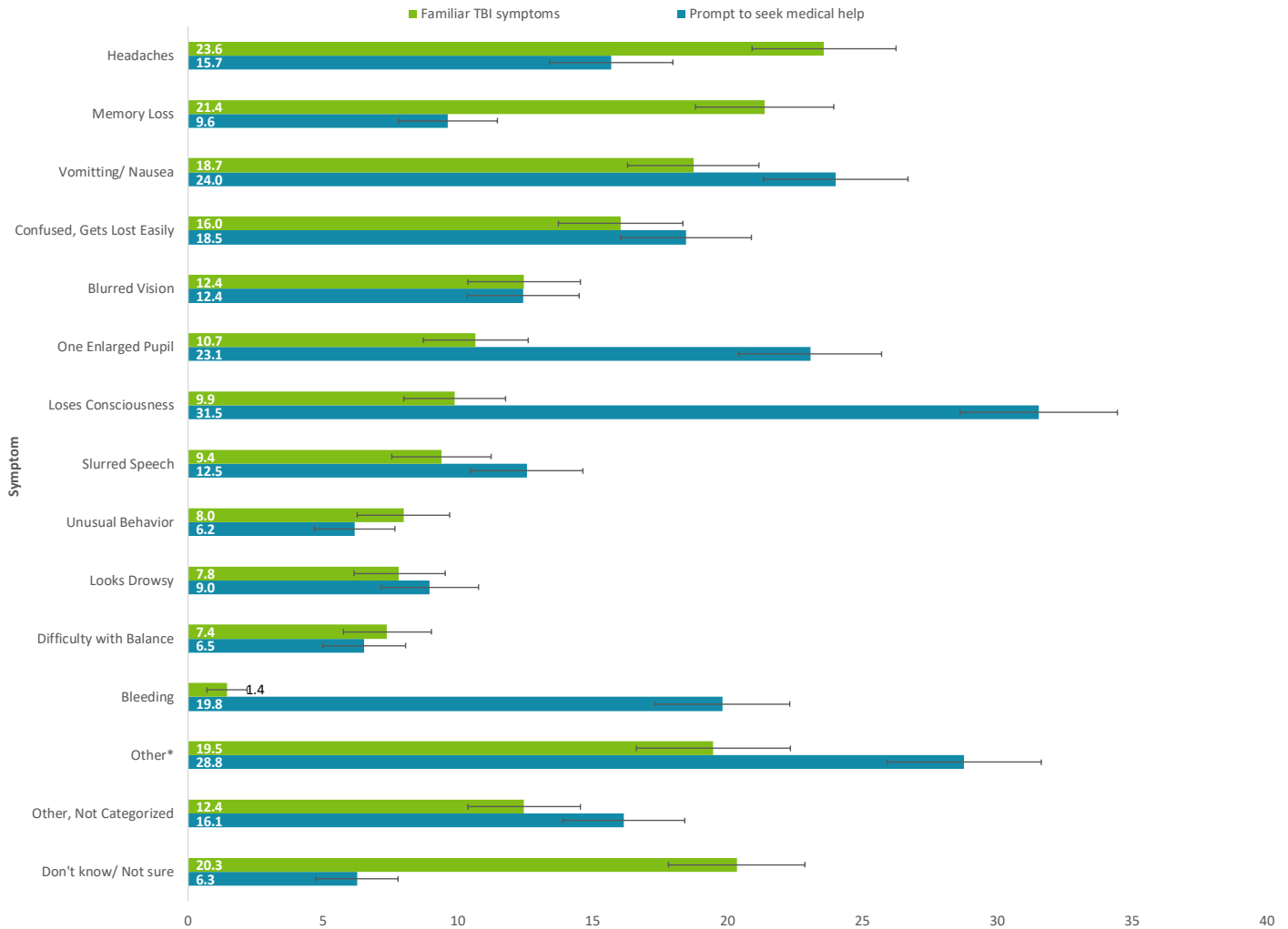
## Recommendations

There are many ways to prevent a TBI, including: appropriately used car seats, booster seats, and helmets, stair gates at home, and soft surfaces at playgrounds.<sup>2</sup> Check out the CDC’s HEADS UP Rocket Blades : [www.cdc.gov/headsup/resources/app.html](http://www.cdc.gov/headsup/resources/app.html), a mobile game app on concussion safety for children. Also the CDC’s HEADS UP program educates parents, coaches, and health care providers on concussion safety at [www.cdc.gov/headsup/index.html](http://www.cdc.gov/headsup/index.html).

# TBI Symptoms and Seeking Help

The majority of individuals are familiar with one or more TBI signs or symptoms (79.7 percent). Headaches (23.6 percent), memory loss (21.4 percent), and vomiting/nausea (18.7 percent) were the top three reported TBI signs and symptoms among survey respondents (Figure 3). Respondents were most likely to seek medical help if they witnessed a person injured or hurt their head and then that person lost consciousness (31.5 percent), vomitted or had nausea (24.0 percent), or had an enlarged pupil (23.1 percent) (Figure 3).

**Figure 3: Percentage of Respondents Reporting TBI Symptoms and Likelihood to Seeking Medical Help for Each Symptom, Utah Adults, 2017 (N=1,003)**



**Note:** Respondents were able to report up to four responses and were not given a predefined list.  
 \*Other includes: cannot recognize people/places; ringing in ears; sensitivity to light/noise; weakness/numbness; decreased coordination; difficulty completing daily tasks; convulsions/seizures; increased agitation; or physical impairment.

## Recommendations

Generally, signs and symptoms of a TBI show up soon after a head injury. However, some TBI symptoms may not show up for hours or even days. It may be difficult to tell how serious a head injury is, so it's important to continue to check for signs of a TBI for a few days after the injury.

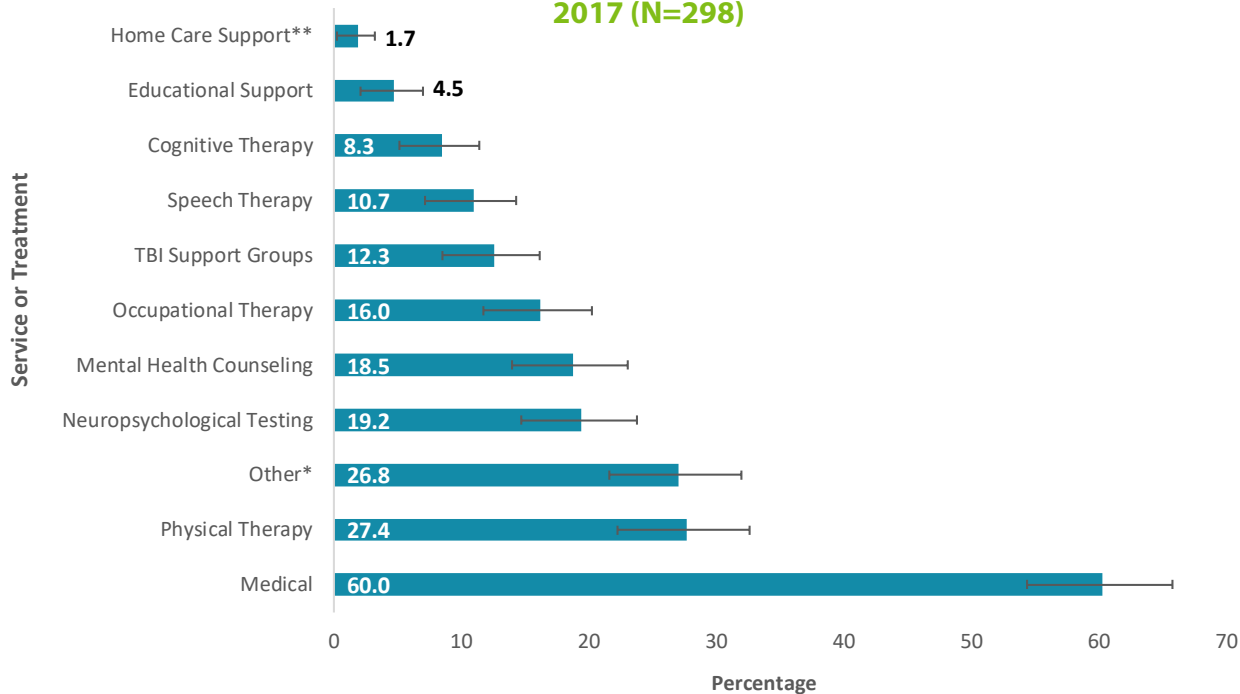
**Table 1: Concussion Signs and Symptoms<sup>3</sup>**

Concussion Signs Observed	Concussion Symptoms Reported
<ul style="list-style-type: none"> <li>• Can't recall events prior to or after a hit or fall</li> <li>• Appears dazed or stunned</li> <li>• Forgets an instruction, is confused about an assignment or position, or is unsure of the game, score, or opponent</li> <li>• Moves clumsily</li> <li>• Answers questions slowly</li> <li>• Loses consciousness (even briefly)</li> <li>• Shows mood, behavior, or personality changes</li> </ul>	<ul style="list-style-type: none"> <li>• Headache or "pressure" in head</li> <li>• Nausea or vomiting</li> <li>• Balance problems or dizziness,</li> <li>• Double or blurry vision</li> <li>• Bothered by light or noise</li> <li>• Feeling sluggish, hazy, foggy, or groggy</li> <li>• Confusion or concentration and memory problems</li> <li>• Just not "feeling right," or "feeling down"</li> </ul>

# TBI Services and Treatments

Unfortunately, 70 percent of respondents were not aware of any services or treatment for a TBI. Of those who were aware of services or treatment, medical (60.0 percent) was the most common type of service or treatment known to be available to persons with a TBI (Figure 4).

**Figure 4: Percentage of Respondents Reporting Services or Treatments Available to Persons with a TBI, Utah Adults Who Were Aware of Services or Treatments Available, 2017 (N=298)**



\* We were unable to re-categorize the "other" responses.

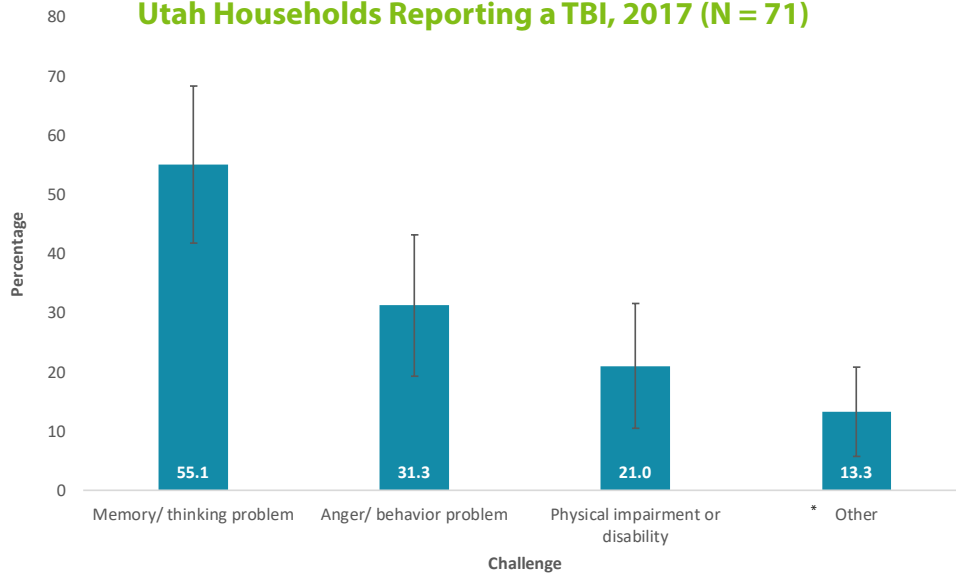
\*\*Use caution when interpreting the results. The estimate has a relative standard error of 30% or more.

Note: Respondents were able to report multiple responses and were not given a predefined list.

# Household TBIs

In Utah, **approximately one out of every 14 households had an individual who has ever** been told by a health care professional that they have a TBI, or an estimated 77,000 households in Utah. Most of these households (77.5 percent) had one member in their household who has been diagnosed with a TBI and 22.5 percent of households had two or more members in their household with a TBI. Of the households that reported a member had a TBI, the most difficult individual challenge due to the TBI was memory/thinking problems (55.1 percent), followed by anger/behavior problems (31.3 percent), and physical impairment or disability (21.0 percent) (Figure 5).

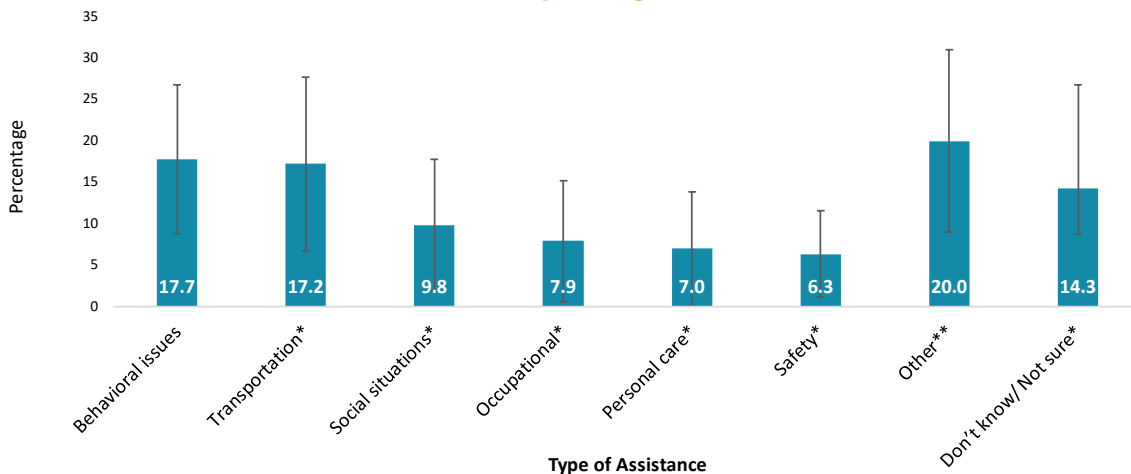
**Figure 5: Percentage of Households Reporting Difficult Challenges Due to TBI, Utah Households Reporting a TBI, 2017 (N = 71)**



Note: Respondents were able to select two difficult challenges due to TBI per individual in their household with a TBI.  
\*We are unable to recategorize these responses.

Additionally, the majority of households with a member who had a TBI reported that individuals need assistance with behavioral issues (17.7 percent), transportation (17.2 percent\*), social situations (9.8 percent\*), occupation (7.9 percent\*), personal care (7.0 percent\*), and safety (6.3 percent\*)(Figure 6).

**Figure 6: Percentage of Households Reporting Area of Need for Assistance for TBI, Utah Households Reporting a TBI, 2017 (N = 71)**



Note: Respondents were able to select one response per individual with a TBI in the household.  
\* Use caution when interpreting the results. The estimate has a relative standard error of 30% or more.  
\*\* Other categories included memory, school, and other responses.

## References

1. Utah Department of Health. Public Health Indicator Based Information System for Public Health (IBIS-PH). Health Indicator Report of Traumatic Brain Injury (TBI). Accessed 12/1/2017: /ibis.health.utah.gov/indicator/view/TBI.Etiol.html.
2. Centers for Disease Control and Prevention. Brain Injury Safety Tips and Prevention. Accessed 12/1/2017: www.cdc.gov/headsup/basics/concussion\_prevention.html.
3. Centers for Disease Control and Prevention. HEADS UP Online Training Courses. Accessed 12/1/2017: www.cdc.gov/headsup/resources/training.html.



**Our Mission** is to provide trusted and comprehensive data and technical assistance related to violence and injury. This information helps promote partnerships and programs to prevent injuries and improve public health.