

June | 2018

**Nebraska's TBI  
Implementation  
Partnership Grant**  
Annual Evaluation Report  
JUNE 2017 – MAY 2018



Dear Reader:

Traumatic brain injury (TBI) is a serious public health problem in the United States. The Centers for Disease Control (CDC) reports approximately 2.5 million people sustain a TBI annually, and each year TBI contributes to a substantial number of deaths and cases of permanent disability. A TBI is caused by a bump, blow, or jolt to the head or a penetrating head injury that disrupts the normal function of the brain. Most TBIs are mild and their effects diminish over time, but even a mild TBI can result in permanent cognitive, physical, and behavioral changes. Individuals experiencing moderate to severe injuries may require life-long supports for housing, work, and community living.

Many Nebraskans impacted by TBI still struggle to access appropriate services to meet their needs. Nebraska Vocational Rehabilitation (VR) and the Brain Injury Advisory Council remain committed to building a comprehensive, multidisciplinary, easily accessible system of care for individuals experiencing brain injury and to ensuring awareness and training for partners in the system.

Nebraska VR serves as lead agency for a U.S. Department of Health and Human Services, Administration for Community Living TBI Implementation Partnership Grant which provides funding for states to build infrastructure and create systems change to better serve their citizens with brain injuries. The Brain Injury Advisory Council advises Nebraska VR, the Department of Education, Special Education, and the Department of Health and Human Services (DHHS) in implementing grant objectives and goals under the Nebraska State Plan for Systematic Services for Individuals with Brain Injuries.

State Plan goals for 2013-2018 are to:

- \* Increase awareness and knowledge about brain injury
- \* Increase access to community resources for individuals with brain injury
- \* Increase funding for services
- \* Promote individualized services for people with brain injury

For more information about the Nebraska State Plan for Systematic Services for Individuals with Brain Injuries, please visit the Brain Injury Advisory Council's website at [www.braininjury.ne.gov](http://www.braininjury.ne.gov).

This report summarizes grant-funded project outcomes for FY 2017-2018. Nebraska VR and the Brain Injury Advisory Council look forward to working with our partners and stakeholders to build better futures for Nebraskans with brain injury and their families.

Sincerely,



Keri Bennett, M.S.Ed, CBIS  
Nebraska VR Program Director for ABI  
TBI Grant Project Director

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## Executive Summary

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The purpose of Nebraska's TBI grant project (funded by the Administration for Community Living [ACL], U.S. Department of Health and Human Services) is to increase access to rehabilitation and other services for individuals with Traumatic Brain Injury (TBI) and their families by implementing activities related to each of the following components: 1) information and referral services; 2) professional workforce development trainings; 3) screening for TBI; and 4) resource facilitation. Activities from year 4 of the grant (June 2017-May 2018) are summarized below in two parts. Part 1 contains answers to questions provided by ACL and Part 2 contains a broader summary of all activities completed in year 4.

### ***Executive Summary Part 1: Narrative Report for ACL***

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***1. What did you accomplish during this reporting period and how did these accomplishments help you reach your stated project goal(s) and objective(s)? Please note any significant project partners and their role in project activities.***

See Figure 1 (below) and Part 2 of this executive summary for a summary of major accomplishments. Each activity was directly aligned with the grant's objectives in the areas of information and referral services, training, screening for TBI, resource facilitation, and sustainability.

Significant partners this year and their role as it relates to TBI include:

- Nebraska Association of Service Providers (NASP) – recruited five member agencies to receive training and technical assistance on expanding their capacity to serve individuals with TBI.
- Nebraska Brain Injury Advisory Council – provides insight and direction for TBI-related activities and maintains a website with links to information and services.
- Nebraska Department of Health and Human Services – assists with the delivery of letters to individuals on the brain injury registry and provides surveillance data pertaining to those on the registry.
- Brain Injury Alliance of Nebraska (BIA) – as operator of the Resource Facilitation pilot, they serve as the main source for resources and case management style services for individuals with TBI in the state. The BIA also conducts the annual Brain Injury Conference and Brain Injury Regional School Support Teams (BIRSST) Symposium.
- Disability Rights Nebraska – provides information and referral services.
- Hotline for Disabilities – provides information and referral services.
- Aging and Disability Resource Center (ADRC) – provides information and referral services.
- Children's Hospital and Medical Center – maintains the concussion module trainings for healthcare professionals.

**2. What, if any, challenges did you face during this reporting period and what actions did you take to address these challenges? Please note in your response changes, if any, to your project goal(s), objective(s), or activities that were made as a result of challenges faced.**

A training and capacity building project with five service providers who belong to the Nebraska Association of Service Providers (NASP) was begun this fiscal year with plans that it would be completed by the end of May 2018. Due to unforeseen circumstances, the NASP project has been delayed. This project will be completed under a no cost extension.

**3. How have the activities conducted during this project period helped you to achieve the measurable outcomes identified in your project proposal?**

Figure 1 below outlines the originally proposed outcomes and their progress.

Figure 1 Progress towards Proposed Outcomes		
Area	Proposed Outcomes	Progress
<b>Training</b>	<ul style="list-style-type: none"> <li>⊕ Increase in the number of professionals trained on TBI</li> <li>⊕ 75% of professionals trained indicate confidence in assisting individuals with TBI (i.e., youth and the elderly)</li> </ul>	<ul style="list-style-type: none"> <li>● 228 individuals were trained across five TBI trainings.</li> <li>● 96.9% of training participants reported being more able to assist individuals with TBI and their families as a result of the training.</li> </ul>
<b>Resource Facilitation</b>	<ul style="list-style-type: none"> <li>⊕ Increase in the number of TBI targeted individuals receiving resource assistance</li> <li>⊕ 75% of individuals receiving resource facilitation services report successfully accessing TBI services</li> </ul>	<ul style="list-style-type: none"> <li>● 282 individuals received Resource Facilitation services.</li> <li>● 404 referrals to services were made by Resource Facilitation staff.</li> <li>● Among those who completed a satisfaction survey, 95.4% indicated that Resource Facilitation guided them to community resources.</li> </ul>
<b>Dissemination of Information</b>	<ul style="list-style-type: none"> <li>⊕ Increase in the amount of information disseminated</li> </ul>	<ul style="list-style-type: none"> <li>● Information continues to be disseminated through Brain Injury Registry letters, the Brain Injury Advisory Council website, the annual Brain Injury Conference, and Constant Contact.</li> </ul>
<b>Screening for TBI</b>	<ul style="list-style-type: none"> <li>⊕ Increase in the number of the target population screened for TBI</li> </ul>	<ul style="list-style-type: none"> <li>● Nebraska VR conducts approximately 475 screenings per year.</li> <li>● Additional screenings are being conducted through a no cost extension as part of the NASP project.</li> </ul>
<b>Sustainability (and Partnerships)</b>	<ul style="list-style-type: none"> <li>⊕ Key projects sustained beyond grant-funding</li> </ul>	<ul style="list-style-type: none"> <li>● Sustainability of projects will be reliant upon strong partnerships. Results from this year's PARTNER Tool survey administration indicate an increase trust among partners.</li> </ul>

**4. What was produced during the reporting period and how have these products been disseminated? Products may include articles, issue briefs, fact sheets, newsletters, survey instruments, sponsored conferences and workshops, websites, audiovisuals, and other informational resources.**

Four products were created this year:

- Traumatic Brain Injury Provider Training Manual – An extensive manual outlining strategies for agencies and service providers to meet the needs of individuals with brain injury.
- Consumer Resource Guide – An extensive document created by the BIA to provide an outline for how to provide resource facilitation to individuals with brain injury.
- Nebraska VR TBI Activity – A brief document detailing Nebraska VR’s role as a lead agency in TBI initiatives in Nebraska for the Nebraska State Board of Education.
- Brain Injury Advisory Council Website – a new website for The Council was launched on January 1<sup>st</sup>: <https://braininjury.nebraska.gov>

## **Executive Summary Part 2: Highlighted Metrics and Outcomes**

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### **Dissemination of Information**

- 4,815 letters were delivered to individuals on the TBI Registry.
- 1,111 website sessions occurred on the Nebraska Brain Injury Advisory Council's new website from January through May, 2018.
- Numerous materials distributed at the Annual Brain Injury Conference.
- 6 information campaigns conducted through Constant Contact with 255 to 270 recipients for each campaign.

### **Information and Referral**

- 574 individuals received information and referral services from four agencies (Brain Injury Alliance of Nebraska, Disability Rights Nebraska, Hotline for Disabilities, and Aging and Disability Resource Center). Note: this total includes the Resource Facilitation clients summarized directly below.

### **Resource Facilitation Case Management**

- The Resource Facilitation pilot managed by the BIA provided services to 282 individuals (54 received case management services, 136 received intake and referral services, and 92 received information and referral services).
- A total of 404 referrals were made by Resource Facilitation staff.
- Barriers are documented across numerous areas for all Resource Facilitation clients. So far, 24.9% of barriers have been documented as having a successful outcome.
- Concerns in the areas of health and self-direction/care are documented for case management clients. So far, 53.5% of all concerns are documented as showing improvement.

### **Resource Facilitation Community Outreach**

- 93 outreach activities were conducted by Resource Facilitation staff, with an estimated reach of 2,515 individuals.

### **TBI Trainings**

- A total of 228 individuals received training across the six TBI trainings that were offered.
- Training participants from all six trainings gave positive feedback, indicating an increase in knowledge in areas such as TBI prevention, causes, and/or recovery; ways to identify a TBI; and ways to serve individuals with a TBI; among other areas.

### **TBI Screenings**

- Nebraska VR conducts approximately 475 screenings per year.
- Additional screenings are being conducted through a no cost extension as part of the NASP project.

### **PARTNER Tool**

- The PARTNER Tool was repeated for a fourth time in 2017 to measure the collaboration of key stakeholders and partners around TBI in Nebraska.
- In general, results from the PARTNER survey have been consistent across all four administrations, demonstrating stability and high levels of trust among partners.

### **Surveillance Data**

- In October of 2015, medical coding switched to the ICD-10 coding system. The change in TBI definition criteria under ICD-10 may lead to fewer cases in Nebraska's TBI registry. At the same time, Nebraska's TBI registry may present a more accurate picture of TBI in the state with the switch to ICD-10. Data from October through December of 2015 show relatively fewer cases than collected under the previous ICD-9 coding system.
- Prior to 2015, the number of cases entering the TBI registry increased each year from 2011 to 2014. Age-adjusted TBI rates also increased from 2011 to 2014.
- TBI's are most prevalent among those 85 and over.
- Males under the age of 25 have notably higher rates of TBI than females of comparable age.
- The vast majority (89.5%) of TBI patients are discharged to home/self-care.
- The leading causes of unintentional TBI-related injuries is falls, accounting for nearly half (47%) of cases in the registry.



# NEBRASKA'S TBI IMPLEMENTATION PARTNERSHIP GRANT YEAR 4 EVALUATION REPORT (June 1, 2017 through May 31, 2018)

## Project Purpose

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The purpose of Nebraska's TBI grant project (funded by the Administration for Community Living, U.S. Department of Health and Human Services) is to increase access to rehabilitation and other services for individuals with Traumatic Brain Injury (TBI) and their families by providing information and referral, professional training, TBI screening and resource facilitation services. The \$1,000,000 four-year grant was awarded to Nebraska VR (Vocational Rehabilitation) in June of 2014.

The target populations identified for the project's strategies are: children, youth (including student athletes at risk for concussion) and the elderly who experience TBI or are at risk for TBI. Keri Bennett, with Nebraska VR is the project director.

## Grant Objectives

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The TBI implementation grant project focuses on five core areas which provides the basis for the grant objectives:

1. Enhance and expand existing **information and referral services** to reach children, youth and elderly persons with TBI, their family members and the professionals, service providers, and agency staff who serve them, providing educational resources and referral to appropriate services and supports as requested.
2. **Provide training** to key professionals, service providers and agency staff serving children, youth, and the elderly on the potential long-term cognitive, physical, emotional, and behavioral effects of TBI (including concussion or mild TBI), and resulting implications for housing, work, and community living.
3. Teach professionals, service providers, and agency staff who serve children, youth, and the elderly to implement simple methods to **screen individuals for TBI** at the point of program eligibility and service needs planning.
4. Develop a sustainable model to **implement resource facilitation** for children, youth, and elderly persons with TBI and their family members who require assistance in navigating complex service systems to meet their needs and achieve their goals.
5. Develop a plan and identify potential long-term funding sources for **sustaining key TBI service infrastructure elements** beyond grant funding, with a focus on the targeted populations of children, youth, and the elderly with TBI.

## Dissemination of Information

The dissemination of information conducted by the NE VR TBI program is organized under four main areas: Nebraska Brain Injury Registry Letters, Nebraska Brain Injury Advisory Council Website, materials distributed at the Brain Injury Conference, and Constant Contact. Figure 2 contains a summary of the information disseminated under each of these four areas.

Figure 2	Dissemination of Information Summary: June 1, 2017 – May 31, 2018
<p><b>Nebraska Brain Injury Registry Letters</b></p>	<ul style="list-style-type: none"> <li>➤ Registry letters mailed: 5,250</li> <li>➤ Letters returned undeliverable: 435</li> <li>➤ <b>Total registry letters delivered: 4,815</b></li> </ul>
<p><b>Nebraska Brain Injury Advisory Council Website (January through May, 2018)</b></p>	<ul style="list-style-type: none"> <li>➤ Website sessions: 1,111</li> <li>➤ Between 182 and 289 unique visitors per month</li> </ul> <p>(see below for more details)</p>
<p><b>Materials Distributed at Brain Injury Conference (March 22 and 23, 2017)</b></p>	<ul style="list-style-type: none"> <li>➤ Accommodating the Symptoms of TBI: 100</li> <li>➤ On-line training post cards: 20</li> <li>➤ Registry brochures: 50</li> <li>➤ 2017 grant reports: 8</li> <li>➤ NASHIA fact sheets: 15</li> <li>➤ Brain Injury School Support Team list/map: 12</li> </ul>
<p><b>Constant Contact Statistics</b></p>	<ul style="list-style-type: none"> <li>➤ Conducted 6 distinct information campaigns through Constant Contact during the grant year.</li> <li>➤ There were between 282 and 342 recipients for each Constant Contact campaign that was sent out.</li> </ul>

## Nebraska Brain Injury Advisory Council Website Analytics

The Nebraska Brain Injury Advisory Council launched a new website on January 1, 2018. Website analytics for the five-month period of January through May are displayed below. There was a total of 1,111 visits to the website during this five-month period (Figure 3).

Figure 3. Nebraska Brain Injury Advisory Council Monthly Website Traffic: January - May, 2018

Total visits this time period: 1,111

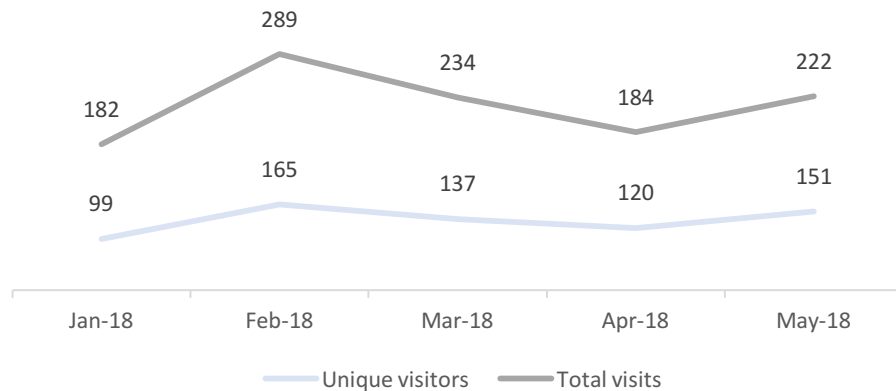


Figure 4 shows the top 10 traffic drivers to the Council’s website.

Figure 4	Top 10 Traffic Drivers to the Nebraska Brain Injury Advisory Council Website (January 1, 2018 – May 31, 2018)
	<ol style="list-style-type: none"> <li>1. Organic search (Google, Bing, Yahoo)</li> <li>2. Direct</li> <li>3. Traumaticbraininjury.com (referral)</li> <li>4. Biane.org (referral)</li> <li>5. Facebook (referral)</li> <li>6. Twitter (referral)</li> <li>7. DMV.nebraska.gov (referral)</li> <li>8. NPtelegraph.com (referral)</li> <li>9. DHHS.NE.gov (referral)</li> <li>10. PTSD.NE.gov (referral)</li> </ol>

## Information and Referral

Information and referral services for survivors of TBI are conducted by four organizations: The Brain Injury Alliance of Nebraska (BIA), Disability Rights Nebraska, the Hotline for Disabilities, and the Aging and Disability Resource Center (ADRC). Between these four organizations, 574 individuals received information and referral services during this grant year (Figure 5). Note that case management and enhanced options counseling clients are included in this total.

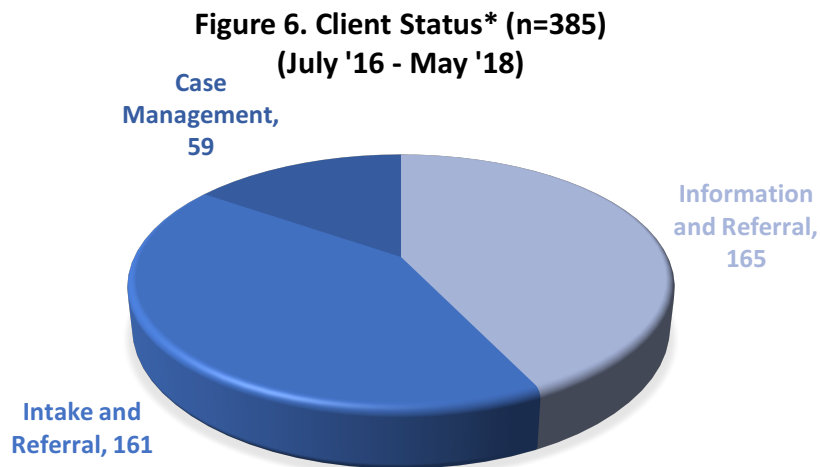
Figure 5	Information and Referral Summary: June 1, 2017 – May 31, 2018
<b>Brain Injury Alliance of Nebraska (BIA) Resource Facilitation</b>	Served... <ul style="list-style-type: none"> <li>➤ 92 information and referral clients</li> <li>➤ 136 intake and referral clients</li> <li>➤ 54 case management clients</li> </ul> A total of 404 referrals were made for these clients this year.
<b>Disability Rights Nebraska</b>	<ul style="list-style-type: none"> <li>➤ Provided 12 information and referral services for individuals with a TBI.</li> </ul>
<b>Hotline for Disabilities</b>	<ul style="list-style-type: none"> <li>➤ Provided information and referral services to 19 individuals with a TBI.</li> </ul>
<b>Aging and Disability Resource Center (ADRC)</b>	Served... <ul style="list-style-type: none"> <li>➤ 162 information and referral clients</li> <li>➤ 68 Options Counseling clients</li> <li>➤ 31 Enhanced Options Counseling clients</li> </ul> A total of 204 referrals were made for these clients this year.
<b>Total</b>	<ul style="list-style-type: none"> <li>➤ <b>Provided information and referral services to <u>574</u> individuals with a TBI.</b></li> </ul>

## Resource Facilitation Case Management (July 2016 through May 2018)

The Resource Facilitation Case Management pilot program conducted by the Brain Injury Alliance of Nebraska (BIA) involves close, potentially long-term, one-on-one interaction between a brain injury survivor and a resource facilitator. The Resource Facilitator assists the survivor in navigating resources in their community, evaluating progress with the survivor and family/caregivers, and setting and achieving goals. One full-time and three part-time staff provide referral and case management services to the entire state of Nebraska, with case-management-style services focused primarily in the Lincoln and Omaha areas.

Data in this section of the report cover the time period of July 2016 through May 2018 (23 months). In July 2016, the Resource Facilitation pilot transferred to a more sophisticated data collection system designed specifically for TBI Resource Facilitation. **During this 23-month time period, the Resource Facilitation pilot served 385 individuals.** It is important to note that not all data variables are collected for these 385 individuals. There are some variables that are not collected for clients with a lower level of involvement in the pilot. **Note: for the count of those who were served in this fiscal year alone, see the “Information and Referral” section above.**

Services can be a fairly simple interaction (information & referral) to something more complex (intake & referral and case management). Figure 6 below displays the status of the 385 clients served from July 2016 through May 2018.



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\*Includes all cases that were active during this time period. Some of these cases are now closed.

**Client Demographics**

Figure 7 details the time between brain injury and intake by the Resource Facilitation Program. There is a wide range among clients in terms of time between brain injury and intake by the Resource Facilitation Program. **The average time between brain injury and intake is 9.5 years.**

**Figure 7. Time between Brain Injury and Intake by the Resource Facilitation Program (n=278) (July '16 - May '18)**

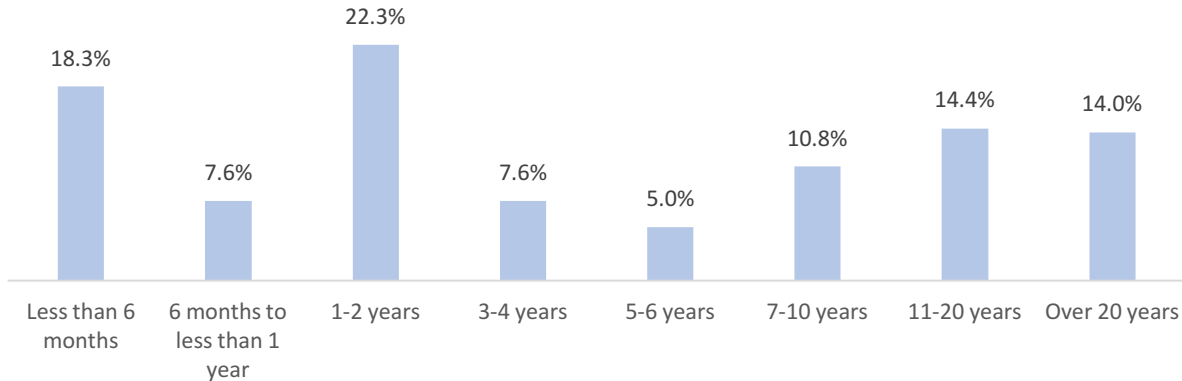


Figure 8 outlines additional client demographics.

<b>Figure 8 Basic Demographics (July '16 – May '18)</b>		
<b>Gender (n=346)</b>	<i>Male</i>	61.3%
	<i>Female</i>	38.7%
<b>Age at time of intake (n=268)</b>	<i>Under 20</i>	12.7%
	<i>20-39</i>	31.3%
	<i>40-59</i>	38.1%
	<i>60 and over</i>	17.9%
	<i>Average Age</i>	42.3
<b>Race/ethnicity (n=310)</b>	<i>White/Caucasian</i>	86.5%
	<i>Non-White/Caucasian</i>	13.5%
<b>Home location (n=268)</b>	<i>Omaha Area*</i>	42.5%
	<i>Lincoln Area°</i>	23.1%
	<i>Greater Nebraska</i>	29.9%
	<i>Out-of-State</i>	4.5%

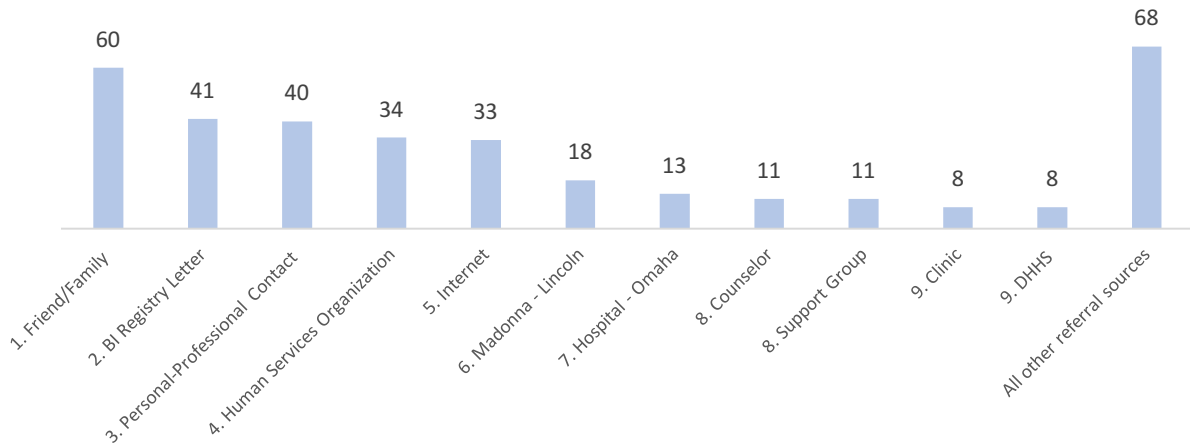
\*Omaha Area includes Douglas and Sarpy Counties and Council Bluffs.

°Lincoln Area includes Lancaster and Seward Counties.

### Source of Referral to Resource Facilitation

The top 10 sources for referrals to Resource Facilitation are detailed below in Figure 9.

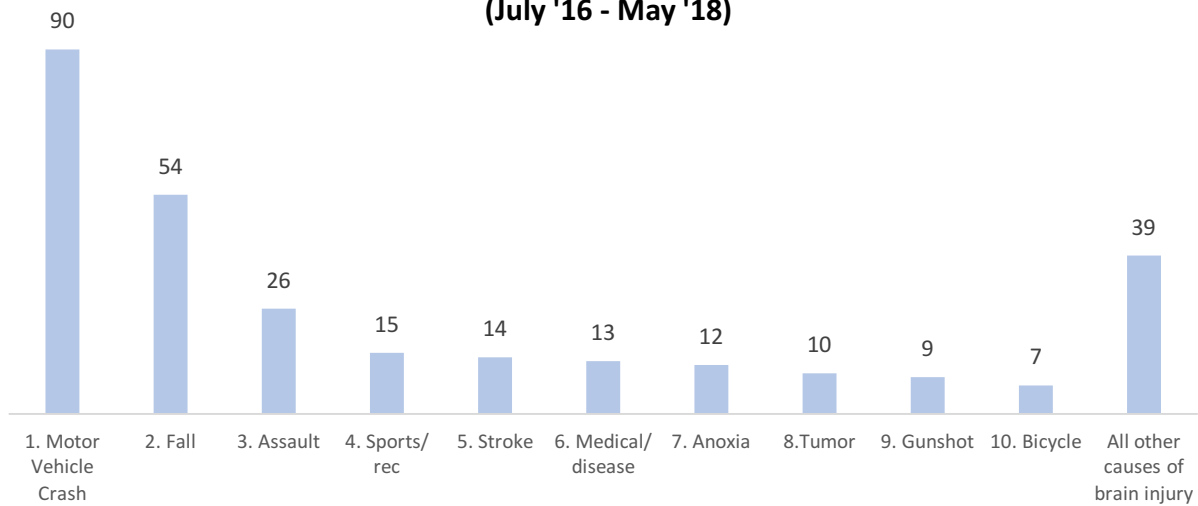
**Figure 9. Top 10 Sources for Referrals to the Resource Facilitation Program (n=345) (July '16 - May '18)**



### Cause of Brain Injury

The top 10 causes of brain injury for Resource Facilitation clients are detailed below in Figure 10.

**Figure 10. Top 10 Causes of Brain Injury (n=289) (July '16 - May '18)**



**Barriers**

A strong majority (76.5%) of Resource Facilitation clients have physical and mental health barriers at time of intake. More than half of clients have barriers in the areas of housing, finance, and vocation at time of intake (Figure 11). **On average, clients have barriers in 5.5 of the 12 domains listed below in Figure 6 at time of intake.**

**Figure 11. Percentage of Clients Experiencing Barriers in the Following Areas at Intake (n=289) (July '16 - May '18)**

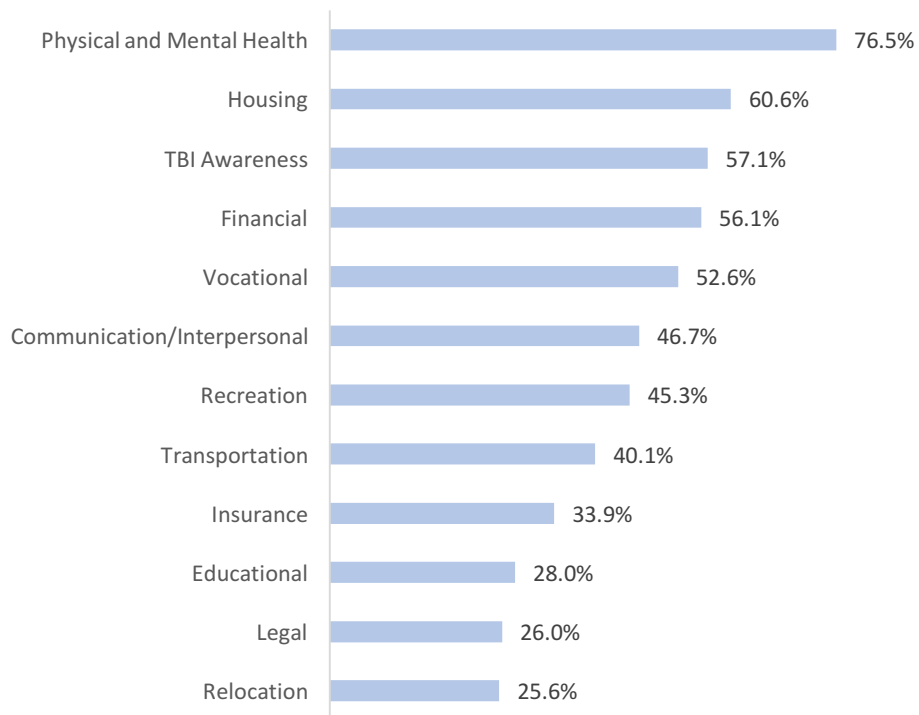




Figure 12 documents successful outcomes for barriers among all clients. The highest success rates are seen in the areas of insurance, TBI awareness, relocation, and financial among other areas. It is important to note that Figure 7 contains data for all clients. Many clients only have barriers documented at one initial intake point.

<b>Figure 12</b>	<b>Successful Outcomes for Barriers (n=289) (July '16 – May '18)</b>		
<b>At time of intake, experienced a barrier in the following areas:</b>	<b>Number of clients experiencing a barrier</b>	<b>Number of clients with a successful outcome</b>	<b>Success rate</b>
Insurance	98	62	63.3%
TBI Awareness	165	62	37.6%
Relocation	74	22	29.7%
Financial	162	48	29.6%
Housing	175	39	22.3%
Physical and Mental Health	221	47	21.3%
Recreation	131	26	19.8%
Educational	81	16	19.8%
Legal	75	14	18.7%
Vocational	152	26	17.1%
Communication/Interpersonal	135	23	17.0%
Transportation	116	10	8.6%
<b>Total Barriers</b>	<b>1,585</b>	<b>395</b>	<b>24.9%</b>

Note: Many clients are still active, and therefore barriers are still being reduced.

### **Employment and Financial**

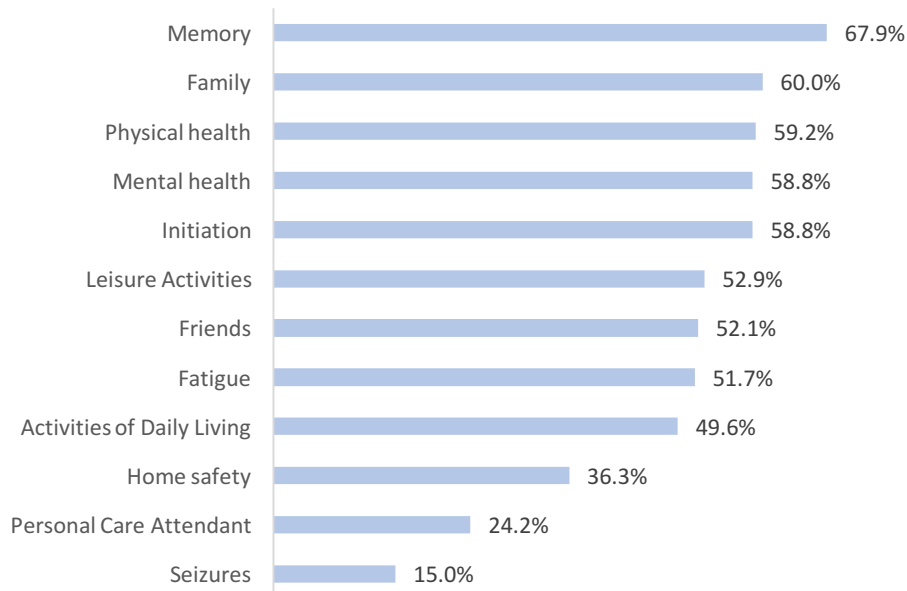
Approximately two-in-five (38.4%) Resource Facilitation clients are reportedly unable to work due to their brain injury. About one-in-four (29.3%) are employed (Figure 13).

<b>Figure 13</b>	<b>Employment Summary (as of most recent update) (n=229) (July '16 – May '18)</b>	
	<b>Number of clients</b>	<b>Percentage of total</b>
<b>Employed (part-time or full-time)</b>	67	29.3%
<b>In job training or job search</b>	15	6.6%
<b>Volunteer</b>	12	5.2%
<b>Support to perform job (job coach)</b>	7	3.1%
<b>Unemployed</b>	20	8.7%
<b>Unable to work</b>	88	38.4%
<b>Retired</b>	20	8.7%

**Concerns Related to Health and Self-Direction/Care**

Concerns at intake related to health and self-direction/care are displayed below in Figure 14. Memory is the top concern, documented for over two-thirds (67.9%) of clients.

**Figure 14. Percentage of Clients with Concerns in the Following Areas at Intake (n=240) (July '16 - May '18)**



Among clients for whom concerns and improvements in health areas have been indicated across at least two time points, 54.3% of concerns in the domains related to health have been documented as showing improvement (Figure 15). Again, it is important to note that many clients still active and these are still being worked on.

Figure 15	Concerns and Improvements in Health Areas* (n=56) (July '16 – May '18)		
	Clients with a concern in this area at intake	Clients with an improvement in this area	Improvement rate
Physical health	33	21	63.6%
Home safety	18	10	55.6%
Fatigue	33	18	54.5%
Mental health	36	18	50.0%
Seizures	7	2	28.6%
<b>Total</b>	<b>127</b>	<b>69</b>	<b>54.3%</b>

\*Includes clients who have concerns/improvements indicated at two or more time points.

Note: Many clients are still active, and therefore areas of concern are still being improved.

Among clients for whom concerns and improvements in areas related to self-direction/care have been indicated across at least two time points, 52.9% of concerns in the domains related to self-direction/care have been documented as showing improvement (Figure 16).

<b>Figure 16</b>	<b>Concerns and Improvements in Self-Direction/Care* (n=63) (July '16 – May '18)</b>		
	<b>Clients with a concern in this area at intake</b>	<b>Clients with an improvement in this area</b>	<b>Improvement rate</b>
<b>Activities of Daily Living</b>	22	19	86.4%
<b>Leisure Activities</b>	25	19	76.0%
<b>Personal Care Attendant</b>	10	6	60.0%
<b>Initiation</b>	37	20	54.1%
<b>Family</b>	30	13	43.3%
<b>Friends</b>	28	10	35.7%
<b>Memory</b>	37	13	35.1%
<b>Total</b>	<b>189</b>	<b>100</b>	<b>52.9%</b>

\*Include clients who have concerns/improvements indicated at two or more time points.

Note: Many clients are still active, and therefore areas of concern are still being improved.

### **Mayo-Portland**

The Mayo-Portland Adaptability Inventory (“short version”) is a tool used to ascertain needs of individuals who have suffered a brain injury. The tool measures self-care, residence, transportation, employment, and other basic needs. The “short-version” of the Mayo-Portland includes eight inventory items with a minimum score of 0 and maximum of 30. The lower the score on the Mayo-Portland, the greater the independence, and the lesser interference from injuries, for an individual with a TBI. The average, healthy adult, would likely have a score of zero or near zero.

While numerous Mayo-Portland assessments have been completed, a total of 17 clients have a pre and a post Mayo-Portland. The average Mayo-Portland score for these 17 clients has decreased by 31.2% from pre to post (Figure 17).

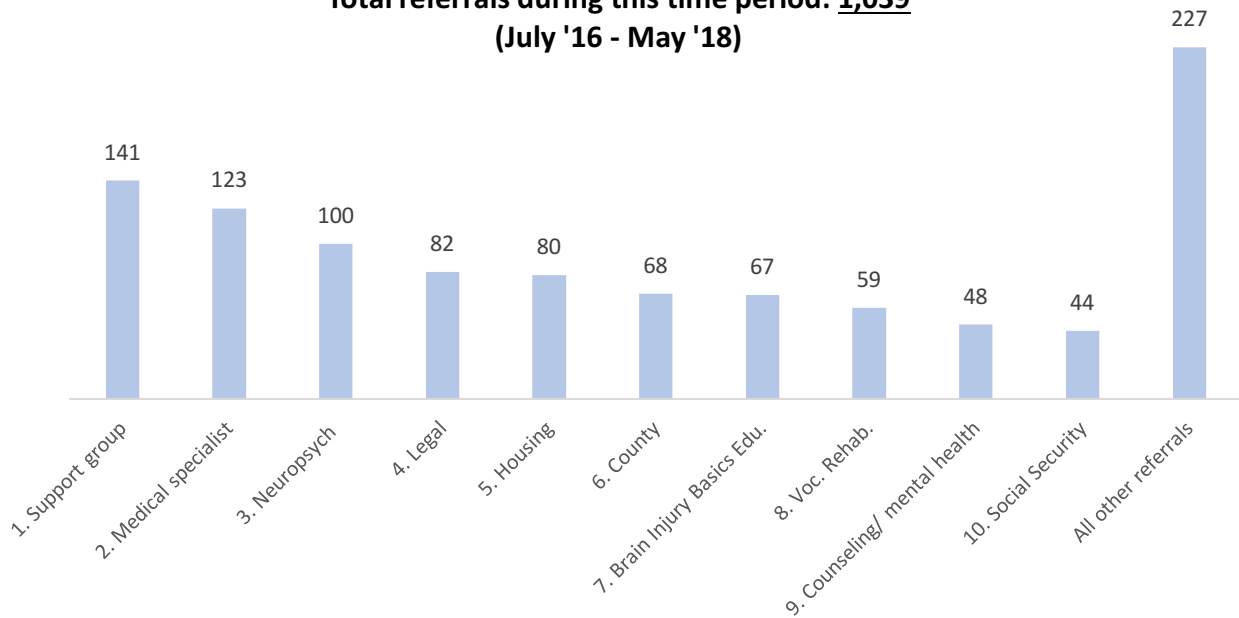
<b>Figure 17</b>	<b>Mayo-Portland Pre and Post Summary (n=17) (July '16 – May '18)</b>		
<b>Number of clients with a Pre and Post Mayo-Portland</b>	<b>Average Score at Pre</b>	<b>Average Score at Post</b>	<b>Percent Improvement</b>
17	17.0	11.7	<b>31.2%</b>

Note: Decrease in score indicates improvement.

**Referrals Made by Resource Facilitators**

The top 10 referral-types made by Resource Facilitation staff are displayed below in Figure 18. A total of 1,039 referrals have been made by staff during this time period. This makes for an average of 2.7 referrals per client. Of course, clients with a more intensive involvement will receive a greater number of referrals than information and referral clients.

**Figure 18. Top 10 Referral-types Made by RF Staff**  
**Total referrals during this time period: 1,039**  
**(July '16 - May '18)**



**Client Satisfaction**

A total of 22 Client Satisfaction Surveys have been received, all with highly positive results. So far, all but one client who have completed a satisfaction survey have agreed or strongly agreed with each item on the survey (Figure 19).

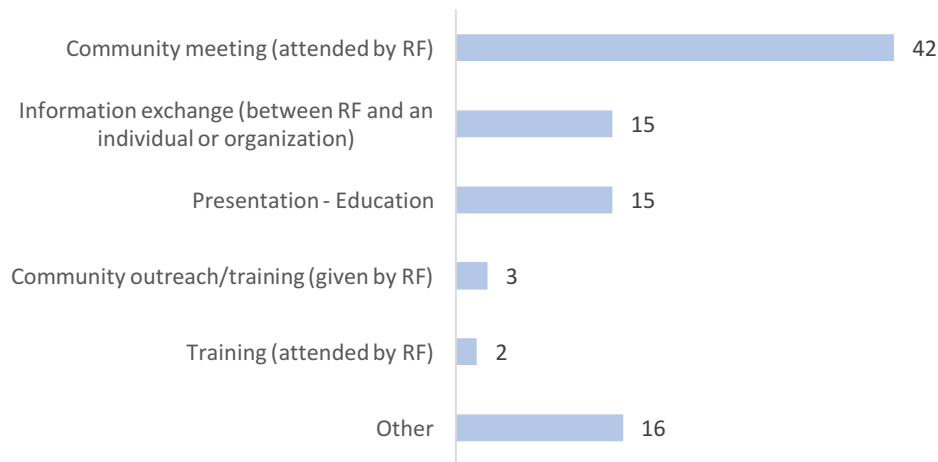
<b>Figure 19</b>	<b>Client Satisfaction Survey Summary* (n=22)</b> <b>(July '16 – May '18)</b>	
	<b>Satisfied with the Resource Facilitation services they received.</b>	100%
	<b>Resource Facilitation services helped address personal goals.</b>	100%
	<b>Resource Facilitation guided to community resources.</b>	100%
	<b>Resource Facilitation helped to successfully access community services.</b>	95.4%
	<b>Resource Facilitation services were successful.</b>	100%

\*The percentage agreeing or strongly agreeing with each statement is reported. Survey items are on a four-point scale: strongly disagree, disagree, agree, strongly agree.

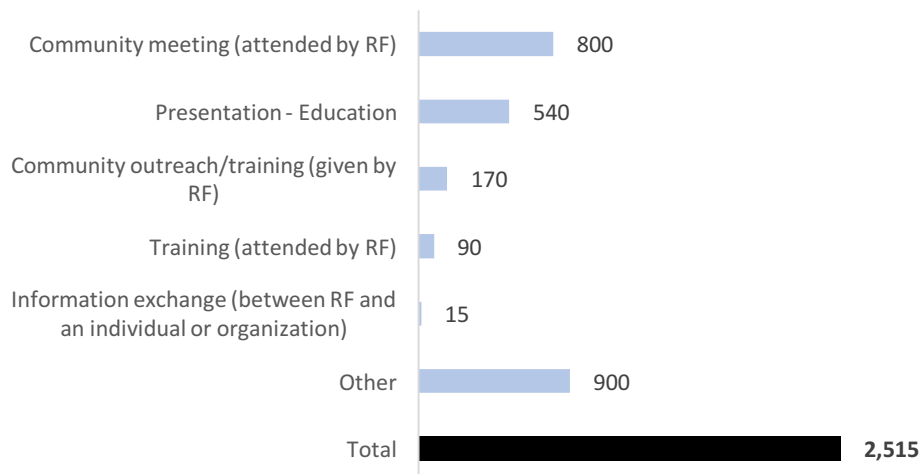
## Resource Facilitation Community Outreach

Figures 20 through 22 document the community outreach activities of Resource Facilitation staff. This year, Resource Facilitation staff conducted 93 outreach activities reaching over 2,500 estimated individuals.

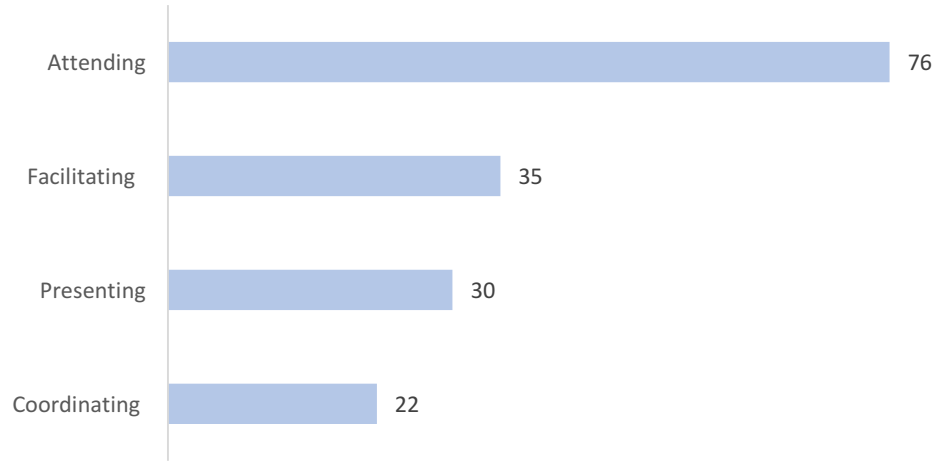
**Figure 20. Community Outreach Activity**  
**Total outreach activities during this time period: 93**  
**(June '17 - May '18)**



**Figure 21. Estimated Number in Attendance at RF**  
**Community Outreach Activities**  
**(June '17 - May '18)**



**Figure 22. BIA-NE Staff Role in Community Outreach Activities (duplication occurs) (n=93) (June '17 - May '18)**



## TBI Trainings

A total of five TBI trainings were offered in year four of the grant to a broad array of professionals, individuals, and family members. These trainings focused on various topics related to TBI such as TBI prevention, causes and recovery; services for survivors of a TBI; and how to assist TBI survivors; and building organizational capacity to serve TBI survivors; among numerous other topics. The dates and participants of these seven trainings are detailed below in Figure 23.

Figure 23	TBI Trainings: Dates and Participants		
	Date	Participant Description	Number of Participants
<b>NASP “Initial” Two-Day Training</b>	June 2017	Service providers from five agencies in Nebraska (vocational, independent living, advocacy, etc.)	26
<b>Brain Injury Regional School Support Teams (BIRSST) Concussion Discussion</b>	September 2017	Primarily school-based professionals	61
<b>Brain Injury conference</b>	March 2017	Various professionals and family members serving individuals with TBI	97
<b>Online TBI Modules</b>	Ongoing	Various professionals and family members serving individuals with TBI	21 (unique) Intro training: 12 Pediatric training: 8 Adult training: 7 Substance training: 4
<b>Concussion Modules</b>	Ongoing	Healthcare professionals including doctors, nurses, and EMS technicians	23 (estimated unique) Module 4: 23 Module 5: 23 Module 6: 22
<b>Total</b>	-	-	<b>228</b>

## Post-Training Evaluation Survey Results

Post-training evaluation survey results are displayed in Figures 24 through 30 below for all six trainings conducted in this grant year. In general, grant-funded trainings use a standard post-training evaluation survey. However, due to the nature and objectives of some trainings, certain items on the standardized survey are not used with every training. The figures below show the results from each survey item on the standardized survey by training. If a training is left off from a figure, this is because the survey item was not applicable to that training.

The post-training evaluation surveys had very positive results. Examples of some of the many positive highlights from the combined total of all trainings include: 96.5% of training participants reporting that their knowledge of TBI prevention, causes, and/or recovery increased as a result of the training (Figure 24); 96.9% reporting that they anticipate being more able to assist individuals with TBI and their families in accessing the services they need as a result of the training (Figure 28); and 96.3% reported being satisfied or very satisfied with the training (Figure 29).

Figure 24. Knowledge of TBI prevention, causes, and/or recovery increased as a result of training

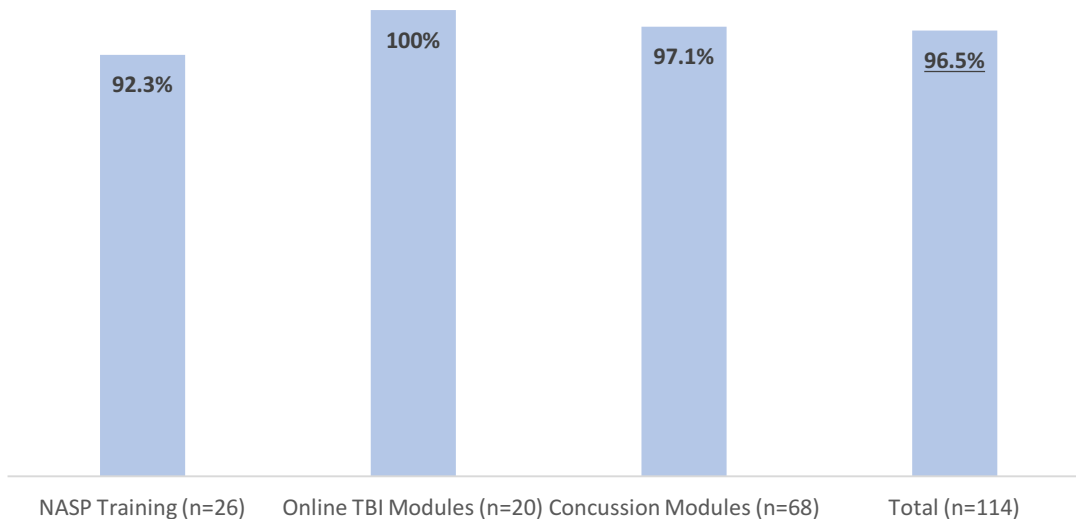




Figure 25. Knowledge of ways a TBI can be detected increased as a result of the training

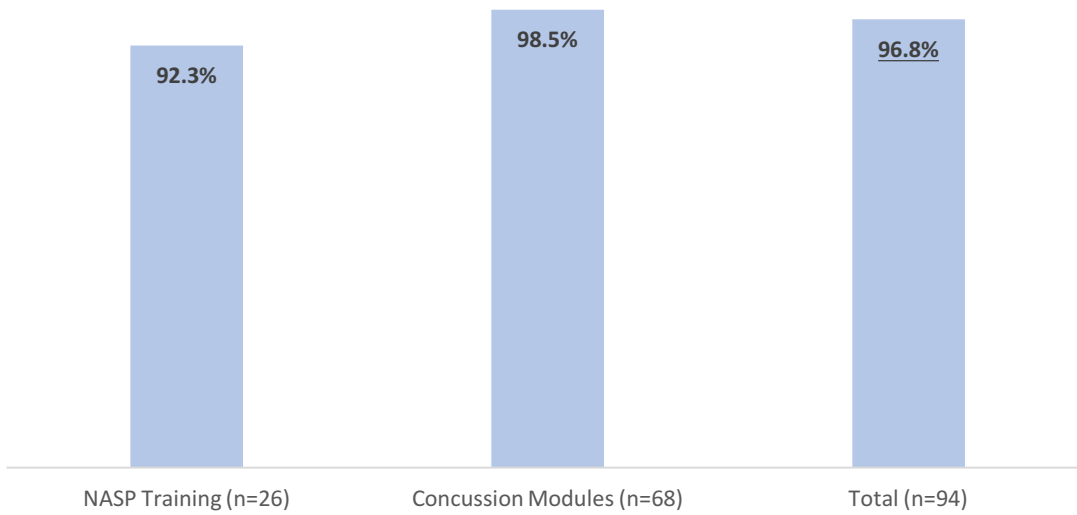


Figure 26. Knowledge of services and/or providers that may be able to help with recovery after TBI increased as a result of the training

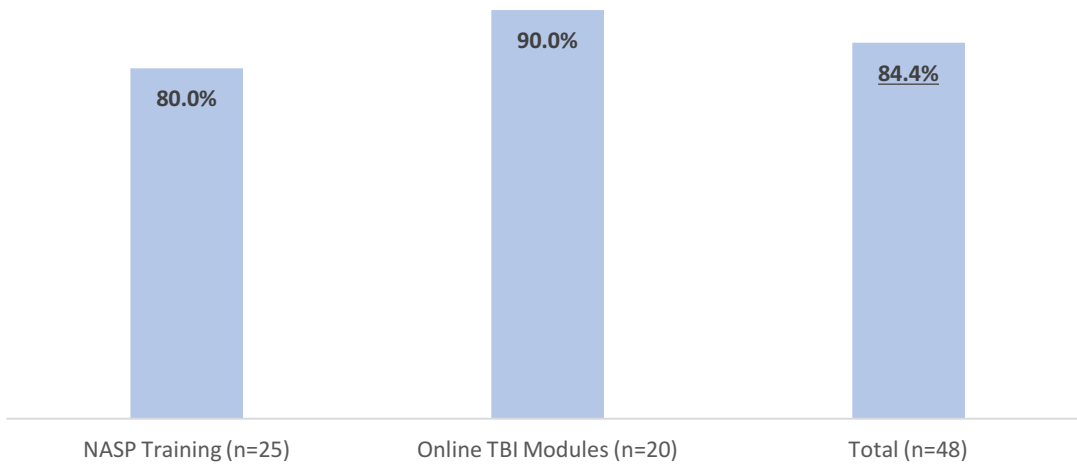


Figure 27. Knowledge of ways they can identify individuals that have a TBI and meet their needs relative to their practice, and/or refer elsewhere increased as a result of the training

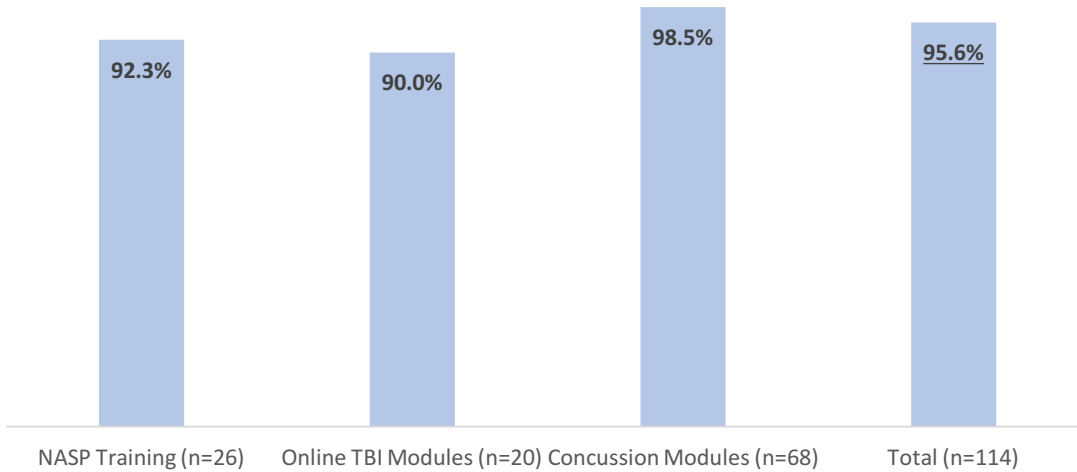


Figure 28. As a result of this training, they anticipate being more able to assist individuals with TBI and their families in accessing the services they need

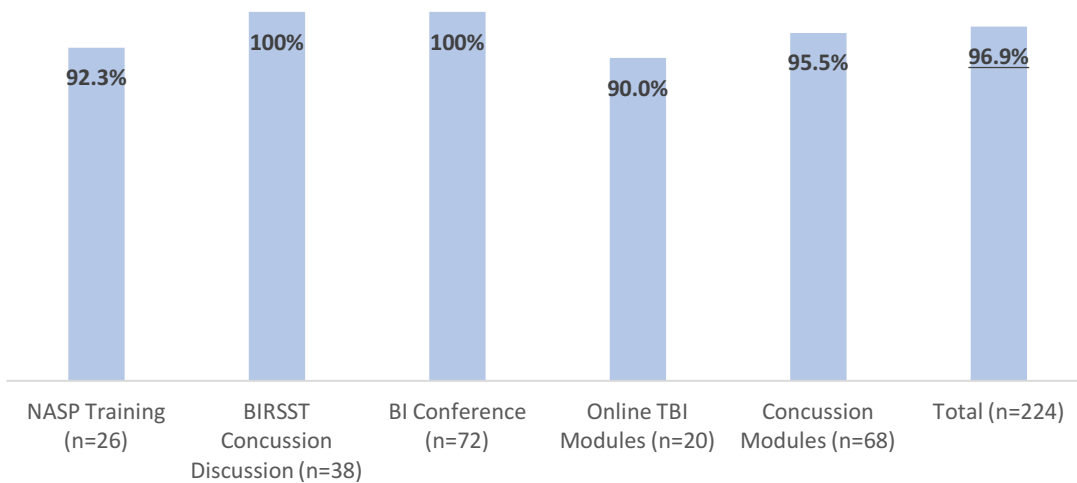


Figure 29. Satisfied or very satisfied with the training

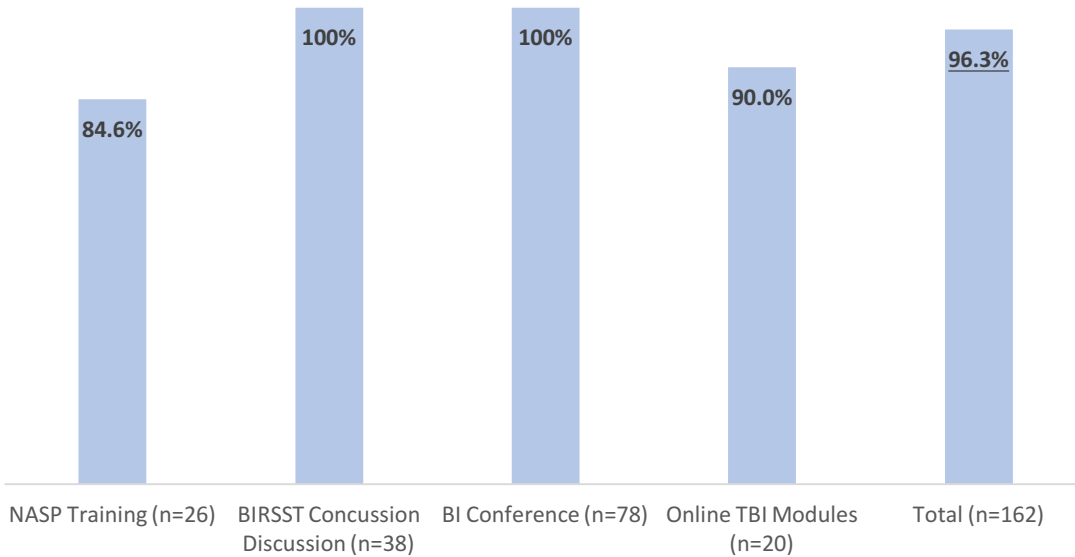


Figure 30	Among those anticipating that they will be more able to assist individuals with TBI, etc. (see Figure 28 above), reported ways in which they will be better able to serve them	
	<b>NASP Training (n=24)</b>	
<b>I have information to provide to individuals/families about TBI</b>	83.3%	
<b>I have information to provide to individuals/families about local resources/services</b>	66.7%	
<b>I can more easily recognize symptoms of TBI</b>	83.3%	
<b>I can better interact with individuals with TBI in the course of my work</b>	87.5%	
<b>I know what to do when I encounter an individual with TBI in my work</b>	75.0%	

## TBI Screenings

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Since 2008, Nebraska VR has incorporated brain injury screening in its intake and assessment practices. VR now screens approximately 475 applicants each year for acquired brain injury (ABI). A pre-screening question on the agency application form alerts staff to follow up with an individual who indicates he or she may have experienced a brain injury from a traumatic or non-traumatic event (or both). To date, the top five challenges noted by those screening positive for potential brain injury incidents are:

1. Repeating myself because I don't remember what I told someone.
2. Feeling exhausted or overwhelmed by my memory problems.
3. Struggling to complete paperwork or steps to get the services I need.
4. Fearing memory problems will make finding the job I want difficult.
5. Struggling to remember what people have said to me.

Nebraska VR applicants and clients that screen positive for potential brain injury incidents are provided with more information on brain injury and where to locate resources close to home.

In addition to these screenings conducted by Nebraska VR, TBI screenings were planned to be conducted this grant year under a training and capacity building project with five service providers who belong to the Nebraska Association of Service Providers (NASP). Due to unforeseen circumstances, the NASP project has been delayed. This project will be conducted under a no cost extension. At the time of this report, TBI screening data were not yet available from the five service providers participating in this training and capacity building project.

## PARTNER Tool

One of the aims of the TBI project is to increase the collaboration among the key stakeholders or partners. Partnerships are an important element for reaching the outcomes of the project. As a measure of the level of collaboration and effectiveness of the partnerships, the PARTNER tool was selected to be administered to key partners every year as part of the grant evaluation.

Organizations that participate in collaborative work around traumatic brain injury (TBI) in Nebraska have completed the PARTNER survey annually from 2014 through 2017. Other than a couple of minor changes due to changing involvement in the partnership, the same organizations have participated in the survey each year, though there has been some change in the individuals who have participated in the survey due to staff turnover. Following are some key highlights from the four years of the survey (Figures 31 through 33).

Figure 31	PARTNER Tool Summary: <u>Collaboration</u>			
	2014	2015	2016	2017
Collaborating has been successful or very successful at reaching its goals	7 out of 10 (3 no responses)	10 out of 13	9 out of 14	6 out of 11
Top three aspects contributing to the success of the collaboration	<ol style="list-style-type: none"> <li>1. Having a shared mission, goals</li> <li>1. (tied) Exchanging info/knowledge</li> <li>3. Bring together diverse stakeholders</li> </ol>	<ol style="list-style-type: none"> <li>1. Exchanging info/knowledge</li> <li>2. Bringing together diverse stakeholders</li> <li>2. (tied) Informal relationships created</li> </ol>	<ol style="list-style-type: none"> <li>1. Having a shared mission, goals</li> <li>2. Sharing resources</li> <li>3. Bringing together diverse stakeholders</li> </ol>	<ol style="list-style-type: none"> <li>1. Exchanging info/knowledge</li> <li>2. Having a shared mission/goals</li> <li>2. (tied) Informal relationships created</li> <li>2. (tied) Sharing resources</li> </ol>
Top three member contributions to the collaboration	<ol style="list-style-type: none"> <li>1. Info/feedback</li> <li>1. (tied) Community connections</li> <li>3. Paid staff</li> </ol>	<ol style="list-style-type: none"> <li>1. Info/feedback</li> <li>2. Community connections</li> <li>2. (tied) Advocacy</li> </ol>	<ol style="list-style-type: none"> <li>1. Info/feedback</li> <li>2. Data resources</li> <li>2. (tied) Community connections</li> </ol>	<ol style="list-style-type: none"> <li>1. Info/feedback</li> <li>2. Community connections</li> <li>3. Expertise other than in health</li> </ol>
Top three outcomes of the collaborative work	<ol style="list-style-type: none"> <li>1. Public awareness</li> <li>2. Improved communication</li> <li>2. (tied) Increased professional TBI knowledge</li> </ol>	<ol style="list-style-type: none"> <li>1. Improved communication</li> <li>1. (tied) Public awareness</li> <li>1. (tied) Improved resource sharing</li> </ol>	<ol style="list-style-type: none"> <li>1. Improved services for individuals with TBI</li> <li>2. Public awareness</li> <li>2. (tied) Increased professional TBI knowledge</li> </ol>	<ol style="list-style-type: none"> <li>1. Public awareness</li> <li>2. Improved communication</li> <li>2. (tied) Improved resource sharing</li> </ol>
Density score (percentage of ties in the network in relation to the total number of possible ties)	65%	63%	78%	73%

Degree centralization score (the lower the score the more similar the members are in terms of their connections to others – i.e., more decentralized)	41%	44%	26%	33%
Trust score (100% occurs when all members trust others at the highest level)	85%	83%	78%	87%

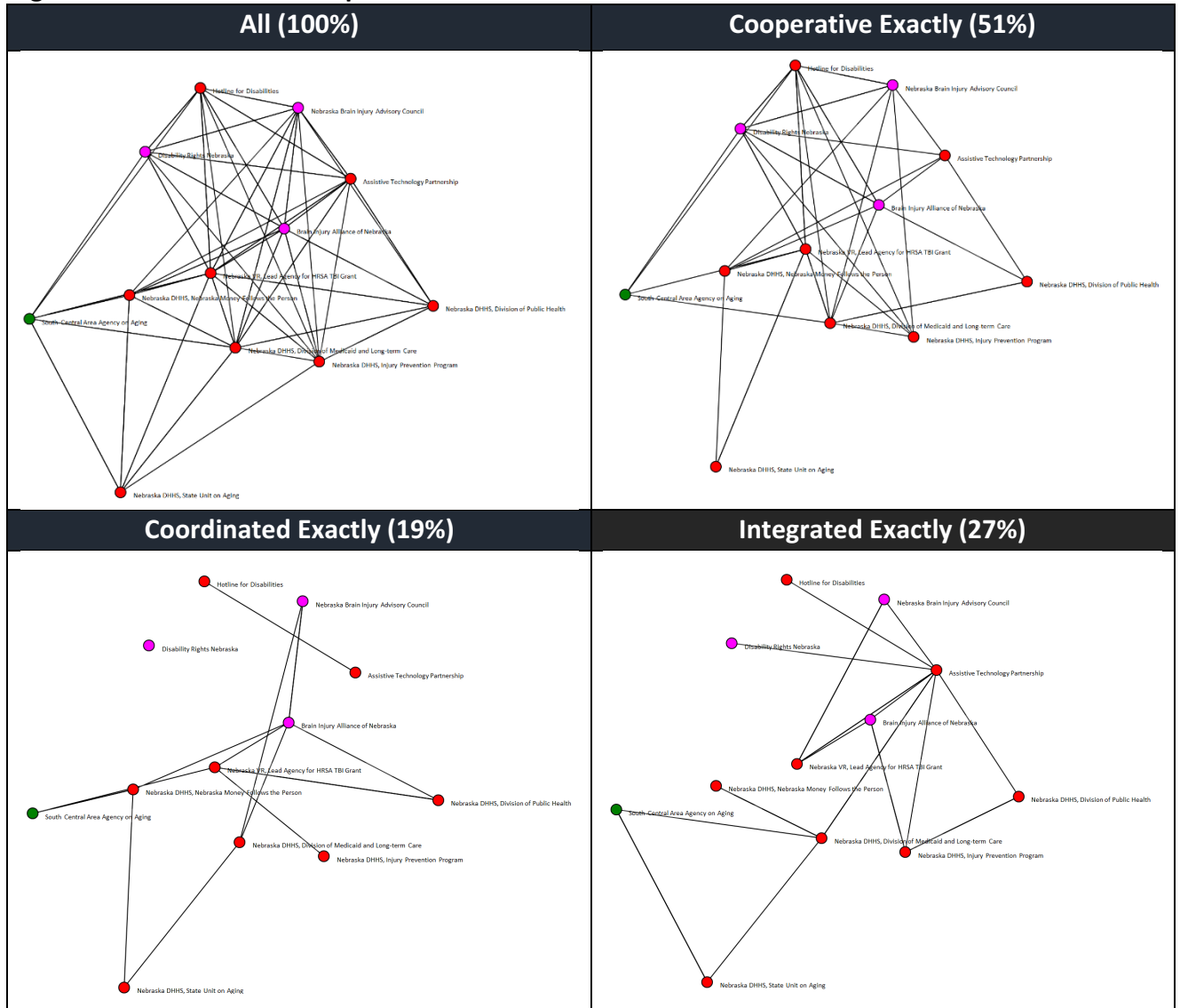
Figure 32		PARTNER Tool Summary: Value and Trust Scores			
		2014	2015	2016	2017
Value (Scale: 1-4)	Overall Value Score	3.28	3.33	3.18	3.22
	Power/influence value measure	3.14	3.34	3.06	3.23
	Level of involvement value measure	3.45	3.30	3.23	3.29
	Resource contribution value measure	3.24	3.35	3.26	3.14
Trust (Scale: 1-4)	Overall Trust Score	3.57	3.55	3.43	3.63
	Reliability trust measure	3.70	3.66	3.41	3.80
	In support of mission trust measure	3.43	3.42	3.48	3.48
	Open to discussion trust measure	3.58	3.58	3.41	3.62

### Network Maps from the PARTNER Tool

Figure 34 shows the network maps from the 2017 PARTNER Tool administrations. Each line represents a network between two different organizations collaborating around the issue of TBI. More lines indicate more collaboration. There are three levels of collaboration:

- **Cooperative Activities:** involves exchanging information, attending meetings together, and offering resources to partners. Example: Informs other programs of RFA release.
- **Coordinated Activities:** includes cooperative activities in addition to intentional efforts to enhance each other's capacity for the mutual benefit of programs. Example: Separate granting programs utilizing shared administrative processes and forms for application review and selection.
- **Integrated Activities:** in addition to cooperative and coordinated activities, this is the act of using commonalities to create a unified center of knowledge and programming that supports work in related content areas. Example: Developing and utilizing shared priorities for funding effective prevention strategies. Funding pools may be combined.

**Figure 33. 2017 Network Map**

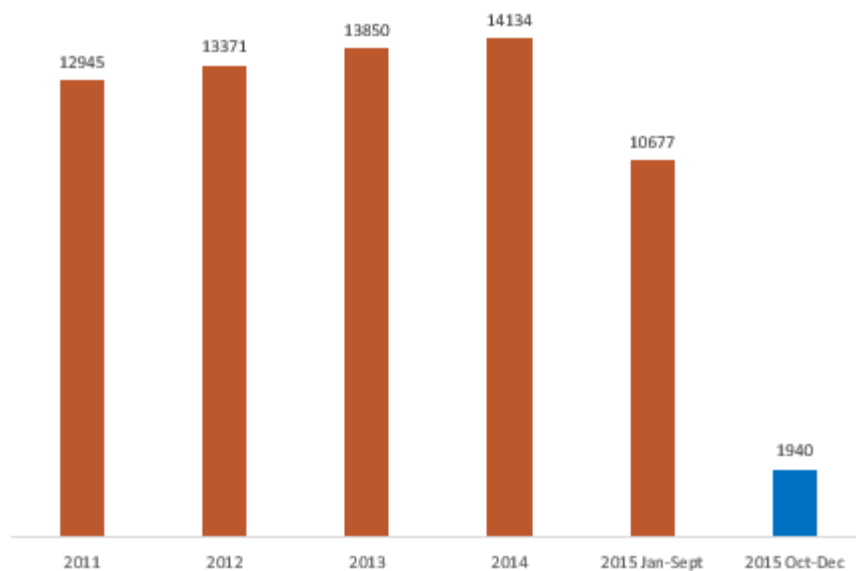


## TBI Registry Data

This section presents TBI Registry Data from 2011 through 2015. Beginning in October 2015, medical coding switched from ICD-9 to ICD-10 coding systems. It remains to be seen how the ICD-10 coding system will affect the number of cases in the TBI registry. The change in TBI definition criteria may lead to fewer cases in Nebraska's TBI registry. At the same time, Nebraska's TBI registry may present a more accurate picture of TBI in the state with the switch to ICD-10.

The number of individuals entering the TBI Registry increased slightly each year from 2011 through 2014. If the two time periods for 2015 are combined, there were 12,617 individuals entering the registry in 2015, marking a five-year low. This is due to the low number of cases collected from October through December of 2015 after the switch to ICD-10 (Figure 34).

**Figure 34. Number of Individuals Entering the TBI Registry (2011-2015)**

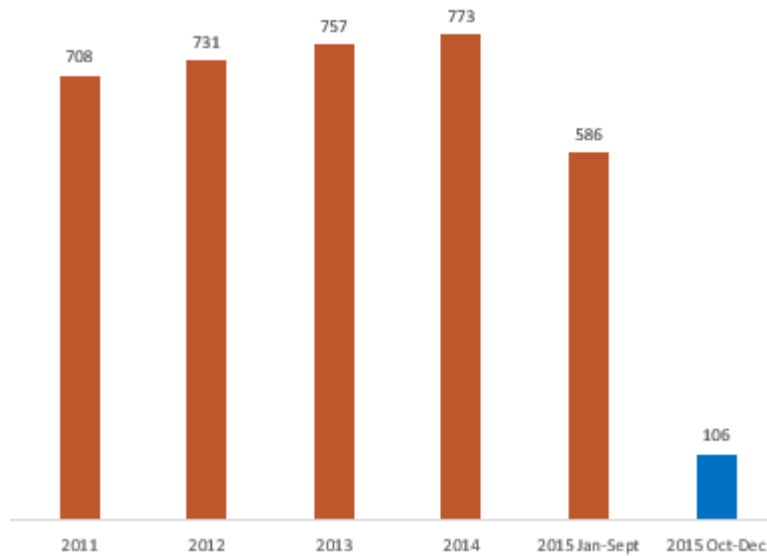


(Source: Nebraska Traumatic Brain Injury Registry)



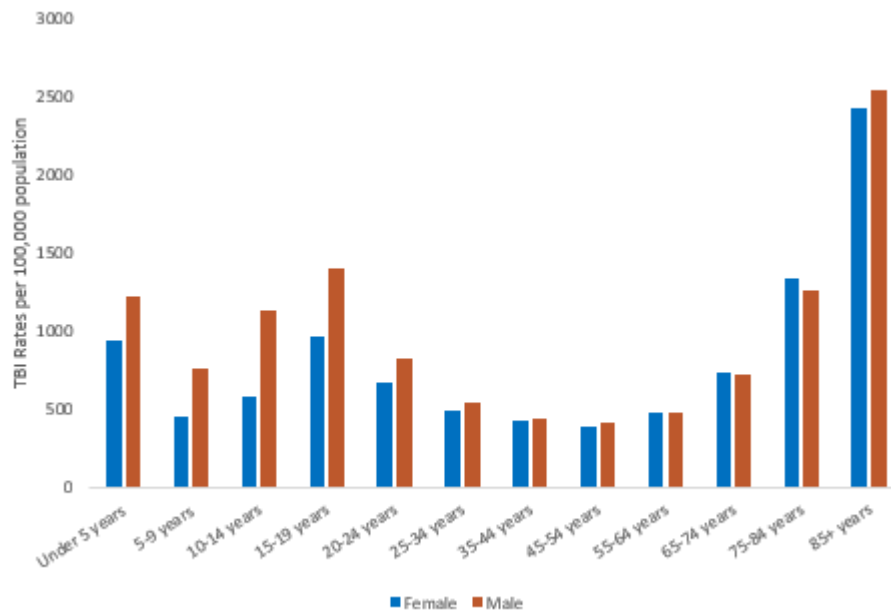
Figures 35 and 36 present data on TBI rates per 100,000 population. TBI's are most prevalent among those 85 and over. Males under the age of 25 have notably higher rates of TBI than females of comparable age.

**Figure 35. Age-adjusted TBI Rates per 100,000 by Year (2011-2015)**



(Source: Nebraska Traumatic Brain Injury Registry)

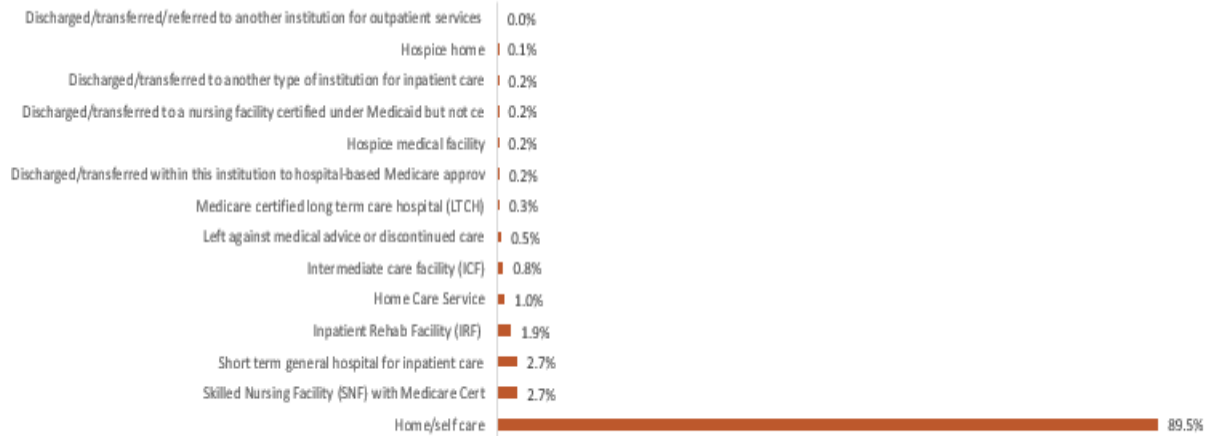
**Figure 36. Gender and Age-specific TBI Rates (2011 – September 2015)**



(Source: Nebraska Traumatic Brain Injury Registry)

The vast majority (89.5%) of TBI patients are discharged to home/self-care (Figure 37).

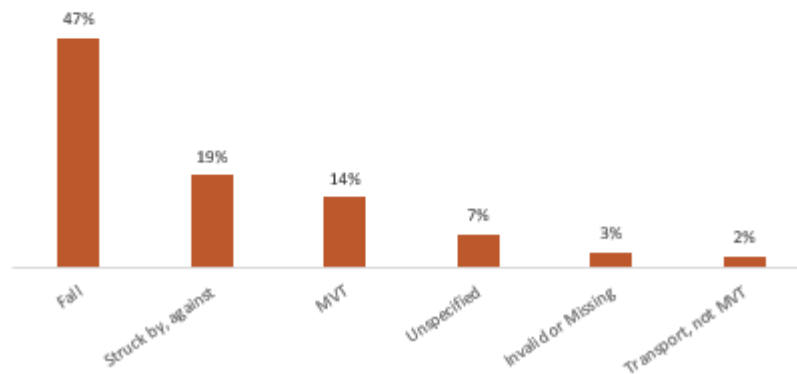
**Figure 37. Discharge Status (2011 – September 2015)**



(Source: Nebraska Traumatic Brain Injury Registry)

The leading causes of unintentional TBI-related injuries is falls, accounting for nearly half (47%) of cases in the registry (Figure 38). Note: MVT stands for “motor vehicle transport”.

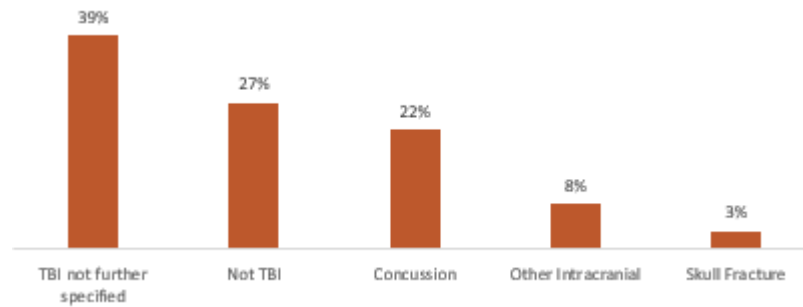
**Figure 38. Unintentional Causes of TBI-Related Injuries (2011 – September 2015)**



(Source: Nebraska Traumatic Brain Injury Registry)

Figure 39 presents a summary of the primary diagnosis codes for TBI cases. It is notable that 27% of the primary diagnoses for patients in the TBI registry are “not TBI”. The TBI for these patients would be indicated in a sub-level diagnosis field.

**Figure 39. Primary Diagnosis for TBI Cases (2011 – September 2015)**



(Source: Nebraska Traumatic Brain Injury Registry)

## **Administrative Advocacy**

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As part of their ongoing TBI-grant funded project, the Nebraska Association of Service Providers (NASP) hosted a series of conversations between its membership of community-based service providers and the Nebraska Department of Health and Human Services (DHHS) regarding the Aged and Disabled (A & D) Waiver, and how to expand the Independent Skills Management waiver service to serve more people with long-term cognitive challenges due to brain injury. This service is significantly underutilized and could be a new resource for A & D Waiver beneficiaries to achieve a greater level of independence both at home and in their community. The project has been extended into FY 2018-2019.