2016 Community Health Needs Assessment

The Rehabilitation Institute of St. Louis
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I. EXECUTIVE SUMMARY

The Rehabilitation Institute of Saint Louis is a 96-bed acute-rehab hospital located at 4455 Duncan Ave. in the Central West End of St. Louis City. We are a joint venture entity between Encompass Health (for-profit) and Barnes-Jewish Hospital (not-for-profit) with affiliation with the Washington University School of Medicine. We have both inpatient and outpatient services for the residents of St. Louis City and surrounding areas. We offer expertise in many rehabilitation programs and treatments are designed to meet the needs of specific conditions. The conditions we treat are:

- Stroke
- Amputations
- Parkinson’s Disease
- Multiple Sclerosis
- Arthritis
- Brain Injury
- Multiple Trauma
- Hip Fractures
- Joint Replacement
- Burns
- Neurological Disorders
- Spinal Cord Injury
- Other Orthopedic Injuries/Conditions

Our hospital complies with local, state and federal regulations. We are accredited by The Joint Commission (TJC), a leader in determining quality and safety standards for healthcare delivery, and the Commission on Accreditation of Rehabilitation Facilities (CARF).

Our certified stroke program has earned Disease-Specific Care Certification from The Joint Commission. We also have disease specific Stroke and Brain Injury Certification for CARF.

According to the Patient Protection and Affordable Care Act (PPACA) passed in March 2010, all not-for-profit hospitals are required to complete a community health needs assessment (CHNA) and implementation plan every three years. Because of the partnership relationship between The Rehabilitation Institute of St. Louis (TRISL) and BJC HealthCare, it was determined that TRISL is required to participate in this process. As part of this process, TRISL must solicit input from those who represent the interests of the community served by the hospital, as well as those who have special knowledge or expertise in the field of public health. We must also include in the assessment a clear definition of the community. TRISL has defined St Louis City— the city in which it is physically located, as the primary community for this CHNA.
Reason for the Report: To continue to improve the rehabilitation services and resources we provide for our patients and their families in the community, we conducted a Community Health Needs Assessment (CHNA). We obtained input from various agencies in both the rehabilitation and public health settings.

Methodology: Our approach for the 2016 CHNA began by creating a list of rehabilitation community resource groups, as well as public health experts. As a hospital within BJC Healthcare, we had access to the BJC market research group to assist us in conducting focus groups and summarizing the findings of the telephone interviews and surveys. With these interviews we obtained foundational information used to assess the community needs.

We used data collection sources on Traumatic Brain Injury, Stroke, as well as on population health, ethnicity, education, insurance, and social economic characteristics from additional sources. Our sources included:

- Missouri Information For Community Assessment (MICA)
- Missouri Department of Health and Senior Services Green Book
- CDC National Health and Nutrition Examination Survey (NHANES)
- US Census Bureau

Findings

The external group surveys revealed that the greatest needs as seen by our workgroup were:

- Access to Insurance Coverage
- Transportation
- Emotional Health and Support
- Health Education and Prevention
- Health Literacy
- Access to Rehabilitation Services
- Exercise and Physical Activity

As in 2013, we again looked at our patient population and identified the greatest need in our two most prevalent populations treated:

- Stroke
- Brain Injury

The internal workgroup referenced several sources of secondary information to validate the two areas identified with the greatest need. The internal workgroup met in two roundtable discussions to examine the external focus group interviews and to look at our own data for greatest needs among our inpatients and outpatients. They noted the greatest needs that could be addressed would be limited due to our facility size and staffing. The group looked at the programs we already offered and for overlaps in the data.
Next, a realistic, prioritized list was created. Considerations such as our staffing, in-house expertise, current program offerings and financial constraints were utilized when prioritizing identified needs. This resulting list is comprised of areas that would best serve our community.

Conclusion: Based on the research from our study, our resources, expertise, and current offerings the following will continue to be the focus of our implementation plan:

- Stroke Education & Prevention
- Brain Injury Awareness Education (caregiver/family/prevention).

II. COMMUNITY DESCRIPTION

A. Overview and Map

The Rehabilitation Institute of Saint Louis is located at 4455 Duncan Ave. in the Central West End of St. Louis City. For the purposes of this survey, the community that we serve would be defined as St. Louis City. It is approximately 62 square miles in size and has a population of about 5,157 per square mile, according to 2010 census statistics. It is bordered by the Mississippi-Missouri Confluence to the north, the Mississippi River on the east, River Des Peres on the south and St. Louis County on the west.

St. Louis City is broken down into 79 distinct neighborhoods, as pictured below in the map. The neighborhoods were once very ethnically divided but over the past 50 years those ethnic areas have changed and become more diverse in makeup.
B. Demographics

Population

In order to effectively look at the urban community we serve, we first had to look at the demographics of the region.

According to U.S. Census estimate for 2015, St. Louis City has a population of 315,685 which is about 5.2% of the state of Missouri’s total population in comparison to St. Louis County at 1,003,362 or about 16.5% of the State. St. Louis City population has been slowly declining since 2010 by about a rate of .3% and is expected to continue to decline at a similar rate over the next few years, even though the Missouri population is expected to increase by a total of 1.6% overall during the same five year period.

Our patient population originates from more varied locations. An estimated 50% come from St. Louis City, 12% come from St. Louis County, and the remaining 38% come from Missouri counties beyond St. Louis County and from out of state locations.
Age

The City of Saint Louis has a median age of 34.4 years which is slightly younger than Missouri’s median age of 37.0 years.

St. Louis City Age Breakdown

<table>
<thead>
<tr>
<th>Age</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 5 years</td>
<td>20,835</td>
<td>6.6</td>
</tr>
<tr>
<td>5-19 years</td>
<td>56,192</td>
<td>17.8</td>
</tr>
<tr>
<td>20-29 years</td>
<td>60,612</td>
<td>19.2</td>
</tr>
<tr>
<td>30-44 years</td>
<td>64,175</td>
<td>20.5</td>
</tr>
<tr>
<td>45-59 years</td>
<td>64,084</td>
<td>20.3</td>
</tr>
<tr>
<td>60-79 year</td>
<td>38,514</td>
<td>12.2</td>
</tr>
<tr>
<td>80 years and over</td>
<td>10,733</td>
<td>3.4</td>
</tr>
</tbody>
</table>

Source: US Census Bureau
Race and Ethnicity

When compared to the state of Missouri, St. Louis City varies greatly in racial and ethnic composition. St. Louis City is 49.2% Black/African American, 43.9% White, 3.5% Hispanic, 3.4% other. Health concerns are higher among the Black/African American population as this group has statistically higher rates of high blood pressure and diabetes, and are therefore at a greater risk for developing strokes.

Source: US Census Bureau
Household Income

The average household income in St. Louis City is $34,800, which is much lower than the Missouri average of $47,764. It is also noted that approximately 28% of St. Louis City Residents, according to the US Census Bureau estimate for 2015, are living below the poverty level (household income less than $15,000) as compared to the much lower levels in surrounding counties and Missouri’s rate of about 15.6%. These poverty rates are approximately 7% higher than those seen in St. Louis City during the 2013 assessment. Low-income families and those living below the poverty level generally have less access to healthcare, especially preventative healthcare, and often use urgent care or the Emergency Department versus primary care when healthcare is sought.

Source: US Census Bureau
Education and Unemployment

According to the U.S. Census Bureau, approximately 83.2 percent of St. Louis City residents have at least a high school education or greater in residents over age 25. At 16.8% we exceed the statewide average of 12%, as well as 7.4% in St. Louis County, that do not have at least a high school diploma.

Subsequently, lower levels of education are usually sound indicators of higher unemployment rates. In comparison to the state, which has an unemployment rate of about 5.7%, St. Louis City has a current unemployment rate of about 6.8% compared to about 5.3% in St. Louis County.

Insurance Status

People without health coverage are at risk for inconsistent and insufficient health care. They often lack access to preventative care, do not have a primary care physician to coordinate care, and tend to be more ill than the insured when they do present to a healthcare professional for treatment.

Unemployment, inability to afford premiums, and recent changes in employment are just a few of the reasons that about 11% of all Missourians are uninsured, according to 2015 statistics. While the number of uninsured is still high, it is a 21% decrease from the number of uninsured Missourians.
witnessed in the 2013 assessment. However, the rate of uninsured in the city of Saint Louis during the same period was markedly higher at 16.3%

**Socioeconomics**

All in all, the socioeconomics of a community greatly influence the health of a community. Education, income, unemployment, and insurance are key predictors in assessing a community’s health. Low-income and impoverished households tend to follow improper diets and have limited availability to healthcare. In order to better serve our community, it was important for our research to provide a better understanding of it.

**Ferguson Unrest**

On Aug. 9, 2014, Darren Wilson, a white police officer in Ferguson, Mo., a suburb of St. Louis City, shot and killed an 18 year old black man named Michael Brown, who was unarmed. The shooting prompted protests, violent riots, vandalism and looting in the area lasted for more than a week. On Nov. 24, the St. Louis County prosecutor announced that a grand jury had declared the shooting self-defense and would not move to indict Officer Wilson. This announcement led to another wave of protests, many of them again violent. In March of 2015, the U.S. Department of Justice cleared Officer Wilson of civil rights violations in the shooting.

This incident generated national debate about the relationship between law enforcement and African Americans, as well as Missouri police’s use-of-force doctrine. It greatly impacted many people in the communities that we serve and, as such, has had significant impacts on the health needs of our population. Many of our employees reside in, or have friends in the Ferguson area and must be able to provide unbiased care to the citizens of this community should they become patients.

**III. LAST CHNA MEASUREMENT AND OUTCOMES RESULTS**

The previous Community Health Needs Assessment identified two goals that would address community need and health: 1) To promote stroke education and prevention and 2) Prevent brain injury and increase knowledge level of care givers. Below are the actions taken to meet these goals

**A. Stroke education and prevention:**

- TRISL provided blood pressure checks/screenings in May as part of Stroke Awareness month. The screenings are an opportunity to provide education and resources on the signs/symptoms of stroke and stroke prevention for outpatients, visitors, community and staff. These screenings are done annually.
- TRISL collaborated with the ABC Brigade to support stroke survivors and aid in stroke education and prevention by aiding in community events such as the Strokes for Stroke golf tournament, the annual Stampede for Stroke 5k run/1 mile walk and an annual trivia night. The events provided community awareness and education in stroke prevention.
• TRISL participated in a community health event hosted at a local shopping center where blood pressure screenings were conducted and education on stroke prevention was provided. The goal of this event was to increase community awareness regarding the risk factors and prevention of strokes.

• TRISL worked collaboratively with Washington University School of Medicine to provide rehabilitation seminars for caregivers and to host a stroke-based research conference for participants, staff and community care givers. This event provided education not only on stroke prevention, but on best practices in stroke recovery.

• TRISL developed an education series with verbal pre and post test evaluations for current stroke patients and family to prevent the reoccurrence of stroke. Written tests are not given or graded so as not to discourage the patient through the course of treatment. The oral test is used as a reinforcement strategy as well as a validation tool during training to evaluate comprehension and knowledge retention. This ensures patients are knowledgeable in ways to prevent stroke recurrence after discharge from TRISL upon completion of rehabilitation.

B. Brain Injury Prevention and caregiver education:

• TRISL developed an education series for patients and caregivers of traumatic brain injury. The series focused on safety topics to ensure patients could return to the community safely and informed caregivers of resources available in the community to lend support in care of their family members recovering from brain injury.

• TRISL sponsored events that supported brain injury prevention such as car seat evaluations for patients, families, the community and staff.

• TRISL developed an education series for patients with verbal pre and post evaluations for current Brain Injury patients and families to reduce future brain injury events and promote safety while recovering. Using the verbal testing versus a graded post test decreases the potential for possible discouragement during the recovery period while allowing the treatment team to focus on the specific knowledge deficits experienced by each patient. This method of education validates knowledge retention and ensures patients return to the community safely and more knowledgeable about preventing future brain injuries.

All of the above events were successful avenues for providing education to the community members on stroke and brain injury. They were very well received by the community and our staff. While the goal of the initiatives was to measure the amount of knowledge increase related to the event, this was difficult because there were no pre or post testing measures available. However, feedback from TRISL staff who provided the education and resources at the events was very positive. Good questions were asked by community members and answered by the TRISL staff. Resources were made available and well received. It is felt that knowledge was attained by the community however the amount retained is not easily measured since we may have little contact with the community members after the event. Knowledge level was definitely enhanced in our current patients recovering from stroke and brain injury and with their family members. This enhanced knowledge level is evidenced by our improved outcomes and reduction in readmissions of patients with repeat occurrence of new stroke and brain injury in our patient population.

IV. CONDUCTING THE NEEDS ASSESSMENT
A. Organizational Structure

TRISL formed an internal CHNA work group of clinical and nonclinical staff to analyze primary and secondary data. The internal work group members were selected based on their background and experience in community outreach, public health, and TRISL patient population. The internal team included the Associate Administrator, Therapy Managers (program leaders for brain injury and stroke), and Nursing Managers. The organizational structure also included members of our Community Advisory Board who provided information on community resources related to rehabilitation services.

B. Primary Data Collection

To fulfill the PPACA requirements, TRISL conducted in-depth interviews with public health experts and those with a special interest in the rehabilitation health needs of St. Louis residents. Hospital representatives created a list of community leaders who were each sent a letter (Appendix A) from TRISL Chief Executive Officer, Tara Diebling, inviting them to participate in the process. Ten individuals representing St. Louis organizations participated in the interviews (Appendix B). Each discussion lasted around 30 minutes.

These interviews were held on August 19th and 22nd via telephone. The interviews were conducted by Jane Schaefer, Manager of Strategy & Operations and Nishita Dsouza, Graduate Administrative Intern, both of BJC HealthCare. Nishita Dsouza placed and conducted each individual conference call while Jane Schaefer observed and took notes on behalf of TRISL and BJC.

KEY FINDINGS AND FEEDBACK ON THE NEEDS BEING ADDRESSED:

The majority of stakeholders felt the needs TRISL identified in the first implementation plan were comprehensive and thorough and stated that TRISL was making good progress on addressing them, and should continue in this direction. Specific feedback on each of the focus areas is listed below:

Access to Rehabilitation Services

- Many stakeholders stated that access to rehab services is an ongoing issue.
- Patients have to wait several weeks for services.
- Patients need to access to services sooner.
- Commended TRISL’s forward thinking abilities, structure and support that allows for the growth of new programs through the TRISL Community Advisory Board.

Access to Health Insurance Coverage

- Stakeholders perceived an improvement in health insurance coverage due to the implementation of the Affordable Care Act, but stated that it remains an issue facing the population served by TRISL. Stakeholders emphasized the importance of health education and prevention messaging.
- There was also a perception that insurance is covering less and less in terms of rehabilitation
services.

- Stakeholders stressed the importance of raising awareness of coverage gaps.

**Health Education/Prevention**

- Stakeholders emphasized the importance of health education and prevention messaging.
- Recognized the importance of education throughout the continuum of care.
- Education needed, not just during the delivery of services, but after discharge as well.
- It is also important not to overlook care giver education.

**Transportation to Medical Appointments**

- Stakeholders perceived this to be one of the largest barriers, and expressed a need for improvement towards this goal.
- TRISL should undertake additional research to understand the transportation gaps, in addition to educating people on the best transportation options.
- There is very little that TRISL can do about enhancing transportation services, and considered it as a lower priority.

**Exercise/Physical activity**

- Stakeholders emphasized the importance of ongoing exercise and physical activity, and expressed their desire to have TRISL expand in this area.
- It is important to provide continuing education about the mental and physical health benefits of exercise and physical activity.

While the majority of stakeholders stated that TRISL had made many efforts and progress towards these needs, they felt that there is still room for growth within these five areas and many other efforts that can be implemented over the next several years.

**CHANGES SINCE THE 2013 CHNA:**

**Changes in the type of Patients**

- Stakeholders mentioned the changes in prevalence and incidence of debilitative conditions, and a need for improved data collection.
- One stakeholder stated that the state of Missouri has the 4th highest stroke rate in the nation.
- Another stakeholder pointed to changes in statistics due to increased accuracy in diagnosing, which led to increased diagnoses of post-concussive syndrome, for example.

**Changes in access to services**

- Due to Missouri’s lack of Medicaid expansion, there are limitations on access to rehabilitation services.
- Inpatients now have shorter acute care stays.
- Patients also face barriers with regard to access to medications.
The closing of the Missouri Rehabilitation Center in Mount Vernon, MO in October 2014 has also reduced the number of options available to patients needing care.

Since 2013, national health insurance based on the ACA has been implemented. However, many patients also do not realize the true cost of their health insurance deductibles.

**Changing nature of care providers**

- One stakeholder stated that case managers often have more patients than they can handle, but have grown into their roles of getting patients the holistic treatment they need.
- Another stakeholder also discussed the importance of strengthening a patient’s support system, and the role that case managers play in that process.

Stakeholders also stated the importance of **community connections**. Since 2013, connecting patients to community resources before they leave an inpatient setting has become more important.

**ISSUES THAT MAY BECOME MORE IMPORTANT IN THE FUTURE:**

**Technology**

- Increased use of Tele-health to deliver health care services and education, especially in rural areas.
- Stakeholders also expressed a desire to increase education about new devices that help patients increase their independence.

**Demographic Changes**

- The aging population and the rising trend of younger individuals facing debilitating conditions.
- One stakeholder specifically mentioned concerns about the younger population (25% under age 65) who are stroke victims.
- Stakeholders discussed the importance of including provisions for the Baby Boomer population, and ensuring that the limited resources available are distributed appropriately.
- One stakeholder stated that case managers often have more patients than they can handle, but have grown into their roles of getting patients the holistic treatment they need.
- Stakeholders expressed concern that long-term care will not be accessible to all, and there will be a much greater demand for rehabilitation services.
- They emphasized the importance of factoring in demographic changes into future planning.

**Health Care Coverage**

- Many stakeholders also discussed the **changing nature of health insurance coverage**.
- Stakeholders perceive that insurance is covering less and less, mostly affecting the middle class and those in lower socio-economic brackets.
- They are concerned that the burden will fall on rehabilitation service providers to pick up the slack.
Other Services

- Stakeholders also discussed many other services along the continuum of care that TRISL should consider providing or collaborating with others to provide. Such examples include home healthcare specifically for those with brain injury, rehabilitative cognitive therapy as required coverage, medication education, and self-management programs.

Lastly, stakeholders emphasized the importance of community collaboration in the future, and how healthcare as a field is transitioning to community-based provision of services. There is even a greater need to connect patients to community resources before they are discharged from their inpatient rehabilitative stay.

C. Secondary Data Analyses:

The primary sources of secondary data collection include:

- Missouri Information For Community Assessment (MICA) - According to the Department of Health and Senior Services, Missouri Information for Community Assessment (MICA) is an interactive system that allows the user to create and download tables, based on selected variables.
- Department of Health and Senior Services - Brain Injury Green Book A guide provided by the Department of Health and Senior Services on living with Traumatic Brain Injury.
- The National Health and Nutrition Examination Survey (NHANES) is a program of studies designed to assess the health and nutritional status of adults and children in the United States. The survey is unique in that it combines interviews and physical examinations.
- Brain Injury- Regional Information

Brain injury occurs at every age level. Some of the most common causes are motor vehicle accidents, falls, bicycle injuries, and sports injuries. Brain injuries are often misunderstood and not only cause physical problems but cognitive, emotional, and social relationship issues. The difficulties that some patients encounter can also include a change in personality. It is extremely hard to predict what changes will occur with a traumatic brain injury. Common problems associated with traumatic brain injury may include:

- Motor skills: weakness or paralysis on one side of the body, balance and coordination issues, decreased endurance, muscle stiffness
- Perceptual: may have sense (smell, hearing, taste, touch, seeing) issues to fixed objects
- Memory and learning: problems with short term memory, slower and limited learning, and difficult retrieving long term memories
- Executive reasoning: reasoning, problem solving, thinking, and attentiveness.
- Speech and Language: difficulty in expressing thought or speaking clearly.
- Emotional changes: anxiety, frustration, moodiness, and depression.

- **Stroke - Regional Information**

Next, we focused on the Stroke Risk Profile for the St. Louis City and County as well as the state of Missouri, since more than 38% of our patients came from beyond St. Louis City and County.

In the Stroke Profile for Missouri completed by county in 2013 and 2014 respectively, St. Louis City shows a higher incidence of diabetes, physical inactivity, obesity, and a history of tobacco use as compared to St. Louis County and Missouri as a whole. Again we referenced the latest Behavioral Risk Factor Surveillance Survey (BRFSS) from 2009 that a reported 78.9% of Missouri residents incorrectly answered a question about the signs and symptoms of stroke.

![Stroke Risk Factors (City, County, State)](chart)

Source: MICA

Based on these two surveys and other information from the Behavioral Risk Factor Surveillance Survey performed in 2014 on stroke prevalence in Missourians, we determined there is a need for stroke education, prevention, and community awareness, especially in the African American sector of the community.

According to a National Health and Nutrition Examination Survey (NHANES) published by the CDC, African Americans tend to have higher incidences of hypertension, thus are generally at a
higher risk for developing strokes.

<table>
<thead>
<tr>
<th></th>
<th>Non-Hispanic Black</th>
<th>Non-Hispanic White</th>
<th>Non-Hispanic Black/Non-Hispanic White Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age-adjusted percentage of persons 20 years of age and over who have high blood pressure, 2011-2014.</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>National Health and Nutrition Examination Survey (NHANES)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Men</strong></td>
<td>42.4</td>
<td>30.2</td>
<td>1.4</td>
</tr>
<tr>
<td><strong>Women</strong></td>
<td>44.0</td>
<td>28.6</td>
<td>1.5</td>
</tr>
</tbody>
</table>

*Source: CDC 2015 Health United States, 2015. Figure 23.*

The hospitalization rate for stroke and other cerebrovascular diseases also indicates there has been no significant decrease in the hospitalization of African Americans that present with stroke or other cerebrovascular incident over the last two decades and is still considerably higher than those of the state average and the much lower rate of the white population of St. Louis City as indicated in the trend lines below.

- **Physical Activity Availability at TRISL**

To review our provisions for physical activity, we evaluated current offerings for exercise classes such as a general aquatics class and a specialty class called “Muscles in Motion”. With the help of the ABC Brigade, and by engaging both the MS Society and Parkinson’s Society, future development and offering of additional disease specific courses may also be an option.

- **Access to Resources at TRISL**

We discussed in great length the resources for education we currently offer our patients. We offer brain injury and caregiver education for inpatient families as well as host several support groups who use our settings for their monthly meetings. Expanding support groups may prove challenging due to limited meeting space.
Currently, specialty education sessions are offered including a series focused on cognition. Community and survivor supported groups host sessions at TRISL, such as “Partners in Stroke”. Underfunded and/or unfunded patients are offered access to programs and education series at TRISL through both the financial assistance policy provisions and free offerings.

- **Transportation**

Transportation resources present constraints due to the number of patients in need of suitable transportation for appointments. Around 50% of community patients are St. Louis City residents and about 26% of that demographic is living under the poverty level. A need for affordable transportation for patients with disabilities or that are rehabilitating exists. Accommodations for wheelchairs or lifts often offer challenging circumstances for transportation.

Many patients need a caregiver or family member for transportation to appointments. Accompanying patients may require time off from work. A well researched and literacy appropriate resource guide for patients, providing accurate source information that is disability-friendly, reliable, and affordable is needed. Free or low-cost transportation options, as well as full-service options for all patients are also needed.

TRSL had offered transportation services based on need to patients in the past. Because this program was discontinued, we discussed the possibility of using the available resources to offer a low fee-based service that could help fill in the gaps as well. However, we need more time to research costs, availability of staff, and the potential need but decided to conduct further investigation into this as a possible offering in 2017.

**D. Prioritization of Health Needs:**

In October 2016, TRISL’s internal work group reviewed and discussed the information given by our community peers and organizations. The work group evaluated internal resources to ascertain the most important needs we could address for the rehabilitative community. Considerations were filtered through resource availability, and then prioritized with the following queries:

1. Magnitude of the need includes the number of people impacted by the needs.
2. Severity of the need includes the risk of morbidity and mortality associated with the problem.
3. Impact of the need on vulnerable populations.
4. Importance of the need to the community.
5. Existing resources addressing the need.

The group conclusively identified the need for educational sessions as a continued theme. Both caregiver education and prevention/education continued to be a priority. Stroke prevention and education remain highlighted as needs, as well as brain injury education again as in 2013.
Physical inactivity for patients once they discharged from TRISL services was a significant issue. Addressing the need for rehabilitating patients needing exercise was important. Transportation was often a resource needed as well.

Once filtered through the above prioritization criteria, secondary data considerations were applied. Needs were prioritized by ranking the list of the top five needs based on the responses from the interviews.

- Access To Health Insurance Coverage
- Health Education/ Prevention
- Transportation
- Access to Rehabilitation Services
- Exercise

Work group discussions yielded education as the most important need and known gap we could address. Stroke and brain injury continue to be the priority two groups for focus within the rehabilitation population. In 2014 and 2015, approximately 27% of our total patient population was admitted with a stroke or cerebrovascular diagnosis code. Additionally, TRISL experienced an increase from 15% to 16% in brain injury patients from 2014 to 2015.

Based on our expertise and resources, TRISL will select two areas for focus:

- Stroke education /prevention
- Brain injury awareness education
APPENDIX A

5 August 2016

Dear _____:

As a valued member of our community, we appreciate your participation and engagement with our facility. It is always important for us to reach out to leaders such as yourself to obtain input and feedback as a way to improve the health and wellbeing of the patients we serve.

In 2013, we completed our first Community Health Needs Assessment (CHNA) as required by the 2010 Patient Protection and Affordable Care Act (PPACA). As you may recall, because of our affiliation with BJH Healthcare, The Rehabilitation Institute must comply with this requirement. At the time, we solicited feedback from local rehabilitation professionals about their views of the rehabilitative health needs of the community. We are once again asking for your help.

Your input will be critical to ensure that voices are fully heard from various organizations and facets of our community. We are requesting the opportunity to conduct a short telephone interview with you sometime in the next two weeks. We have attached a brief summary of the needs identified in the 2013 CHNA for you to review, along with several questions we would like you to consider prior to the telephone interview. The interview should take no more than 20 minutes of your time.

You can also read the complete 2013 CHNA by going to The Rehabilitation Institute’s website at www.rehabinstitutestl.com and scrolling halfway down to the section on the right, Community Health Needs Assessment.

These interviews will provide our hospital with vital information that will be used in the refinement of our 2016 Community Health Needs Assessment and corresponding strategic implementation plan, all of which will be shared with you once complete. We hope you will be able to participate.

We appreciate your consideration of our request. You will be contacted very soon by Jane Schaefer in order to schedule the interview. If you would like to contact Jane to schedule the interview prior to her call, you can reach her at jas2582@bjc.org.

Thank you for all that you do on behalf of the rehabilitation community of St. Louis.

Sincerely,

Tara Diebling
Chief Executive Officer
The Rehabilitation Institute of St. Louis
## APPENDIX B

### PARTICIPATION ROSTER

<table>
<thead>
<tr>
<th>First Name</th>
<th>Last Name</th>
<th>Organization</th>
<th>Interviewed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Debbie</td>
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<td>X</td>
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<td>Kathy</td>
<td>Howard</td>
<td>ABC Brigade</td>
<td>X</td>
</tr>
<tr>
<td>Suzanne</td>
<td>Carron</td>
<td>National Multiple Sclerosis Society, Gateway Chapter</td>
<td>X</td>
</tr>
<tr>
<td>Kristine</td>
<td>Ward</td>
<td>BJC Home Care Services</td>
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<tr>
<td>Beth</td>
<td>Dauber</td>
<td>MO Dept. of Elementary &amp; Secondary Education, Dept. of Vocational Rehabilitation</td>
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<td>Gateway Apothecary</td>
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<td>Carla</td>
<td>Walker</td>
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<tr>
<td>Aimee</td>
<td>Wehmeier</td>
<td>Paraquad</td>
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<td>Lauren</td>
<td>Wagner</td>
<td>MO Dept. of Health &amp; Senior Services, Adult Brain Injury Program</td>
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<tr>
<td>Maureen</td>
<td>Cunningham</td>
<td>Brain Injury Association of Missouri</td>
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<tr>
<td>Amy</td>
<td>Jacobs</td>
<td>BJC Hospice</td>
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APPENDIX C

FOCUS GROUP ASSESSMENT WORKSHEET

1) Do you feel that these are still the right areas on which to focus? Is this the course we should continue to follow?

2) Is there anything that should come off of the list? Anything that you feel should no longer be a priority?

3) Where are the gaps in what we are doing to address these needs? Are there new issues we should consider collaborating?

4) Has the world changed since 2013 when we first identified these needs? Are there new issues we should consider addressing? What is missing?

5) Are you aware of other organizations who are also addressing these needs with whom we should consider collaborating?

6) What issues do you anticipate becoming a greater concern in the future that we should be considering now? What do you see coming down the road?
VI. IMPLEMENTATION PLAN

A. COMMUNITY HEALTH NEEDS THAT TRISL WILL ADDRESS

Community Health Need: Brain Injury Prevention and Caregiver Education

Rational:

Approximately 14,000 Missourians are taken to emergency rooms with a traumatic brain injury annually.

- Data indicates that youth age and 15-24 and the 25-44 are trending higher because of physical activity and are at higher risk than other age groups.
- Data indicates that those 65+ are at greater risk of traumatic brain injury from falls and has seen significant growth in a smaller demographic.
- There is a continuing need for education to reduce and understand the long-term effects of traumatic brain injury.

Program goal

To prevent traumatic brain injury and increase knowledge level of care givers.

Program objectives

1. To increase brain injury prevention knowledge level by 15% at the end of each pre- and post-test among all ages in the community we serve.
2. To increase knowledge level of those who provide care to brain injured patients by 15% at the end of each educational session.

Action plan:

- Offer a free education series for caregivers of traumatic brain injury patients.
- Offer caregiver talks to those caring for 65+ populations on the importance of preventing falls.
- Work with OASIS and/or skilled nursing partners to create brain injury prevention class for caregivers.
- Set up at least four “Think First” talks to school age children in the St. Louis community annually. Include both elementary and high school audiences.
- Set up pre- and post-test for all education talks/series to insure level of knowledge about brain injury care and/or prevention is met.

Outcome: Reduce brain injury and increase knowledge among care takers.

Outcome measurement: The pre-test result will be compared to the post-test score to analyze changes in the knowledge level of participants.
Community Health Need: Stroke Education/Prevention

Rational:

- In 2009 an estimated 78.9% of all Missourians did not recognize the signs/symptoms of stroke.
- Data indicates that those 65+ are at greatest risk for stroke.
- There is a continuing need for education to reduce stroke prevalence especially in African Americans and those who have limited access to health/preventative care.

Program goal: To promote stroke education and prevention.

Program objective: At the end of each session, program participants’ knowledge level will increase by 20%.

Action Plan:

- Use the month of May as Stroke Awareness month offering blood pressure checks and provide literature/resources on the signs/symptoms of stroke and stroke prevention information for outpatients, visitors, community and staff.
- Work with OASIS to provide talks on stroke signs and symptoms and healthy lifestyle changes for prevention.
- Continue support of the ABC Brigade in supporting stroke survivors and aiding in stroke education/prevention by aiding with Strokes for Stroke, Stampede for Stroke, and their annual trivia night.
- Work with ABC Brigade to offer at least one community prevention event out of house in 2017.
- Set up pre and post-test for all education talks/series to insure level of knowledge about brain injury care and/or prevention is met.

Partners:

- ABC Brigade
- OASIS
- WUSM.

Outcome: Stroke prevention

Outcome Measurement: Each participant will receive pre- and post-test at the beginning and end of the session. The two results will be analyzed to determine if there is an improvement in the knowledge level.
B. NEEDS NOT TO BE ADDRESSED

Access to Resources/Inadequate Insurance

Being an entity that is half for-profit and half non-profit and having limited resources, we chose not to address this community need. We do however offer a reduced fee for outpatient services for those without insurance on a self-pay basis. We also offer charity cognitive therapy visits for brain injury patients for those that are 21 years of age and under as referred to us by BJH. We also have resources such as Paraquad visit with our spinal cord injury inpatients before discharge to aid with additional community resources that are available to them. We also have a Partners in Stroke support group that is available for both inpatient and outpatient stroke patients.

Transportation

Being an entity that is half for-profit and half non-profit and having limited resources to service our inpatient clients we decided we already provide what we can to address appropriate transportation needs for our targeted area. We provide transportation for inpatient needs to go out to physician appointments as well as have developed a comprehensive list of transportation alternatives for disabled and rehabilitating patients for patients and caregiver who need to seek alternate transportation.

Exercise/Physical Activity

Being an entity that is half for-profit and half non-profit and having limited resources to service our inpatient clients, we decided we already provide what we can to address affordable, safe, exercise classes that can continue beyond regular therapy visits or if recommended by physician and/or therapist. We have limited space to offer community programming and currently offer a low-cost alternative for rehabilitating patients and work with the ABC Brigade to offer scholarships for those not being able to afford the class sessions. We offer Aquatics and Muscle In Motions classes that have a small fee to cover some of our expenses but the charge is low and does not cover fully our costs to provide the service.