



**Shriners Hospitals
for Children®**
Love to the rescue.™

2015 Shriners Hospitals for Children® — Twin Cities Community Health Needs Assessment Report

Prepared by: Twin Cities Shriners Hospital Assessment Advisory Committee

Mission and Vision

Mission

- Provide the highest quality care to children with neuromusculoskeletal conditions, burn injuries and other special healthcare needs within a compassionate, family-centered and collaborative care environment.
- Provide for the education of physicians and other healthcare professionals.
- Conduct research to discover new knowledge that improves the quality of care and quality of life of children and families.

***This mission is carried out without regard to race, color, creed, sex or sect, disability, national origin or ability of a patient or family to pay.

Vision

- Become the best at transforming children's lives by providing exceptional healthcare through innovative research, in a patient and family centered environment.

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Statement of Approval

The written 2015 Community Health Needs Assessment and action plan was reviewed and approved by the Twin Cities Shriners Hospital Board of Governors during their June 16, 2016 meeting.

Our Commitment to the Community

Shriners Hospitals for Children — Twin Cities is pleased to submit the 2015 Community Health Needs Assessment (CHNA). The 2015 CHNA is intended to help the Twin Cities Shriners Hospital understand better the health needs affecting members of our community with the goal of fulfilling their immediate and future health needs.

The 2015 CHNA is available on the Twin Cities Shriners Hospital website and the Minnesota Hospital Association website. Paper copies are available upon request. Community Health Needs Assessment feedback can be emailed to Terri Kasbohm and/or Alicia Rodriguez at TWI-PatientRelations@shrinenet.org.

The Twin Cities Shriners Hospital URL:

https://www.google.com/?gws_rd=ssl#q=shriners+hospital+twin+cities

Minnesota Hospital Association URL:

<http://www.mnhospitals.org/data-reporting/mandatory-reporting>

This assessment has four primary goals:

1. To engage community members to gain an enhanced understanding of the top health issues affecting our community.
2. To continuously enhance community engagement and collaborative efforts with community stakeholders and other non-profit organizations.
3. To prioritize the top community health needs identified from the surveys and supporting secondary data.
4. To develop an implementation plan with strategies that will guide the Twin Cities Shriners Hospital in addressing the high priority health needs affecting the community with measurable results.



Introduction: Overview of Shriners Hospitals for Children — Twin Cities

Shriners Hospitals for Children — Twin Cities is a licensed 40-bed facility located in the Minneapolis/St. Paul community. Specialized pediatric care is provided by expert orthopaedic medical and allied health staff with a focus on family-centered care, innovation, education, and research. The conditions treated at the Twin Cities Shriners Hospital include:

- conditions of the upper and lower extremities
- spinal anomalies
- limb deficiencies

Other conditions treated at the Twin Cities Shriners Hospital include, but are not limited to

- arthrogryposis
- cerebral palsy
- juvenile arthritis
- spina bifida
- neurological disorders

A family-centered care management model is utilized that supports the child within the family and the family within the community. With specialty trained and highly qualified pediatric orthopaedic surgeons, pediatricians, anesthesiologists, nurses, case managers, registered dietitians, child life and recreation, physical, and occupational therapists, and many other team

members, the Twin Cities Shriners Hospital is able to customize care for each child based on his or her overall health needs and medical conditions.

Process and Methods

The Patient Protection and Affordable Care Act of 2010 requires hospitals to conduct a Community Health Needs Assessment every three years and to develop written strategies to meet the identified needs. The Shriners Hospitals for Children Corporate Office led the initiative by assisting individual Shriners Hospitals in conducting their Community Health Needs Assessments. Beginning at the end of 2015 and continuing through June 2016, regular conference calls were held for all Shriners Hospitals representatives working on CHNAs, to assist with the smooth completion of each hospital's CHNA. Corporate staff compiled data related to individual hospital's catchment area and health care population. A template for writing the CHNA was provided, milestones to ensure successful completion of the CHNA were established, and individual help and consultation was made available. In addition, the Director of Patient Care Services attended a meeting on May 20, 2016, sponsored by the Minnesota Department of Health and the Minnesota Hospital Association and many other stakeholders, i.e., public health agencies and area hospitals, to discuss opportunities for increased collaboration among local agencies related to community health needs assessments.

The Twin Cities Shriners Hospital approached this assessment as an opportunity to reassess the health care needs of pediatric patients in our community, determine how our specialized services could help address those health care needs, and build on the efforts of the 2012 needs assessment. The Twin Cities Shriners Hospital administrative team decided to use a variety of internal resources to complete the CHNA. The Director of Patient Care Services, Director of Nutrition Services, and Director of Rehabilitation Services were the primary staff members responsible for assessing the health care needs of the community. Health Information Management and Information Services staff also provided significant support, and the Administrator, Chief of Staff, and Director of Finance made critical strategy decisions. Beginning in January 2016, updates on findings and progress on the CHNA were shared intermittently with the medical staff, wellness committee, and performance improvement committee of the Twin Cities Shriners Hospital.

Being a specialized and small hospital, the Twin Cities Shriners Hospital has limited resources for data gathering, analysis, and writing. The Minnesota Department of Health and many

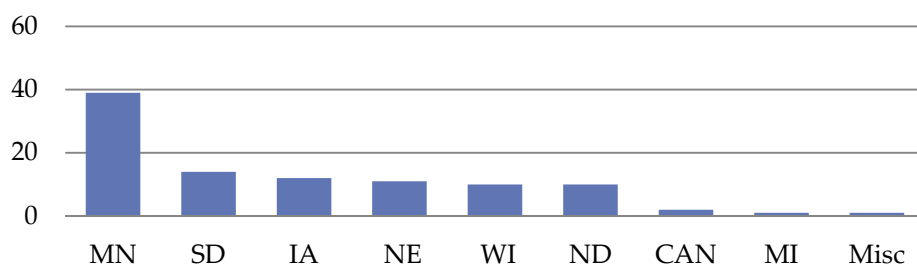
healthcare facilities and organizations within the metropolitan area are larger facilities and are able to respond to the needs identified in this community health needs assessment. There are three large pediatric facilities within a five-mile radius of the Twin Cities Shriners Hospital: the University of Minnesota Children's Masonic Hospital, Children's Hospitals and Clinics of Minnesota, and Gillette Children's Specialty Healthcare. The Twin Cities Shriners Hospital CHNA team reviewed both external and internal data. A decision was made by the Twin Cities Shriners Hospital CHNA team to manage the CHNA internally and to use secondary sources of data provided by other organizations for the following reasons:

1. Outside sources have an abundance of data publically available for use
2. Qualified staff at Shriners Hospitals are available to manage the CHNA
3. Shriners Hospitals for Children's mission and vision relate to pediatric specialty health care and limit what community health needs can be adequately addressed within the scope of services

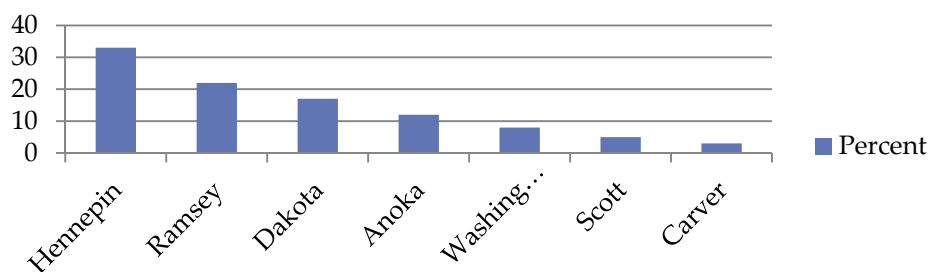
To review the unmet health care needs of the community, the Twin Cities Shriners Hospital depends largely on published surveys and data sources, such as Community Commons and the Minnesota Department of Health. Particular attention was paid to published work related to children and youth with special health care needs, as this is Shriners Hospitals for Children — Twin Cities' target audience. In addition, the Twin Cities Shriners Hospital routinely solicits family feedback and suggestions for improvement through focused one-on-one interviews, Press Ganey surveys, informal face-to-face conversations, and feedback from community partners.

For purposes of the CHNA, it was determined by the Twin Cities Shriners Hospital leadership that "community" would be defined as the area encompassing the majority of patients. A review of primary source patient demographic data from January 2015 through August 2015 demonstrated that 38% (a majority) of patients seeking care at the Twin Cities Shriners Hospital come from Minnesota, with 52% coming from seven counties: Anoka, Carver, Dakota, Hennepin, Ramsey, Scott, and Washington. This seven-county metropolitan area was determined to be the Twin Cities Shriners Hospital's primary service area. The secondary service area was defined as the remainder of Minnesota not encompassed by the primary service area.

Twin Cities Shriners Hospital Patient Origination- Percent By State 1/1/15-8/28/15



Percent of Twin Cities Shriners Hospital Patients from Seven County Metro Area-YTD August 28, 2015



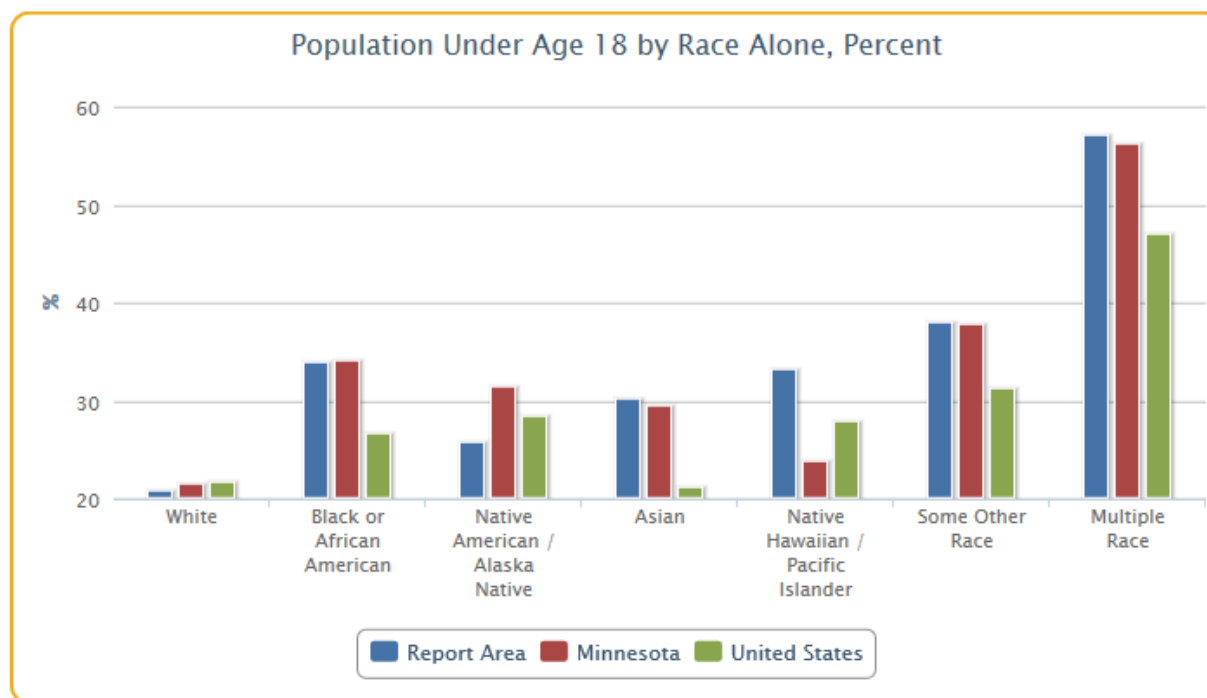
Data from Community Commons from the seven-county metropolitan area was reviewed for demographic variables that would put a pediatric population at risk and create health care disparities. See snapshot of Community Commons data below.

Population Under Age 18

An estimated 24.14% percent of the population in the report area is under the age of 18 according to the U.S. Census Bureau American Community Survey 2010-14 5-year estimates. An estimated total of 705,021 youths resided in the area during this time period. The number of persons under age 18 is relevant because this population has unique health needs which should be considered separately from other age groups.

[Download Data](#)

Report Area	Total Population	Population Age 0-17	Percent Population Age 0-17
Report Area	2,920,637	705,021	24.14%
Anoka County, MN	336,316	84,366	25.09%
Carver County, MN	94,212	27,167	28.84%
Dakota County, MN	405,521	103,613	25.55%
Hennepin County, MN	1,184,091	265,695	22.44%
Ramsey County, MN	521,265	121,414	23.29%
Scott County, MN	135,129	39,762	29.43%
Washington County, MN	244,103	63,004	25.81%
Minnesota	5,383,661	1,280,022	23.78%
United States	314,107,072	73,777,656	23.49%



Source: Community Commons

Community Health Needs Assessment (CHNA)

Health Indicators Report

Report Area

Anoka County, MN; Carver County, MN; Dakota County, MN; Hennepin County, MN; Ramsey County, MN; Scott County, MN; Washington County, MN

Social & Economic Factors

Economic and social insecurity often are associated with poor health. Poverty, unemployment, and lack of educational achievement affect access to care and a community's ability to engage in healthy behaviors. Without a network of support and a safe community, families cannot thrive. Ensuring access to social and economic resources provides a foundation for a healthy community.

Insurance - Uninsured Children

The lack of health insurance is considered a *key driver* of health status.

This indicator reports the percentage of children under age 19 without health insurance coverage. This indicator is relevant because lack of insurance is a primary barrier to healthcare access including regular primary care, specialty care, and other health services that contributes to poor health status.

[Download Data](#)

Report Area	Total Population Under Age 19	Population with Medical Insurance	Percent Population With Medical Insurance	Population Without Medical Insurance	Percent Population Without Medical Insurance
Report Area	736,892	711,824	96.6%	25,068	3.4%
Anoka County, MN	86,587	83,594	96.54%	2,993	3.46%
Carver County, MN	28,494	27,711	97.25%	783	2.75%
Dakota County, MN	107,372	104,145	96.99%	3,227	3.01%
Hennepin County, MN	278,886	268,670	96.34%	10,216	3.66%
Ramsey County, MN	127,960	123,207	96.29%	4,753	3.71%
Scott County, MN	41,894	40,588	96.88%	1,306	3.12%
Washington County, MN	65,699	63,909	97.28%	1,790	2.72%
Minnesota	1,324,272	1,274,752	96.26%	49,520	3.74%
United States	76,146,139	71,365,802	93.72%	4,780,337	6.28%

Percent Population Without Medical Insurance



Note: This indicator is compared with the state average.

Data Source: US Census Bureau, [Small Area Health Insurance Estimates](#), 2013. Source geography: County

Shriners Hospitals for Children — Twin Cities made a decision to use existing sources of secondary data to determine community health needs. A priority was placed on the use of available survey data whereby children and their families in the metro area as well as the larger state of Minnesota had been polled about their health needs. Sources of secondary data that engaged members of the primary and secondary service area community in identifying their health care needs were prioritized. In addition, the Twin Cities Shriners Hospital staff looked for surveys that included specific mention of the health care disparities based on age, race, disability, and low income.

Secondary data from a variety of sources was reviewed to determine the highest priorities for children's health care in Minnesota. Sources of secondary data and findings are listed below.

- **2012-2015 Community Health Improvement Plan for Hennepin County Residents-** A collaboration of five local community health boards and multiple community partners identified four priority areas- (1) maternal and child health; (2) nutrition, obesity and physical activity; (3) social and emotional well-being; (4) health care access; social conditions that impact health.
 - Only one in five children aged 3-17 (19%) is meeting the recommended three or more servings per day of vegetables.
 - Only one in four children aged 3 to 17 are meeting the daily recommend guideline for dairy products.
 - Children from low income families were significantly less likely to receive the recommended four servings of a dairy product per day.
 - Twenty percent of 9th and 12th graders reported weights and heights consistent with overweight or obesity.
 - Higher rates overweight and obesity reported in the African American and Hispanic/Latino students as well as low income students.
- **2015 Kids Count Profile - Prepared by Children's Defense Fund - Minnesota**
Demonstrated static percentages of low birthweight babies, children without insurance and a reduction in the number of child and teen deaths, as well as a decrease in the incidence of teens who abuse drugs. However, the percent of children living in poverty and children born to single parent families and children living in high poverty areas, or where the head of household lacks a high school diploma all increased. Over time these social and economic indicators have been shown to result in health care disparities.

- **2013 Minnesota Student Survey Tables Fall, 2013** - In this survey a total of 162,034 fifth, eighth, ninth and eleventh graders in the state of Minnesota were polled about their health habits in a joint effort between the Minnesota Department of Education and the Minnesota Department of Health Statistics, Minnesota Department of Health.
- The Twin Cities Shriners Hospital team focused on questions and answers in the survey related to nutritional choices and physical activity.

**2013 Minnesota Student Survey
Table 23A
Nutrition
Minnesota Statewide Data**

During the last 7 days, how many times did you...		GRADE			
		5 TH	8 TH	9 TH	11 TH
eat fruit?	1 time per day	14%	16%	16%	17%
eat green salad, potatoes, carrots or other vegetables? (Do not count french fries, fried potatoes or potato chips)	1 time per day	15%	19%	19%	20%

**2013 Minnesota Student Survey
Table 11A
Use of Time
Minnesota Statewide Data**

During a typical school day, how many hours do you do each of the following outside of school?		GRADE			
		5 TH	8 TH	9 TH	11 TH
Read for pleasure	0 HOURS	13%	15%	15%	16%
	1 HOUR	69%	54%	49%	41%
	2 HOURS	15%	23%	26%	25%
		GRADE			
		5 TH	8 TH	9 TH	11 TH
Do creative things such as music or arts and crafts	0 HOURS	33%	41%	44%	47%
	1 HOUR	54%	31%	25%	23%
	2 HOURS	16%	13%	13%	12%
		GRADE			
		5 TH	8 TH	9 TH	11 TH
Go outside, take a walk or go for a bike ride	0 HOURS	26%	30%	36%	39%
	1 HOUR	44%	42%	39%	38%
	2 HOURS	18%	16%	15%	14%

2013 Minnesota Student Survey**Table 11B****Use of Time****Minnesota Statewide Data**

During a typical school day, how many hours do you do each of the following outside of school?		GRADE			
		5 TH	8 TH	9 TH	11 TH
Watch TV shows, movies or videos on a TV, computer or phone	0 HOURS	15%	9%	9%	11%
	1 HOUR	44%	34%	33%	33%
	2 HOURS	23%	28%	28%	29%
	3 TO 5 HOURS	12%	19%	19%	19%
	6 OR MORE HOURS	7%	11%	11%	10%

2013 Minnesota Student Survey**Table 21****Physical Activity****Minnesota Statewide Data**

During the last 7 days, how many days were you physically active for at least 60 MINUTES <i>per day</i> ?		GRADE			
		5 TH	8 TH	9 TH	11 TH
	0 DAYS	10%	7%	9%	12%
	1 DAY	9%	7%	7%	10%
	2 DAYS	11%	10%	10%	12%
	3 DAYS	14%	14%	13%	13%
	4 DAYS	13%	13%	11%	10%
	5 DAYS	14%	18%	19%	15%
	6 DAYS	8%	11%	12%	11%
	7 DAYS	21%	20%	20%	17%

- **Maternal Child Health Assessment 2015 - Minnesota Department of Health, 4/4/2016**
Identified the following four focus areas to improve maternal child health in the community. The focus areas included immunizations, well checkups, oral health, screening and follow up.
- **MN Children and Youth with Special Health Needs Strategic Plan 2013-2018**-Identified two overarching needs:
 1. Increase health equity and reduce health disparities for pregnant women, mothers and infants, children and adolescents, and children and youth with special health care needs.
 2. Focus efforts on activities that result in life-long improvements in health outcomes.
- **Minnesota Children and Youth with Special Health Needs Systems Integration Project State Plan, January 2016** - Obtained significant stakeholder input, especially from parents and families who have children and youth with special health care needs. Identified large

disparities in the health and well-being of Minnesota children and youth with special health needs and those children and youth without special health care needs.

- Children and youth with special health care needs were more likely to be overweight or obese.
- They were more likely to have parents who usually or always feel stress due to parenting.
- They were more likely to live in a household with someone who smokes.
- They were more likely to have experienced two or more adverse family experiences.

Recommendations centered around improving family and stakeholder engagement with statewide initiatives, improving cross system integration by providing effective care coordination services, and developing the role of a shared community resource for navigating through community-based services.

- **Minnesota Department of Health (MDH) –The Statewide Health Improvement Program-March, 2015** - Focus to help Minnesotans live healthier by decreasing obesity and tobacco use and exposure. These two factors are believed to be the leading causes of chronic disease, disability, and death.
- **Minnesota Department of Health (MDH- Statewide Health Improvement Program-February 2016-** Noted that three out of five Minnesotans are overweight or obese caused by poor diet and lack of exercise, resulting in increased risk of heart disease, cancer, and other chronic conditions.
- **Minnesota Department of Health – Obesity - In 2014** 15% of children were overweight and 13% were obese. Health inequities are seen among diverse racial groups with incidence of overweight and obesity highest in the the American Indian and Hispanic children.
- **Minnesota Department of Health - Priority Health Areas of the Eliminating Health Disparities Initiative, February 1, 2016** The priorities identified to eliminate health disparities included:
 - breast and cervical cancer
 - heart disease and stroke
 - diabetes
 - HIV/AIDS and STDs
 - immunizations
 - infant mortality
 - teen pregnancy prevention
 - violence and unintentional injury

In this report, it was noted that one in three children born in the U.S. after 2000 will develop diabetes. For Hispanic children, populations of color, and American Indian children, rates are much higher than for children from the non-Hispanic and white population, representing a significant health care disparity.

- **Minnesota Hospital Association** - Preliminary report on priority health needs in Minnesota's hospitals and health systems' communities identified four main themes: (1) Health needs are local and vary by community. (2) Access to care remains a major challenge. (3) Obesity is a major issue in many Minnesota communities. (4) Many mental and behavioral health care needs are not met.
- **Child-Survey of the Health of All the Population (SHAPE) 2015 Child Hennepin County Child SHAPE 2015 Data Book-** This is an extensive survey of 1,400 parents of Hennepin County children who participated in a survey funded by Minnesota's Department of Health's Statewide Improvement Program (SHIP) under the auspices of the Hennepin County Public Health Department.

In an October 2014 fact sheet, titled "Overweight and Obesity", the Minnesota Department of Health reports the incidence of obesity among youth has tripled in the last 34 years. Increasing numbers of overweight (defined as a body mass index (BMI) greater than or equal to the 85th percentile but less than the 95th percentile), and obese children (defined as a greater than or equal to the 95th percentile) are being reported at all age levels (see chart below).

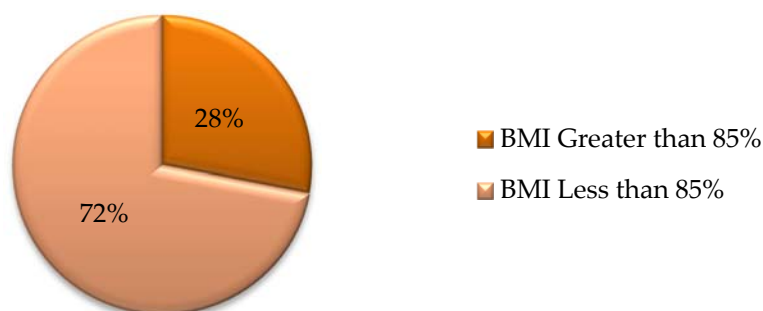
Children and Adolescent Overweight Fact Sheet Updated October 2014 by MN Department of Health		
2014-MN	% Overweight	% Obese
High School Students	15	13
WIC- enrollees aged 2-5	Not available	12.7

Minnesota Department of Health, October, 2014

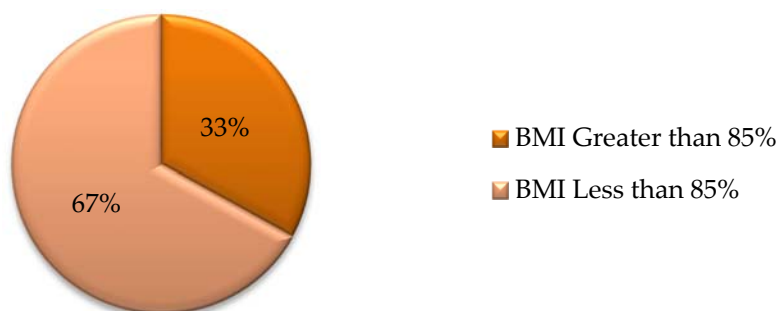
A 2013 Minnesota MCH Needs Assessment polled community members regarding their health needs. In this report, it is noted that there are 236,953 children in Minnesota with special health care needs. This represents 18.5% of Minnesota children birth through 18 years of age. A disproportionate share of this population is likely to be overweight and to have parents who usually or always feel stress with parenting. Other concerns identified are that 54% of children with special needs receive care within a medical home and only 47% receive transition services.

Data from the Twin Cities Shriners Hospital 2015 patient population was reviewed to see how it compared to community health data gathered from secondary sources. Findings were the incidence of overweight and obesity for inpatients was higher than the community norm, reports of eating fruits and vegetables were higher than the norm, while activity and screen time were less than the community average.

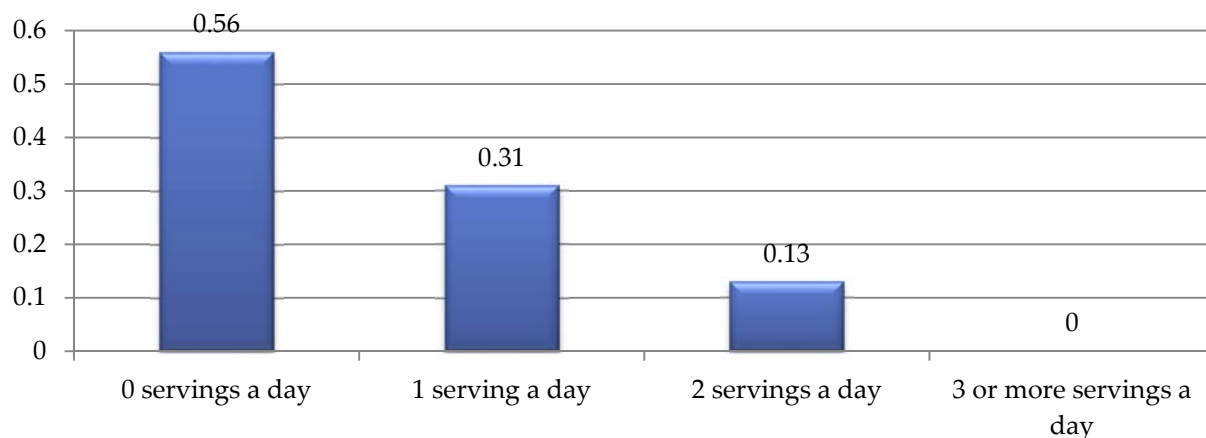
**% BMI representing 446 patients
from the seven counties
1/1/15 - 8/28/15**



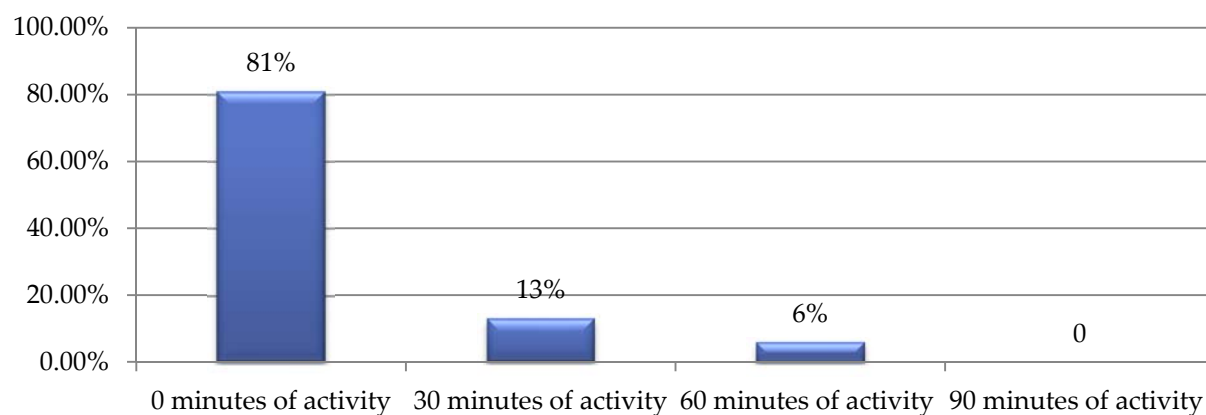
**% BMI representing 40 random
inpatients
1/1/15 - 8/28/15**

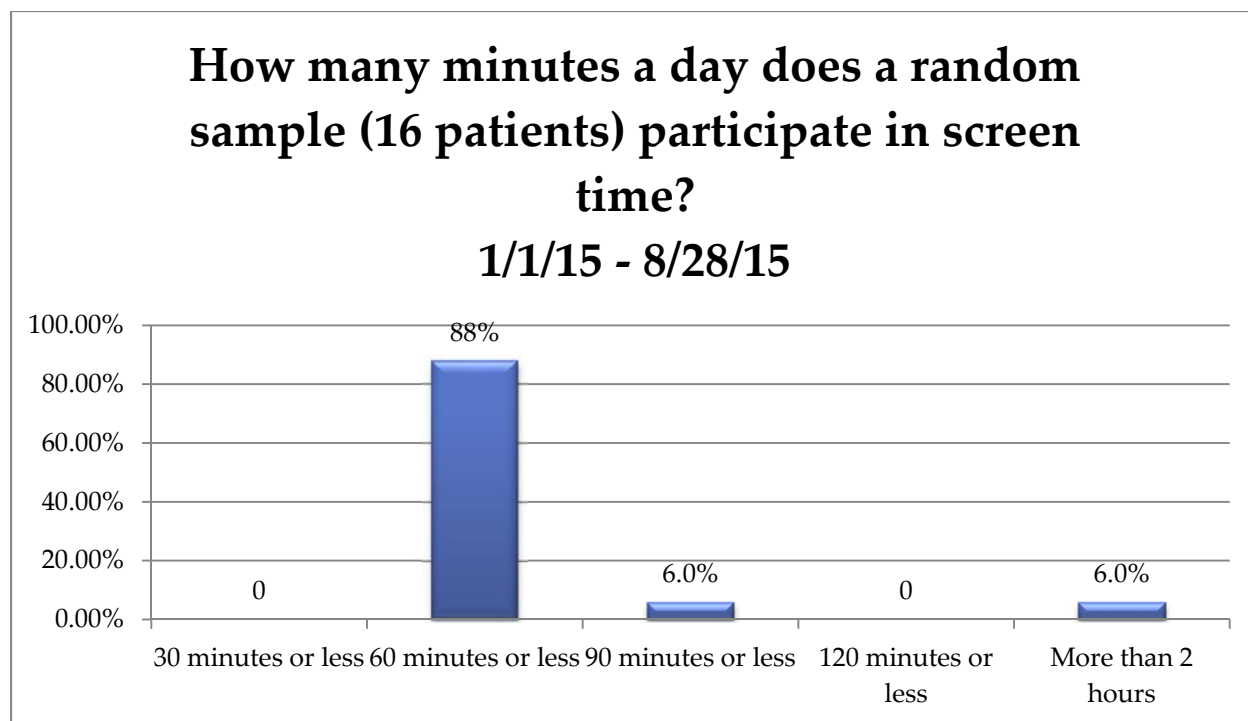


**How many servings of vegetables does a random sample (16 patients) eat everyday?
1/1/15 - 8/28/15**



**How many active minutes a day does a random sample (16 patients) participate in everyday?
1/1/15-8/28/15**





The priorities from primary and secondary data were reviewed in terms of the Twin Cities Shriners Hospital's capacity, infrastructure, partner, investment, focus area, and priority (see table below).

Prioritization Criteria

Organizational capacity – hospital has the capacity to address the issue.

Existing infrastructure – hospital has programs, systems, staff and support resources in place to address the issue.

Established relationships – there are established relationships with community partners to address the issue.

Ongoing investment - existing resources are committed to the issue. Staff time and financial resources for this issue are counted as part of our community benefit effort.

Focus area – hospital has acknowledged competencies and expertise to address the issue and the issue fits.

Health Need	Capacity	Infrastructure	Partners	Investment	Focus Area	High or Low Priority
	Yes or No	Yes or No	Yes or No	Yes or No	Yes or No	High or Low
Access to care-as it relates to pediatric orthopedics	Yes	Yes	Yes	Yes	Yes	High
Chronic disease conditions: *breast and cervical cancer *heart disease and stroke *diabetes	No	No	No	No	No	Low
Care Coordination	Yes	Yes	Yes	Yes	Yes	High
Maternal & Child Health *immunizations *infant mortality *teen pregnancy prevention *violence & injury	No	No	Yes- primary care provider	No	Yes	Low
Mental Health *Parents of children and youth with special health needs feel significantly more stressed	No	No-possibly parent support group	Yes- referral	No	Yes	Low
Nutrition Physical Activity	Yes	Yes	Yes	Yes	Yes	High
Overweight/Obesity	Yes	Yes	Yes	Yes	Yes	High
Preventive Practices *immunizations *well child check up *oral health *screening and follow-up	No	No	Yes- Primary care provider	No	Yes	Low
Smoking *children and youth with special health needs more likely to live in households where someone one smokes	Yes- assess	Yes-assess, no for smoking cessation programs	Yes- referral	No	No	Low

The four high priority areas identified included access to care, care coordination, nutrition and physical fitness and overweight and obesity.

Access to health care is a significant issue creating health disparities for families with children and youth with special health care needs, as well as low income and minority populations. The need for improved care coordination, education and engagement of families in these efforts was identified. Care at the Twin Cities Shriners Hospital is provided regardless of a patient/family's ability to pay. If the family expresses a hardship with paying co-pays and deductibles, financial assistance can be provided. Improving access to care is an ongoing organizational priority supported by increasing general awareness of what services the Twin Cities Shriners Hospital provides and strengthening referral relationships with primary care providers. Multidisciplinary staff members work with families to make appropriate referrals for services that are beyond the scope of the Twin Cities Shriners Hospital.

The Twin Cities Shriners Hospital has a care management model that is based on partnership with children's medical home. Care management staff work with families to coordinate care for their child at the hospital and to communicate to community primary care providers. Children who are approaching adulthood receive a transition visit.

The greatest opportunity to build on the 2012 Community Health Needs Assessment, as well as meet continuing community health care needs, is to focus on reducing the incidence of overweight/obesity in children and their families through improvement in the nutritional and activity options available and choices made. The well-documented and growing problems of childhood obesity in Minnesota and the United States make this a topic of high importance. Since children with orthopedic impairments have greater challenges in finding suitable physical activities to maintain an appropriate body mass and fitness level, it was agreed this issue should be a high priority for assessment and intervention for the Twin Cities Shriners Hospital.

Preliminary data and literature suggest that obesity compounds the problems and complications experienced by children with orthopaedic conditions. There has been a notable increase over the last 6-7 years of children presenting to the Twin Cities Shriners Hospital with osteochondrosis, Blount's disease, and slipped capital epiphysis. While the data is not conclusive, dietary factors are believed to play a role in these conditions. Children who are overweight and obese are at greater risk for long-term chronic health problems, such as

hypertension, hyperlipemia, and type 2 diabetes, as well as social difficulties within peer groups. Focusing on overweight and obese children with orthopedic problems allows the Twin Cities Shriners Hospital to better use our resources to contribute to the overall health of our community.

As a result of the CHNA, the Twin Cities Shriners Hospital decided to focus on overweight and obese orthopaedic children and to improve the nutrition and activity choices available. Children with orthopaedic and neuromusculoskeletal conditions served by the Twin Cities Shriners Hospital have different (and possibly more) factors that can negatively affect weight and fitness. Through a comprehensive multidisciplinary team approach to addressing obesity in our hospital, we hope to discover what factors would motivate overweight or obese patients and their families to make lifestyle changes that could be life-saving.

Shriners Hospitals for Children – Twin Cities Historical Data:

During the 2012 CHNA, an analysis of a random sample of current patients was completed to determine the incidence of obesity. Staff also reviewed charts to see how many patients who were obese had a nutrition consult ordered and performed. The chart audits demonstrated that obesity as a health care concern was not sufficiently addressed in 2012. Many actions were taken both from within as well as outside the Twin Cities Shriners Hospital to improve this situation.

- Changes were made in the food offered in vending machines.
- Soft drinks were removed from the cafeteria as an option.
- Healthier food options were made available in the cafeteria.
- A committee was formed to stimulate a multidisciplinary approach to children's food and activity needs.
- A higher percentage of overweight and obese patients will have a nutritional consult ordered and performed.
- Patients and families who had participated in a focused nutrition intervention as a result of the 2012 CHNA were contacted by a graduate student to determine the effectiveness of the program (Cantor, 2015). Thirty-nine patient/parent dyads were contacted, and 13 individuals (7 parents and 6 children) participated in a phone interview about their assessment of the nutrition intervention they had received.

- All interviewed felt the program had assisted them in making at least one change in their nutrition choices.
- Suggestions for improvement were centered around increasing the frequency of contact with children and parents by nutrition services staff.

Action Plan

2012–2015 CHNA Action Plan Results

The Twin Cities Shriners Hospitals' Assessment Advisory Committee reviewed the progress and accomplishments of the action plan developed from the last CHNA in 2012. The following results were obtained and actions taken:

Past Efforts

- Collect and analyze data on children with osteochondrosis. The trend continued to show an increase in the number of children presenting with this condition.
- Sent out 900 letters asking families for their participation in a nutrition and fitness program; only two families participated. Revised action has been to meet patients in the hospital and send them monthly newsletters with recipe ideas and nutrition education; feedback has been positive.
- Launched a girls' running club. The club completed a one-mile race.
- Developed a new sports camp for wheelchair-bound patients. This objective was met in partnership with Courage Center.
- Goal was set for 70% overweight and obese inpatients to receive a nutrition consultation. Currently, 46% of overweight and obese inpatients are receiving a nutrition consultation.
- Goal was set for 50% of overweight and obese outpatients to have a nutrition consultation. Currently, 16% of obese and overweight outpatients are receiving a nutrition consultation.
- Support behavioral modification by providing to families a list of nutrition and activity resources in their home communities. Materials are provided in Bwell 2gether folders given to patients.

Ongoing and Future Efforts

- E-mail monthly Chef Fezzy's Nutrition News newsletter to patients and staff. The newsletter provides nutrition tips, recommendations, and easy-to-follow recipes. The newsletters are also available in the clinic and cafeteria.
- A multidisciplinary team of medical staff, registered dietitians, nurses, a physical therapist, child life specialists, and social workers meets quarterly to help decrease BMI in overweight and obese patients by addressing ways to improve inactivity and nutrition habits.

As a result of the 2015 CHNA, three goals have been identified:

GOAL #1: 30% of the Twin Cities Shriners Hospital community patients will eat one serving of fruit or vegetable each day. Currently, 18% Minnesota students in grades 5-11 eat approximately one fruit or vegetable a day.

GOAL #2: 50% of the Twin Cities Shriners Hospital community patients will spend two hours every day participating in activities, such as reading for pleasure, creative things, and taking a walk, instead of watching TV. Currently, 42% Minnesota students in grades 5-11 participate in activities outside of school each day.

GOAL #3: 30% of the Twin Cities Shriners Hospital community patients will be physically active at least 30 minutes per day. Currently, 19% of Minnesota students in grades 5-11 are physically active 7 days per week.

PERFORMANCE MEASURES:

Is the Twin Cities Shriners Hospital making a difference or having a significant impact in the community?

Short-Term Indicators	Source	Frequency
Train food preparation staff to make fruit and vegetables more appealing and accessible.	http://www.cdc.gov/vitalsigns/	Offer fruit and/or vegetables with all cafeteria and room service meals. During National Nutrition Month, highlight different colored vegetables each week and feature special menu items.
Long-Term Indicators	Source	Frequency
Meet current federal nutrition standards for meals and snacks by including a fruit or a vegetable whenever food is offered.	http://www.cdc.gov/vitalsigns/	Every “Special of the day” served in the cafeteria is offered with a fruit or vegetable at a better value. Every meal on the room service menu for patients includes either a fruit or a vegetable. The only beverages offered in the cafeteria and room service are water, milk and 100% juice.
Offering nutrition education to patients, families, staff, and the community, including nutrition seminars, nutrition recommendations, and hands-on learning opportunities.	http://www.cdc.gov/vitalsigns/	Patients with a BMI above 85% will be offered a nutrition consult to include educating the family on how to increase fruits and vegetables, recipes, budgeting, and meal planning and recipes. Each quarter, the clinical dietitian will provide hands-on nutrition education in the clinic waiting area, including food tastings, preparing foods, and suggested serving sizes for fruits and vegetables. Create and provide handouts at nutrition consults that include fruit and vegetable snack recipes, kid-safe cooking recipes, nutrition recommendations after surgery, smoothie recipes that include fruits and vegetables, recommended serving sizes, and

		meal plans. Registered Dietitian staff will provide six nutrition seminars every year to all hospital staff. Registered Dietitian staff will develop handouts for Twin Cities Shriners Hospital's community schools that includes information on the hospital, reducing orthopedic injuries, and improving nutrition by increasing fruit and vegetable intake
Provide patients with "How to Become a 5-2-1-0 Family" handout in clinical lobby and for every surgery patient at the Twin Cities Shriners Hospital (see Exhibit 5).	Twin Cities Shriners Hospital Patient Education Material/Handout	Handouts are available in the clinic lobby. Every surgery patient receives a nutrition consult that includes the importance of participating as a family in the 5-2-1-0 program.
Survey the Twin Cities Shriners Hospital community patients quarterly on fruit and vegetable consumption.		Survey to be e-mailed quarterly to Twin Cities Shriners Hospital community patients or filled out during a clinic visit.

OBJECTIVE #1: Offer nutrition education to patients, family, staff, and community, including nutrition seminars, nutrition recommendations, and hands-on learning opportunities.

ACTION PLAN

Program or Activity	Target Date	Resources Required	Anticipated Result	Program or Activity Impact
Every six months the clinical dietitian will provide hands-on nutrition education in the clinic waiting area, including food tastings, preparing foods, and suggested serving sizes for fruits and vegetables.	July 2016 and March 2017	Food will be provided by Nutrition Services, lesson plan will be developed by clinical dietitian, and one table provided by the hospital for the presentation	Patients, families, and staff will learn how to prepare and keep fruits and vegetables fresh and tasting good	Patients, families, and staff ask more questions about fruits and vegetables, including what to buy, how to budget, and what to make. Increase fruit and vegetable intake by patients, families, and staff
Create and provide handouts at nutrition consults that include fruit and vegetable snack recipes, kid-safe cooking recipes, nutrition recommendations after	May 2016		Increased consumption of fruits and vegetables by patients, families, and staff	Provide ideas to patients, families, and staff on how to improve nutrition that is affordable and tastes good.

surgery, smoothie recipes that include fruits and vegetables, recommended serving size, and meal plans.				
Registered dietitian staff will develop handouts for Twin Cities Shriners Hospital community schools that will include information on the hospital, reducing orthopaedic injuries, and how to improve nutrition by increasing fruit and vegetable intake.	October 2016	Previous nutrition handouts created for the Twin Cities Shriners Hospital and develop into a simple one-page handout	Connect with local/community schools about the Twin Cities Shriners Hospital, reducing orthopaedic injuries, and improving nutrition.	Inform local community about the Twin Cities Shriners Hospital services including nutrition.

OBJECTIVE #2: Meet current federal nutrition standard for meals and snacks by including fruit or a vegetable whenever food is offered.

ACTION PLAN

Program or Activity	Target Date	Resources Required	Anticipated Result	Program or Activity Impact
Survey the Twin Cities Shriners Hospital community patients quarterly on fruit and vegetable consumption.	Every quarter, beginning September 2016 through September 2017	Survey will be developed by clinical dietitian and sent electronically to patients and families.	2% increase of fruit and vegetable consumption during each survey.	Increase awareness of eating more fruits and vegetables. Remind patients and families who have “fallen off the wagon” to increase fruit and vegetable consumption
Every “Special of the day” served in the cafeteria is offered with a fruit or vegetable at a better value.	May 2016	Cafeteria menu created by Director of Nutrition Services, and food provided and prepared by Nutrition Services food service staff.	More than half of the cafeteria customers will purchase a fruit or vegetable with breakfast or lunch.	Increase consumption of fruit and vegetables at breakfast and lunch for patients, families, and staff.
Every meal on the Room Service Menu for patients includes either a fruit or vegetable for a	May 2016	Menus are kept in patient’s room and developed by	Every patient who has surgery will have an	Patients will try fruits and vegetables and new foods they are not exposed to at home.

side.		clinical dietitian.	opportunity to order and eat a fruit or vegetable at each meal	
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OBJECTIVE #3: Provide handouts to patients and families, during clinic visits and surgeries, on how to improve nutrition, increase physical activity, and reduce screen time.

ACTION PLAN

Program or Activity	Target Date	Resources Required	Anticipated Result	Program or Activity Impact
Provide every surgery patient at Twin Cities Shriners Hospital with "How to Become a 5-2-1-0 Family" handout and provide to outpatients in clinic lobby	April 2016	Shriners Hospitals for Children — Twin Cities Patient Education Material/Handout	Give patients and families ideas on how to improve nutrition, increase physical activity and reduce screen time	Increase discussion with patients and families on nutrition and how to increase physical activity and reduce screen time.

ALIGNMENT WITH LOCAL/STATE/NATIONAL PRIORITIES

Objective #	Local Programs	Healthy People 2020	National Prevention Strategy
1 Offering nutrition education to patients, family, staff, and community including nutrition seminars, nutrition recommendations, and hands-on learning opportunities.	Minnesota Department of Health: Nutrition Education	Healthy People 2020: Total Vegetable Consumption	http://www.cdc.gov/vitalsigns/
2 Meet current federal nutrition standards for meals and snacks by including fruit or a vegetable whenever food is offered	Minnesota Department of Health: Nutrition Education	Healthy People 2020: Dietary Guidelines for Americans	http://www.fns.usda.gov/school-meals/nutrition-standards-school-meals

3 Provide patients and families, during clinic visits and surgeries, handouts on how to improve nutrition, increase physical activity, and reduce screen time.	Minnesota Department of Health: Physical Activity: Moving Matters	Healthy People 2020: Physical Activity	Childhood Obesity Prevention Program: Let's Go 5-2-1-0
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(CHNA Indicator Sets provided by resources below)
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 - ii. Catholic Health Association
 - iii. County Health Rankings
 - iv. Kaiser Permanente
 - v. Healthy People 2020
 - vi. Health Resources and Services Administration
 - vii. National Quality Forum
 - viii. U.S. Census Bureau
17. American Community Survey 2014 at <https://www.census.gov/programs-surveys/acs/data>

Exhibits

Exhibit 1: CDC Vital Signs – Progress on Children Eating More Fruit, not Vegetables (August 2014 Issue)

Exhibit 2: CDC Vital Signs – Children Aren't Eating Enough Fruits or Vegetables (August 2014 Issue)

Exhibit 3: CDC Vital Signs – Ways to Get Children to Eat more Fruit and Vegetables at Child Care and Schools (August 2014 Issue)

Exhibit 4: CDC Vital Signs – What can be Done (August 2014 Issue)

Exhibit 5: Shriners Hospitals for Children — Twin Cities Patient Education Material/Handout

Exhibit 6: Shriners Hospitals for Children — Twin Cities Patient Education Material/Handout

Exhibit 1: CDC Vital Signs – Progress on Children Eating More Fruit, not Vegetables (August 2014 Issue)

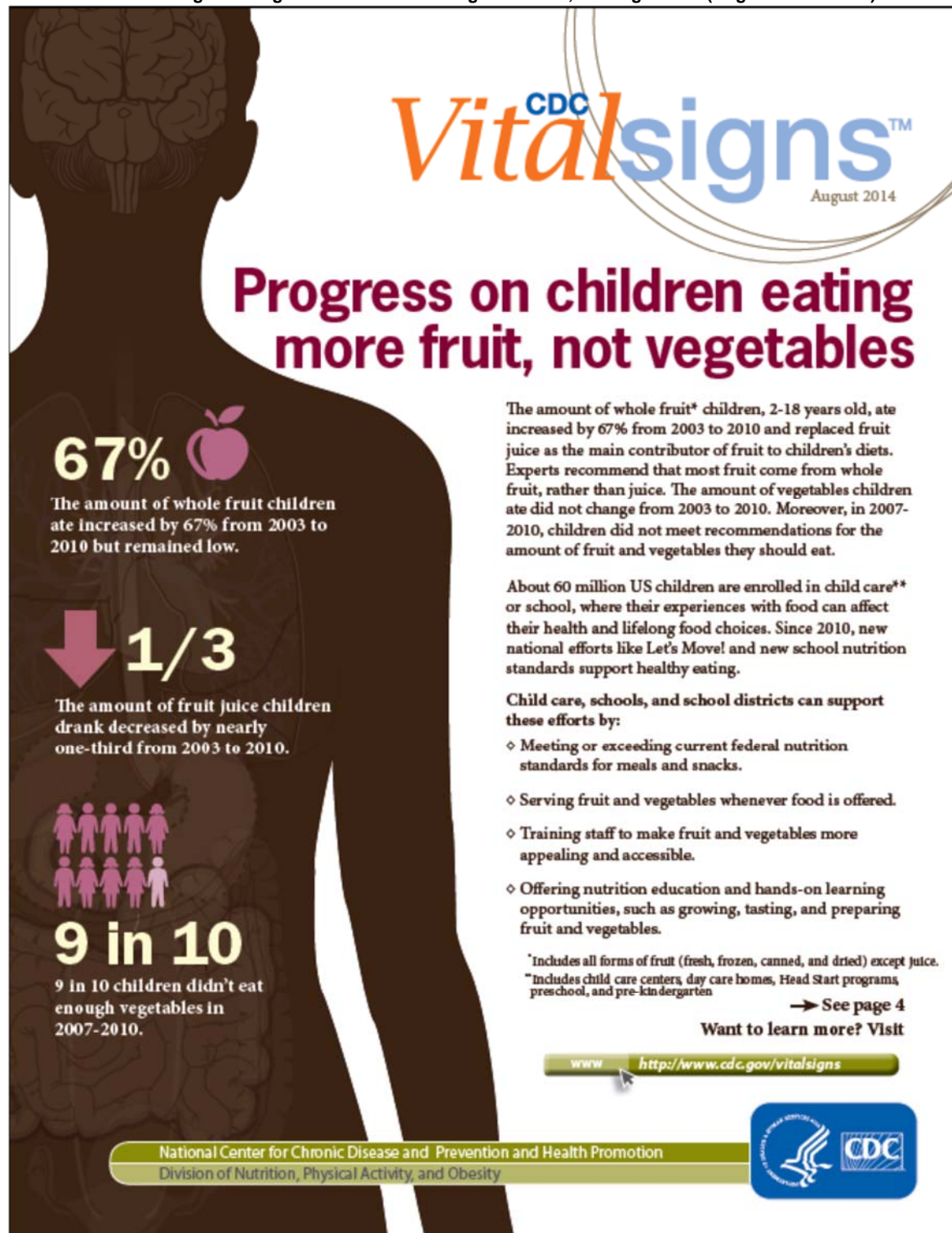


Exhibit 2: CDC Vital Signs – Children Aren't Eating Enough Fruits or Vegetables (August 2014 Issue)

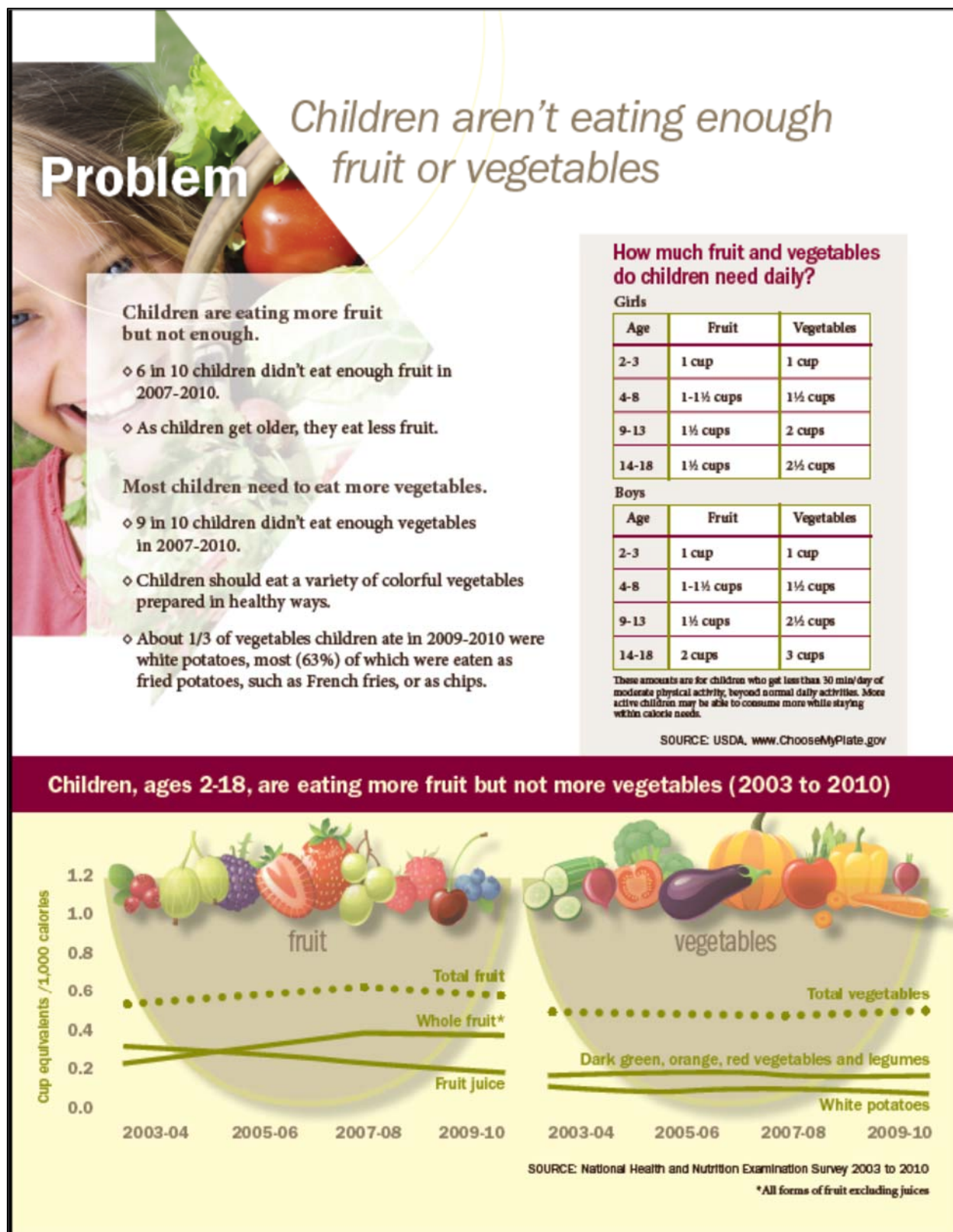


Exhibit 3: CDC Vital Signs – Ways to Get Children to Eat more Fruit and Vegetables at Child Care and Schools (August 2014 Issue)



Exhibit 4: CDC Vital Signs – What can be Done (August 2014 Issue)

What Can Be Done



Federal government is

- ◊ Funding states and communities to improve healthy eating in child care and schools.
- ◊ Offering resources on healthy eating through programs such as ChooseMyPlate.gov, We Can!, HealthierUS School Challenge, and Let's Move!
- ◊ Helping low-income families get more fruit and vegetables through programs such as the WIC Cash Value Voucher, Supplemental Nutrition Assistance Program (SNAP), Child and Adult Care Food Program (CACFP), Fresh Fruit and Vegetable Program, and school meal programs such as the National School Lunch and Breakfast Programs.



State and local officials can

- ◊ Include nutrition standards that meet or exceed CACFP or those found in Caring for our Children in child care licensing requirements and Quality Rating and Improvement Systems.
- ◊ Provide training for child care and school staff on buying, preparing, and serving fruit and vegetables.
- ◊ Help child care providers and schools reduce fruit and vegetable purchasing costs and develop farm-to-school and farm-to-preschool initiatives.

Child care, schools, and school districts can



- ◊ Meet or exceed current federal nutrition standards for meals and snacks.
- ◊ Include fruit and vegetables whenever food is offered.
- ◊ Train food preparation staff to make fruit and vegetables more appealing and accessible.
- ◊ Offer nutrition education and hands-on learning opportunities, such as growing, tasting, and preparing fruit and vegetables.



Parents can

- ◊ Eat fruit and vegetables with their children.
- ◊ If serving frozen or canned vegetables or fruit, choose those with low or no sodium and no added sugar.
- ◊ Provide fruit and vegetables for snacks instead of less healthy options.
- ◊ Include their children when shopping for, growing, and preparing fruit and vegetables.
- ◊ Encourage children to eat a variety of fruit and vegetables, even if it takes many tries.
- ◊ Learn what counts as a cup of fruit or vegetables, for example:
 - 1 small apple; 8 large strawberries.
 - 12 baby carrots; 1 large ear of corn.

www www.cdc.gov/vitalsigns/fruit-vegetables/

www www.cdc.gov/mmwr

For more information, please contact
 Telephone: 1-800-CDC-INFO (232-4636)
 TTY: 1-888-232-6348
 Web: www.cdc.gov
 Centers for Disease Control and Prevention
 1600 Clifton Road NE, Atlanta, GA 30333
 Publication date: 08/05/2014

Exhibit 5: Shriners Hospitals for Children — Twin Cities Patient Education Material/Handout**How to Become a 5-2-1-0 Family****Eat 5 vegetables and fruits every day:**

- For breakfast make vegetable omelets or mix plain yogurt, berries and nuts for a yogurt parfait.
- Snack on vegetables with hummus, guacamole or ranch dressing, celery and peanut butter, and apples with sliced cheese.
- Be creative and make smoothies! (see back for recipes!)
- When making dinner use seasonings to add flavor to vegetables such as pepper, salt, rosemary, thyme, garlic, butter and/or coconut oil.

Decrease recreational screen times to 2 hours or less:

- Set specific screen times such as 30 minutes for games and one hour for TV, and stay consistent!
- Set an hour each day of quiet time for the entire family. Family members can do things like read, put together puzzles, build Legos, complete homework, draw or paint pictures, etc.
- Take an hour each day and be active as a family.
- As a family complete daily chores including cleaning counters, sweeping, laundry, dishes, cleaning rooms, etc.

Increase physical activity to a least one hour a day:

- Get outside! (even in the winter) ride bikes, sledding, track animals tracks in the snow, go hiking, do yard work as a family, play games, go walking after dinner.
- Park in the farthest parking spot, walk the perimeter of the store before shopping, take the stairs, walk around the house during every commercial break.
- Start using an activity monitor to track your steps each day and try to walk at least 10,000 steps every day to ensure you are getting up and moving around.

Consume 0 Sugary Beverages:

- Do not buy or order sodas
- Drink water or milk with every meal
- Drink no more than 4 ounces of juice each day
- Drink half your body weight in ounces of water each day
- Make infused water by adding lemon, lime, cucumbers, or raspberries to water!



Shriners Hospitals for Children®
Twin Cities
Love to the rescue.®

Exhibit 6: Shriners Hospitals for Children — Twin Cities Patient Education Material/Handout**VEGGIE/FRUIT SNACK IDEAS****RED PEPPER WRAP**

Makes 2 wraps

- ¼ red pepper; cut into strips
- 4 turkey, chicken or ham deli meat slices
- 2 Tbsp. hummus dip

Place a strip of red pepper down the middle of the deli slice. Top with hummus dip the length of the red pepper. Roll the ham/turkey slice around the red pepper slice, eat and enjoy!

QUICK & EASY SALAD

- 2 ripe medium-sized avocados
- 1 cup broccoli
- 1/2 cup scallions
- Your favorite fresh herbs
- 1 cup carrots
- 1 pinch of sea salt
- 3 oz. of grilled or baked chicken

Dice the avocados, chop the broccoli, scallions and herbs, and shred the carrots. Put all veggies in a salad bowl, mix well and taste with salt. Top with warm or chilled chicken.

PEANUT BUTTER BANANA ICE TREAT

- 4 very ripe bananas
- 2 Tbsp. peanut butter or almond butter

Peel the ripe bananas and cut into ½ inch pieces. Place in bowl and freeze for 2 hours. Remove from freezer and place in blender. Add peanut butter/almond butter and blend until smooth. Serve immediately.

TROPICAL GREEN SMOOTHIE

- 1 cup of kale or spinach
- 1 cup of water, almond milk, or coconut milk
- 1 cup of tropical fruit (pineapple, mango or orange)
- ½ banana

Blend all ingredients together in a blender until smooth.

FRUIT AND CHEESE KABOBS

- 1 cup of any fruit you like: strawberries, grapes, blackberries, pineapple, etc.
- 1 cup cheddar cheese, cubed
- 2 skewers

Place a piece of fruit on a skewer, and then add a cheese cube. Continue to alternative between fruit and cheese