



Shriners Hospitals
for Children®

Shriners Hospitals for Children —
Cincinnati
2019 Community Health Needs
Assessment

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Shriners Hospitals for Children at a Glance

Shriners Hospitals for Children® is a health care system with locations in the U.S., Canada and Mexico. Our staff is dedicated to improving the lives of children by providing pediatric specialty care, conducting innovative research, and offering outstanding educational programs for medical professionals. Children up to age 18 with orthopaedic conditions, burns, spinal cord injuries, and cleft lip and palate are eligible for care, regardless of the families' ability to pay. Within these broad service lines, many types of care are provided; some locations offer reconstructive plastic surgery, treatment for craniofacial abnormalities or care for sports injuries. Generally, care is provided until age 18, although, in some cases, it may be extended to age 21. All services are provided in a compassionate, family-centered environment. Our patients are our priority. We take the time to care, and to listen. At Shriners Hospitals for Children, every patient and family can expect respectful, compassionate, expert care.

The mission of Shriners Hospitals for Children is to:

Provide the highest quality care to children with burn injuries, neuromusculoskeletal conditions, and other special health care needs within a compassionate, family-centered and collaborative care environment.

Provide for the education of physicians and other health care 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.

About Shriners Hospitals for Children — Cincinnati

Shriners Hospitals for Children — Cincinnati (SHC — Cincinnati) changes lives every day through innovative pediatric specialty care, research and outstanding medical education. Since 1968, Shriners Hospitals for Children — Cincinnati changes lives every day through innovative and expert specialty care to children and families with pediatric burns, pediatric plastic surgery needs, and complex wound and skin conditions. Shriners Hospitals for Children — Cincinnati is a top choice destination because of its expertise in treating these conditions.

Everything we do is designed to make children and their families feel at home. Our family-centered, comprehensive care is focused to meet the physical, functional, cosmetic, and social needs of our patients and families.

Our hospital staff is a team of experts. We walk with the children and their families through their experience and every aspect of their care. We call this Love to the Rescue.

Shriners Hospitals for Children — Cincinnati is one of only four freestanding hospitals in the country dedicated to the treatment of pediatric burns and specializing in plastic and reconstructive surgery. Our physicians' experience and expertise in pediatric burn treatment, cleft lip and palate, complex wound and skin conditions, and plastic and reconstructive surgery makes SHC — Cincinnati a first choice for care.

The Cincinnati Shriners Hospital is recognized as a verified burn center by the American Burn Association and the American College of Surgeons. This distinction recognizes the immense clinical research done on behalf of our patients, as well as the depth of our support services. SHC—Cincinnati is the only verified pediatric burn center in southern Ohio.

Inside Shriners Hospitals for Children each day, patients and families say thank you to the Shriners – those men in the red fezzes. Our model for care was imagined and established by the Shriners, the fraternal organization for which the health care system is named. Determined to give all children access to specialized pediatric care, the Shriners opened their first hospital in 1922.

Recognized as leading philanthropy, Shriners Hospitals for Children has evolved into an international health care system recognized for its devotion to transforming the lives of children through care and research.

Purpose

A Community Health Needs Assessment (CHNA) is a report based on epidemiological, qualitative, and comparative methods that assess the health issues in a hospital organization's community and that community's access to services related to those issues.

The Patient Protection and Affordable Care Act (PPACA) enacted on March 23, 2010, requires not-for-profit hospital organizations to conduct a CHNA once every three taxable years that meets the requirements the Internal Revenue Code 501(r) set forth by the PPACA. The PPACA defines a hospital organization as an organization that operates a facility required by a state to be licensed, registered, or similarly recognized as a hospital; or, a hospital organization is any other organization that the Treasury's Office of the Assistant Secretary ("Secretary") determines has the provision of hospital care as its principal function or purpose constituting the basis for its exemption under section 501(c)(3).

This assessment is designed and intended to meet the IRS needs assessment requirement as it is currently understood and interpreted by Shriners Hospitals for Children leadership.

Shriners Hospitals for Children's Commitment to the Community

SHC—Cincinnati is a licensed 30-bed pediatric hospital specializing in the treatment of severe burns and reconstructive surgery. Shriners Hospitals for Children®--Cincinnati opened in 1968 and remains committed to providing medical care for children with burn injuries, as well as educating the public about burn prevention, burn care, and providing medical education to physicians interested in burn protocols. The hospital is a leader in acute pediatric burn care and is one of only four freestanding hospitals in the country dedicated to the treatment of pediatric burns.

The hospital has been instrumental in advancing pediatric burn care and survival rates, as well as helping to advance and measure the "quality of life" of the post-burn patient. With extensive in-house follow-up clinics and outreach clinics, we offer a multidisciplinary after-care model designed for better recovery rates. Improved outcomes are measured in terms of patient physical, psychological, and social integration.

The mission for SHC—Cincinnati remains in alignment with the health care needs of the communities it serves through increasing burn awareness, improving burn injury outcomes, providing reconstructive surgical care, and providing education for both the public and medical community.

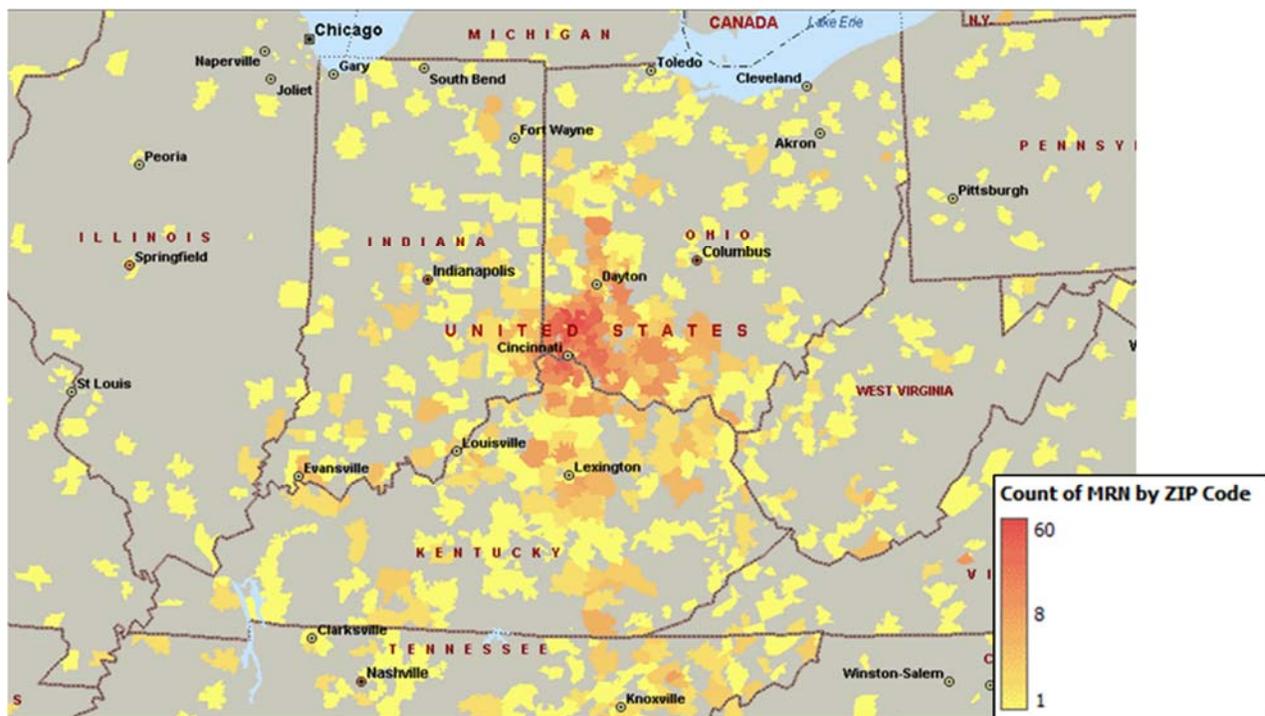
SHC—Cincinnati currently serves the needs of the children that have sustained burn injuries or are in need of reconstructive surgery living in the Midwest, South, Upper

Midwest, Plains and Southeast. Cincinnati Shriners Hospital provides education and consultation to the medical community to include emergency departments, medical schools, pediatric practices, family medicine practices, urban and rural health clinics, and school nurses. In the review of the evaluations from previous presentations, it became apparent that medical professionals who provide care to pediatric patients do not receive evidenced-based burn care education on a routine basis.

Cincinnati Shriners Hospital took a proactive approach in fulfilling its educational mission to the community by hiring a full-time Director of Professional Relations. This position was created to provide direct outreach to the medical community in Ohio, Kentucky, West Virginia, Indiana, Illinois, Missouri, Tennessee, Georgia, Florida, North Carolina, Upstate New York, and 11 other states. The focus of our educational mission is to make Shriner's educational and outreach programs available to communities in need of training, and to provide the highest level of burn awareness training to the public.

Our Community

SHC-Cincinnati draws patients from across the US, with the majority of patients residing within a 276-mile radius of the hospital. The below map illustrates unique patients distribution throughout 2018. Cincinnati's burn service expertise attract kids geographically throughout the south and northeast, with the majority of regional patients coming from more than 90 minutes (drive time) away from the Cincinnati hospital.



Across the United States Acute Burn prevalence (number of acute burn cases at a given point in time, not number of new cases*) equates to ~15 cases per 10,000 residents. While this number is not pediatric specific, if applied to the pediatric population served by SHC—Cincinnati this would amount to 1,050 acute burn cases a year by 2022. When applied to the entire United States pediatric population projected in 2022, there will be an estimated 74,886 acute burn cases (U.S. Census, 2017). Table 1 (below) outlines the six counties that are primarily served by SHC-Cincinnati and the population distribution based on age, ethnicity and care/social assistance receipts/revenue (\$1,000).

The data in Table 1 illustrates that the majority of the population served by SHC-Cincinnati report being “White Only”, with five of the six counties reporting at over 90%. The exception being Hamilton County, Ohio at 68% of the population reporting being “White Alone” and 26.5% reported being “Black, or African American alone”.

Table 1

| COUNTY POPULATIONS SERVED BY SHRINERS HOSPITALS FOR CHILDREN--CINCINNATI | | | | | | |
|---|------------------------|-------------------------|---------------------|-----------------------|-----------------------|---------------------|
| Fact | Boone County, Kentucky | Kenton County, Kentucky | Butler County, Ohio | Clermont County, Ohio | Hamilton County, Ohio | Warren County, Ohio |
| Population estimates, July 1, 2017, (V2017) | 130,728 | 165,399 | 380,604 | 204,214 | 813,822 | 228,882 |
| Persons under 5 years | 6.70% | 6.80% | 6.20% | 5.80% | 6.60% | 5.90% |
| Persons under 18 years | 26.30% | 23.90% | 23.70% | 23.30% | 23.00% | 25.10% |
| White alone | 91.60% | 91.20% | 85.10% | 95.30% | 68.00% | 88.70% |
| Black or African American alone | 3.40% | 4.90% | 8.70% | 1.60% | 26.50% | 3.60% |
| American Indian and Alaska Native alone | 0.20% | 0.20% | 0.30% | 0.20% | 0.20% | 0.20% |
| Asian alone | 2.60% | 1.30% | 3.40% | 1.30% | 2.70% | 5.80% |
| Native Hawaiian and Other Pacific Islander alone | 0.20% | 0.20% | 0.10% | 0 | 0.10% | 0.10% |
| Two or More Races | 2.00% | 2.10% | 2.30% | 1.60% | 2.40% | 1.60% |
| Hispanic or Latino | 4.30% | 3.30% | 4.70% | 2.00% | 3.30% | 2.70% |
| White alone, not Hispanic or Latino | 87.80% | 88.50% | 81.20% | 93.60% | 65.40% | 86.40% |
| Total health care and social assistance receipts/revenue, 2012 (\$1,000) | 446,242 | 1,297,956 | 1,491,796 | 527,044 | 10,054,399 | 853,692 |
| Population per square mile, 2010 | 482.3 | 996.7 | 788.2 | 436.5 | 1,976.70 | 530 |

Table 2 (below) helps to identify patient and family demographics outside of age, ethnicity and social assistance distribution that, when assessed can assist in care delivery. Based on the data, the following can be said about the SHC—Cincinnati population:

Education level:

- 31% of the population have at least a high school education, slightly higher than the entire U.S. population at 27.8%

- 28.9% have some college/Associates Degree, approximately the same as the U.S. population at 29.1%
- 28.4% have a Bachelor’s degree or higher. This is also line with the education distribution across the entire U.S. Population at 29.6%.

Household Income Distribution:

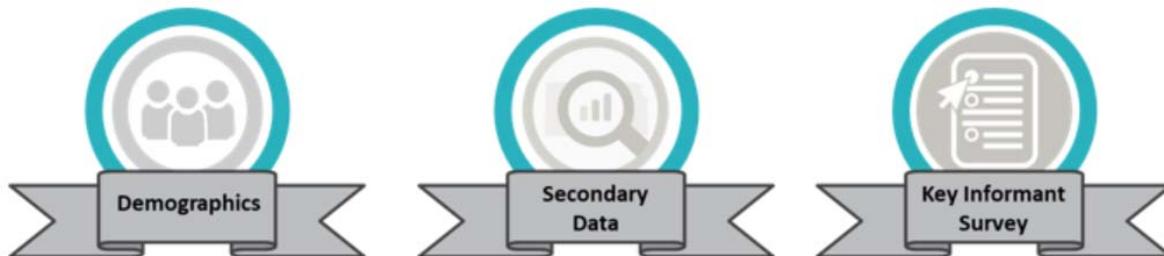
- 47.2% of the population make under \$50K a year, slightly higher than the U.S. average of 44.8%.
 - o 12.6% have an income of <\$15K, well below the current poverty line in the U.S. (\$22,541)
 - o 10.7% have an income of \$15-\$25K, either below the poverty line or slightly above (\$22,541)
- 30% of the population has a house hold income between \$50-\$100K
- 22% of the population has an annual income over \$100K

Table 2

| Demographics Expert 2.7 | | | | | | | | | |
|--------------------------------------|-------------------|---------------|-------------------|---------------|------------------------------------|----------------------------------|-------------------|---------------|----------------|
| 2017 Demographic Snapshot | | | | | | | | | |
| Area: SHC Cincinnati Market Area | | | | | | | | | |
| Level of Geography: Block Group Code | | | | | | | | | |
| DEMOGRAPHIC CHARACTERISTICS | | | | | | | | | |
| | | | Selected Area | USA | | | 2017 | 2022 | % Change |
| 2010 Total Population | | | 46,858,862 | 308,745,538 | Total Male Population | | 23,398,412 | 23,762,964 | 1.6% |
| 2017 Total Population | | | 47,763,384 | 325,139,271 | Total Female Population | | 24,364,972 | 24,705,705 | 1.4% |
| 2022 Total Population | | | 48,468,669 | 337,393,057 | Females, Child Bearing Age (15-44) | | 9,305,167 | 9,280,229 | -0.3% |
| % Change 2017 - 2022 | | | 1.5% | 3.8% | | | | | |
| Average Household Income | | | \$74,441 | \$80,853 | | | | | |
| POPULATION DISTRIBUTION | | | | | HOUSEHOLD INCOME DISTRIBUTION | | | | |
| Age Distribution | | | | | Income Distribution | | | | |
| Age Group | 2017 | % of Total | 2022 | % of Total | USA 2017 % of Total | 2017 Household Income | HH Count | % of Total | USA % of Total |
| 0-14 | 8,787,459 | 18.4% | 8,588,245 | 17.7% | 18.8% | <\$15K | 2,363,426 | 12.6% | 11.8% |
| 15-17 | 1,887,461 | 4.0% | 1,912,596 | 3.9% | 3.9% | \$15-25K | 2,013,354 | 10.7% | 10.1% |
| 18-24 | 4,740,200 | 9.9% | 4,767,815 | 9.8% | 9.8% | \$25-50K | 4,499,335 | 23.9% | 22.9% |
| 25-34 | 6,181,219 | 12.9% | 6,134,999 | 12.7% | 13.4% | \$50-75K | 3,364,010 | 17.9% | 17.4% |
| 35-54 | 12,233,144 | 25.6% | 11,890,983 | 24.5% | 25.7% | \$75-100K | 2,285,105 | 12.1% | 12.1% |
| 55-64 | 6,394,337 | 13.4% | 6,445,842 | 13.3% | 12.9% | Over \$100K | 4,306,677 | 22.9% | 25.7% |
| 65+ | 7,539,564 | 15.8% | 8,728,189 | 18.0% | 15.5% | | | | |
| Total | 47,763,384 | 100.0% | 48,468,669 | 100.0% | 100.0% | Total | 18,831,907 | 100.0% | 100.0% |
| EDUCATION LEVEL | | | | | RACE/ETHNICITY | | | | |
| Education Level Distribution | | | | | Race/Ethnicity Distribution | | | | |
| 2017 Adult Education Level | | | Pop Age 25+ | % of Total | USA % of Total | Race/Ethnicity | 2017 Pop | % of Total | USA % of Total |
| Less than High School | | | 1,353,337 | 4.2% | 5.8% | White Non-Hispanic | 35,270,642 | 73.8% | 60.8% |
| Some High School | | | 2,410,431 | 7.5% | 7.7% | Black Non-Hispanic | 5,923,176 | 12.4% | 12.4% |
| High School Degree | | | 10,022,023 | 31.0% | 27.8% | Hispanic | 3,891,188 | 8.1% | 18.0% |
| Some College/Assoc. Degree | | | 9,360,248 | 28.9% | 29.1% | Asian & Pacific Is. Non-Hispanic | 1,573,730 | 3.3% | 5.7% |
| Bachelor's Degree or Greater | | | 9,202,225 | 28.4% | 29.6% | All Others | 1,104,648 | 2.3% | 3.2% |
| Total | | | 32,348,264 | 100.0% | 100.0% | Total | 47,763,384 | 100.0% | 100.0% |

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Process and Methods



Surveys

Burn Education Survey

The 2019 Community Health Needs Assessment process included collecting data using two sources. Burn Education Survey data was collected after burn education presentations as part of the evaluation. Data for this survey was collected from providers including physicians, mid-level providers, nurses, and first responders at pediatrician and family practice medical offices, community health clinics, first responder presentations, and emergency departments in a local six-county area served by Shriners Hospitals for Children—Cincinnati.

Because of information uncovered in the hospital's previous community health needs assessment, SHC-Cincinnati elected to collect additional information regarding burn education. The questions below were added to our regular education evaluations to see if additional burn education changed the delivery of burn care.

1. *Will your treatment of burns change based on the education you received today?*
YES NO
2. *When was the last time you had burn education prior to today's presentation?*
3. *1-5 years 5-10 years 10+ years Never*
4. *Please circle your credential: MD/DO APRN RN PA EMT/PARAMEDIC*

Burn Education Survey data were collected from the following sources between 2017 and 2018: 768 evaluations were handed out and total number of responses was 768 (N = 768), this is a 100% response rate. The high response rate was tied to continuing education credits awarded for return of evaluations.

1. Pediatrician and family practice providers, emergency rooms, and fire departments

2. Data collected from burn education evaluations

Additionally, SHC-Cincinnati conducted interviews with the following local and regional partners from organizations who represent the broad interests of the community served by the hospital:

- ASK Coalition/Greater Cincinnati Coalition of Care
- Safe Families for Children
- Ohio Association of Emergency Medical Services
- Cincinnati Public School Nurses
- Regional County Medical Societies
- Additional local and regional district school nurses

Community Needs Survey

In order to measure the needs in the local healthcare community, a second survey, the Community Needs Survey (Exhibit # 6) was distributed Cincinnati Shriners' top 150 providers and mid-level providers 150 surveys were initially handed out. Total number of responses was 48 (N = 48), this is a 32% response rate. Surveys were handed out in pediatrician and family practice medical offices and community health clinics in the local six-county area served by Shriners Hospitals for Children—Cincinnati.



Additional information was collected from the entities listed below:

1. Hamilton County Ohio Health District Community Health Needs Assessment for Southwest Ohio and Southeast Indiana
2. NKY Health: Northern Kentucky Health District

3. The Health Collaborative Community Health Needs Assessment
4. A survey distributed to our top 100 referring physicians

Stakeholders and Target Populations

Because SHC-Cincinnati is a pediatric burn specialty hospital, physician stakeholders include pediatric burn surgeons, pediatric plastic surgeons, anesthesiologists, and nurse practitioners who work at the hospital along with the network of pediatricians and primary care physicians that refer patients to us.

Certainly, SHC owners, the Shriners, who send patients to SHC-CIN facility, are also stakeholders, as well as the rest of the hospital staff who either deliver care or are involved in supportive roles. SHC-CIN network of community pediatricians, primary care physicians, and office managers has increased by more than 60 percent since we hired our physician liaison and Director of Professional Relations. Thus, the primary target population are the children in the Tri-State region that encompass Southwestern Ohio, Northern Kentucky, and Southeast Indiana. The secondary target population is the remainder of the SHC-CIN catchment area that includes all of Ohio, Kentucky, West Virginia, Indiana, Illinois, Missouri, Tennessee, Georgia, Florida, North Carolina, Upstate New York, and 11 other states in the Midwest, Plains and Southeastern seaboard.

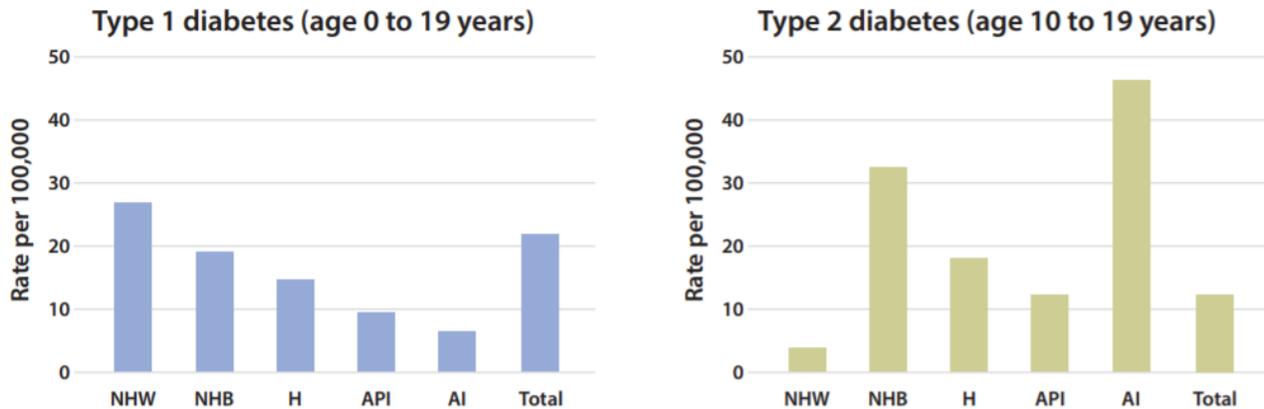
Secondary Data Analysis

Regardless of the circumstances, all children should have equal access to healthcare. However, due factors such as social determinates of health: i.e. poverty, food and housing insecurity, and language and geographic barriers, children's healthcare needs are often left unmet. As a result, children's health outcomes suffer. In order to face these needs, it is necessary to look beyond the doctor's office and work collectively to identify areas of unmet need and proactively implement strategies to address them.

Over the last 15 years, the U.S. has seen unmet healthcare needs shift from acute care issues to chronic health conditions. It is estimated that 25% of children and adolescents in the United States are affected by chronic health conditions. Additionally, 7.5% of children have unmet healthcare needs. Among the top conditions includes Digestive Health (including diabetes and obesity), Autism and Developmental Disabilities, and Mental Health issues.

According to the Center for Disease Control & Prevention (CDC), digestive Health tops the list of health concerns. New reports indicate that a third of U.S. Children are overweight or obese. The extra weight increases the chance for heart disease, diabetes, stroke, osteoarthritis, and many cancers. As stated by the researchers in the National Diabetes Statistics Report (2017), the overall incidence of diabetes is now 1.93 cases per 1,000 with this number growing among children and adolescents every year.

Additionally, diabetes remains the seventh leading cause of death in the United States. As indicated by the tables below, the rate of diabetes per 100,000 children varies significantly based on race, ethnicity, and the type of diabetes.



NHW = non-Hispanic whites, NHB = non-Hispanic blacks, H = Hispanics, API = Asians/Pacific Islands, AI = American Indians.

Note: American Indian (AI) youth who participated in the SEARCH study are not representative of all AI youth in the United States. Thus, these rates cannot be generalized to all AI youth nationwide.

Even more prevalent is the growth of Autism. According to the CDC 1 in 59 children have been identified with autism spectrum disorder (ASD)*. ASD is 4.5 times more prevalent in boys than in girls. This has grown significantly from the year 2000 at 1 in 150 children. One of the issues with ASD is that it commonly co-occurs with other developmental, psychiatric, neurologic, chromosomal, and genetic diagnoses. The co-occurrence of one or more non-ASD developmental diagnoses is 83%. The co-occurrence of one or more psychiatric diagnoses is 10%. The cost per year to treat these children medically in the U.S. is between \$11.5 and \$60.9 billion dollars. On average, medical expenditures for children and adolescents with ASD were 4.1–6.2 times greater than for those without ASD. It should also be noted that in addition to medical costs, intensive behavioral interventions for children with ASD can cost anywhere from \$40,000 to \$60,000 per child per year.

It is estimated that 17.1 million children in the United States have had a psychiatric disorder (Child Mind Institute, 2015 Report. Half of all psychiatric illness occurs before the age of 14 and 75% by the age of 24.

Age of onset of types of disorders in children



The CDC reports the following mental health statistics, collected from a variety of data sources. Between the years 2005-2011 children ages 3-17 years were identified as having diagnosis of:

- Attention-deficit/hyperactivity disorder (ADHD) (6.8%)
- Behavioral or conduct problems (3.5%)
- Anxiety (3.0%)
- Depression (2.1%)
- Autism spectrum disorder (1.1%)
- Tourette syndrome (0.2%) (among children aged 6–17 years)

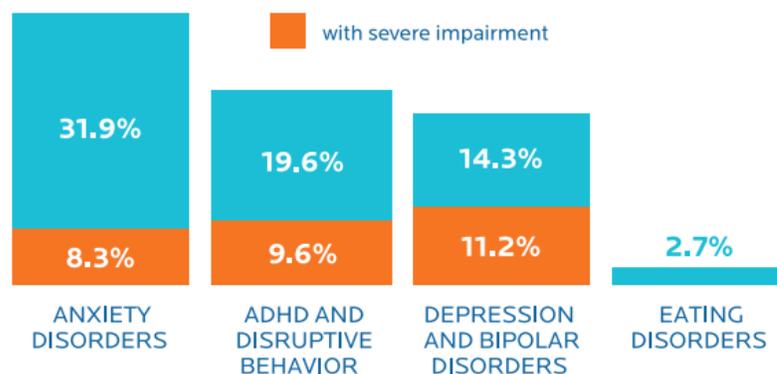
Additionally, 4.2-4.7% of Adolescents aged 12-17 were identified as having an illicit drug or alcohol disorder.

Suicide is the 3rd leading cause of death among youth (ages 10-24). Youth, in particular, continue to be at-risk. In 2013, Florida’s children and youth represented (flgov.com):

- 4,752 Emergency Department visits for suicide attempts
- 1,909 hospitalizations for suicide attempts
- 246 suicide deaths (280 deaths in 2014)

One child/youth dies by suicide every **32 hours**

What are the most common psychiatric disorders in childhood?



Furthermore, Based on the National Research Council and Institute of Medicine report (Preventing mental, emotional, and behavioral disorders among young people: progress and possibilities, 2009) that gathered findings from previous studies, it is estimated that 13 –20% of children living in the United States (up to 1 out of 5 children) experience a mental disorder in a given year. According to the Child Mind Institute, it is estimated that 40% of youth with diagnosable ADHD, 60% of youth with Depression, and 80% of youth with anxiety disorder are left untreated.

The gap between the need and the number of kids receiving help:



Sources*

- Boyle, C.A., Boulet, S., Schieve, L., Cohen, R.A., Blumberg, S.J., Yeargin-Allsopp, M., Visser, S., & Kogan M.D.. (2011). Trends in the prevalence of developmental disabilities in US children 1997-2008, *Pediatrics*.
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Key Findings

Based on the data collected, both primary and secondary data, the following can be identified as key findings. Addressed below will be the summary of responses by survey and secondary data analysis.

Burn Education Survey Response Analysis

Total number of respondents 768, 100% response rate

| Do you see a need for burn education in the health care setting? | Percent of total respondents answering "Yes" |
|--|--|
| | 99.9% |

| Have you received burn education in the past one year? | |
|--|-----|
| Yes | 10% |
| No | 90% |

| How long ago did you receive burn education, if ever? | Percent of respondents who have received burn education in the past |
|---|---|
| 1 to 5 years ago | 17% |
| 5 – 10 years ago | 30% |
| > than 10 years ago | 4% |
| I have never received burn education | 49% |

| Would you be interested in burn education? | Percent of total respondents answering "Yes" |
|--|--|
| | 100% |

| Please select your professional title: | Percent of professional titles surveyed/responded |
|--|---|
| MD/DO | 39.4% |
| Nurse Practitioner | 14.2% |
| Physician Assistant | 1% |
| RN | 39.9% |
| First Responder | 5.4% |

Community Health Needs Survey Response Analysis:

Total number of respondents 42 (150 surveys initially handed out)

| For which specialty care services do you most often refer your patients to other providers (could select multiple options). | In Ranking Order of Responses |
|--|--|
| | <ul style="list-style-type: none"> - Gastroenterology (30) - ENT (30) - Endocrinology (22) - Pediatric Orthopedic Surgery (21) - Neurology (18) - Urology (17) - Pediatric General Surgery (16) - Psychiatrist (14) - Rheumatologist (12) - Geneticist (9) |

Note: not all survey responders answered this question

Other Specialist: Speech, Psychiatry/Psychology, Physical Therapy/Occupational Therapy, Developmental Pediatrics, Optometrist, and Dentist

This data is consistent with that from the Center for Disease Control & Prevention (CDC), stating that digestive health tops the list of health concerns. Digestive health includes conditions such as Diabetes and Obesity, with such conditions being treated by gastroenterologist and endocrinologist (topping the list of survey responses). Additionally, given the rise in the number of children diagnosed each year with autism and/or some form developmental delays, it is evident that pediatric neurologist specialist are needed in growing numbers. It is expected that with the rise of mental health awareness campaigns across the country, and the growing number of children and adolescents diagnosed each year with conditions such as anxiety, depression and bipolar disorders, and ADHA/disruptive behaviors that the need for pediatric psychiatrist and psychologist will increase respectively.

| During the past 12 months, did your patients have difficulties or delays getting the services listed above because there were waiting lists, backlogs, services unavailable, or other problems getting appointments? | % of Respondents |
|--|------------------|
| Yes | 64% |
| No | 26% |

Note: not all survey responders answered this question

Additional Comments Provided by Respondents:

- Difficulty getting into specialist during busy season
- Difficulty getting into see specialist in a timely manner
- Backlogs especially with dental and optometry

| How often do you see children who are uninsured? | % of Respondents |
|--|------------------|
| Very Often | 0% |
| Sometimes | 92% |
| Never | 2% |

Note: not all survey responders answered this question

This data is consistent with trends across the healthcare industry. Longer wait times, especially for specialists, can be largely attributed to variables such as, a shortage of physicians and the increase in access to health insurance. It is estimated that, on average, it takes approximately 24 days to get a new patient appointment in 15 of the largest cities in the U.S. According to the Association of American Medical Colleges or AAMC (as cited by Merritt Hawkins, 2017), there is currently a shortage of 21,800 physicians in the USA, while the data presented by the AAMC also predicts that the US will have a shortage of 65,000 by 2020 and 120,000 by 2030. As far as health insurance is concerned, an increased access to insurance has also contributed to longer wait times. The Affordable Care Act (ACA) extended health care to 20 million previously uninsured people, increasing patient burden on physicians. Longer wait times can cause patients to skip out entirely on routine check-ups and more, which can result in serious long-term health consequences. Any delay in diagnosis and treatment can pose health risks. Not to mention the fact that such delays can and will incur additional costs. These costs would have been avoidable if prompt medical attention was given administered.

Source*

- Merritt Hawkins (2017), *Survey of Physician Appointment Wait Times and Medicare and Medicaid Acceptance Rates*:
<https://www.merrithawkins.com/uploadedFiles/MerrittHawkins/Content/Pdf/mha2017waitimesurveyPDF.pdf>

| If they did not receive the services they needed, what were the reasons? | % of Respondents |
|--|------------------|
| Cost Too Much | 55% |
| No Insurance | 30% |
| Health Plan Problems | 23% |
| Didn't Accept Child's Insurance | 43% |
| Service Not Available In Area | 25% |
| Transportation Problems | 33% |
| Couldn't Get Appointment | 10% |
| Dissatisfaction With Referral | 5% |
| Didn't Know Where To Go | 8% |
| Child Refused | 3% |
| Ongoing TX? | 5% |

| | |
|--------------------------|-----|
| Lack of School Resources | 8% |
| Forgot Appointment | 20% |
| Didn't Go To Appointment | 38% |
| Other | 3% |

While The Affordable Care Act (ACA) did extend health care to 20 million previously uninsured people, the cost of health care is still on a rise across the country. Many families fall into what is known as the “the gap”: where they do not qualify for Medicaid due to their household income nor do they qualify for enough of a subsidy to afford the monthly cost of health coverage via “the exchange”. With this, many families choose to pay a yearly fine for not having coverage, as it is less than the cost of monthly insurance payments. With SHC-Cincinnati being a specialty care hospital: pediatric burns, the cost of care continues to increase year over year. However, SHC-CIN stands firm in its mission, vision, and values to care for any child in need. 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.

What concerns your most about pediatric health today? (open ended question)

- Not enough specialists take state insurance
- High cost
- Insurance dictating options
- Parenting
- ADD
- Psychiatry/psychology/ mental health
- Insurance concerns
- insurance/reimbursement
- Availability of primary care specialists
- Availability of pediatrics subspecialists/ wait times
- Epidemic of childhood obesity and inactivity
- Google
- Getting an appointment sooner rather than later
- Access to and cost to patient
- Lack of pediatric providers
- Most parents have insurance so we just need the parents to bring them to the provider.
- A lot of vaccine refusal
- Time constraints on visits for assurance of patient understanding
- Having to rely on follow-up visits: no shows, especially with asthma
- Insurance not covering plastic surgery for conditions that may not be medically necessary, but are much needed for proper social and psychological development.

Many of the concerns listed above are consistent with what is found throughout the healthcare industry as a whole and previously discussed thought this Community Health Needs Assessment.

Key Finding Prioritization:

| Access Variables | SHC-Cincinnati Community need | SHC-Cincinnati Strategic Plan | SHC-Cincinnati Resources Available | Community Impact (High - Low) |
|----------------------------|--|--|---|--|
| Burn Education | Yes | Yes | Yes | High |
| Diabetes | Yes | No | No | Low |
| Autism/Developmental Delay | Yes | No | No | Low |
| Mental Health | Yes | No | Yes – for inpatients only | Low |
| Access to Care | Yes | No | No | Low |
| Cost of Care | Yes | No | Yes | High |
| Wait times for Specialist | Yes | No | No* | High |
| Insurance not accepted | Yes | Yes | Yes | High |

** Specialist services are available to SHC patients with short wait times, but this service is not available to the community at large.*

Based on the results above, and given our mission and the resources we have available, SHC-Cincinnati has chosen to focus its 2019 CHNA Action Plan on unmet needs related to the following topics:

- Burn education for medical professionals
- Mental health needs for our inpatient population

SHC — Cincinnati recognizes that there are other identified unmet needs within the identified community population; however, due to the specialty nature of Shriners Hospitals for Children (its mission, vision and values), its staffing and available resources, SHC — Cincinnati is unable to care for these immediate needs. SHC-Cincinnati is integrally connected with many resources in the community to refer patients and families should patients require attritional assistance, including the following:

| Community Resources | |
|---|--|
| Hamilton County-Cincinnati Health Department | Marilyn Crumpton, M.D., M.P.H., Director of Growing Well Cincinnati, medical director for the Division of School & Adolescent Health at Cincinnati Health Department, Coordinator for Closing The Health Care Gap, and medical consultant for Cincinnati Public Schools (CPS). |
| Lakota Local Schools School Nurses | Carolyn Adee, R.N., Health Coordinator at Lakota Local Schools |
| Family & Children First | Sandy Smoot, Coordinator, Warren County Family & Children First Council |
| Northern Kentucky Health Department | Gerry Tolbert, M.D., Medical Director |
| First Steps | Kathy Rudnick, Director, Northern Kentucky Region |
| Cincinnati Children's Hospital Medical Center (CCHMC) | Full service pediatric, academic, research hospital. Medical & psychosocial needs, including Child Protective Services. |

Action Plan

2016 Action Plan

The 2016 Community Health Needs Assessment revealed a tremendous lack of burn education for children in the first responder community, hospital emergency rooms, and physician offices. Our action plan included continuing to reach out to the community and beyond to provide current evidence-based burn education that the providers mentioned above could provide at their

Once the community providers' lack of knowledge on burn care treatments was established, Cincinnati Shriners Hospital used its expertise to provide this needed education to all levels of health care providers and first responders.

Community outreach staff visit the offices and provides a one-hour lecture with a PowerPoint presentation about pediatric burns, including types of burns and management. Folders are distributed to all attendees that include burn treatment information, and information about the hospital's website and referral options. Evaluation and feedback forms are completed by all participants to ensure that the information being presented is relevant and can be applied in their respective settings.

Weekly and monthly, the community outreach team determine the communities, counties and states where this education is needed. The team identifies hospitals and

provider offices in the targeted area and makes contact, offering a one-hour pediatric burn care presentation. To make the education even more valuable to the providers, a one-hour CME credit offered in collaboration with Cincinnati Children's Hospital through the Accreditation Council of Continuing Medical Education, or a one-hour CEU credit by the Ohio Nurses Association (OBN-001-91), an accredited approver by the American Nurses Credentialing Center's Commission on Accreditation is awarded to lecture attendees. This education is offered at no charge to the organization.

2016 Action Plan Results

Since implementation of the education, evaluations and feedback has been overwhelmingly positive. The next step is to monitor patient outcomes to demonstrate the education effectiveness.

Since 2016, Shriners Hospitals for Children—Cincinnati rolled out two digital applications and a handbook to better serve the educational and emergent needs of our provider population, including physicians, midlevel providers, nurses, first responders, and our families and patients.

SHC-C created a website, <http://shrinershospitalcincinnati.org>, (Exhibit 7) where providers and first responders can find educational tools and information to help them find the data they need to treat a burned child.

A reference folder booklet, ***From The Routine To The Rare*** (Exhibit 8), was created for our community office providers to access burn care and burn management information as another helpful educational tool.

The second digital tool that the Cincinnati hospital created and rolled out is a phone application (Exhibit 8) that puts the information from the website into the hands of the providers and first responders for quicker access.

Written Comments on 2016 Community Health Needs Assessment

Shriners Hospitals for Children Community Health Needs Assessment and implementation was made widely available to the public on Shriners Hospitals for Children website at <https://www.shrinershospitalsforchildren.org/shc/chna>

In addition to posting the Community Health Needs Assessment, contact information including email were listed. No comments or questions were received.

2019 Action Plan and Performance Measures

Like so many other healthcare facilities in the United States of America, Shriners Hospitals for Children is currently going through a transition period. Regardless of the transition, SHC-Cincinnati is committed to continuing to provide burn care and management to the pediatric population.

Our goals from now until the next Community Health Needs Assessment in 2021 includes working with future partners, affirming our commitment to providing the best burn care and management in the world, and continuing to provide evidence-based burn education to the health care community to improve patient outcomes.

Based on the results of this 2019 Community Health Needs Assessment, the Shriners Hospitals for Children—Cincinnati will take the following actions in response to prioritized community needs:

| Goal | Objective | Strategy | Timeframe |
|---------------------------------------|--|--|------------------------|
| Improve outcomes for burned children. | Increase burn awareness and burn care education to pediatric care providers throughout the healthcare community. | Continue to provide evidence-based burn education to the healthcare community by means of in person presentation and PowerPoint. | From now through 2021 |
| | | Continue to provide updated web-based burn information for the medical community and families. | From now through 2021. |
| | | Continue to provide phone-application based digital tool to provide emergent and up to date burn care and burn management information for providers. | From now through 2021 |
| | | Work with potential future partners to care for and manage burned children | From now through 2021 |

**Shriners Hospitals for Children — Cincinnati
Community Health Needs Assessment – Action Plan 2019**

Conclusion

Burn education continues to be a critical need in the community at all levels and must be repeated often to provide the most recent evidence-based information. Having the knowledge of proper burn care and management, in the emergent, office or clinic, or field setting can be a life-saving intervention and change the outcome for the child.

Shriners Hospitals for Children—Cincinnati remains committed to providing the best care and education as we have for the last 50 years.

2019 Community Health Needs Assessment Report Available Online or in Print

The 2019 Community Health Needs Assessment is available at
<https://www.shrinershospitalsforchildren.org/shc/chna>

06/01/2019

Date adopted by authorized body of hospital

Exhibits

| | | | |
|--|---|--|---|
| <p>Exhibit 1</p> <p>Shriners Referral Card</p> <p>A double-sided, fold-over business card size referral card was created to distribute to our supporting Shriners. When Shriners meet a family who may be able to use our services, he hands the family this card.</p> <p>The card has telephone numbers for both the hospital’s emergency burn service number and Patient Access number to schedule OPD appointments for small burns and plastic surgery appointments. There is also space where the Shriner can also write his name and Shrine Temple.</p> |  <p style="text-align: center;">Shriners Hospitals for Children® – Cincinnati</p> <p style="text-align: center;">provides specialty care to children up to age 18 for Burns, cleft lip and palate & specialized plastic surgery.</p> <table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Burn & Emergency Services 866-947-7840</td> <td style="text-align: center;">Plastic Surgery Services 855-206-2096</td> </tr> </table> <p style="text-align: center;">The Cincinnati Hospital</p> <div style="text-align: center;">  <p>CONDITIONS TREATED</p> </div> <p style="text-align: center; font-size: small;">All Services Provided Regardless of a Family's Ability to Pay</p> | Burn & Emergency Services 866-947-7840 | Plastic Surgery Services 855-206-2096 |
| Burn & Emergency Services 866-947-7840 | Plastic Surgery Services 855-206-2096 | | |
| <p>Exhibit 2</p> <p>Microwave Noodle Soup Scald Safety Card</p> <p>A double-sided 4” x 3” card was developed to hand out to physician practices and health clinics by the physician liaison. Ramen noodle scalds are one of the top scalds seen in our outpatient department, especially in the 12-month – 4 year old age range.</p> |  <p>The left card, titled "Microwave Noodle Soups Are Easy, Fast & Hot!", features a bowl of ramen and text stating that according to the American Burn Association, the majority of burn injuries in children are the result of scalds. It notes that each year over 100,000 kids are seriously burned with scalding liquids, many of which are from instant noodle soups cooked in the microwave. It advises following cooking instructions and closely supervising kids of all ages. A contact number 866-947-7840 is provided.</p> <p>The right card, titled "Scald Fact Sheet", features a hand being scalded by a cup of liquid. It states that over 50% of burns are scalds. A bar chart shows that for children 0-4 years old, there are 1 scald, 2 scalds, 3 scalds, and 4 scalds. It identifies Shriners Hospitals for Children - Cincinnati as one of only four freestanding hospitals in the country dedicated to the treatment of pediatric burns and reconstructive plastic and reconstructive surgery.</p> | | |

Exhibit 3

Campfire Safety Card

A double-sided 4" x 3" card was developed to hand out to physician practices and health clinics by the physician liaison. We see many children who have fallen into campfires and fire pits of all ages. Some of these children require acute hospitalization and skin grafting.



Exhibit 4

Initial Burn Wound Care Handout

This 8-1/2" x 11" handout was developed to assist emergency departments and medical providers with early burn wound treatment. We see many children who received improper treatment from which arise complications and delay in healing.

This handout is used in two delivery methods:

a. Laminated copies of this handout are delivered to physician practices and health care clinics by the physician liaison during her visits. The Director of Professional Relations also delivers the laminated version to hospital emergency departments she visits.

b. This handout is included in the lecture folder.

INITIAL BURN WOUND CARE
Do not wash unless visibly dirty

Inpatient Transfer

Dry dressing

Outpatient Referral

- Apply polysporin to burn dressing.
- Instruct family not to change dressing until they are seen at Shriners Hospital.

Shriners Hospitals
for Children™ - Cincinnati

Call Cincinnati Shriners Hospital
Burn and Emergency Services
866-947-7840

DHC-CDC Jacki Peterson May2019

Exhibit 5

Pediatric Burn Triage Handout

This 8-1/2" x 11" educational handout was developed to assist emergency departments and pre-hospital providers with early burn wound treatment. Many children with mismanaged burns come through our doors. Improper early treatment can create complications and delays in healing.

This handout is used in two delivery methods:

- a. The Director of Professional Relations delivers a laminated version to hospital emergency departments.
- b. This handout is included in the lecture folder.

The graphic is a flowchart titled "PEDIATRIC BURN TRIAGE" with the Shriners Hospitals for Children Cincinnati logo at the top. It provides "Pre/Early Hospital Fluid Guidelines" for three age groups: <5 years (125 ml/hr), 6-13 years (250 ml/hr), and 14 years (500 ml/hr). It then branches into two paths based on Total Body Surface Area (TBSA):

- TBSA < 10% (Total Body Surface Area):**
 - NO fluid resuscitation needed
 - KEEP WARM**
 - No wet dressings
 - Cleanse wounds with soap and water
 - Apply antibiotic ointment
 - Secure with gauze
 - NO oral antibiotics indicated
- TBSA > 10% (Total Body Surface Area):**
 - KEEP WARM**
 - No wet dressings
 - Apply dry dressings
 - Airway control indicated for acute or impending respiratory distress
 - Insert IV
 - PARKLAND FORMULA:** 4ml x % burn x kg
 - 1/2 of total over first 8 hours (NO bolus therapy)
 - Maintain urine output 0.5-1 ml/kg/hr (if < 0.5ml/kg/hr, increase total fluid amount by 1/3*) (NO bolus therapy)

Both paths lead to a yellow oval at the bottom with the text: "Notify SHRINERS HOSPITALS FOR CHILDREN to schedule an Outpatient Appointment" and the phone number "866-947-7840".

Exhibit 6

Community Health Needs Assessment Survey – page 1

The survey form features the Shriners Hospitals for Children Cincinnati logo at the top. The title is "Community Health Needs Assessment". Below the title, there is an introductory paragraph: "As one of our valued health partners, we are asking you to complete this brief survey. We want to identify the concerns of pediatric health care providers. Your answers will help us better respond to identified needs in our community." This is followed by a request to return the survey to Debbie Harrell before the end of the activity today.

The first question asks: "For which specialty care services do you most often refer your patients to other providers? (Check all that apply)". It lists 11 specialties with checkboxes: Endocrinologist, Gastroenterologist, Geneticist, Pediatric orthopedic surgeon, Otolaryngologist, Neurologist, Psychiatrist, Plastic surgeon, Rheumatologist, Pediatric general surgeon, Urologist, and Other.

The second question asks: "During the past 12 months, did your patients have difficulties or delays getting the services listed above because there were waiting lists, backlogs, services unavailable, or other problems getting appointments?". The response options are Yes and No.

The third question asks: "How often do you see children who are uninsured?". The response options are Very often, Sometimes, and Never.

The final question asks: "If they did not receive all the services they needed, what were the reasons? (Check all that apply)". It lists 11 reasons with checkboxes: Cost was too much, No insurance, Health Plan Problem, Didn't accept child's insurance, Not available in area, Transportation problems, Could not get appointment, Dissatisfaction with referral, Did not know where to go, Child refused to go, Treatment is ongoing, No referral, Lack of resources at school, Forgot appointment, Didn't go to appointment, and Other.

Exhibit 6 (continued)

Community Health Needs Assessment Survey – page 2

Why do you refer children to Shriners Hospitals for Children – Cincinnati? (Check all that apply)

- Charity care policy
- Freestanding pediatric facility
- Only place service was available
- Excellent reputation
- Past experience referring children
- Convenience to Shriners Hospital
- Patient / Family Preference
- Other:

Do you refer your patients to Shriners Hospital for Children—Cincinnati for any of the following burns or other skin conditions? Check all that apply

| | |
|---|---|
| <input type="checkbox"/> Acute Burn Injuries | <input type="checkbox"/> Exposed vessels, nerves, tendons |
| <input type="checkbox"/> Reconstructive Surgery | <input type="checkbox"/> Soft Tissue Infections |
| <input type="checkbox"/> Skin conditions | <input type="checkbox"/> Toxic Epidermal Necrosis |
| <input type="checkbox"/> Pressure ulcers | <input type="checkbox"/> Stevens - Johnson syndrome |
| <input type="checkbox"/> Infected wounds | <input type="checkbox"/> Epidermolysis Bullosa |
| <input type="checkbox"/> Delayed wound healing | <input type="checkbox"/> Necrotizing Fasciitis |
| <input type="checkbox"/> Amputations | |

Do you refer patients for any of the plastic surgery conditions listed below? Check all that apply)

| | |
|--|--|
| <input type="checkbox"/> Burns | <input type="checkbox"/> Congenital hand deformities |
| <input type="checkbox"/> Brachial plexus disorders | <input type="checkbox"/> Gynecomastia |
| <input type="checkbox"/> Cleft Lip & Palate | <input type="checkbox"/> Hidradenitis |
| <input type="checkbox"/> Congenital ear deformities | <input type="checkbox"/> Plagioccephaly |
| <input type="checkbox"/> Congenital hairy nevus | <input type="checkbox"/> Scar management/revision |
| <input type="checkbox"/> Congenital breast deformities | |

What concerns you most about pediatric health care today?

Are there pediatric health care services you would like Shriners Hospitals for Children – Cincinnati to offer that we currently do not?

Exhibit 7

Shriners Hospitals for Children—Cincinnati web site <http://shrinershospitalcincinnati.org>

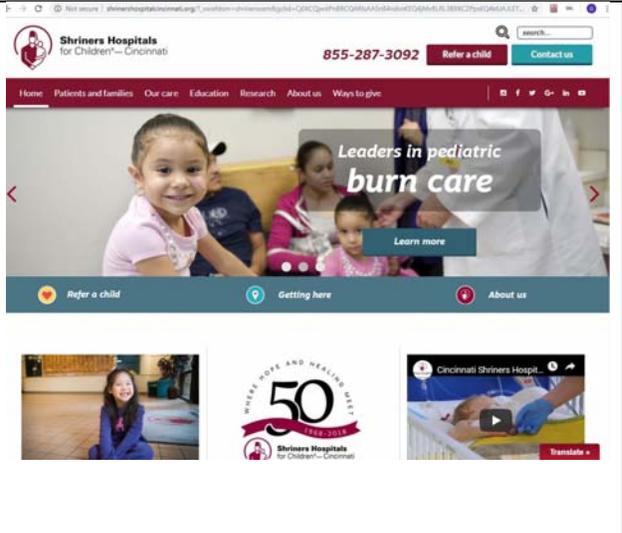


Exhibit 8

Burn phone app download instructions

