



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

## **SHC Community Health Needs Assessment**

### **Shriners Hospitals for Children® - Northern California**

Healthy Involvement | Healthy Outcomes: Prepared by: Catherine Curran, Director of Public Relations, on behalf of the administrative team at Shriners Hospitals for Children – Northern California. Submitted May 25, 2016.

# Mission and Vision

## Mission

- Shriners Hospitals for Children – Northern California is devoted to fulfilling the promise of every child’s life by providing the highest quality care to children with neuromusculoskeletal conditions, burn injuries 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.

## Vision

- Shriners Hospitals for Children – Northern California will be recognized as a leader in advancing the field of specialized pediatric surgery and noted as the destination of choice for children seeking to live life to their full potential.

# Table of Contents

Our Commitment to the Community ..... 2

Our Survey..... 18

Process and Methods ..... 20

Key Findings ..... 39

Action Plan ..... 40

Acknowledgements..... 40



## **Our Commitment to the Community**

### **Partners in Caring**

Located just minutes from downtown Sacramento, Shriners Hospitals for Children® – Northern California stands firmly footed with a welcome mat out to all children who can benefit from its highly specialized pediatric care.

The Northern California Shriners Hospital has built its clinical programs, prevention programs, educational programs and public affairs programs in direct response to community need and interest. In that sense, the Northern California hospital's growth and development mirrors that of the entire Shriners Hospital system, which was established in the early 1920s to ensure that children with polio, club foot, limb deficiencies and other complex orthopaedic needs could have access to much-needed medical care. Motivated by a long-standing focus on access to care, Shriners Hospitals for Children – Northern California has reached out to new populations and developed new programs to support unmet community needs.

The term highly-specialized care is important in understanding the vital role the hospital plays in the community. The term “highly-specialized” speaks to both the complexity and uniqueness of many services. Many children served have medical needs that require complex surgical care that is not readily available in all communities. Furthermore, the incidence of many of the medical conditions treated at SHCNC occur at a relatively low rate in the population at large. Examples include cerebral palsy (1 in every 300 births) and spinal bifida (approximately 1 in every 1,000 births).

While the conditions treated at Shriners Hospital occur in a relative small segment of the population, the need for the care exists in communities throughout the state, and the hospital continues to respond to increases in referrals and its patient population.

Since opening its doors in April of 1997, more than 65,000 children have been accepted for care at the Northern California Shriners Hospital, a regional pediatric medical center serving families throughout Northern California, Western Nevada, Southern Oregon and beyond. While patients come from communities near and far and from all walks of life, all seek expert care and rehabilitation in a state-of-the-art facility designed to address the unique needs of children and their families.

## Driven by Excellence

Shriners Hospitals for Children – Northern California is a regional pediatric medical center fully-accredited by the Joint Commission providing expert care in the following specialty programs:

- Orthopaedics
- Plastic surgery
- Burns
- Cleft lip surgery
- Spinal cord injury
- Pediatric surgery







Shriners Hospitals for Children — Northern California is **ranked 29th in pediatric orthopaedics** and 20<sup>th</sup> best in pediatric urology in the U.S. News & World Report's 2015-2016 rankings of children's hospitals in the United States. The hospital shares these distinctions with its partner UC Davis Children's Hospital, and the 2015-2016 rankings mark the fourth consecutive year the hospitals have shared national recognition. The Best Children's Hospitals rankings highlight U.S. News's top 50 U.S. pediatric facilities in 10 specialties. Rankings are based on a combination of clinical data and reputation with pediatric specialists. Eighty-three hospitals ranked in at least one specialty, based on a combination of clinical data and reputation with pediatric specialists. To gather data, *U.S. News* sent a clinical questionnaire to 184 pediatric hospitals. A sixth of the score came from annual surveys of pediatric specialists and subspecialists in 2013, 2014 and 2015. They were asked where they would send the sickest children in their specialty, setting aside location and expense.

Shriners Hospitals for Children – Northern California also is **nationally recognized as a leader in pediatric burn care**. It is distinguished by the American Burn Association (ABA) and the American

College of Surgeons (ACS) as a verified pediatric burn center. SHCNC has grown to become the busiest pediatric burn center in California, while maintaining its position as a leader in the care of children with complex orthopaedic needs.

Shriners Hospitals for Children — Northern California is **designated by the State of California as a Rehabilitation Facility** that meets all standards required by the Systems of Care Division of the



California Children's Services (CCS). The Rehabilitation Facility designation is granted to those organizations that demonstrate excellent multidisciplinary care, including ongoing assessments, plans and documented follow-up for patients and families.

In keeping with its commitment to ensuring that all children have access to high-quality, specialized pediatric surgical care, in

2014 the hospital broadened its nationally recognized programs to include pediatric surgery. The program serves children with complex gastro-intestinal disorders, complex ano-rectal disorders and complex chest wall disorders.

## Statewide Leader

The Northern California Shriners Hospital receives more than 6,000 new referrals annually and accommodates more than 27,000 patient visits each year. Data collected by the State of California Office of Statewide Health Planning and Development (OSHPD) speak to the vital role Shriners Hospitals plays in accommodating pediatric health care needs. OSHPD collects and publicly discloses facility level data from more than 5,000 CDPH-licensed healthcare facilities—hospitals, long-term care facilities, clinics, home health agencies, and hospices. These data include financial, utilization, patient characteristics, and services information. Annual discharge data provided by OSHPD show the

Northern California Shriners Hospital is both a statewide and regional leader in pediatric care in several service lines and suggest that the hospital is fulfilling a need unmet in many communities:\*

### **Burn Care**

#1 in California

### **Cerebral Palsy**

#1 in the Sacramento region;

#2 in Northern California

#4 in California

### **Club Foot**

#1 in Northern California

#2 in California

### **Upper Extremity Care**

#1 in California



### **Spinal Cord Injury Treatment and Rehabilitation**

#2 in California

*\*Rankings are based on data collected prior to 2015. A full analysis of 2015 data was not available at the time of this report.*

### **Tradition of Caring**

Children in Northern California have benefited from the Shriners unique brand of medicine since 1923, first in San Francisco and now in

Sacramento. Over the

years, the Shriners have expanded treatment specialties to meet the unique needs of the pediatric patient population. In the 1980s, Shriners Hospitals for Children became a regional center of excellence for spinal cord injury care. In the early 1990s, the Shriners determined that the ability to provide life-saving burn care to children throughout the United States required the establishment of a regional pediatric burn center in the West.

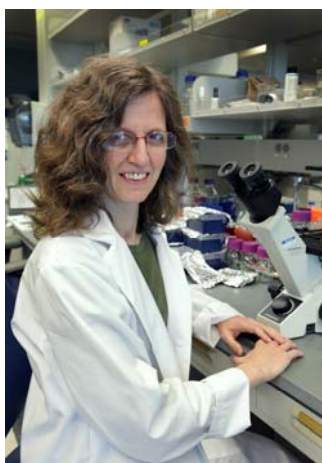






## Community Vision

With that decision came new vision. Shriners Hospitals for Children – Northern California was built to become a multidisciplinary, regional pediatric medical center and the only hospital in the Shriners health care network that provides care in all Shriners specialties and houses a scientific research center in a single facility. While the programs are housed in a magnificent, stand-alone children's hospital, **the Shriners knew their vision to grow required the ability to reach far beyond hospital walls and work in partnership with the broader community.**



The decision to locate the hospital in the center of the University of California Davis Medical Center was a strategic one. Affiliation agreements with the university, that continue to this day, allow for professional care and collaboration. The exemplary partnership with UC Davis is the cornerstone of a strategy that seeks to advance the care of children through access, education and outreach. Shriners Hospitals for Children – Northern California works in partnership with many individuals and organizations to ensure that children and families benefit from the services it provides. While the number of patients served by the Northern California Shriners Hospital continues to grow, population data suggests there are many more children who can benefit from the services provided.

Shriners Hospitals for Children – Northern California is devoted to working in partnership with professionals and the community to ensure that children throughout the region have the opportunity to benefit from highly specialized pediatric care and live life to their fullest potential. **It is our belief that healthy involvement leads to healthy outcomes.**



## New Initiatives

In 2014 and 2015, Shriners Hospitals for Children — Northern California launched three new initiatives to expand access to much-needed clinical care and promote positive outcomes in children with complex medical needs.

**Fracture Clinic:** California has suffered from two ailments that can compromise access to care: 1) availability of orthopaedic doctors to provide immediate fracture care, and 2) over-crowded emergency rooms. As a result, in Sacramento and other communities, children with broken arms and legs may have difficulty getting fracture care in a timely way. News reports surfaced about how some children had to wait days to have a broken arm casted, for instance. Shriners Hospitals for Children — Northern California responded to this need by opening a fracture clinic in 2014. The fracture clinic prompted an increase in the need for cast care, and there was as a 66 percent increase in the number of casts made in 2014.

**Pediatric Surgery:** Crohn's disease, ulcerative colitis, morbid obesity, gall bladder disease, fecal incontinence, idiopathic constipation, short bowel syndrome, and ano-rectal malformations are medical conditions that dramatically impact a child's life but are not always physically visible and rarely discussed in polite conversation. For years, children suffering from



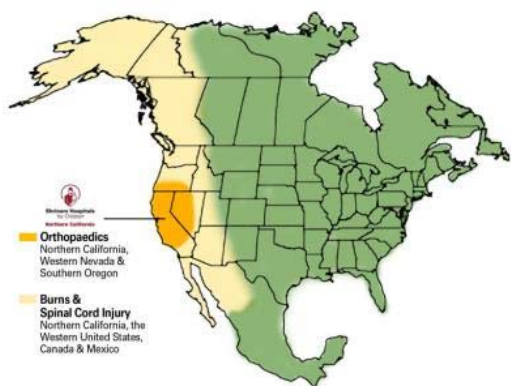
these conditions who lived in the greater Sacramento area and in communities stretching clear to the Oregon border, had to travel to San Francisco to seek expert pediatric surgical care. That changed in the Fall of 2014, when Shriners Hospitals for Children — Northern California launched its pediatric surgery program, making care more easily accessible to children in the Sacramento and Central valleys of California. Leading the growth and development of the new program in pediatric surgery are Dr. Shinjiro Hirose and Dr. Diana Farmer, both of whom were recruited from the University of California, San Francisco (UCSF), a noted academic medical center located approximately 100 miles to the west of Sacramento and the Northern California Shriners Hospital. The addition of the pediatric surgery program represents the first major expansion of the hospital's services since it opened in 1997.

**California Cerebral Palsy Hip Alliance** : In October 2015, Dr. Jon R. Davids, assistant chief of orthopaedics, brought doctors together from California Children's Services (CCS), Stanford University,



Lucile Packard Children's Hospital; and UCSF Benioff Children's Hospital to launch the California Cerebral Palsy Hip Alliance. The program was introduced at a packed seminar (over 70 attendees) that took place at Shriners Hospital. Cerebral Palsy is a neurological disorder that affects coordination, balance and the ability to walk. It is the most common cause of motor disability in children, and hip dysplasia is one of the most common causes of pain and

disability in these children. Hip dysplasia limits a child's range of motion. Surgical intervention helps restore mobility and prevents pain later in life. Dr. Davids and the cerebral palsy team at Shriners Hospital pioneered a hip surveillance program in California modeled after work in Australia and Sweden that shows that regular surveillance (e.g. physical examinations and x-rays) in children with cerebral palsy leads to earlier diagnosis of hip dysplasia. Shriners Hospital and its partners (CCS, Stanford and UCSF) formed the California Cerebral Palsy Hip Alliance to provide a path for early diagnosis and positive outcomes. "The goal of the California Cerebral Palsy Hip Alliance is to take the first level of screening into the community through CCS," says Dr. Davids. Children identified as candidates for care through the hip surveillance program will be followed by Shriners Hospital and other academic medical centers, where surgeons will partner with pediatricians and other professionals to determine the optimal age for intervention for each child.



## Regional Reach

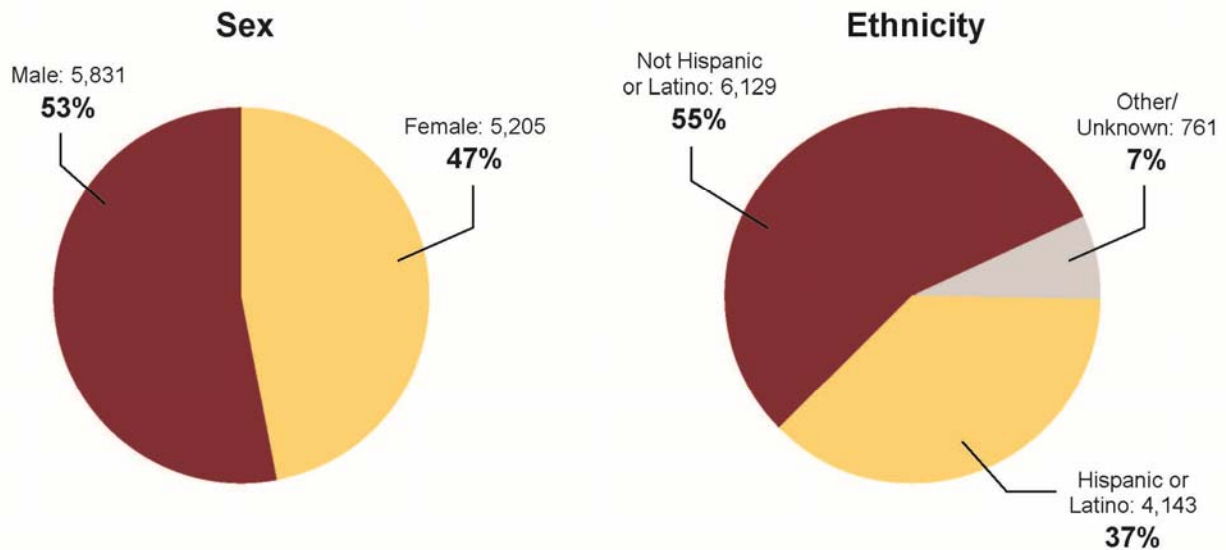
Shriners Hospitals for Children – Northern California serves children and families throughout a wide region. Orthopaedic care extends to children in Northern California, Western Nevada and Southern Oregon. Children throughout California, the Western United States, Northwestern Mexico and parts of Canada benefit from expert burn and spinal cord injury care and rehabilitation. While most of the patients

served live within a 100-mile radius of the hospital, families living in communities represented by the broader region benefit from the expert pediatric care.

## Shriners Hospitals for Children – Northern California

Patient Demographic by Sex and Ethnicity – 2015

(11,055 Unique Patients)



### Who We Serve

The population served by Shriners Hospitals for Children – Northern California is as diverse as the state. The hospital cared for 11,055 unique patients in 2015. Approximately 53% of patients were male and 47% female, and represented a spectrum of racial and ethnic backgrounds.

#### Race

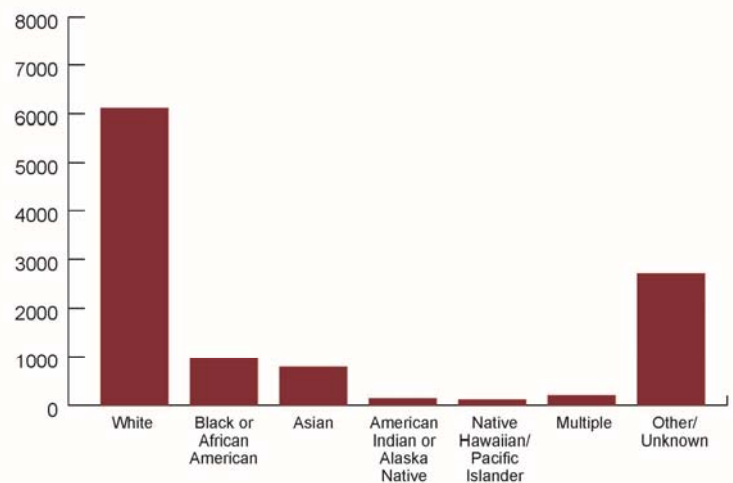
55%	White
9%	Black / African American
7%	Asian
2%	Multiple race
1%	American Indian / Alaska Native
23%	Other
3%	Unknown or declined to answer

#### Ethnicity

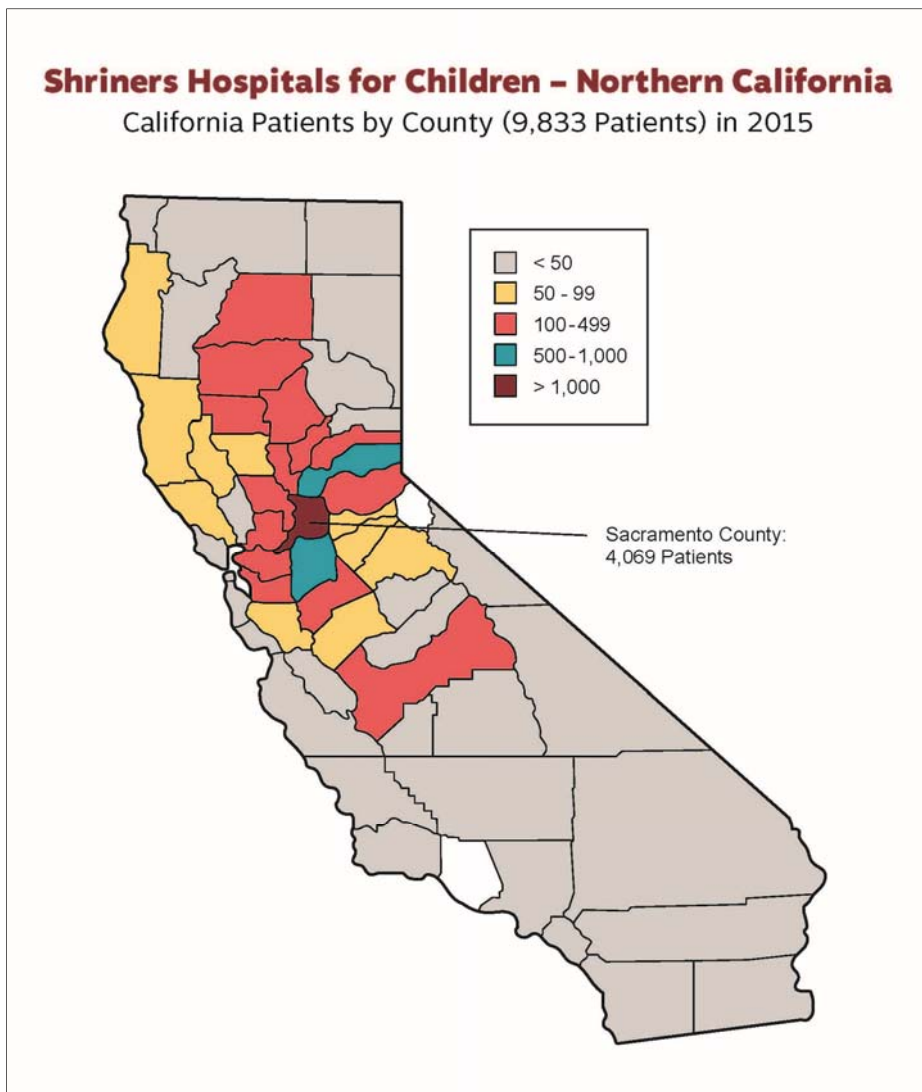
37%	Hispanic – Latino
55%	Not Hispanic – Latino
6%	Other
2%	Unknown or declined to answer

## Shriners Hospitals for Children – Northern California

Patient Demographic by Race – 2015 (11,055 Unique Patients)



Patients treated represented 32 states and 507 cities and towns in California. Approximately 5% of patients served live in Nevada. Roughly 1.5 percent of patient population comes from Southern California, which includes San Luis Obispo, Kern, Santa Barbara, Los Angeles, Ventura, Orange, San Diego, Imperial, Riverside and San Bernadino counties. In keeping with the hospital mission, patients from Southern California mainly come north to Shriners Hospital for the burn care and spinal cord injury care and rehabilitation.



Of the California patients, the majority live within a 75-mile radius of the hospital. Nearly 37% (4,069) live in Sacramento County and 61% (6,759) live in Sacramento and its bordering counties: San Joaquin, Contra Costa, Solano, Yolo, Sutter, Placer, El Dorado and Amador.

The hospital served 1,603 children from counties located north of the Greater Sacramento Area, accounting for approximately 15% of unique patients in 2015. The numbers are indicative of the fact that these are sparsely populated regions in which pockets of the population are remote. Nonetheless, families seek the care provided by the

Northern California Shriners Hospital, which provides specialty services that are not readily available in outlying communities.

The California wine country comprised mainly of Napa and Sonoma counties account for 141 – or just 1% of patients. The hospital also serves patients from San Francisco, Oakland and Alameda and the Peninsula – infamously known as Silicon Valley. Approximately 2% of patients – 229 – come from

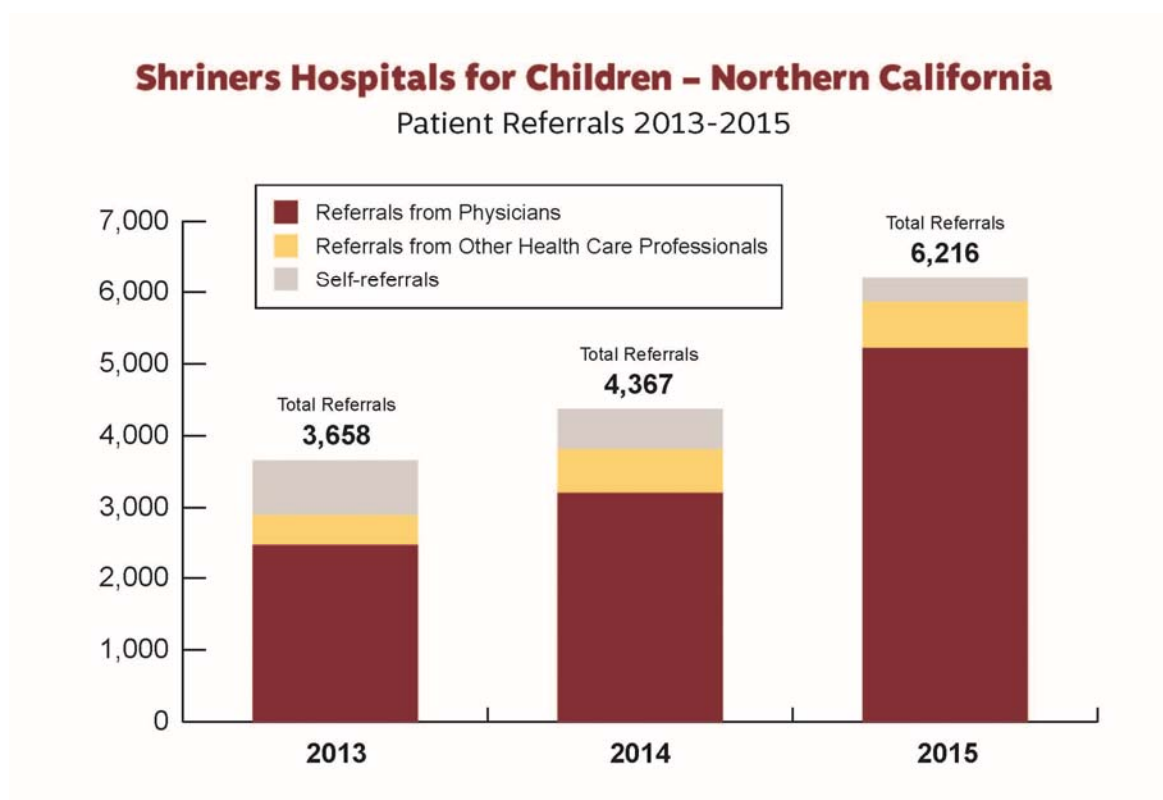


these areas, where it should be noted that families also have UCSF and Stanford's Lucile Packard Children's Hospital within easy reach.

The Central Valley, located to the south of Sacramento, is a proverbial "bread-basket" of California with agriculture a prominent industry. Urban areas include Stockton, Modesto, Merced and Fresno. The Central Valley region accounts for a significant number of underserved families, and the Northern California Shriners Hospital has reached out to community health providers in an effort to serve specialized pediatric needs. Approximately 11% of patients – 1,166 – served by the hospital live in the Central Valley, and more than half of those – 602- come from Stockton.

## Referral Networks

The fact that children and families living near and far seek the care provided by Shriners Hospitals for Children — Northern California is a clear reflection the vital role the hospital plays in fulfilling community health care needs. This point is accentuated by the fact that the hospital has seen a steady increase in both the number of patients referred and the number of doctors, nurses and others referring children for care.



A synopsis of the three-year period shows a 59% increase in the number of referrals, with the number of referrals made by physicians more than doubling as the number grew from 2,460 to 5,219. The referral breakdown for these three years is as follows:

**2013 Referrals**

3,658 total referrals

2,460 from physicians (67%)

436 from other health care professionals (12%)

762 self-refer and other (21%)

**2014 Referrals**

4,367 total referrals

3,203 from physicians (73%)

611 from other health care professionals (14%)

553 self-refer and other (13%)

**2015 Referrals**

6,216 total referrals

5,219 from physicians (84%)

648 from other health care providers (10%)

349 self-refer and other (6%)

The trend shows a steady increase in the number of referrals made by physicians and a steady decrease in referrals by individuals outside the health care industry, including self-referrals. While a definitive reason for the change requires further, in-depth analysis, the trend suggests that a growing number of health professionals are turning to Shriners Hospitals for Children to serve specialized health care needs of their patients and children in their communities.

The increase in the number of referrals parallels expansion of services to include fracture clinic and pediatric surgery. One may conclude that the increase in referrals is indicative of the need for these services in the region served by the Northern California Shriners Hospital.



**Emergent Burn Referrals:** When children suffer burn injuries, immediate and appropriate burn care is essential to positive outcomes. Treatment protocols for pediatric burn patients often differ from those of adult burn patients, so it is essential that children are referred to a burn center that specializes in pediatric care. Shriners Hospitals for Children — Northern California works in partnership with first responders and emergency medicine providers throughout the California, Nevada and the West to ensure that children have access to the Shriners regional pediatric burn center. Children with severe burns and other emergent needs are admitted through a physician-to-physician referral around the clock – 24 hours a day, seven days a week. In 2015, the Northern California Shriners Hospital received 371 emergent referrals – more than one a day. The referrals came from emergency room doctors and urgent care centers throughout California, as well as from Nevada, and the northwestern region of Mexico, which is in the hospital's catchment area.

## Regional Profile

### Sacramento County Demographics

Population Under 18	<b>361,130</b>
White	51.38%
Black/African American	10.74%
Asian	14.42%
American Indian/Alaska Native	0.87%
Multiple Race	12.72%
Other	9.87%
Latino	31%

### SHCNC Patient Demographics

Sacramento County Total	<b>4,069</b>
White	55%
Black/African American	9%
Asian	7%
American Indian/Alaska Native	1%
Multiple Race	2%
Other	23%
Latino	37%

**Note:** Data on race and ethnicity listed above  
Is indicative of 2015 patient population.

The region served by the Northern California Shriners Hospital is expansive in scope and population. The data paint a picture of need and opportunity. Data provided by Truven Health Analytics Inc., illustrates the impact SHCNC has on Sacramento County. The reported population of Sacramento County is 1,450,277, with approximately 25%, or 361,130 of the total, under age 18. The racial breakdown of those under 18 shows 51.38% white, 10.74% black or African American, 0.87% Native American/Alaska Native, 14.42% Asians, 1% Native Hawaiian/Pacific Islander, 8.87% some other race, and 12.72% multiple race. Furthermore, data show 112,251 of the Sacramento County residents under the age of 18 are Hispanic/Latino, thus accounting for roughly 31% of the under 18 population.

What then, does a comparison between the SHCNC patient data and overall Sacramento County data tell us? Based on unique patients in 2015, approximately, 1.1% of the under 18 population in Sacramento receives care at the Northern California

Shriners Hospital. While this seems like a small percent, it is impressive when one considers the incidence of the conditions we treat in the total population. Spina Bifida occurs in roughly 0.01% of population and cerebral palsy in .03%. The incidence of scoliosis is reported to range from 0.5 – 5.2%, and cleft lip reportedly occurs in 1 to 2 out of every 1,000 births. Even when lumped together with burns and other traumatic injuries treated by the hospital, the data show that SHCNC is responding to needs of the community as a leading provider of care in the conditions it treats. This conclusion is supported by discharge data reported by OSHPD.



A comparison of the demographic data also show that patients served by SHCNC represent the diverse mix of the patient population. Approximately 31% of the under 18 population in Sacramento County is Latino/Hispanic, while Latinos represent 37% of the patients served from Sacramento County. On the other hand, approximately 9% of children served by SHCNC from Sacramento County are Black/African American, while Blacks represent 11% of under 18 population in the County. SHCNC serves only 7% of the roughly 14% of the Asian population in the County. These percentages suggest that the hospital is very successful in its outreach to the Latino/Hispanic populations, but point to opportunities to better serve the Asian and African American populations.



Data from Truven Analytics show that families living in Sacramento County have access to an adequate supply of health care professionals, and the vast majority of people – 93.49% -- have some form of medical insurance. Even though Sacramento County is an area with no major barriers to care, a large the large number of children receive care at the Northern California Shriners Hospital. One may conclude that SHCNC is meeting needs for highly specialized care and is a destination of choice for thousands of families.

**Populations Nearby:** SHCNC is located within easy driving distance of areas growing in population. While the hospital serves children in each of these counties, the population data suggest even more opportunity to meet specialized pediatric health care needs for families in these areas. Three counties that border Sacramento County reveal tremendous opportunity to serve more families in need:

- **San Joaquin County** is located to the south of Sacramento. With a population of 726,106, approximately 28% -- or 200,000 -- are under the age of 18. Many live in or near Stockton, which is located within an hour's drive of the hospital. SHCNC's 2015 patient data shows 901 children from this area receive care at the Northern California hospital.
- **Solano County** is located to the west and southwest of Sacramento County. With a population of 436,092, it is home to approximately 100,000 people under the age of 18. SHCNC 2015 patient data show 177 from Solano County served by the hospital. It should be noted that these families have access

to health care in their communities as well as in the greater San Francisco Bay Area. However, much of the population lives within an easy drive to Sacramento. The communities of Fairfield, Vacaville and Dixon, for instance, all are located less than 75 miles away.

- **Contra Costa County** is home to 1,126,745. Of the total, approximately 100,000 (22.9%) are under 18. Once again most of the cities and towns in Contra Costa County, which is located southwest of Sacramento, are less than 100 miles away from the hospital. Many towns in Contra Costa are considered “bedroom” communities for the San Francisco area, thus those traveling west toward San Francisco can confront heavy highway traffic. The commute northeast to Sacramento is similar in distance and usually without as much traffic.

**The North State:** Butte, Tehama, Shasta and other counties located north of Sacramento are in what is often referred to as the “north state.” These regions are less populous than the counties around Sacramento, the San Francisco Bay Area and the Central Valley. Total population for Butte, Shasta and Tehama counties is 468,252. The under 18 population is just upwards of 10,000. Families living in these more rural, less-populated areas do not have as much access to specialized care in their communities. Nonetheless, hospital data show that SHCNC serves a healthy number of children in these regions with 825 of the 2015 unique patients coming from stated counties – Shasta, Butte and Tehama.

**The Big Picture:** Data reported by the U.S. Census Bureau and other organizations shows that more people live in Northern California (approximately 15 million) than Alaska, Hawaii, Idaho, Montana, Wyoming, Nevada and Utah combined. More than 3 million people live to the west of Sacramento in Contra Costa, Alameda and San Francisco counties. The growing Central Valley of California as well as Redding, Red Bluff and other communities north of Sacramento are served by the Northern California Shriners Hospital. The cities and towns that line the Central Valley (from Bakersfield to Stockton) account for roughly 2 million people, with a significant portion of the population under 18. According to U.S. Census Data, 31 percent of the people in Fresno and 32 percent of the people in Bakersfield are under 18.

While the numbers and distances are staggering, the data paint a picture of a region populated with people who can benefit from the care and expertise provided by Shriners Hospitals for Children – Northern California. Children living in neighboring western states that are less populous than California can benefit from the regional burn, spinal cord injury and pediatric surgery care that are not always available in less populous regions. The profiles of the regions served by the hospital provide information that is vital to shaping a strategy for community engagement that is effective and efficient.

## Our Survey

While referral patterns, patient encounters and the number of cities and counties served are indicative of the community need for services provided by the Northern California Shriners Hospital, the hospital engages with medical professionals, nurses, and citizens at large to measure the community pulse. Information is gathered through both formal and informal channels. The feedback allows the hospital to evaluate services and ensure that its programs promote healthy outcomes in the communities it serves.

**Physician Survey:** In Spring 2016, Shriners Hospitals for Children surveyed 1,669 physicians in Northern California. Respondents included pediatricians, orthopaedists, family practice / sports medicine doctors, orthopaedic surgeons and neonatologists. A link to the survey (Survey Monkey) also was included in the launch of the hospital's new physician newsletter. To assess community need, the survey asked respondents three specific questions:

1. *I see patients that have the greatest need for the following programs: orthopaedics, burns, plastic surgery, cerebral palsy, cleft lip surgery, spinal cord injury care and rehabilitation, other.*
2. *What are the greatest needs facing you and the patients you serve? How are these needs being met?*
3. *Do families in your community have a need for specialized pediatric care?*

The first question provided a multiple choice answer in which 92.85% of respondents checked orthopaedics, 42.85% checked cerebral palsy, 14.28% checked cleft lip surgery and spinal cord injury care and rehabilitation, and 7.14% checked pediatric surgery, burns, plastic surgery and "other."

The second question required a write-in response. Among the comments were:

- *Behavior and mental health;*
- *UCD (UC Davis) will not take out of county medical;*
- *Shriners has been very helpful in providing care for my patients. I have difficulties with referrals for Peds GI, genetics and rheumatology as there are few of those specialists accepting patients in Northern California;*
- *More PT visits approved.*
- *Back pain and scoliosis care. No local providers.*

Of those responding to the third question, **78.57% percent said families in their community have a need for specialized pediatric care.**

**School Nurses Respond:** In Spring 2016, SHCNC reached out to school nurses and other nurses through email. The nurses were asked basically the same questions as physicians:

- *What are the greatest needs facing the children / patients you serve?*
- *How are these needs being met?*

The nurses' responses addressed issues related to education and access. Comments written in response to the first question included:

- *Lack of insurance. Lack of money to pay for services. Transportation to appointments. Lack of knowledge/education on child's medical diagnosis.*
- *The need for pediatric general care. The pediatricians are full and not taking patients.*
- *Orthopedic needs of our medically fragile students.*

When asked how needs are being met, responses included:

- *Might be easier now that undocumented children can get medical coverage;*
- *The children end up at the emergency rooms;*
- *Mostly through CCS (California Children's Services).*

The mission of Shriners Hospitals for Children to provide care regardless of the families' ability to pay allows the hospital to meet the needs of children who do not have access to medical insurance.

SHCNC's open referral process also allows the hospital to respond directly to community health care needs because parents can directly refer a child for care and do not need to wait to see a pediatrician or primary care doctor to get a referral.



## Process and Methods

### A Multifaceted Approach

Shriners Hospitals for Children – Northern California is both responsive and proactive in its efforts to engage the community on many levels. It is an approach that requires identifying regional opportunity and key constituents (e.g., doctors, nurses, parents, teachers, and students) that are vital to helping the hospital fulfill its mission to advance the lives of children through treatment, teaching and research. Communication, education, and partnerships are essential to the implementation of the methods outlined in this report.



### Hospital Continuing Education Programs

The commitment to care extends far beyond hospital walls to doctors, nurses, therapists and others devoted to serving the health care needs of children and families. SHCNC is proud to offer a robust continuing education program that includes seminars, lunchtime lectures and dinner lectures for physicians. These programs allow the professional team at SHCNC to share best practices with community health care providers. The programs are topical and designed to address questions that give attendees the tools and information they need to become better practitioners. Participation is regional and represents the broad area served by the hospital.



Over the past three years (2013-2015), SHCNC offered 41 continuing education programs and 12 educational lectures of interest to community at large. Programs included lunchtime lectures, signature series dinner lectures, medical staff breakfasts, seminars and conferences. Attendees included doctors, nurses, therapists and other health care providers from cities and towns throughout Northern California. In the spring of 2016, the burn team hosted a Regional Burn that was attended by more than 70 health care professionals from throughout California. In addition, the Department of Orthopaedics hosts the *Ashley Lectureship* each year to provide continuing education in orthopaedics and honor the legacy of an outstanding orthopaedic surgeon, teacher and leader.

Through its continuing education, SHCNC exposed the community to a variety of topics related to pediatric care and the patient populations the hospital services. Topics covered include *Pediatric Hand Surgery – Helping & Learning in the Third World*, *Medicine and Social Media*, *Comprehensive Management of Spasticity & Dystonia in Children*, *Medical Ethics, Faith, Culture and Public Policy*, *Pediatric & Infant Gastroesophageal Reflux Disease – to Wrap or Not?*, *Pediatric Surgery in Sub-Saharan Africa: Lessons from a Prospective Database*, *Recovery and Rehabilitation Following SEMLS*, *Perspectives on Pediatric Orthopaedics*, *A New Way to Measure Function-Motion Analysis*, *Kinematics of the Shoulder, Elbow and Thumb*, *Hazards of Hash Oil and Other Illegal Drugs*, and *The Hip in Children with Cerebral Palsy from Surveillance to Salvage*. Some of the program highlights are detailed below.

### **Pre-Conference for School Nurses**

When the California School Nurses Association held its state convention in Sacramento in 2014, they approached the hospital in advance and asked if SHCNC would provide a pre-conference seminar for school nurses. Nearly 100 school nurses attended the program that focused on the treatment of conditions nurses see in their schools and districts. Evaluations from seminar participants confirmed the value of program and allowed hospital to identify community needs. Comments included the following:

- *I learned that Shriners is an amazing resource for our kids with specific needs;*

- *Confirmed my current scoliosis screening method;*
- *Information was wonderful for my practice working with severely handicapped high school students including those with TBA, CP, spina bifida, etc.;*
- *Sport injuries presentation gave me insight on the scope of the problem;*
- *I learned a lot I didn't know about specific conditions like CP and burns;*
- *I'm more aware of multiple treatments available for my students who have scoliosis and cerebral palsy;*
- *If I were to build on today's program, I would possibly say how to better function as a liaison, present educational resources information to our home communities;*
- *Almost all speakers touched on issues I see in my district nurse practice and gave me much more insight into my students' treatments & procedures both in the home and in school;*
- *The level of professionalism was stellar and the generosity of this agency and community obviously provides the highest level of care and service.*



### **Perspectives on Pediatric Orthopaedics**

Doctors and nurses from throughout Northern California attended this all-day seminar on pediatric orthopaedics presented by Shriners Hospital faculty on October 18, 2014. Participants were asked to provide feedback on clinical problems they learned how to solve and identify future educational needs. Respondents listed information on sports injuries, club foot, scoliosis, brachial plexus birth palsy, pelvis and knee pain, hip dysplasia, fractures, ACL injuries, bowlegs, Blount disease, spinal cord surgery, Legg-Calve-Perthes disease, and the importance of MRI as clinical educational benefits of the program. When asked to identify future educational needs, comments reflected a need and interest in information on many services provided by the Northern California Shriners Hospital including:

- *Community follow-up care for burns;*
- *Crohn's issues;*
- *More practical interventions with the school sites for school nurses;*
- *Future splinting/casting course;*
- *Physical exams for certain conditions;*
- *Gait pattern recognition.*

## **Recovery and Rehabilitation Following SEMLS for Patients with Cerebral Palsy**

The orthopaedic team at Shriners Hospitals for Children — Northern California has expertise in treating children with cerebral palsy. A complex procedure known as SEMLS (single event multilevel surgery) improves clinical outcomes in many of these children. In April 2014, Dr. Jon R. Davids, Director of the Center of Excellence in Cerebral Palsy, and his team invited health professionals to an all-day continuing education seminar that focused on the treatment and rehabilitation of children undergoing SEMLS. Feedback from participants spoke to the importance of the clinical information provided as illustrated by the following comments:

- *Knowing the overall protocol with Shriners for SEMLS will help me support the patient/family with post-op needs;*
- *Increased knowledge of client needs after SEMLS; increased knowledge of therapy plans & expected outcomes;*
- *I have a better understanding of some of the different SEMLS procedures. It is helpful to see the pre and post-op videos;*
- *My knowledge of post-op SEMLS care has increased as well as the big picture of the need and benefits for the procedure;*
- *As a school nurse, this has made me very aware of what some of the students with CP have been through. I also have students (school district is rural) whose parents have not / will not / cannot bring their children to Shriners for therapy. I am so very impressed with what Shriners offers to kids and their families.*

Other comments from seminar participants, pointed to interest in community-based, collaborative care:

- *Information given is very current and research-based. Great attention to detail;*
- *I appreciated hearing from the entire care team as well as family who had worked with the team;*
- *It's exciting to know there will be a partnership with CCS (California Children's Services) to contribute to evidence-based practice;*
- *If already not available, maybe have support groups for patients and families during all phases.*

## **The Hip in Children with Cerebral Palsy: From Surveillance to Salvage**

The SHCNC orthopaedic team built on the success of the SEMLS seminar and expanded its community engagement with a seminar on *The Hip in Children with Cerebral Palsy* that took place October 2, 2015. The seminar provided clinical education regarding early detection of hip dysplasia in children with cerebral palsy and introduced the formation of the California Cerebral Palsy Hip Alliance, a collaborative, community-based program spearheaded by Dr. Jon Davids, orthopaedic surgeon, and



the cerebral palsy team at SHCNC. Partners in the alliance include California Children's Services (CCS), Stanford University, Lucile Packard Children's Hospital; and UCSF Benioff Children's Hospital.

Participants commented on the value of the clinical information provided and the future of the collaborative:

- *Increased knowledge working with our children with hip CP*
- *Better understanding of surgical procedures and knowledge of x-rays;*
- *Greater understanding of hip dysplasia with CP and awareness of surveillance needed;*
- *Reinforced the importance of pre-screening;*
- *Will be able to better support hip surveillance;*
- *Willing to look at x-rays more often;*
- *Excited to implement organized tracking and management;*
- *Very optimistic in helping screen the children early in hopes of a better quality of life later;*
- *Nice to see cooperation among agencies and State CCS level.*

### **Advanced Burn Life Support Provider Course**

Burn surgeons from Shriners Hospitals for Children – Northern California have taught several Advanced Burn Life Support (ABLS) Provider Courses in the past two years. The 8-hour ABLS course is designed for physicians, nurses, physician assistants, nurse practitioners, therapists, firefighters, paramedics, and EMTs. David Greenhalgh, M.D., chief of burns at the Northern California Shriners Hospital, is the lead instructor for the ABLS Provider Course, which has been offered at both SHCNC and regionally, including the Shasta Regional Medical Center in Redding, CA. The hands-on course is designed to provide the “how-to” of emergency care of the burn patient through the first 24-hour critical time period. The course includes an opportunity to work with a simulated burn patient to reinforce the assessment, stabilization, and the American Burn Association (ABA) transfer criteria to a burn center. Testing consists of a written exam and a practical assessment. The goal, of course, is to promote healthy outcomes by providing medical professionals and first



responders, working both inside and outside the hospital, with tools they need to successfully treat people who sustain severe burn injuries.

While the goal of the continuing education programs is to nurture professional growth and development of hospital physicians and health care professionals, **the feedback participants provide enables SHCNC to evaluate its programs and identify opportunities to extend its community outreach.**

## Professional Presentations, Awards & Medical Leadership

Meeting community health care needs requires expertise and professional reputation. The Northern California Shriners Hospital is committed to serving as a destination of choice for all children who can benefit from its services and programs. At the same time, it would be unrealistic to expect that every eligible child will seek care at our hospital. The medical team at the Shriners Hospitals for Children in Sacramento is devoted to ensuring that doctors working in different communities are aware of medical considerations and best practices.

### Professional Presentations

The medical team communicates this information through Grand Rounds and presentations at professional meetings regionally, nationally and internationally. Collectively, the medical team gives over 100 presentations each year. Presentations address research and clinical considerations within each of the hospital's treatment specialties — orthopaedics, burns, spinal cord injury, pediatric surgery, cleft lip and plastic surgery. *Upper Extremity Orthopaedic Management of Children with CP, Special Needs of Children in a Disaster, Hazards of Hash Oil and Other Illegal Drugs, Motion Analysis in the Upper Extremity, and Pediatric Colorectal Surgery* are among the many, many topics shared with health care professionals near and far.

Our doctors and professional team have presented at UC San Francisco (UCSF), Sacramento County CCS, Oakland Children's Hospital, San Joaquin General Hospital, Mercy Medical Center in Redding, Calif., and Renown Hospital in Reno, to name a few. The SHCNC medical team has been prominently represented at many national conferences including the American Burn Association (ABA), the Pediatric Orthopaedic Society of North America (POSNA), the American Academy of Orthopaedic Surgeons, Society for Surgery of the Hand, the Pediatric Orthopaedic Society of North America and Gait and Clinical Movement Analysis Society. International presentations include those given at the American Academy of Cerebral Palsy and Developmental Medicine and the Pediatric Hand Study Group.

The medical team outreach extends to other Shriners Hospitals for Children and supports the hospital's commitment to sharing best practices and fostering a collaborative culture of care.

### Medical Leadership & Recognition

All who seek care at the Northern California Shriners Hospital benefit from the expertise of a nationally noted medical team. While the honors, awards and recognition are far too many to list here, the following examples speak to the leadership our professional team provides their peers and their ability to influence positive practice – and outcomes.

**Dr. Michelle James**, chief of orthopaedics, is serving her 10<sup>th</sup>, and final, year on the Board of Directors at the American Board of Orthopaedic Surgery (ABOS). Her work on the Board has focused on the education of residents (those training to become orthopaedic surgeons) and physicians who focus on hand surgery. She also serves on the board of The Perry Initiative and Orthopaedics Overseas. She is Deputy Editor for Hand and Upper Extremity for the *Journal*



*of Bone and Joint Surgery*. She is also Principal Investigator on two multi-center clinical research studies of hand function in children and has published numerous papers in peer-reviewed journals, as well as contributing to chapters to surgical textbooks. Other professional affiliations include the American Academy of Orthopaedic Surgeons, the American Society for Surgery of the Hand the Pediatric Orthopaedic Society of Northern America, and the American Orthopaedic Association, and the Ruth Jackson Society.

**Dr. David Greenhalgh**, chief of burns, has received several awards and appointments that honor his extraordinary contributions to burn care, research and prevention. At the 2016 meeting of the American Burn Association, Dr. Greenhalgh received the Harvey Stuart Allen Distinguished Service Award, which is presented to an outstanding North American scientist for contributions to the burn field. Dr. Greenhalgh joined the ABA in 1988 and served as president from 2006-2007. In October 2015, the Phoenix Society for Burn Survivors presented Dr. Greenhalgh with its highest honor, the Breslau Award. The award recognizes those who have helped the Phoenix society fulfill its mission of



peer support, education, research and advocacy to enrich the lives of burn survivors. Dr. Greenhalgh's research interests include burn resuscitation, sepsis, and burn prevention. He is the editor of a new book entitled *Burn Care for the General Surgeon and General Practitioner*.

**Dr. Pirko Maguina**, is 2016 president of the Greater Sacramento Society of Plastic Surgeons. As president, Dr. Maguina is responsible for organizing monthly meetings and educational programs for the society of plastic surgeons. He also represents the 45-member organization in advocacy issues and in public outreach activities. Dr. Maguina participates in international outreach trips for the treatment of children with cleft lip and late effects of burns. His humanitarian work has taken him to many countries including Peru, the Philippines, Africa, India, Vietnam, and Ecuador.



**Dr. Tina Palmieri**, assistant chief of burns, published results of a nine-year study on mortality rates for burn-injured children in the May 2015 issue of *Pediatric Critical Care Medicine*, a publication of the Society of Critical Care Medicine. The study reveals that mortality rates are lower in high-volume pediatric burn centers, including the Northern California Shriners Hospital and its sister burn centers in Galveston, Cincinnati, and Boston. "In an effort to promote positive outcomes in children with burn injuries, we felt it was important to examine survival rates of children treated at burn centers throughout the United States. Because children have unique medical needs, we suspected a link between the number of patients treated and patient outcomes," says Dr. Palmieri. According to the National Center for Injury Prevention and Control (NCICP), accidents are the leading cause of death in children in the United States, and burns are the third leading cause of unintentional injury deaths in children 0-9 years old. Between 2001 and 2011, more

than 1.5 million children sustained burn injuries, and 5,842 of those children died, according to the NCICP.

**Ingrid Parry**, a physical therapist and member of the multidisciplinary burn team, received the Curtis P. Artz Distinguished Service Award at the ABA's 2016 annual meeting. The award is presented annually to a non-physician member of the ABA for outstanding contributions in the burn field. An active member and leader within the ABA, Ms. Parry serves on the Verification Committee, Archives Committee and chairs the Rehabilitation Committee. She has shared more than 60 presentations nationally and internationally and authored 20 publications related to burn rehabilitation.



## Access to Care Campaign

The ability to provide care to children in need begins with awareness.

Access to Care is the name of the communication campaign to educate health care professions about services offered and the referral process. A *Regional Referral Guide* is available to health care professionals throughout the region, and it is distributed through direct mailings and in-person presentations. The *Emergent Burn Referral Guide* is distributed to doctors and nurses working in emergency rooms and urgent care centers throughout the region, clearly communicating that the hospital provides around-the-clock coverage for emergent care needs. While the

referral information is the foundation for Access to Care, the campaign also includes targeted mailings about new programs, new appointments and continuing education opportunities of interest to doctors, nurses and others who seek the finest care for their patients. Mailings were sent directly to community physicians to introduce Dr. Vedant Kulkarni, an orthopaedic surgeon, and Dr. Shinjiro Hirose, director of pediatric surgery, when they joined the Northern California team. Information about specific programs, including the pediatric chest wall program, also is sent directly to health care providers to make them aware of specialized services that may benefit the patients they serve in their communities.

SHCNC works with various medical societies within its referral region and works with them to get news and event information posted in society publications so that physicians in communities near and far have access to information about what's happening at the Shriners Hospital in their region.



**Shriners Hospitals  
for Children®  
Northern California**

Shriners Hospitals for Children®  
Northern California

### **Regional Referral Guide**

A regional pediatric medical center partnering with doctors, nurses, hospitals, health plans, patients and families to provide specialized pediatric care.

- Orthopaedics
- Burns
- Spinal Cord Injury
- Plastic Surgery
- Cleft Lip Surgery
- Pediatric Surgery

### **Emergency Referral (916) 453-2111**

### **Patient Referral (916) 453-2191**

*No Barriers to Care*





## The Web and Social Media

Shriners Hospitals for Children — Northern California continues to increase its community engagement with parents, health care providers and the public at large through its active presence on the world wide web and social media platforms, including Facebook, Twitter, Instagram and LinkedIn. The

Northern California web page is a robust resource that provides information about conditions treated, the medical team, hospital services, events, prevention information, educational resources for parents and more. Visits to the Northern California web page from those seeking information about the hospital and its care total more 10,000 each month. In addition to its web presence, the Northern California Shriners Hospital engages the community through Facebook, Twitter and other social media on both the local (Northern California) and national levels. For accounts managed locally by the Northern California hospital, there are SHCNC has 4,319 Facebook followers and 1,014 Twitter followers. Nationally, Shriners Hospitals for Children has 632,216 Facebook followers and 15,600 Twitter followers, and information about the Northern California hospital appears regularly on these pages. The numbers are impressive. Even more important, the interactive nature of the digital medium allows those seeking care to engage with the hospital and link to information and resources that may be useful to them. Furthermore, the interactive nature of digital media allows the community to provide direct feedback on a regular basis and, in turn, gives the hospital an opportunity to constantly review comments and use information to benefit those it serves.

### Check us out online!

[www.shrinerschildrens.org](http://www.shrinerschildrens.org)



[www.facebook.com/ShrinersNorCA](https://www.facebook.com/ShrinersNorCA)



[@shrinersnorca](https://twitter.com/shrinersnorca)

### When it comes to delivering complex

pediatric medical care, understanding the unique needs of children is absolutely vital. No one knows this better than the professionals at Shriners Hospitals for Children. More than 65,000 children faced with serious injuries and congenital differences have benefited from the complex, compassionate care provided by the noted medical team at the Northern California Shriners Hospital in Sacramento.

***Supported by the generosity of many, all care is provided regardless of the family's ability to pay.***



*Ranked together with  
UC Davis Children's Hospital.*



**Shriners Hospitals  
for Children®  
Northern California**

2425 Stockton Boulevard • Sacramento, CA 95817



## Pediatric Orthotic & Prosthetic Services, LLC

From toddlers to teenagers, kids of all ages seek the care and expertise of the Pediatric Orthotic and Prosthetics Services (POPS) at Shriners Hospitals for Children – Northern California. With more than 175 years of combined experience, the POPS team is devoted to designing braces, artificial arms and legs, and adaptive devices that give children the ability to pursue their dreams. The specially trained orthotic and prosthetic specialists take the time to get to know each child. A visit to POPS is about more than measurements and mechanics. It's about sharing hopes and dreams, and providing information that allows the technicians to return to the lab and design the perfect fit. For the teen attending her first prom, it may be a prosthetic leg that slips into high heels. For the aspiring violinist, it is the adaptive device that allows him to grip the bow. In all instances, it is a case of building ability for children throughout Northern California. POPS is responsible for the custom design and fabrication of more than 300 orthotics and prosthetics each month. All devices are custom designed and fabricated inside Shriners Hospitals for Children, making for efficient delivery. Not precious time is lost waiting for an outside delivery, and having the lab on-site allows the technicians to make necessary adjustments on the spot. Because care at SHCNC continues from birth through adulthood, all clinicians – from doctors

to prosthetists – can evaluate all phases of a child's growth and development. The long-term relationships between patients, parents and health care providers results in more personal, higher-quality care. The POPS team is actively involved in research that directly impacts pediatric orthotic and prosthetic care. Studies underway are investigating ways to improve outcomes for children with scoliosis, pectus and club foot. The POPS team is a regional leader in scoliosis and club foot bracing. The team designs and fabricates more than 350 scoliosis braces and 200 club foot braces each year.

### **Advanced Technology Enhances Care and Access**

In 2015, the POPS lab installed a new computer-aided design and manufacturing system that is dramatically changing the way it makes medical devices such as prostheses, braces and burn masks. Made by the Canadian firm Vorum, the high-tech system consists of the camera, computer-modification software and the 3-Axis Carver, a machine that cuts prosthetic and orthotic molds from pre-sized cylindrical polyurethane foam blanks. The advanced technology has made the process for making these devices faster and more efficient. It also has allowed the Sacramento hospital to fabricate devices for Shriners hospitals in Los Angeles and Salt Lake City. It is allowing satellite centers to open, like a recent one at a Shriners hospital in Spokane, which has never had an in-house orthotics and prosthetics lab. Now staff can scan patients and digitally send the images to a Shriners Hospital lab with a Carver for fabrication. Most importantly, it is expected to improve health outcomes for children and make the process for making the devices easier, more convenient and less invasive. The purchase of the cutting-edge technology was made possible by a \$116,000 donation made to the hospital by The Gately Foundation, which supports medical science, education and enrichment of the lives of children in Northern California.

### **The Perry Initiative, Decision Medicine and More**



Shriners Hospitals for Children – Northern California works in partnership with the University of California San Francisco and the San Joaquin Medical Society. **The Perry Initiative** is an educational outreach program organized for young women in honor Dr. Jacquelin Perry for her contributions to patients in the field of orthopaedic surgery during her 50-year career. Dr. Perry is considered the world

authority on gait analysis and serves on the advisory board for the program that is headquartered at UC San Francisco. Dr. Perry is the first woman orthopaedic surgeon to graduate from the residency program at the University of California, San Francisco. Hands-on workshops covering everything from scoliosis to knee ligaments will be complemented by lectures from orthopaedic surgeons and Anita Bagley, Ph.D, a biomedical engineer and co-director of the Motion Analysis Lab at the Sacramento Shriners Hospital. Fewer than 10 percent of the practicing orthopaedic surgeons in the United States are women, notes Dr. Michelle James, Chief of Orthopaedic Surgery at the Shriners Hospital in Sacramento and a member of the Perry Initiative's Board of Directors. Most of the aspiring scientists who attend the Perry Initiative come from a local high school. The Perry Initiative was co-founded by Dr. Jenni Buckley, a Mechanical Engineer, and Dr. Lisa Lattanza, an orthopaedic hand and upper extremity surgeon.

**Decision Medicine** is a project of the San Joaquin Medical Society in which "scholarships" are provided to outstanding students to attend a two-week immersion in medicine. SHCNC is one of the sites for the program that exposes aspiring doctors to the world of medicine.

## Careers in Health Care

As part of its community outreach, Shriners Hospitals for Children — Northern California hosts a Careers in Health Care program that introduces high school students to different hospital career opportunities and the Shriners unique hospital mission. The program includes a short history of Shriners Hospitals for Children, a career presentation and hospital tour. Each program highlights a different career. Nursing, orthotics and prosthetics, diagnostic imaging, nutritional services, child life, and occupational and physical therapy are among the many career presentations. The program was established shortly after the Northern California hospital opened in 1997 in response to teachers and high school health academy counselors wanting to have someone speak to their students. More than 500 students attend the programs each year, coming from schools in Sacramento as well as Stockton, Roseville, El Dorado Hills and other Northern California communities. Students attending receive a booklet developed by SHCNC entitled *Pathways to Careers in Health Care*, which lists a wide variety of careers and provides links to further information.

Our hospital's leadership in the Careers in Health Care program has fostered community partnership and further outreach to junior high, high school and junior college students.

**NextEd Career GPS** is an annual event organized by a community collaborative of business leaders, educators, and health care organizations that takes place at the Cal Expo (the California State Fair



facility) in Sacramento each fall. SHCNC participates in this two-day event. Through exhibits and demonstrations, Hospital staff link students to hospital resources and introduce them to different career paths. Infection control and employee health, orthotics and prosthetics, nutritional services, child life, and medical photography are among the many career options presented by Shriners Hospital employees.

**Allied Health Career Exploration – A Health Community Collaboration:** SHCNC collaborates with Sacramento City College, UC Davis Health System and Health Professions High School to present an annual Allied Health Career Exploration at the Shriners Hospital in Sacramento. The program takes place in the hospital auditorium, and participating organizations give career talks and hands-on demonstrations to the 75 students participating in the program. Topics covered include trauma prevention, diagnostic imaging, occupational therapy, nursing and more. The collaborative event is organized as a project of the UC Davis Health System Community Advisory Board, and SHCNC is a member of the advisory board and represented on the board of Health Professions High School.

## Campfire Safety Campaign with California State Parks

Shriners Hospitals for Children and California State Parks are working together to promote campfire safety. SHCNC worked with State Parks to distribute *Circle of Safety* information directly to families entering parks with campgrounds and beach fire rings. The program was launched in July 2015 with

media announcements and participation by park ranges.

The burn team at the Northern California Shriners Hospital developed the *Circle of Safety* campaign to prevent burn injuries. Parents can create a *Circle of Safety* by using a stick to draw a four-foot protected area around the campfire and then instructing others not to enter the protected area.

"Every summer we see children who have been burned because they were too close to the campfire," says Dr. Tina Palmieri, Assistant Chief of Burns at Shriners Hospitals for Children -- Northern California. "Children who are not kept a safe distance from the campfire run the risk of catching clothing on fire, falling into the fire, or stepping on a hot ember. We want people to know that Shriners Hospitals is here to treat those injuries, but most of all we want people to





know how they can prevent those injuries from happening," adds Palmieri, who led the professional team that developed the *Circle of Safety* campaign.

"Our park employees work very hard to promote safety among the millions of people who visit our State Parks each year," says Lisa Mangat, Director of California State Parks. "The *Circle of Safety* is just one more way to help make campfire memories happy memories."

## Burn Prevention Education

**Hospital Program for School Children:** Operating on the belief that prevention is the best medicine, SHCNC provides prevention education to Kindergarten through 3<sup>rd</sup> grade school children through a special interactive program called ***Safety Begins at Home with Ben & Ali***.

Prevention mascots Ben and Ali join trained presenters in teaching children burn safety. Local firefighters partner in the education and bring a truck to the hospital to show the children. The West Sacramento fire department brings a traveling "smoke house" display used to teach children how to exit a house in case of fire. The programs are scheduled regularly in the hospital auditorium, and the team will make special arrangements to travel to schools to present the program for school assemblies. The portability of the program creates an opportunity to extend education to communities beyond the greater Sacramento area that are part of the SHCNC referral region.

**Community Partnerships Promote Prevention Education:** SHCNC works in partnership with other organizations to carry the burn prevention message to parents and other community groups. For example, in 2015 SHCNC partnered with Safe Kids Greater Sacramento, Sacramento Metropolitan Fire and Cosumnes Fire to organize a Fire Prevention Poster Contest for elementary grade school children in the greater Sacramento area. More than 75 entries were received from children in Kindergarten through 6<sup>th</sup> grade. Contest winners in each category and their parents were invited to a reception and awards presentation at the Northern California Shriners Hospital. *Hear the Beep Where You Sleep: Every Bedroom Needs a Working Smoke Alarm* themed the 2015 contest that was launched in October during Fire Prevention Week. Fire service personnel, injury prevention specialists and staff from Shriners Hospital reviewed all entries. Judges selected a grand prize winner along with first, second and third place winners from entries in each grade level.



**Prevention Posters & Presentations:** The burn team at the Northern California Shriners Hospital is actively involved in prevention education through schools, professional organizations and other channels. Kelsey Hartman-Viega, the hospital's burn prevention coordinator, works with the SHCNC burn team and community to research and advocate for burn prevention. Examples of the work include three presentations shared at the 2016 meeting of the American Burn Association:

- *Smoke Alarms Save Lives* is the title of a prevention poster that was ranked in the top 10 of all entries received at the meeting'
- *Pediatric Cooking-Related Burn Injuries* was the topic of an oral presentation.
- *Home Remedies and First Aid Treatment for Burns: How Do People Really Treat Burns at Home?* is the title of a poster that, like the hospital's community burn prevention program, addressed concerns related to burn injuries in the home.

These are examples of presentations that appeal to parents, families and the community at large. Many other presentations shared at the ABA focus on burn research and burn care are targeted to health care professionals.

## Transition and School Re-Entry Program

The professionals at Shriners Hospitals for Children — Northern California recognize that a child's care does not end with a clinic visit or surgical intervention. To the contrary, care and rehabilitation begins at the hospital and continues at home, at school and in the community. For this reason, SHCNC is deeply

committed to connecting children and families with community resources that will help them successfully transition to the community.

When a child suffers a devastating burn or spinal cord injury, Shriners Hospitals for Children – Northern California is there to provide expert care and rehabilitation. When it is time for the children to return to their home communities, SHCNC is there to ease the transition. SHCNC offers a School Re-entry Program to provide explanation and education to staff and classmates. One or more staff members visit the student's school to answer questions and provide information that will help teachers, staff and classmates welcome their friend back to school. Feedback from teachers and families consistent shows that the re-entry



presentation eases the transition process. The goals of the re-entry program are to:

- Assist with the transition back to school;
- Explain “what happened” and where the child has been to prevent uncomfortable, unwanted questions;
- Educate staff and classmates about student’s injury, medical diagnosis & subsequent conditions;
- Provide resources and tools to patient, family, friends and school staff;
- Demonstrate appropriate & positive methods of interaction;
- Identify adaptive equipment, special needs and safety precautions;
- Encourage tolerance to differences;
- Suggest ways to teach, interact and play.

The SHCNC School Re-entry Program is coordinated by the Shriners Hospital School and Transitions Coordinator. The transition team coordinates between 15 and 20 school re-entries each year, traveling to the patient’s home community to provide a meaningful program that engages schools and community. SHCNC published a Guide to School Re-entry that is available to teachers and schools throughout the referral region.

The main message of the re-entry presentation is “This is the same person/friend/student that you knew before the injury.”

In addition to the school re-entry program, staff provide ongoing transitional services throughout the patient’s treatment years to address needs specific to a new school environment, higher education and work. The transition team collaborates with hospital specialists to ensure that needs are met. For instance, specialized prostheses and orthoses may be made for patients interested in sports, music or other recreational activities. And when patients express an interest in community-based sports and leisure, the therapeutic recreation and child life team assists in linking them to community-based sports programs and camps. SHCNC also refers patients and families to resources for therapy dogs that allow for optimal functioning and independence at home and in the community.

## Camp Winning Hands

Care at Shriners Hospitals for Children extends beyond hospital walls as the hospital team is devoted to helping patients identify and participate in activities they enjoy. Camp Winning Hands is an example of how SHCNC works in partnership with the community to



achieve this goal. Organized in partnership with UCSF Benioff Children's Hospital, Camp Winning Hands is an overnight camping experience that provides children and teens with congenital hand differences an opportunity to play and explore in a safe environment. The camp also supports families by providing education and emotional support through connections with other families. The camp is open to children and teens between the ages of 7 and 17 with congenital hand differences. The Taylor Family Foundations hosts the campers at Camp Arroyo in Livermore, California each summer. The mission of the Taylor Family Foundation is to preserve the wellness and enhance the quality of life for children in Northern California with life-threatening and chronic illnesses, disabilities and youth at risk through unique camping experiences and support.

## Camps for Burn Survivors

By working in partnership with the Firefighters Burn Institute, Alisha Ann Rush Burn Foundation and others, the Northern California Shriners Hospital creates opportunities for children who have suffered burn injuries to attend summer camp. The camping experience provides opportunities for these children, some of whom have very visible scars, to play and grow in a positive, non-threatening environment. The camping experience supports hospital in its mission to treat patients in mind, body and spirit and empower them to become active, engaged citizens.

## Patient & Family Education

The Patient Care Services team is committed to having children and families be active partners in their care and provide information that helps them fully understand their condition, medical treatment and care. The Patient Care Services team has developed a host of educational handouts that cover everything from cast care to changing a burn dressing. The educational handouts are available in English and Spanish. Some are posted on the Shriners Hospitals for Children — Northern California web page.

## Health & Safety Fairs

SHCNC staff and volunteers share information about the hospital at health fairs and community events throughout the year. Those staffing the booth engage participants in interactive games, answer questions and distribute prevention and safety information. Participation in these events provides opportunity for staff and volunteers to interact directly with the community and identify potential needs and opportunities.



## Care Is a Community Affair

Built on the belief that people can make a positive difference in the lives of others, SHCNC responds to the community's desire to support the hospital's mission by inviting individuals and organizations to participate in a number of volunteer programs that include the:

- Atrium Series, a program in which performers of all ages, including school bands and choirs, volunteer to perform in the hospital lobby to create a family friendly environment;
- Pet Therapy Program, allows dogs, cats, rabbits carefully screened for acceptance by a certified community agency, to come to the hospital as volunteers with their handler.
- Summer Youth Volunteer program gives high school students 16 to 18 years of age to volunteer at the hospital during the summer. The program consistently receives far more applicants than it can accommodate.
- Patient Entertainment is the term used to describe program that allows community groups to volunteer in the Central Activity Area on a one-time basis. The program attracts participants throughout Northern California. Some of the noteworthy participants include the Sacramento Ballet, Sea World, The Sacramento Kings, Mickey Mouse and Pluto, the Sacramento Kings, comic book heroes, the Sacramento Debutantes and more.



## Key Findings

### A Recognized Leader

Professionals at Shriners Hospitals for Children – Northern California work with one goal in mind: to provide care to all children who can benefit from its expert care in burns, orthopaedics, spinal cord injury, specialized plastic surgery, cleft lip surgery and other complex surgical needs. While tactics are constantly evaluated and refined, the strategy is to implement a multifaceted communication and



outreach campaign to educate the community about the services available and create programs that support the hospital in its mission to advance the lives of children through complex, comprehensive and compassionate care. Identifying referrers, supporters and community partners is key to success. The targeting of audiences allows SHCNC to connect with the community in a way that allows for two-way conversation and meaningful interaction. Ultimately, SHCNC's ability to

assess community needs has resulted in its distinction as a clinical leader and expert provider of specialized pediatric care.

SHCNC is keenly aware of the fact that its ability and effectiveness in serving the needs of the community depend on a good understanding of the hospital and the services it provides. Comments written on evaluations collected at Continuing Education Programs, Careers in Health Care programs, and Facebook pages speak to the appreciation and import of the care provided by professionals at the Northern California Shriners Hospital.

The steady increase in the number of physicians who refer to the hospital, the number of patients served, the number of community groups that visit, and the number of people who participate in hospital programs speaks to both the need for services provided by Shriners Hospitals for Children – Northern California and the hospital's ability to respond to those needs.

But there is still a healthy appetite for opportunity. Population and demographic data reveal large pockets of populations in areas within a 100-mile radius where Shriners Hospitals for Children – Northern California can play a role in fulfilling community health needs.

## Action Plan

### Healthy Involvement – Healthy Outcomes

Shriners Hospitals for Children – Northern California will continue to demonstrate that healthy involvement with the community leads to healthy outcomes by building on the processes and methods outlined in the 2012 Community Health Needs Assessment Report. The growth in programs, patients and community engagement the hospital experienced over the past three years is clear evidence that a multifaceted program that involves communication, education and partnerships allows the hospital to effectively reach key audiences with limited use of resources. SHCNC is using the information and strategies outlined in this report to reach more patients and more families in Northern California and beyond so that all eligible children can benefit from the Shriners gift of specialized pediatric care. What's more, SHCNC will continue to promote healthy communities through prevention education and continuing education. SHCNC believes that the best way to monitor the “community pulse” is to engage patients, families and professionals in its programs. The community engagement, in turn, opens the door to conversation. It is through conversation and feedback that Shriners Hospitals for Children will continue to identify and respond to community health care needs.

## Acknowledgements

### A Community at Work

The information in this report is made possible by the many devoted staff and professionals who work at Shriners Hospitals for Children – Northern California. Clearly, it is a reflection of a hospital community at work. Information about the number of patients served come from hospital information systems. The Staff Development Office provided the evaluations from continuing education programs, some of which are quoted in the report. Demographic data was obtained from Truven Health Analytics Inc and reports from the Census Bureau gleaned from the internet.

