



**Shriners Hospitals**  
for Children®

# SHC Community Health

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 23, 2019.

## 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.

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## 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. As a regional pediatric medical center, the hospital serves kids with complex medical needs and congenital differences that often require surgical care and acute rehabilitation. Any child under 18 years old is eligible for care if the child's condition is within the scope of services provided. Care is extended to kids with insurance and kids without insurance.

The Northern California Shriners Hospital has built its clinical programs, educational programs, prevention 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, clubfoot, 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), and clubfoot (less than 200,000 cases per year in the United States).

While the conditions treated at Shriners Hospital occur in a relatively 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 80,000 children have been accepted for care at the Northern California Shriners Hospital, a 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 comprehensive 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 comprehensive care in the following specialty programs:

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



*Together with UC Davis Children's Hospital*



For seven consecutive years Shriners Hospitals for Children – Northern California has ranked among the nation’s elite providers of pediatric care, achieving the status as one of the top 50 hospitals for orthopaedic care and urology in the *U.S. News & World Report’s* rankings of children’s hospitals in the United States. The hospital shares these distinctions with its partner the UC Davis Children’s Hospital. 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.

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 chest wall malformations, colorectal disorders and gastro-

intestinal diseases, including children requiring urology care. Similarly, recognizing that young athletes are still growing and developing, the Northern California Shriners Hospital expanded its orthopaedic care to include the care and rehabilitation of children and adolescents faced with **sports injuries**.

Thanks to the care provided by the Shriners Hospital sports medicine specialists, many aspiring young athletes are able to return to the playing field after injury and compete in various arenas.

## Statewide Leader

The Northern California Shriners Hospital receives roughly 7,000 new referrals annually and accommodates more than 30,000 patient visits each year. Data collected by the State of California Office of Statewide Health Planning and Development (OSHPD) speak to the vital role SHCNC plays in accommodating pediatric health care needs. OSHPD collects and publicly discloses facility level data from more than 5,000 CDPH-licensed healthcare facilities. 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 the data 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

#2 in California

**Clubfoot**

#1 in Northern California

#1 in California

**Spine Care**

#1 in Sacramento region

#2 in Northern California

#4 in California



*\*Rankings are based on data collected prior to 2018. A full analysis of 2018 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 **pediatric spinal cord injury care and rehabilitation**. 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 in treatment, teaching and research. 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.

SHCNC 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.**

## Initiatives

To ensure that children in communities near and far have access to specialized pediatric care, Shriners Hospitals for Children — Northern California is continually evolving to promote positive outcomes and meet unmet 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 number of children seen in the fracture clinic continues to grow. Candice McDaniel, M.D., specializes in fracture care, and she treated over 2,000 children in 2017-2018. Of the 2,296 children Dr. McDaniel saw in clinic, 2,161 live in Sacramento and its bordering counties — San Joaquin, Placer, Yolo, El Dorado, Sutter Solano, and Amador.

**Sports Medicine Program:** Injuries to the knee, shoulder, hip, and ankle can compromise athletic performance. The Shriners Hospital Sports Medicine and Joint Preservation team stands ready to help recreational and competitive athletes return to the playing field strong and able. Addressing the unique needs of young, developing athletes are orthopaedic surgeons Nicole Friel, M.D., Brian Haus, M.D., and Julie Lynn Ingwerson, M.D. These noted orthopaedic surgeons work in concert with physical medicine and rehabilitation specialists, physical therapists and other professionals to help children and adolescents achieve fitness goals. The course of care is determined individually for each patient, and treatment options include open surgery and arthroscopic techniques, including cartilage restoration.





**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 Shinjiro Hirose, M.D., and Diana Farmer, M.D., 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 represented the first major expansion of the hospital’s services since it opened in 1997. In 2017-2018, the pediatric surgery team treated 1,842 children in California, including 1,060 patients living in Sacramento County. In September 2018, the Northern California Shriners Hospital hosted the **6<sup>th</sup> Annual REACH Symposium**, an event for medical professionals and families organized by REACH, a non-profit organization devoted to promoting research, education and awareness for children affected by Hirschsprung Disease. The event marked the first time the symposium took place in a west coast location.

**Cerebral Palsy Center of Excellence:** Since cerebral palsy affects so many facets of a child's life, Shriners Hospitals for Children brings services for these children into one center, allowing for complete care of the child. Patients with cerebral palsy benefit from a comprehensive program that includes movement analysis, spasticity management, complex surgical care and rehabilitation. Our on-site team includes orthopaedic surgeons, a musculoskeletal pediatrician, physical and occupational therapists, kinesiologists, and orthotists. Patients also benefit from clinical trials and scientific research led by doctors and scientists determined to improve outcomes for children diagnosed with cerebral palsy. Access to the comprehensive and complex care is strengthened by a strategic alliance initiated by Jon R. Davids, M.D., assistant chief of orthopaedics. In October 2015, Dr. Davids 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**. 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. 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. 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.

## Innovation

**HipScreen App:** HipScreen, a mobile application developed by pediatric orthopaedic surgeons at the Northern California Shriners Hospital put early detection of hip disorders in children with cerebral palsy in the hands of physicians and parents worldwide. One in three children with cerebral palsy is at risk for hip development problems. A regular schedule of examinations and x-rays — a hip surveillance program — can preserve a child’s function and greatly reduce pain. HipScreen promotes early detection by guiding users through the surveillance process with educational materials and assessment tools.



In 2016, The American Academy of Cerebral Palsy and Developmental Medicine honored HipScreen with its Fred P. Sage Award. The Sage award recognizes outstanding clinical research and educational material presented in an electronic format. Shriners Hospital orthopaedic surgeon Vedant Kulkarni, M.D., led the development of HipScreen, in partnership with the program director Jon R. Davids, M.D.

**EOS Imaging:** In 2017, the Northern California Shriners Hospital installed EOS, an innovative imaging technology that uses significantly less radiation than traditional x-rays. EOS provides full-body images of patients in a natural standing or seated position in both 2D and 3D. These weight-bearing images reveal a patient’s natural posture and allow physicians to analyze the interactions between bones, joints and ligaments from different angles. Kids with scoliosis and other spinal



deformities are among the patients who benefit from the EOS Imaging System. Spine surgeon Rolando F. Roberto, M.D., says the EOS system “allows three-dimensional spinal imaging while only exposing patients to one-twentieth (1/20<sup>th</sup>) of the radiation dose associated with regular diagnostic radiographs. This technology also is used in the treatment of upper and lower limb disorders, improving our treatment precision.”

## Regional Reach

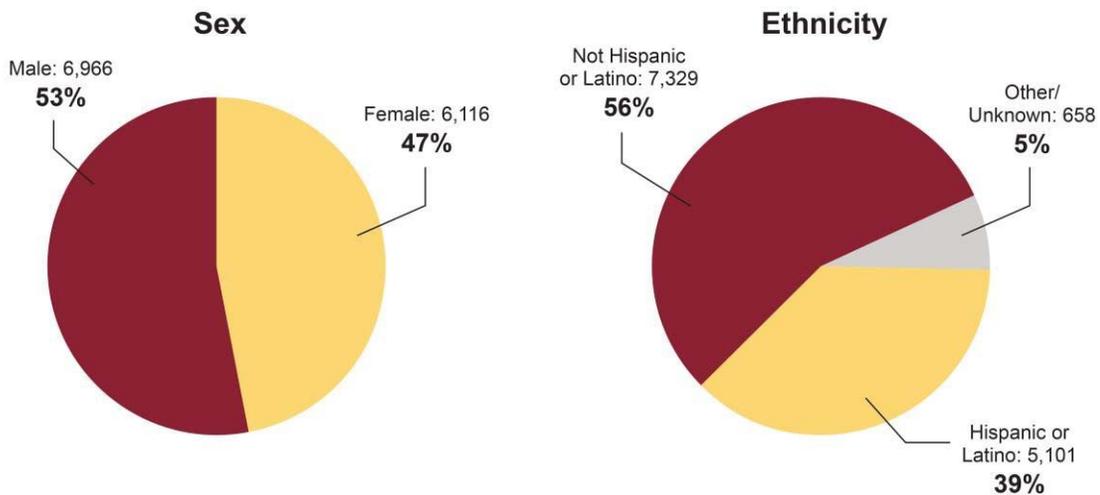


Shriners Hospitals for Children – Northern California serves children and families throughout a wide region. Orthopaedic care extends to children in Northern California, Western Nevada and Southern Oregon. Children throughout California, the Western United States, Northwestern Mexico and parts of Canada benefit from pediatric 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 hospital’s specialized pediatric care.

## Shriners Hospitals for Children – Northern California

Patient Demographic by Sex and Ethnicity – 2017  
(13,088 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 13,088 unique patients in 2017. Approximately 53% of patients were male and 47% female, and represented a spectrum of racial and ethnic backgrounds.

**Race**

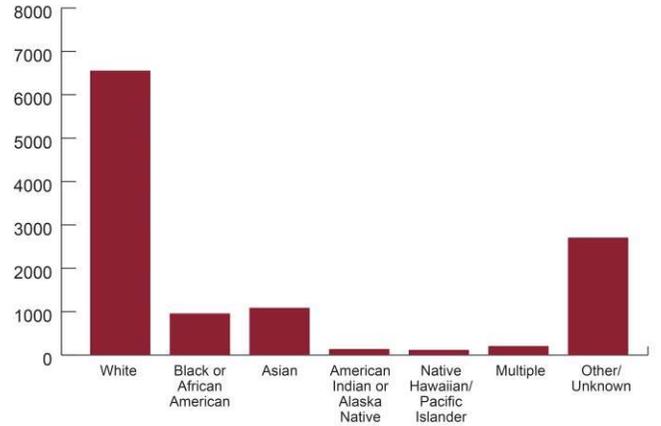
- 58% White
- 9% Black / African American
- 8% Asian
- 3% Multiple race
- 3% American Indian / Alaska Native
- 19% Other
- 1% Unknown or declined to answer

**Ethnicity**

- 39% Hispanic – Latino
- 56% Not Hispanic – Latino
- 4% Other
- 1% Unknown or declined to answer

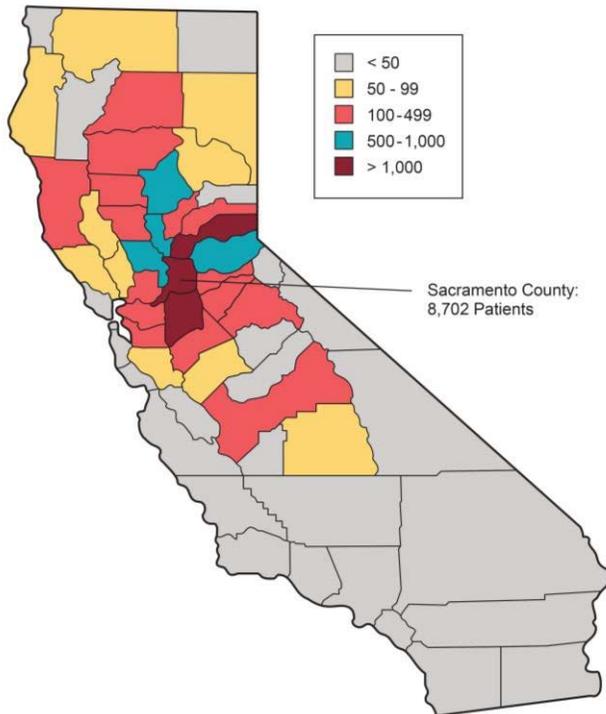
**Shriners Hospitals for Children – Northern California**

Patient Demographic by Race – 2017 (13,088 Unique Patients)



**Shriners Hospitals for Children – Northern California**

California Patients by County 2017-2018  
18,648 unique patients



Patients treated represented 31 states and 500 cities and towns in California, where 90 percent of patients live. Data show 4.4 percent of patients served come from Nevada and 4 percent from Mexico. Approximately 47 percent of patients served live in Sacramento County, and 60 percent live in a three-county area – Sacramento, San Joaquin (7.7 percent) and Placer (5.7 percent) counties. Kids from Butte, Yolo, El Dorado and Sutter counties account for 15 percent of the patient population. A small percentage of the total patient population comes from Southern California, including Los Angeles, San Bernardino, San Luis Obispo, San Diego, Riverside, and

Ventura counties. In keeping with the hospital mission and network strategy, patients from Southern California mainly come north to Shriners Hospital for the burn care and spinal cord injury care and rehabilitation. The Shriners Pasadena facility provides orthopaedic care to children in the southern

areas of the state. Of the California patients, the majority live within a 75-mile radius of the hospital. In 2017-2018, the hospital served approximately 600 unique patients from sparsely populated counties near the Oregon border — Shasta, Humboldt, Lassen, Siskiyou and Trinity counties included. The numbers are indicative of the fact that even in these remote population pockets 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 accounted for 137 unique patients in 2017-2018. The hospital also serves patients from San Francisco, the East Bay, Oakland and Alameda and the Peninsula – infamously known as Silicon Valley. Approximately 2 percent of patients 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. Nearly 12 percent of unique patients served in 2017-2018 live in Central Valley communities, with more than half living in or near Stockton – the heart of San Joaquin County.

## 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 reflection the vital role the hospital plays in fulfilling community health care needs. Shriners Hospital is unique in that parents / families can directly refer their child for care. While the hospital's reputation motivates some families to self-refer, the vast majority of referrals come from pediatricians, nurses and other health care providers.

A synopsis of the three-year period shows that 21,000 new patients were referred to the Northern California Shriners Hospital between January 1, 2016 and December 31, 2018. Hospital referral data show total referrals by year were as follows:

**2016** 6,832 total referrals  
**2017** 7,260 total referrals  
**2018** 6,922 total referrals

While patients are referred for care in all of the hospital's service lines, a quick analysis of unique patients served in 2017-2018 shows nearly two-thirds of patients are referred for specialized orthopaedic care. The data suggest that referrals by service line are as follows:

<b>Orthopaedics</b>	71 percent
<b>Pediatric Surgery</b>	10 percent
<b>Physical Medicine &amp; Rehabilitation</b>	9 percent
<b>Burns</b>	7 percent
<b>Plastics</b>	3 percent



**Emergent Referrals and Patient Transfers:** When children suffer severe 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 be 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. The referrals come from emergency room doctors, hospitals and urgent care centers throughout California, as well as from Nevada, and the northwestern region of Mexico, which is in the hospitals catchment area.

## Regional Profile

Sacramento County Demographics	
Population Under 18	<b>366,752</b>
White	44.8%
Black/African American	10.9%
Asian	16.6%
Hispanic / Latino	23.3
Multiple Race / Other	4.4%
Nor Cal Shriners Patient Demographics	
Sacramento County Total	<b>6,107</b>
White / Other	44%
Black/African American	9%
Asian	8%
Hispanic / Latino	39 %
<b>Note:</b> Percentages on race and ethnicity are based on 2017 patient data.	

The region served by the Northern California Shriners Hospital is expansive in scope and population. The data paint a picture of need and opportunity. United States Census Bureau data from July 1, 2018, report the population of Sacramento County as 1,540,975, with nearly 24 percent, or 366,752 of the total population under age 18. The racial breakdown of those under 18 shows 44.8 percent white, 10.9 percent Black or African American, 23.3 percent Hispanic / Latino, and 16.6 percent Asian.

What then, does a comparison between the Shriners Hospital patient data and overall Sacramento County data tell us? Based on unique patients in 2017, approximately, 1.6 percent 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 percent of population and cerebral palsy in .03

percent. The incidence of scoliosis is reported to range from 0.5 – 5.2 percent, 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 the Northern California Shriners Hospital 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 SHCNC serves a diverse mix of the patient population. Children of Latino / Hispanic descent account for approximately 39 percent of the patients served. Approximately 9 percent of patients are Black / African American, 8 percent Asian and 44 percent white or other.

Census Bureau data indicate that 23.3 percent of under 18 population is Hispanic / Latino, while 10.9 percent are African American, 16 percent Asian, and 44.8 percent white. A comparison of hospital data and census bureau data indicate that Shriners Hospital is very successful in its outreach to the Latino/Hispanic populations, and patient representation of Black/African Americans and Asians closely mirror the overall community profile.



Census Bureau data also indicate that the vast majority of people in Sacramento County — 93.4 percent — have some form of medical insurance. Other health systems serving children in Sacramento County include Kaiser Permanente, Sutter Health, and Dignity Health. Even though Sacramento County has many health care resources, Shriners Hospitals for Children — Northern California stands as a destination of choice for thousands of families.

**Populations Nearby:** The Northern California Shriners Hospital 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 the opportunity to serve families in need:

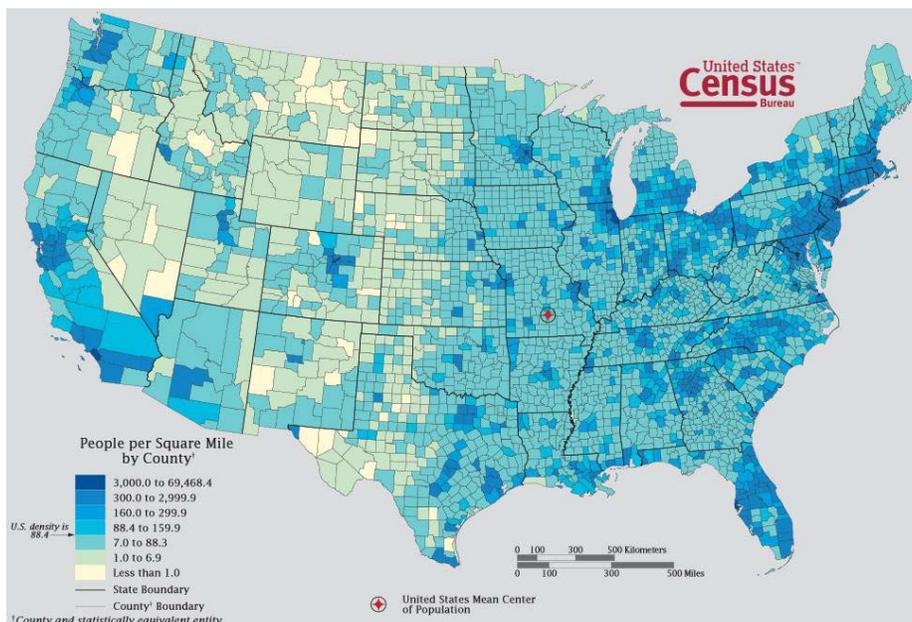
- **San Joaquin County** is located to the south of Sacramento with a population of 752,660, and 27.3 percent — or 205,475 — under the age of 18. Many live in or near Stockton, which is located within an hour's drive of the hospital. Shriners Hospital's patient data show 1,443 patients from this area received care in 2017-2018.
- **Solano County** is located to the west and southwest of Sacramento County. With a population of 446,610, it is home to approximately 100,000 people under the age of 18. Shriners Hospital's

patient data show 276 patients from this area received care in 2017-2018. 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.

- **Placer County** is home to 393,149 people. Of the total, approximately 88,000 (22.3%) are under 18. Shriners Hospital's patient data show 1,069 patients from this area received care in 2017-2018.

**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 Oregon, Idaho, Montana, Utah and Nevada 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 Fresno to Stockton) account for roughly 2.4 million people, with a significant portion of the population — nearly 30 percent — 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 specialized pediatric care 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.

The following is a list of the existing healthcare facilities and resources within the community that are available to respond to the health needs of the community:

Shriners Hospitals for Children — Northern California is located in the heart of a vibrant health care community. Families living in the greater Sacramento area have access to four health networks:

- University of California Davis Health System
- Sutter Health
- Dignity Health
- Kaiser Permanente

Other children's hospitals in the region include UCSF Benioff Oakland Children's, Stanford's Lucille Packard Children's Hospital and Valley Children's Hospital in the central valley.

## 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. In the Spring of 2019, Shriners Hospitals for Children surveyed physicians, school nurses and physical therapists and collected responses electronically through Survey Monkey. Results are as follows.

### Physician Survey

**Physician Survey:** An electronic survey sent to pediatricians and family practice doctors solicited responses to the questions documented here:

**1. For which specialized pediatric program at Shriners Hospitals for Children do refer your patients?**

21.74%	<i>Orthopaedics</i>
8.7 %	<i>Burns</i>
4.35%	<i>Spina Bifida</i>
8.7%	<i>Scoliosis</i>
34.78%	<i>Other (i.e., cerebral palsy, constipation, cleft, acute emergency illness)</i>
21.74%	<i>Have not referred to Shriners Hospitals for Children</i>

**2. In which county is your medical practice located?**

8.7%	<i>Fresno</i>
4.35%	<i>Napa/Sonoma</i>
13.04%	<i>Placer</i>
26.09%	<i>Sacramento</i>
17.39%	<i>San Joaquin</i>
26.09%	<i>Other (i.e., Nevada, Nevada County, Yolo)</i>

**3. Are you aware that Shriners Hospitals for Children accepts all insurance plans?**

54.55% Yes  
45.45% No

**Physical Therapist Survey**

**Physical Therapist Survey:** In a communication to members, the California Physical Therapy Association (CPTA) sent physical therapists a link to a three-question Shriners Hospital survey. The questions and responses are as follows:

**1) What percentage of your patients are children?**

36.36% 0-25 %  
4.55% 50-75%  
36.36% 75-100%  
13.64% 5-100%  
9.09% Other (respondents indicated 100% of patients are children)

**2) Do you have a need to attend continuing education courses for physical therapists?**

90.91% Yes  
9.09% No

**3) If yes, what topics are of special interest to you?**

*Responses included: Pediatric Torticollis, Developmental Delay Rehab, Dosing of Physical Therapy, New & Innovative Equipment, Pediatrics, Orthopedics, Sports Medicine, Spinal Cord Injury, Brachial Plexus Injuries, Anything Pediatric Related and Post-Surgical Interventions.*

## School Nurse Survey

**School Nurse Survey:** The California School Nurses Organization (CSNO) provided contact information for School Nurses working in Northern California, who received a link to the Shriners Hospital survey by email. The survey included 5 questions, which are stated and summarized below.

**1) Do children in your community have a need for specialized pediatric care?**

92.31% Yes

4.27% No

**If yes, please describe.**

*Answers included: Care related to premature birth, orthopaedic considerations, genetic syndromes, gastrostomy feedings, wheelchairs, physiatrists, orthotics, audiology, spina bifida, CP, burns, diabetes, chronic disease management, GI issues, congenital anomalies and more.*

**2) The children in the schools / districts where I work have the greatest need for the following programs (please check all that apply):**

Bowel Management	48.67%
Burn Care	8.85%
Cleft Lip Surgery	7.08%
Hand Surgery & Upper Extremity Care	9.73%
Orthotics & Prosthetics	46.9%
Pediatric Orthopaedic Care	73.45%
Plastic Surgery	7.08%
Scoliosis Care	38.94%
Other (please specify)	30.09%

*Other responses included self-catheterization for spinal bifida, spina bifida, G-tube feeding, general health and adolescent issues and many of the responses found in question #1.*

**3) Do families in your community have access to adequate health care?**

31.9% Yes

70.69% No

**4) If you checked "No" to the question above, what are perceived barriers to care? (Please check all that apply)**

Insurance 73.56%

<i>Transportation</i>	93.1%
<i>Education</i>	67.82%
<i>Other</i>	45.98%

*Other responses included long wait times for appointments, no walk-in service, lack of appropriate care in area, single parent homes with difficulty taking time off work, financial resources, access to medical specialties, no community emergency services, lack of providers, awareness, no local clinics and more.*

**5) Can children in your school district benefit from burn prevention education?**

88.89%	Yes
11.11%	No

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 specialized pediatric care and rehabilitation. 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. The Northern California Shriners Hospital 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 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 geographic area served by the hospital.

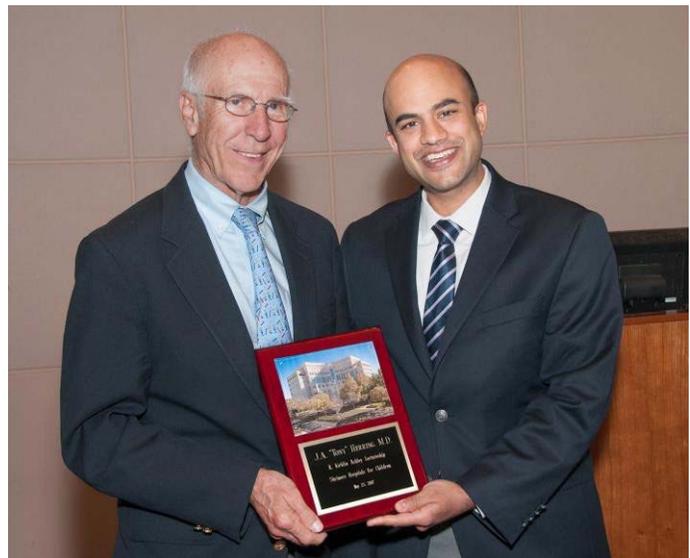
Over the past three years (2016-2018), the Northern California Shriners Hospital has presented an average of 7 to 10 continuing education seminars each year. Typically, the seminars are structured as either a half-day or a full-day course with faculty presentations by Shriners Hospital specialists. While the courses provide educational enrichment for Shriners Hospital professional staff, they also are attended by health professionals — doctors, nurses, therapists and other health care providers — from cities and towns throughout Northern California. Topics presented expose the community to a variety of topics related to pediatric care and the patient populations the hospital services, thus allowing children in distant communities to benefit from specialized care. For instance, the burn team hosts a Regional Burn Conference every two to three years that attracts 70 or more professionals throughout the state.

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. The list of visiting professors for the Ashley Lectureship reads like a “who’s who” of pediatric orthopaedic surgeons.

A list of course topics illustrates how continuing education opportunities align with hospital services and reflect the highly-specialized care provided by the hospital’s medical team.

Courses offered in 2016 – 2018 included, but were not limited to, the following:

- *Pediatric Colorectal Surgery*
- *Management of Upper Extremity in Children with Cerebral Palsy*
- *Lasers in Burn Reconstruction,*
- *Prevention & Management of Lower Extremity Injury in the Pediatric Adolescent Athlete*
- *Pediatric Pain Management*
- *Surgery for Pectus Excavatum*
- *Medical and Therapeutic Management of Brachial Plexus Birth Palsy*
- *Congenital Muscular Torticollis (CMT)*
- *Hip Dysplasia and Spasticity in Children with Cerebral Palsy: Surveillance and Management*
- *Cartilage Injuries in Children*
- *Regional Orthopaedic Conference*
- *Regional Burn Care Conference*



All course attendees receive an evaluation to complete. Here are some of the comments that appeared on evaluations.

#### Regional Burn Care Conference (Nov. 2, 2018)

- *Excellent day of presentations – all sessions will help in my overall care and assessment treatment of these patients.*
- *The presentations were very informative. All of my questions were answered.*
- *All speakers were great. Dr. Palmieri was excellent! All lectures were interesting/informative.*

#### Pediatric Pain Management (March 8, 2017)

- *Great information provided. I have a better understanding of opioids and non-opioid medications from treatment.*
- *This was great information. I have a better understanding of intra and post-op pain management.*

#### Cartilage Injuries in Kids (March 16, 2018)

- *Dr. Friel is an amazing practitioner and an asset to Shriners.*
- *Very helpful topic; very informative to understand the surgery to help the kids rehabilitate.*

#### Brachial Plexus Birth Palsy (Nov. 10, 2017)

- *Enjoyed the demonstrations and hands-on. Will bring back a lot of new knowledge to work with our patients.*
- *Wonderful course – very helpful. I felt very welcomed here.*
- *I have greater understanding of BPBI and when receiving a patient, I will be equipped with correct treatments and be able to better educate patient / family and peers.*



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 Shriners Hospitals for Children to evaluate its programs and identify opportunities to extend its community outreach.**

## PediOrtho WEST (Western Education & Surgical Techniques)

Shriners Hospitals for Children — Northern California hosted the inaugural **PediOrtho WEST (Western Education & Surgical Techniques) Resident Education Course** in October 2018. The seminar brought together young doctors from throughout the West to introduce them to the dynamic field of pediatric orthopaedics.

Distinguished doctors from Shriners Hospitals for Children and UC Davis, Stanford, UCSF/Children's Hospital Oakland and Valley Children's Hospital, formed the faculty for this first-ever event. In addition to comprehensive lectures and presentations of specific topics by noted lecturers, participants were exposed to hands-on, individualized surgical simulations skills labs at the Shriners Hospital.

The two-day seminar was presented in cooperation with the OrthoPediatrics Foundation for Education and Research (OFER), a national organization dedicated to providing financial support for pediatric orthopaedic education and research. OFER's generous travel and lodging funding enabled 30 residents to attend the program. Additional support was provided by Orthobullets, an online orthopaedic educational site.

"It was a highly successful program. We had a wonderful turnout, the faculty were so accomplished, and I believe we inspired many of our participants by exposing them early in their training to this exciting medical subspecialty," said Jon R. Davids, M.D., the assistant chief of orthopaedic surgery at the Northern California Shriners Hospital. Dr. Davids, who also is a clinical professor at UC Davis, was the host of the event. The executive committee that designed the intensive course included Steven Frick, M.D., Chief, Pediatric Orthopaedic Surgery, Stan University School of Medicine; Joseph Girardi, D.O.,





Medical Director of Pediatric Orthopaedic Surgery, Valley Children's HealthCare; and Mohammed Diab, M.D., Chair, Pediatric Orthopaedics, USCF School of Medicine.

SHCNC's leadership in the establishment of the PediOrtho WEST aligns with the hospital's reputation as a pre-eminent provider of complex and comprehensive pediatric orthopaedic care. With the

continued support of OFER, the seminar is an annual event that will take place in early October, allowing orthopaedic residents to learn best practices from internationally noted pediatric orthopaedic surgeons.

## Medical Leadership & Recognition

Meeting community health care needs requires medical 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.

The medical team shares best practices through papers and presentations given at professional meetings regionally, nationally and internationally. 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. The Northern California 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 Royal Children's Hospital in Melbourne, Australia and the annual conference of the International Society for Burn Injuries. Doctors at the Northern California Shriners Hospital also are active leaders in many professional organizations. **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.**

All who seek care at the Northern California Shriners Hospital benefit from the expertise of a nationally and internationally noted medical team. While the honors, awards and recognition are far too many to list here, a brief look at the involvement of our physician leaders speaks to the impact our medical team has on their peers and their ability to influence positive practice – and outcomes.



**Michelle James, M.D.**, *Chief of Orthopaedics*: Specializing in the treatment of children’s hand and arm conditions, including malformations and neuromuscular problems, Dr. James serves on the Board of Directors of the American Board of Orthopedic Surgeons, 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 Principal Investigator on two multi-center clinical research studies of hand function in children. She has published numerous papers in peer-reviewed journals, as well as contributing to chapters to surgical textbooks. She is conducting research on the functional outcomes of the treatment of brachial-plexus birth palsy,

upper-extremity cerebral palsy and tetraplegia, in addition to researching the use of motion analysis in the upper extremity. Dr. James is a Clinical Professor of Orthopaedic Surgery at UC Davis and UC San Francisco. Her professional affiliations include the American Academy of Orthopaedic Surgeons, the American Society for Surgery of the Hand, the Pediatric Orthopaedic Society of North America, the American Orthopaedic Association, and the Ruth Jackson Society, for which she served as President in 2012. Dr. James has served as a mentor for many pre-medical and medical students and orthopaedic surgery residents.



**Jon R. Davids, M.D.**, *Assistant Chief of Orthopaedics*: An internationally recognized pediatric orthopaedic surgeon, Dr. Davids is noted for his work in treating children with cerebral palsy. Dr. Davids is a member of the Pediatric Orthopaedic Society of North America, International Pediatric Orthopaedic Think Tank, the American Orthopaedic Association, the American Academy of Orthopaedic Surgeons, the American Board of Orthopaedic Surgeons, Gait & Clinical Movement Analysis Society, and the American Academy of Cerebral Palsy and Developmental Medicine. In 2018, the UC Davis School of Medicine presented Dr. Davids with a “Best Study” award for his *Assessment of Forefoot Splay in Children with Idiopathic Toe Walking:*

*Development and Validation of a Novel Radiographic Measurement: the Forefoot Splay Index.* Last

year, Dr. Davids also served as an Oral Examiner for the American Board of Orthopaedic Surgery, section editor for Chapman's Comprehensive Orthopaedics, Visiting Professor for the 25<sup>th</sup> Annual Meeting of the Pediatric Orthopaedic Society of India in Mumbai, India, and Visiting Professor in Pediatric Orthopaedics at Boston Children's Hospital, Harvard Medical School.



**David Greenhalgh, M.D., Chief of Burns:** As one of the foremost authorities in burn surgery and burn care, Dr. Greenhalgh is Board certified by the American Board of Surgery, with Added Qualifications in Surgical Critical Care. He manages all aspects of burn care at Shriners Hospitals for Children — Northern California and at the University of California Davis, School of Medicine. He performs research related to the response to injury, cell signaling, and the regulation of wound healing and scar formation. In addition to his research, Dr. Greenhalgh has published and presented extensively in the areas of burn injury, burn care, and burn prevention. He is president-elect of the International Society of Burn Injuries (ISBI) and past president (2006) of the American Burn Association. Previous leadership positions also include membership on the board of the Phoenix Society, and the American Board of Surgery's Trauma, Burns and Critical Care Board. He is Editor of *Burns Open*, Senior Editor for *Wound Repair and Regeneration*, Associate Editor for *Journal of Burn Care Research*, Past Associate Editor for *Journal of Surgical Research*, and on the Editorial Board of *Burns*, *Journal of Trauma*, and *Shock*. 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.



**Tina Palmieri, M.D., Assistant Chief of Burns:** With expertise in both Burn Surgery and Surgical Critical Care, Dr. Palmieri extends her burn/critical care expertise to children at SHCNC and adults at the Firefighters Burn Center at the University of California Davis. She works to advance care through several research initiatives. She 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. Dr.

Palmieri said, “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.”

Dr. Palmieri chairs the ISBI Burn Care Committee and led the publication of the second ISBI *Practice Guidelines for Burn Care*, which was released at the 2018 meeting in New Delhi. She spoke on California’s wildfire experience and disaster trends worldwide and was a speaker and panelist for a session on burn disaster at the conference. She was Keynote Speaker at the International Summit Forum on Burn Surgery 2018 and the 60<sup>th</sup> Anniversary of Chinese Burn Surgery in Chongqing, China in May 2018. The title of her presentation was *The Future of Burn Surgery: Working together to Do It Right the First Time*. Dr. Palmieri also presented at the 41<sup>st</sup> Annual Conference on Shock held in Scottsdale, Arizona in June 2018. Her topic was *Burn Injury: A Model for Bench to Bedside Translational Therapeutics in the Immunocompromised Patient*.

Board certified by the American Board of Surgery in Surgical Critical Care and General Surgery, Dr. Palmieri is also a Fellow of the American College of Critical Care Medicine and the American College of Surgery. In 2012, Dr. Palmieri served as President of the American Burn Association. Additionally, she is a member of the International Society for Burn Injuries, the Association for Academic Surgery, the American Association for Surgery and Trauma, the Society of Critical Care Medicine and the American College of Surgeons Committee on Trauma Prevention as well as the Committee of Trauma Disaster.



**Diana L. Farmer, M.D., Chief of Pediatric Surgery:** An internationally renowned pediatric surgeon, Dr. Farmer leads a program focused on the complex surgical needs of children. At Shriners Hospital, Dr. Farmer’s expert surgical care extends to children 1-year of age and older who are faced with complex intestinal disorders, complex rectal disorders and complex chest wall and neck disorders. She has a \$6 million grant from the California Institute for Regenerative Medicine (CIRM) and Shriners Hospitals for Children to study surgical and stem cell treatments for Spina Bifida. Dr. Farmer also provides follow-up care for numerous general surgery conditions. Dr. Farmer was inducted into the Royal College of Surgeons of England in 2010, becoming the second American woman surgeon to receive this honor. In 2011, Dr. Farmer received one of the highest honors in medicine when she was elected to membership in the Institute of Medicine of the National Academies. Dr. Farmer is a member of many professional

organizations including the American Academy of Pediatrics (Section on Surgery), American College of Surgeons, American Pediatric Surgical Association, American Surgical Association, Association of Women Surgeons, International Fetal Medicine and Surgical Society, International Pediatric Endosurgery Group, and the Royal College of Surgeons of England. In October 2016, Dr. Farmer was elected Chair of the Board of Governors Executive Committee of the American College of Surgeons.



**Shinjiro Hirose, M.D., Director of Pediatric Surgery:** Dr. Hirose specializes in minimally invasive surgery for gastro-intestinal, biliary, liver and thoracic disorders in fetuses and children and is a nationally recognized children's cancer surgeon. He also is an expert in the development and use of surgical robotics in children. He directs the Pediatric Surgery Program at Shriners Hospitals for Children – Northern California and is Chief of the Division of Pediatric and Fetal Surgery in the Department of Surgery at the University of California, Davis Children's Hospital. Dr. Hirose earned his bachelor's degree in mechanical engineering at the Massachusetts Institute of Technology and conducted research in telerobotics before studying

medicine. Dr. Hirose was the lead pediatric surgeon at the University of California, San Francisco (UCSF) Benioff Children's Hospital and its Fetal Treatment Center before joining the medical team at the Shriners Hospital in Sacramento. His research interests focus on clinical innovation and the use of robotics in fetal intervention. Dr. Hirose has lectured nationally and internationally on advances in fetal and pediatric surgery. His research is published in many peer-reviewed publications, including the *Journal of Perinatology*, *Pediatric Endosurgery* and the *American Journal of Obstetrics and Gynecology*. His professional affiliations include the American Academy of Pediatrics, American Pediatric Surgical Association, International Fetal Medicine Surgery Society, International Pediatric Endosurgery Group, American College of Surgeons, Fetal Diagnosis and Therapy and the Society of University Surgeons. He is the recipient of the 2018 Deans Award for Excellence for Team Excellence in Clinical Care awarded by the University of California Davis, Department of Surgery.

## 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 *Patient Referral Guide* is available to health care professionals throughout the region. It is shared through direct mailings and in-person presentations. Information also is available to emergency room doctors and trauma specialists on how to transfer a patient to the Northern California Shriners Hospital for emergent burn care — clearly communicating that the hospital provides around-the-clock coverage for urgent and 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 are sent directly to community physicians and other health care providers to keep them up to date on new appointments, programs and services so they are 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 is happening at the Shriners Hospital in their region.

## 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,



**Shriners Hospitals**  
for Children®



### Patient Referral Guide

Highly specialized care for kids with complex medical needs and congenital differences that often require surgical care and acute rehabilitation.

**Phone: (916) 453-2191**

**Fax: (916) 453-2395**

*No Barriers to Care*

the medical team, hospital services, events, prevention information, educational resources for parents and more. 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, SHCNC has 11,071 Facebook followers, 1,640 Twitter followers, 3,201 Instagram followers, and 971 LinkedIn followers. The number of followers on each platform shows steady growth. Many of the items shared on SHCNC's local platforms are shared on the Shriners Hospitals for Children national social media platforms, thus expanding the informational reach to hundreds of thousands more individuals.

The amount of digital engagement is impressive. Even more important, 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.**



## 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. 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, the perfect fit may be a prosthetic leg that slips into high heels. For the aspiring violinist, the perfect fit 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 400 orthotics and prosthetics each month. In 2018,

POPS delivered 4,573 orthotics and 251 prosthetics to Shriners Hospital patients. The devices are custom designed and fabricated inside Shriners Hospitals for Children, making for efficient delivery. 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 a more personal, higher-quality care. The POPS team is actively involved in research that directly impacts pediatric orthotic and prosthetic care. Studies investigate ways to improve outcomes for children with scoliosis, pectus and clubfoot. The POPS team is a regional leader in scoliosis and clubfoot bracing.

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

For the past three years, the POPS lab has been using a 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. Most importantly, the technology serves to advance care as it makes 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 Jacquelin Perry, M.D., 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 are complemented by lectures from orthopaedic surgeons and biomedical engineers, including Anita Bagley, Ph.D, a biomedical engineer and co-director of the Motion Analysis Center 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 SHCNC 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, M.D., an orthopaedic hand and upper extremity surgeon.



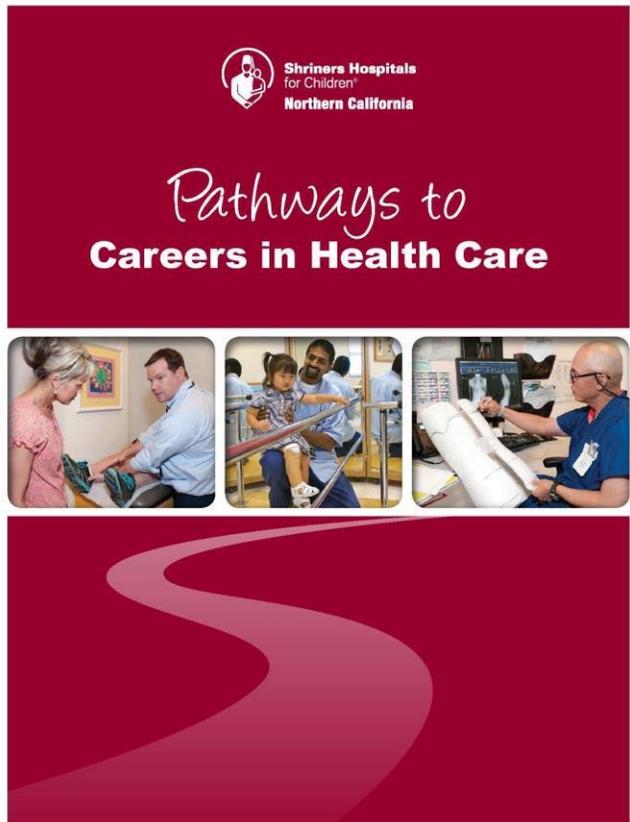
**Decision Medicine** is a project of the San Joaquin Medical Society in which “scholarships” are provided to outstanding high-school students in San Joaquin County to attend a two-week immersion in medicine. SHCNC is one of the sites for the program that exposes aspiring doctors to the world of medicine. Shriners Hospital provides students with insight into pediatric medicine. Students participating in the program attend a presentation by a Shriners Hospital professional, go on an interactive tour and engage in a medical play activity organized by child life specialists.

## 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 who wanted hospital staff to speak to their students. A handful of programs are scheduled at the hospital each year (five in 2018), and each program accommodates up to 70 students, allowing for several high schools to participate. 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.

**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.



## Burn Prevention Education

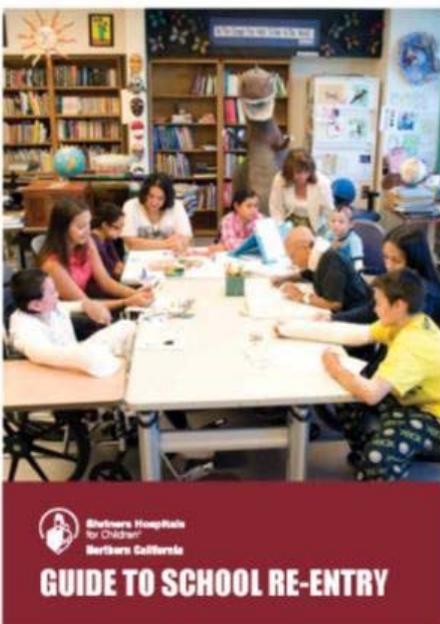
**Safety Begins at Home:** Operating on the belief that prevention is the best medicine, the Northern California Shriners Hospital provides prevention education to Kindergarten through 3<sup>rd</sup> grade school



children through a special interactive program called **Safety Begins at Home**. Infusing the program with a kid-friendly touch, Fezzy, the Shriners Hospital mascot, joins trained presenters in teaching children burn safety. The hospital works in partnership with the Firefighters Burn Institute and local firefighters to enhance the educational experience. Firefighters bring a truck to show the kids. The West Sacramento fire department brings a traveling “smoke house” display used to teach children how to

exit a house in case of fire. Programs take place at the hospital throughout the year, and teachers bring their classes to participate as a school field trip. The burn team also travels to schools to deliver the **Safety Begins at Home** program to an assembly of students. 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.

## 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, the Northern California Shriners Hospital 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 Shriners Hospital School and Transitions Coordinator works with the multidisciplinary team to coordinate the School Re-entry Program. The transition team coordinates between 15 and 20 school re-entries each year, traveling to the patient's home community to provide a 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. 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 the Northern California Shriners Hospital 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

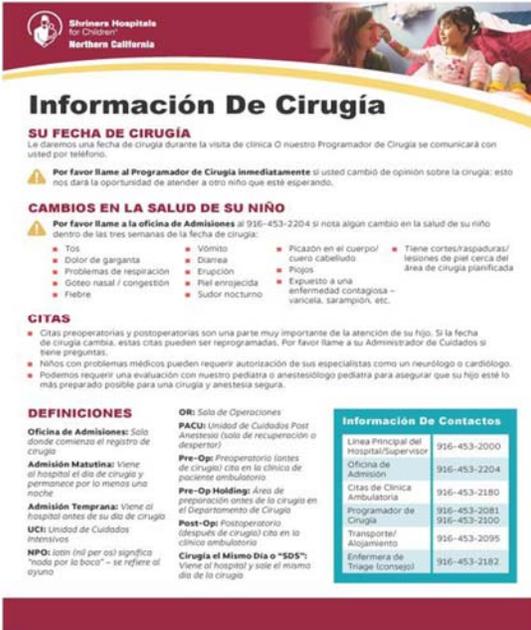
mission of the Taylor Family Foundation is to preserve the wellness and enhance the quality of life for children in Northern California with life-threatening and chronic illnesses, disabilities and youth at risk through unique camping experiences and support.

## 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. Much of the educational information is available in English and Spanish. Some are posted on the Shriners Hospitals for Children — Northern California web page.



**Shriners Hospitals for Children® Northern California**

### Información De Cirugía

**SU FECHA DE CIRUGÍA**  
Le daremos una fecha de cirugía durante la visita de clínica O nuestro Programador de Cirugía se comunicará con usted por teléfono.

**Por favor llame al Programador de Cirugía inmediatamente** si usted cambió de opinión sobre la cirugía; esto nos dará la oportunidad de atender a otro niño que esté esperando.

**CAMBIOS EN LA SALUD DE SU NIÑO**  
**Por favor llame a la oficina de Admisiones** al 916-453-2204 si nota algún cambio en la salud de su niño dentro de las tres semanas de la fecha de cirugía:

- Tos
- Dolor de garganta
- Problemas de respiración
- Goteo nasal / congestión
- Fiebre
- Vómito
- Diarrea
- Erupción
- Fiel enrojecida
- Sudor nocturno
- Fijación en el cuerpo/ cuero cabelludo
- Piños
- Espuesto a una enfermedad contagiosa – varicela, sarampión, etc.
- Tiene cortes/ raspaduras/ lesiones de piel cerca del área de cirugía planificada

**CITAS**

- Citas preoperatorias y postoperatorias son una parte muy importante de la atención de su hijo. Si la fecha de cirugía cambia, estas citas pueden ser reprogramadas. Por favor llame a su Administrador de Cuidados si tiene preguntas.
- Niños con problemas médicos pueden requerir autorización de sus especialistas como un neurólogo o cardiólogo.
- Podemos requerir una evaluación con nuestro pediatra o anestesiólogo pediátrico para asegurar que su hijo este lo más preparado posible para una cirugía y anestesia segura.

**DEFINICIONES**

**OR:** Sala de Operaciones  
**PACU:** Unidad de Cuidados Post Anestesia (sala de recuperación o despertar)  
**Oficina de Admisiones:** Solo donde comienza el registro de cirugía  
**Admisión Matutina:** Viene al hospital el día de cirugía y permanece por lo menos una noche  
**Admisión Temprana:** Viene al hospital antes de su día de cirugía  
**UCI:** Unidad de Cuidados Intensivos  
**NPO:** *nil per os* significa "nada por la boca" – se refiere al ayuno

**Pre-Op:** Preoperatorio (antes de cirugía) cita en la clínica de paciente ambulatorio  
**Pre-Op Holding:** Área de preparación antes de la cirugía en el Departamento de Cirugía  
**Post-Op:** Postoperatorio (después de cirugía) cita en la clínica ambulatoria  
**Cirugía el Mismo Día o "SDS":** Viene al hospital y vive el mismo día de la cirugía

Información De Contactos	
Línea Principal del Hospital/Supervisor	916-453-2000
Oficina de Admisión	916-453-2204
Citas de Clínica Ambulatoria	916-453-2180
Programador de Cirugía	916-453-2081 916-453-2100
Transporte/Alojamiento	916-453-2095
Enfermera de Tránsito (nurse)	916-453-2182



**Shriners Hospitals for Children® Northern California**

### Surgery Information

**YOUR SURGERY DATE**  
We will give you a surgery date during your clinic visit OR our Surgery Scheduler will contact you by phone.

**Please call the Surgery Scheduler immediately** if you have changed your mind about having surgery; this will give us the opportunity to take care of another child who is waiting.

**CHANGES IN YOUR CHILD'S HEALTH**  
**Please call the Admissions office** at 916-453-2204 if you notice any change in your child's health within 3 weeks of your surgery date:

- Cough
- Sore throat
- Breathing problems
- Runny nose/congestion
- Fever
- Vomiting
- Diarrhea
- Rash
- Skin redness
- Night sweats
- Body/scalp itching
- Lice
- Exposure to a contagious disease – chicken pox, measles, etc.
- Has cuts/scrapes/skin lesions near the planned surgery area

**APPOINTMENTS**

- Pre-op and post-op appointments are a very important part of your child's care. If the surgery date changes, these appointments may need to be rescheduled. Please call your Care Manager if you have questions.
- Children with medical problems may require clearances from their specialists such as a neurologist or cardiologist.
- We may require an evaluation with our pediatrician or pediatric anesthesiologist to ensure that your child is as prepared as possible for a safe surgery and anesthetic.

**DEFINITIONS**

**Admissions Office:** Room where surgery check-in begins  
**AM Admission:** Come to the hospital the day of surgery and stay at least one night  
**Early Admission:** Come to the hospital earlier than your surgery day  
**ICU:** Intensive Care Unit  
**NPO:** Latin for *nil per os* meaning "nothing by mouth" – refers to fasting  
**OR:** Operating Room  
**PACU:** Post Anesthesia Core Unit (recovery room or wake-up room)  
**Pre-Op:** Preoperative (before surgery) appointment in the outpatient clinic  
**Pre-op Holding:** Before surgery preparation area in the Surgery Department  
**Post-Op:** Postoperative (after surgery) appointment in the outpatient clinic  
**Same Day Surgery or "SDS":** Come to the hospital and leave the same day as surgery

Contact Information	
Hospital Main Line	916-453-2000
House Supervisor	916-453-2204
Admissions Office	916-453-2204
Outpatient Clinic Appointments	916-453-2180
Surgery Schedulers	916-453-2081 916-453-2100
Transportation / Lodging	916-453-2095
Triage (advice) Nurse	916-453-2182

## Health & Safety Fairs

SHCNC staff and volunteers share information about the hospital at health fairs and community events throughout the year. In 2018, the Northern California hospital participated in 71 special events and community outreach fairs. 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, Shriners Hospitals for Children — Northern California 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. Volunteer services scheduled 103 Atrium performances in 2018.
- **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 Academy** 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, Mickey Mouse, college and professional athletes, comic book heroes, the Sacramento Debutantes and more.

- **Hospital Tours** allow students, individuals and groups an opportunity to learn more about the hospital while experiencing the family friendly environment of care. Specially trained volunteers led 75 hospital tours in 2018.

## 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 exceptional care that extends to children with burns, orthopaedic conditions, spinal cord injury, plastic surgery needs, cleft lip, chest wall malformations, colorectal disorders, gastro-intestinal disease, and other pediatric conditions. Tactics are constantly evaluated and refined to meet evolving needs of a growing community. 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 distinguished provider of specialized pediatric care.

The Northern California Shriners Hospital 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 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 speak 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 this report. The growth in programs, patients and community engagement the hospital experienced over the years is clear evidence that a multifaceted program that involves communication, education and partnerships allows the hospital to 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.

### Impact and Ongoing Efforts of 2015 CHNA

Shriners Hospitals for Children — Northern California continues to build on the success it has achieved through its multifaceted approach to community outreach. The number of patients referred to the hospital for care continues to trend upward. Attendance at continuing education programs is robust. Kids and adolescents throughout the region participate in the sports medicine program. The fracture clinic responds to a growing need. The pediatric surgery program is growing – nearly 2,000 patients seen by our pediatric surgeons in 2017 and 2018.

## 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, the report is a reflection of a hospital community at work. Information about the number of patients served, their ages, race, ethnicity and where they live comes 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 on various counties and communities in California were obtained from reports from the U.S. Census Bureau gleaned from the internet.

