This book made possible by a generous donation from GH Phipps and ZGF Architects LLP.
This book is dedicated to

Advocates, young and old,

Nurses, seen and unseen,

Physicians at the bench and bedside,

Researchers of cures and therapies,

Educators teaching a brighter future,

Volunteers who give their time and donors who give their resources,

The community that has supported Children’s Hospital Colorado for more than 100 years,

All children and the families who have needed our care,

And the children we have yet to meet.

We dedicate this to all those who
in ways big and small
changed the lives of hundreds of thousands
of Colorado’s children.
Watch the children as they enter the Boettcher Atrium on Children’s main campus. Their eyes invariably widen as they scan the floor inlaid with exciting images, then fix for a time on the great glass elevators, rising with them to decipher the colorful shapes on the walls and experience the light seemingly coming from all directions. One can imagine and often will hear a soft “wow” even from their parents as they begin to find their way to a clinic appointment or nursing unit.

It is Children’s Hospital Colorado – 100 years of a community’s committed investment in a mission that from its very beginning recognized the preeminent societal importance of the health and well-being of its children. The founders envisioned a place “where children may receive, amid proper surroundings the best of care.”

As is so clearly shown in this history, locations and buildings evolved as clinical needs made them necessary, always guided by the vision and commitment of people who worked within – the advocacy of professionals like Dr. Minnie Love, the focus on clinical care and education by leaders like Oca Cushman, and the dedicated philanthropy of a supportive community. The subsequent recognition by Dr. Max Ginsburg and others that “we must lead in the newer forms of therapy, which only a specialized hospital can offer” led in more recent years to affiliation with the University of Colorado School of Medicine to continuously improve the science and art of children’s health care through research and to educate the pediatric health professionals of the future.

This facility and literally thousands of committed individuals, all sharing a common mission, have succeeded in earning our current national recognition for excellence in caring for children. But we are destined never to be satisfied. Beyond the awe-inspiring entry to this facility, it is really the dedicated volunteers and staff, continually striving to find a better way, within an institution whose mission encourages and supports them, that will write the next 100-year history.

The ultimate goal might properly be to conquer illness to the point a children's hospital is no longer needed. Until then, we will embrace the vision and commitment of those who made it what it is today and continue to reinvest in the care of the future so children and their parents will always know that, as a nine-year-old-patient reflected in 1917, “This is the swellest place I have ever seen.”

– Dr. James Todd, 2011
They were children born on the cusp of the 20th century into a hard-scrabble Western town growing so fast it couldn’t provide for them. The streets of Denver’s poorer neighborhoods were dusty, the water foul, the sewer service primitive or nonexistent. No place for children. In fact, children less than five years of age accounted for one-half of all deaths in the 1880s and 1890s.
In the summer of 1897, some of those children found a haven – a tree-shaded alfalfa field not far from what later became Denver’s City Park. It was no coincidence that some of Denver’s wealthiest women lived in the grand homes nearby, where they often met to figure out how to tackle some of the city’s toughest social problems. Nor was it happenstance that a savvy, hard-nosed doctor named Minnie Love turned to one of those women’s groups on the children’s behalf.

Before long, two rows of big, shabby tents sprouted on the green, and Denver’s needy mothers began arriving with their sick and injured children in search of care. Children up to age five breathed fresh air, drank clean water, and received medical care and – a rarity in those days – sterilized milk. Their mothers often stayed and helped care for them. As a result, many of the children thrived: “Every passer-by on 18th Avenue near Gaylord Street, whether pedestrian, cyclist or otherwise, never fails to glance at the two rows of weather-beaten tents . . . and many persons’ faces light with pleasant smiles as they see the little ones running around the enclosure, rolling in the alfalfa and shouting in glee over their freedom,” the Rocky Mountain News reported at the time. Others provoked a different reaction: “Their meek, pitiful faces attract many a sympathetic glance from some society lady rolling by in her carriage, and who straightaway, moved by the pathetic scene, subscribes to the good cause.”

By today’s standards, the problems that brought children to the tent hospital would pose little challenge to American medicine. But the stakes that secured those tents established the foundation for a hospital that has never stopped caring for children or growing in size and medical sophistication to meet their needs.
From Tents to Hospital

The tent hospital remained only for a year, as the Spanish-American War sent many of Denver’s medical workers overseas. In *History of The Children's Hospital of Denver-Colorado 1910–1947*, Dr. John W. Amesse wrote, “Although the movement to supply better medical care for the young was temporarily halted, the purpose remained and the ground was fallow for the planting.”

Dr. Love forged ahead. At the turn of the century, many of the nation’s major cities featured powerful women’s clubs that rallied to the aid of the poor. Denver was home to more of these clubs than any other city, and Dr. Love belonged to the most powerful – the Women’s Club of Denver. Using her considerable influence, she continued to press her fellow members to come to the aid of the city’s children.

On April 5, 1906, a group of women gathered at the Capitol Hill home of Mrs. E. A. Colburn, the wife of a prominent Denver judge, to hear Dr. Love’s call to action. They rallied quickly to the cause, voting to form a corporation to build a children’s hospital and to place Dr. Love’s name first on the legal documents. Within weeks, Dr. Love was brandishing the appropriate paperwork.

Caring separately for children was a relatively new idea.

The hospital’s *Year Book of 1909–1910* described the efforts that transpired after that meeting: “Meetings were held, members and money solicited, picnics, entertainments and bazaars given, until the movement finally crystallized into The Children’s Hospital Association.”

On May 2, 1908, these women formed The Children’s Hospital Association. Nearly a year later, they elected the hospital’s first Board of Directors. There were 31 Directors, “all prominent in public welfare activities,” Dr. Amesse wrote.
Good intentions gave way to organizational roadblocks. “It was a struggle to carry on until the Denver Post in that year came to its aid with a money raising campaign which netted over $7,000.00,” Agnes Tammen (a prominent Children’s donor) wrote in the hospital’s first history book, A Little Story of The Children’s Hospital of Denver. According to Tammen’s history, the hospital was first named Blanche Roosevelt Hospital in 1906, in honor of Dr. Love’s sister. It changed to The Children’s Hospital, Denver, in 1907 due to a lack of funds.

It was another two years before the women launched a successful fundraising drive. In 1909, they paid more than $15,000 for the former Denver Woman’s and Maternity Hospital at 2221 Downing Street and three and one-half adjoining lots, all owned by steel magnate and future senator Lawrence C. Phipps. The building would soon become the first children’s hospital in Denver.

Caring separately for children was a relatively new idea. The American Pediatric Society had been founded a scant 22 years earlier. But the new hospital’s founders made their reasoning clear from the start. The city was growing fast, the women wrote in their first annual report in 1910, and its other hospitals were full. More importantly, “sick children do not mix well with the adult sick, and in all large cities special hospitals are provided where children may receive, amid proper surroundings, the best of care, highest medical and surgical skill and competent trained nursing.”

On February 17, 1910, The Children’s Hospital of Denver opened its doors, with room for 30 patients. It accepted children under the age of 16, regardless of need, unless they had chronic, incurable, or – in acknowledgment of neighborhood fears – contagious illnesses.

The hospital treated 291 cases in its first year – most relatively minor by today’s standards – including tonsillectomies, indigestion, broken bones, and “infant feeding,” a common description of the time for a variety of children’s nutritional problems.
About a third of the hospital’s patients received free or discounted care, so those of means had to help pay the bills. Donor memberships ranged from $1 to $100 a year; $300 treated a patient for a year and $5,000 endowed a free bed for all time. Those first free beds, one donated by the family of Lawrence C. Phipps, the other by an anonymous Good Samaritan, went to two little girls named Gladys and Constantia.

Gladys was “the sunbeam who, when first on her feet after months of being strapped in bed, gave way to a doctor coming the other way, saying ’you first, doctor,” the hospital’s first historian wrote. Constantia, age 10, had never stood on her own two feet when she arrived a few months after the hospital opened. A year later she could navigate the staircase and walk a block with the aid of crutches.

With the hospital’s first patients came its first class of nurses, who enrolled for two and one-half years of training. According to the school’s 1910 catalog, its students, ages 18 to 30, had to be “strong and healthy, able to read aloud and take notes at lectures, and have finished at least one year in high school or show an equivalent degree of education. The teeth must be in good condition before entering upon the probationary period, and applicant must show satisfactory evidence of recent vaccination.” The school’s first three students graduated in 1912.

So who would guide this young hospital? In a word, the people who shaped the early Children’s were pioneers: They included one of the West’s first woman doctors, the region’s first pediatrician, four members of a family medical dynasty that led the hospital over two generations, and a towering presence who held the title of hospital superintendent from 1910 to 1955.
Patients in the Dorothy C. and Helen C. Phipps Ward, 1910.
Dr. Minnie Love

Dr. Minnie Love, the hospital’s first and most vocal advocate, was born in 1856 in La Crosse, Wisconsin, the daughter of Letitia Roosevelt Tucker, who was distantly related to Theodore Roosevelt, and William Henry Tucker, a lawyer and captain in the Union Army during the Civil War. Captain Tucker died shortly after the war, leaving his wife to support four small children – a hard reality that would shape daughter Minnie’s life.

“My mother’s experience as a widow with four children to support and no definite equipment to aid her was my reason for going to medical school. . . . I believe every woman should fit herself for independence. One never knows what life has in store,” Dr. Love once said.

Born as Minnie Tucker, she married War Department clerk Charles G. Love in August 1876. The couple moved to Washington, D.C., where she attended the historically black Howard Medical School. Dr. Love raised two sons during the day and attended classes at night. She was pregnant with her third child a few years later while she took graduate studies in obstetrics in London.

The Love family moved to Denver, where Minnie received her Colorado medical license in 1893. From the first, she embraced social causes. She was a “vocal suffragist and ardent feminist,” according to Dr. Seymour Wheelock, the former director of ambulatory medicine at Children’s and an ardent chronicler of the hospital’s history. “Her writings in the primordial medical journals at the turn of the century clearly suggest that she envisioned a hospital run medically by female physicians for the benefit of female patients and young children.”

“I always have been one of those dumb-headed creatures who did what they wanted to do without any realization that it was unusual or fraught with difficulties,” Dr. Love told Denver’s Rocky Mountain News in 1932. “I’ve always gone ahead on the theory that when the seemingly impossible presents itself, it is foolish to worry. There are three ways out – fish, cut bait or go ashore.”
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– Dr. Minnie Love

Despite her early organizational push, Dr. Love never officially joined the Children’s staff. Instead, she served as founding chief of the medical staff at Denver’s Florence Crittenton School for unwed mothers for 12 years, and then began a political career. She served on the Denver School Board and in the Colorado Legislature during the 1920s, at the height of the state’s Ku Klux Klan era.

Dr. Love, herself a Klan member, adopted the theory of eugenics, which calls on society to control mating if people have disabilities that might damage the quality of the gene pool. She sponsored an unsuccessful bill that would have allowed sterilization of epileptics, the developmentally disabled, and the mentally ill, if their having children might result in “defective or feeble-minded children with criminal tendencies,” Dr. Love said.

Dr. Minnie Love died on May 13, 1942, at age 86.
The Packard Family

To seek a cure for tuberculosis, the hospital’s founding physician, like many people of his era, migrated from the East to Colorado. Dr. George Packard Sr. was born on May 9, 1852, in Jericho, Vermont. He received his medical degree from the University of Vermont in 1874 and completed postgraduate work in orthopedics at the Medical College at the University of New York. In 1883 he married Caroline Sanborn, who later served 24 years on the hospital’s board and wrote its first history, *A Little Story of The Children’s Hospital of Denver*.

When his Connecticut medical practice was interrupted by his tuberculosis, Dr. Packard moved Caroline and their sons, George Jr. and Robert, to Colorado. After he recovered, he helped found The Children’s Hospital Association, became the first president of its medical and surgical staff, and handled many of the orthopedics cases that crowded the hospital.

“His and Mrs. Packard’s unselfish and untiring efforts were largely responsible for the creation, development and success of The Children’s Hospital Association of Denver,” the editors of the *Library Quarterly of the Denver Medical Society* wrote in December 1961.

Both of Dr. George Packard Sr.’s sons followed him into medicine and to The Children’s Hospital. Dr. George Packard Jr. finished medical school before pediatric surgery was even a recognized specialty, but he started early and was a leader in the field throughout his career. “His skill made him, de facto, the first pediatric surgeon in Denver,” wrote colleague Dr. David Akers. “Although he was a small man, about 5 feet, 6 inches tall, his aura of self-assurance and integrity made him seem larger. He had a most piercingly ‘intelligent’ gaze in his bright, brown eyes. His demeanor in the operating room was calm and unhurried and the movements of his small hands (size 7 gloves) were precise and gentle.”
In the mid-1940s, Dr. George Packard Jr. helped establish a residency program in pediatric surgery for students at the University of Colorado Medical School, launched the infant surgery ward at Children’s, and performed the region’s first pediatric heart surgeries.

The third doctor in the Packard family, Robert Packard, adopted his father’s medical specialty; colleagues dubbed him “the bone man” in honor of his orthopedic expertise.

Dr. Robert Packard graduated from the University of Colorado in 1908 and received his medical degree in 1912 from Northwestern University. After graduate study in Boston, he served in the Army Medical Corps in World War I. His experience there taught him to favor orthopedic surgery over the traditional method of treatment for fractures, known as closed manipulation.

At The Children’s Hospital, his colleagues knew the second Packard as “a constructive disciplinarian, demanding near perfect results,” wrote Dr. Amesse.

Dr. Robert Packard’s influence is still felt at the hospital: His grandson, Robert G. Packard III, is managing partner of ZGF Architects LLP, the architecture firm that designed The Children’s Hospital on the Anschutz Medical Campus, completed in 2007.

“His and Mrs. Packard’s unselfish and untiring efforts were largely responsible for the creation, development and success of The Children’s Hospital Association of Denver.”

— Library Quarterly of the Denver Medical Society
Dr. Franklin Gengenbach

Dr. Franklin Gengenbach had no patience for the many doctors of the time who thought children should be treated like little adults. From the time he left Pennsylvania for Denver in 1901, Dr. Gengenbach focused on young patients. He was the first pediatrician between Omaha and the West Coast and was known to many as the founding father of the specialty in that vast region. Called “the silver fox” for his shock of white hair, Dr. Gengenbach also promoted pediatrics tirelessly in national medical circles. He was a charter member of the Academy of Pediatrics and its 14th president. Dr. Gengenbach retired from the Children’s staff in 1947.
Oca Cushman

It took the hospital’s first superintendent, Oca Cushman, 20 minutes to cut and sew a pair of size 1 children’s rompers. Making medical residents cower, by several of their own accounts, took just a glance. Cushman was the first, formidable, and “forever” superintendent of The Children’s Hospital.

On February 17, 1910, “Mrs. Cushman,” as she was universally called, helped move the first Children’s Hospital patients into the building at 2221 Downing Street. She announced her retirement at the hospital’s annual tea exactly 45 years later. In the interim “it was she who nurtured the hospital through its shaky infancy, who persuaded Denver’s gentry to underwrite much of the irrecoverable expenses and to keep it alive and growing to its eminence,” wrote Dr. John Connell, who first encountered Cushman during his hospital residency.

“Nothing short of excellence pleased her, be it in the hospital’s kitchen or on the wards, and nothing less would she tolerate. In her heart and mind, the hospital existed solely for the care of children, and she dedicated her life to making certain that they got the very best,” Dr. Connell wrote.

Oca Rush was born in Pittsville, Missouri, in 1869. She came to Denver as a girl to visit relatives. She met, and in 1889 married, A. J. Cushman, a schoolteacher and principal. When Cushman died after just six years of marriage, his widow turned to nursing. She graduated from the St. Luke’s Hospital School of Nursing in Denver in 1903 and served as its superintendent from 1904 to 1910, when she moved to Children’s.

From then on she was, literally, everywhere.
In her heart and mind, the hospital existed solely for the care of children, and she dedicated her life to making certain that they got the very best.

– Dr. John Connell

Cushman signed supply requisitions, bills, and patient rosters. She courted hospital benefactors Agnes and Harry Tammen. She founded the nursing school, imposed strict codes of conduct and dress, presided at students’ teas, and lived in their residence hall. Devoted alumni sent her wedding invitations, birth announcements and greeting cards for decades after they had graduated.

Always, Cushman inspired a combination of admiration and awe. When the president of the Children’s board appointed Dr. John A. Schoonover to a hospital committee, he wrote back and accepted “with a great deal of reluctance.” The committee was charged with studying a relatively minor issue – expanded parking – but Dr. Schoonover feared he would manage to offend Cushman with his decisions.

Cushman died July 27, 1967, at age 97. In 1992 she was honored as a member of the Denver Post’s “The Colorado 100” – 100 Colorado residents who had helped shape the state.
“This is about the I’ve ever seen.”
swellest place

– Nine-year-old James McQuerry
Groundbreaking at the new Children's Hospital at 19th Avenue and Downing Street. February 14, 1916.
The Need for More Space

Children’s founders no sooner opened the hospital doors than they realized its 30 beds weren’t enough. In a pinch, board members said in their 1911–1912 annual report, they could accommodate up to 44 patients at a time in the existing hospital – but that wasn’t a real solution.

“The increase in the number of patients treated has been very marked – in fact our capacity of 30 beds was exhausted long ago and we have had to make room for many more than we really should,” the board’s president wrote.

And the numbers kept growing. At the close of 1913, the hospital had treated 545 patients, who stayed an average of three weeks.

The need for more space meant the search for funds was on again. Early in 1915, the hospital hired a New York fundraiser to lead a $250,000 campaign for a new building. At a gala dinner in June, supporters distributed 20,000 names to 50 teams of volunteers. Within 10 days they had collected $211,260 to build and operate a new hospital at 19th Avenue and Downing Street. Five hundred people gathered when the cornerstone was laid in April 1916. The four-story hospital was formally dedicated just a year later, on February 12, 1917.
“This is about the swellest place I’ve ever seen,” nine-year-old patient James McQuerry told the *Denver Post* that day.

The new building had room for 65 patients. It was, hospital historian Caroline Packard wrote, “a technological marvel,” with electric elevators and a modern fire escape. Every ward had sterilizing equipment, a kitchen with refrigeration, steam tables and gas for cooking, and steam blanket warmers.

**Children’s officials lifted their long-standing ban on admitting contagious patients so they could care for those stricken with the illness. The hospital treated 223 patients for the flu between April 1918 and April 1919.**

It wasn’t long before every one of those new resources was pressed to the limit.

The worldwide influenza pandemic of 1918–1919 killed at least 20 million people, including Denver’s own Mayor Robert Speer. The city’s children were hit hard.

Schools, movie houses, and theaters were closed in an attempt to slow the contagion, but it wasn’t enough. On Sunday, October 18, 1918, the *Rocky Mountain News* reported that there had been 17 deaths during the preceding four days.

Children’s officials lifted their long-standing ban on admitting contagious patients so they could care for those stricken with the illness. The hospital treated 223 patients for the flu between April 1918 and April 1919. Nine of those children died.

At the height of the epidemic, hospital staffers converted the entire third floor to an emergency ward, where they treated 108 cases within 24 hours. A pressing challenge was that so many doctors and nurses had left to serve in World War I that hospital board members filled in as nurses’ aides.
Despite the immediate flu crisis, life at the new hospital began to settle into a routine. Some seriously ill patients spent months at Children’s, but many stayed briefly as they underwent tonsillectomies or treatment for other minor illnesses that would only merit a few pills today.

Young Seymour Wheelock, who would grow up to become a doctor at Children’s, endured his tonsillectomy in 1923, at age five: “The marcelled blonde receptionist welcomed me with a smile of good cheer saying ‘There you are – and are we having our tonsils out?’” Dr. Wheelock wrote later. “Filled with growing suspicion I hoped she was having hers out and I would be going home, but that was not to be.”
Nor was Dr. Wheelock pleased with the doctors’ attempts to make him forget his troubles.

“I still see the little devils that blew into me with the ether,” Dr. Wheelock said in a 2006 interview. “Ether gave you terrible hallucinations before you went under.”

As the hospital entered its second decade, the push for expansion continued. In 1920, the board sold the original building at 2221 Downing Street and bought three houses and a garage at 18th Avenue and Downing for a future nurses’ home. By 1922 yet another fundraising campaign was under way, this one to build a new hospital wing. This time, the pleas for help attracted the attention of Harry and Agnes Tammen, who would become the hospital’s most influential early donors.
The Tammen Family

Harry Heye Tammen was born to German immigrants in Baltimore in 1856 and arrived in Denver in 1880. He started out as a bartender, parlayed an interest in mineralogy into the H. H. Tammen Curio Co., and became, in Denver’s bawdiest days, a mover and shaker whose acquaintances included circus entrepreneur P. T. Barnum and Western icons Soapy Smith and Buffalo Bill Cody.

In 1895, Tammen and Frederick Bonfils partnered to buy the city’s second-ranking newspaper, the Denver Post, for $12,500. Together, Tammen and Bonfils launched the age of sensational journalism in Denver, took the newspaper to the circulation lead in just six years, co-owned a circus, and made their personal fortunes.

As Tammen oversaw the Post, his wife, Agnes, became a stalwart on the charity scene. When the Children’s board launched the campaign to build the new wing, fundraisers asked Agnes Tammen for a $1,000 donation.

Christmas was approaching, and Harry Tammen offered his wife a $100,000 check to buy a string of pearls. Agnes told her husband it would be “sinful” to spend twice as much on pearls as the Children’s project would cost, and asked him to contribute $50,000 to build the new wing. Tammen – responding “you will never cease to amaze me” – offered up the entire $100,000.

The donation was announced on Christmas Day 1921. As construction costs rose, the Tammens raised their contribution to $200,000.

“I should have done more,” Harry Tammen said that day.

The Tammen Wing was dedicated on February 16, 1924. It included an outpatient clinic, two wards, and 18 private rooms. At the dedication, the words “For a Child’s Sake” were engraved over the building’s entrance, and the phrase became the hospital’s motto.

“I should have done more,” Harry Tammen said that day.
In fact, Harry did much more. When he died later that year, he left about half his fortune – $2 million – to the hospital. The first priority, Harry stipulated in his will, would be providing for children whose parents couldn’t afford their care. The second was to help those whose bills would pose undue financial hardship.

Almost all of the remaining money was to be spent at the hospital board’s discretion – a freedom that Agnes Tammen took eagerly to heart. In 1931, she built a solarium atop the Tammen Wing so patients could take advantage of “heliotherapy” – the prolonged rests in the sun that doctors then blessed as treatment for all sorts of ills.

In 1932, she dedicated a new building dubbed Tammen Hall, a long-awaited nurses’ residence and training school. The classic Art Deco structure, featuring elegant first-floor courting parlors where the nurses entertained, was designed by prominent Denver architects Burnham Hoyt and Merrill Hoyt. It was designated a Denver landmark in 2005.

A 1936 addition to the building added 75 beds and included a state-of-the-art hydrotherapy center that served the hospital’s growing number of polio patients. The center included a large gym; a warm-water pool for patients who had passed polio’s acute stage; a hot pool for those with spastic paralysis, arthritis, or other ailments; and a hot chemical pool. Denver’s Fred Hart designed special hydraulic lifts for each pool.

The hospital’s benefactress let nothing go by. On a trip to India, she visited a hospital with a blue-tiled pool. When she came home she had the therapy pool at Children’s redone in blue “because it was brighter and more cheerful,” Denver Post reporter Robert “Red” Fenwick recounted decades later.

But the Tammens’ generosity couldn’t entirely offset the medical challenges and economic turmoil of the times. In the 1930s and 1940s, doctors struggled to combat infectious diseases without the benefit of antibiotics, their efforts playing out against the background of the Depression, war, and an unremitting polio epidemic.

As a result, the period brought fundamental changes in science and in the hospital’s structure, laying the groundwork for future fights against much tougher diseases.
The Depression hit the hospital hard – more and more children needed financial help, and a dwindling number of donors could provide it.

“The fiscal year ended March 31, 1932 has been a most difficult one in almost all lines of endeavor and to the hospitals it has been no exception,” hospital director Robert B. Witham wrote in the Children’s 1932 annual report. “The years 1930 and 1931 began with what we thought to be a temporary depression, while the close of the present year brings us face to face with its full meaning.”

The hospital suspended nurses’ training for the year beginning September 1932 so it could hire graduate nurses who might otherwise have gone unemployed. By 1938, the Tammen Trust was paying all or part of the medical expenses for 61 percent of Children’s patients – roughly 90 patients a day.

With only a few full-time doctors, Children’s didn’t do much to nurture medical trainees.

In 1931, the hospital was accredited for its first residency in pediatrics. An orthopedic residency was approved in 1936, but the programs were “very informal,” and the students received little guidance from the senior medical staff, according to Dr. Joseph Lyday, who later became a president of the hospital’s medical staff.

To begin with, the residents' working conditions weren’t pleasant: A handful of the trainees rotated through night duty every third night. They were allowed a half day off each week and earned $25 to $50 a month. Cushman allowed them to bring their wives to Sunday dinner for free.
The Children's Hospital, 1948.
World War II

Before long, World War II wove itself inextricably into The Children’s Hospital saga. Eighty-five physicians and surgeons – including some of the hospital leadership – left for military service. At federal request, the hospital began offering two nursing classes a year to provide “cadet nurses” for wartime service. The government subsidized the nurses’ training in exchange for their promise to stay in the profession at least until the war’s end.

Even the children felt the war’s impact – though in sometimes winsome ways. “We have had test blackouts which, strangely enough, the children loved,” hospital officials noted in their annual report.

And always – accompanied by economic pressure, staff shortages, and overwhelming public fear – there was polio.

The Tammen hydrotherapy unit offered 15,047 treatments in 1936 and caseloads continued to grow after that. In 1942, as Children’s doctors searched for better ways to treat their young patients, they agreed to try a revolutionary – and controversial – treatment pioneered by Sister Elizabeth Kenny, an Australian whose title, “Sister,” reflected her status as a nurse in that country.
While early polio experts recommended immobilization of the limbs to prevent further damage, Sister Kenny offered a much different approach: she called for frequent application of hot packs to limit spasms and frequent manipulation of the limbs to reduce stiffening.

It worked. “It soon became evident that hot packing followed by passive and active movement of the child’s affected extremities during the acute phase was indeed a superior treatment method, and the children were recovering strength and range of motion far more rapidly,” Dr. Connell wrote.

The new treatment helped patients already in the hospital, but it didn’t provide rooms to accommodate the new patients falling ill every day. A new 40-bed isolation building was under construction, but the doctors couldn’t wait. In September 1942, they converted the hospital solarium into an emergency isolation ward and took in 32 new cases.
In January 1943, the new isolation building finally opened. Connected by a tunnel to the rest of the hospital, it contained two patient floors, a special operating room, and service areas that made it virtually self-sustaining, so the risk of spreading disease was reduced.

A radiant air-conditioning system warmed and humidified the air in the rooms, extracted it, and filtered it electrostatically. The unit took patients with contagious diseases ranging from whooping cough to measles, meningitis, and hepatitis, and treated 145 cases of polio that year.

The epidemic bred justifiable fear, and changed everyday life profoundly.
While polio generated the most notoriety, many other diseases treated at Children’s in the 1940s were every bit as lethal. Doctors grappled with illnesses including pneumonia, streptococcal disease, rheumatic fever, diphtheria, gastroenteritis, and tuberculosis. The first clinical trials of penicillin had been conducted in 1941, but quantities were severely limited and went almost exclusively to military use. In 1946 nearly a third of the patients admitted to Children’s for treatment of pneumonia died, according to Dr. Wheelock.

The polio epidemic hit its local peak in 1946. At Children’s, 315 children and young adults were admitted to the ward; 191 recovered fully, but several died. The casualties included a pregnant woman who died in an iron lung. Her baby survived.
Its staff stretched thin, Children’s called on the National Foundation for Infantile Paralysis, which brought in additional nurses, physical therapists, and aides. Some recovering patients went to Colorado General Hospital, which converted its gym into a ward; others went to Denver General Hospital.

The epidemic bred justifiable fear, and changed everyday life profoundly. The Colorado Board of Health banned tonsillectomies at all hospitals from July to November to clear space for polio victims. Officials closed the movies and other popular attractions to children under 16 years of age. The state health director threatened to sue the state fair unless it banned children from its midways. Denver parents vowed to “strike” unless the school board delayed the fall semester, and the board quickly complied. Once the children were back in school, the schools’ use of soap and paper towels doubled.

The epidemic surged again in the early 1950s, coinciding painfully with a national nursing shortage. In August 1951, Children’s administrator DeMoss Taliaferro made a public plea for help.

“We are appealing to all registered nurses to apply for positions here,” Taliaferro told the Rocky Mountain News. “We don’t care if they’ve been retired for years. As long as they can work, if only part time, we’d appreciate assistance.”

The era’s challenges forced a pivotal change in philosophy. Historically, Children’s, like many other hospitals, had relied on a minimal full-time medical staff. Instead, physicians in private practice admitted their regular patients when they needed hospital care. Many of those doctors treated the whole family, “and kids were just kind of a spin-off,” Dr. Wheelock recalled.
“Children’s Hospital should not merely be a place where children get good treatment and services for their illnesses. Many of the general hospitals do that and if we are to exist and grow we must offer something more. We must lead in the newer forms of therapy, which only a specialized hospital can offer.”

– Dr. Max M. Ginsburg
Patients feeding with a nurse, 1945.
Dr. Harold Palmer

Before World War II, Dr. Lyday wrote, there was the perception that Children’s was more intent on training nurses than its future doctors. But when most of the doctors left for war, the need for more formal hospital leadership – and an expanded residency program – became apparent. In 1942, the hospital hired Dr. Harold Palmer of Rockford, Illinois, as its full-time pathologist and – more importantly in the long run – its first medical director.

Dr. Palmer had three stated goals on his arrival: expanding the hospital’s laboratories, improving the residency program, and increasing the emphasis on research.

His arrival heralded a major change from what had been Agnes Tammen’s single-minded focus on hands-on clinical care, Dr. Wheelock recalled.

“Mrs. Tammen [once] stood up and said ‘if a child who is a patient in our hospital needs a golden crutch he or she shall have it,’ but she insisted the hospital wouldn’t spend a penny for research,” Dr. Wheelock wrote.

Under Dr. Palmer’s influence, the hospital added residencies in pediatric surgery and pathology. In 1951, 12 residents finished their training at the hospital.

The push toward research and innovation continued. “Children’s Hospital should not merely be a place where children get good treatment and services for their illnesses. Many of the general hospitals do that and if we are to exist and grow we must offer something more,” Dr. Max M. Ginsburg told his colleagues in a speech marking the end of his term as president of the medical staff. “We must lead in the newer forms of therapy, which only a specialized hospital can offer.” Dr. Ginsburg had been, in fact, Children’s first medical resident.

By the time Dr. Palmer left Children’s in 1955 after 13 years on the job, the hospital was serving twice as many patients as it had before he arrived. The hospital’s staff of full-time doctors had grown accordingly. Many of the residents who trained at Children’s stayed on, while some others developed their own private practices across the region.

Dr. Palmer also led a drive to move the hospital forward in specialized areas. He pushed hard for expansion of the pathology department, which was housed in a primitive
322-square-foot laboratory when he and clinical chemist Dr. Wayne Danielson arrived. Dr. Danielson immediately set about to improve sample analysis by speeding up the process, and – given the fact that Children’s patients were little – to find ways to get the most from smaller samples. Before long, the department had established a blood bank and moved into a more spacious lab that performed the hospital’s first bone marrow aspiration.

Another specialty area grew: The hospital’s physical and occupational therapy caseloads soared in the wake of polio and other neuromuscular disorders. In 1945, the Boettcher Foundation helped fund a cerebral palsy clinic that spawned a parents’ group. The hospital also opened its first speech clinic that year. In 1953, the Scottish Rite Foundation of Colorado was formed to develop a childhood language disorders program centered at Children’s. The foundation has since become one of the biggest donors to Children’s, and it went on to operate several similar language disorders programs nationwide.
Department of Cardiology

Perhaps the most significant advance in the immediate postwar practice at Children’s came in cardiology.

The department was founded by Dr. Charles R. “Dick” Hawes, who once attempted to describe the early days of the specialty by quoting an early cardiologist: “It is a quiet specialty, consisting simply of a doctor seated on a wooden bench in a quiet room listening to the chest of a child with a stethoscope.” It was quiet, Dr. Hawes himself added, because doctors didn’t know enough to accurately diagnose their patients. The “listening” his colleague had described, Dr. Hawes said, “was followed by little more than speculation as to the source of the sounds.”

Not for long. In the mid-1940s, Dr. Helen Tausig of Johns Hopkins University pioneered research in correcting a congenital heart defect known as blue baby syndrome. That work led to further developments in open-heart surgery. The first such surgeries at Children’s were performed by Dr. George Packard Jr. After Dr. Hawes was appointed director of the hospital’s cardiology lab, technology advanced and caseloads grew.

One of the hospital’s cardiologists, Dr. Abe Raven, specialized in auscultation – diagnosing patients’ ailments by listening to the sounds of a patient’s heart. He later taught his diagnostic methods by recording the sounds so students could hear the abnormalities in the classroom before they encountered them in practice.

Raven was also a leader in cardiac catheterization – the insertion of a catheter that injected a high-contrast fluid into the heart for diagnosis. Radiologist Dr. Parker Allen then used a Fairchild aerial camera to produce a series of high-speed X-rays showing the fluid’s progress through the heart.
That first surgery would mark the beginning of what would one day become Children’s Hospital Colorado Heart Institute.

Dr. Allen’s diagnostic ability amazed Dr. Hawes. “One pilot study revealed that Dr. Allen could correctly diagnose the congenital cardiac defect from 70 percent of unknown cases without benefit of either historical or physical findings using only the standard four-view cardiac series plain film,” Dr. Hawes recalled.

The hospital’s first true open-heart surgery was the closure of an atrial septal defect – an abnormal opening between the two heart chambers. It was performed by Dr. John Grow, an Army-trained thoracic surgeon, in 1953. As was often the case in those early procedures, the operation was conducted under hypothermia, in which the patient’s body temperature was reduced during surgery.

That first surgery marked the beginning of what would one day become Children’s Hospital Colorado Heart Institute, a world-renowned pediatric service that went on to save countless children’s lives.
The Oca Cushman Wing

By the 1950s, the drumbeat for hospital expansion was sounding again. Between 1940 and 1952 the number of surgeries conducted on children under the age of six had tripled. The hospital’s operating facilities, however, had gone virtually unchanged since 1917, when the hospital had 65 beds.

The hospital’s board began raising money for another new wing and quickly named it in honor of Cushman, who announced her retirement in 1955. In her 45 years of service, Cushman had overseen the care of more than 200,000 children, the Denver Post reported. Ironically, about the only part of the hospital that wasn’t growing at the time was the nursing school she had so carefully shepherded. The school graduated its last class in 1956, the victim of high educational costs.

When the hospital’s new Oca Cushman Wing opened in 1957 at a cost of $2.5 million, it contained eight operating rooms, new recovery rooms, two emergency rooms, examination and casting rooms, ward space for nearly 100 bassinets and cribs, and a nursery for premature infants.
In her 45 years of service, Cushman had overseen the care of more than 200,000 children, the *Denver Post* reported.

As the hospital neared its 50th anniversary in operation, those original 30 beds had grown to 225. With the advent of antibiotics, outpatient visits had become a fast-growing part of the hospital’s business. An anniversary booklet offered a snapshot of daily hospital life: Doctors conducted 17 operations, saw 9 emergency patients, and admitted 31 patients overall. Costs had risen since the early days, too. By the end of 1959, it cost $7,123.57 a day to operate the hospital. That’s nearly half what the hospital board paid for the original building at 22nd Avenue and Downing Street.

**Children’s Comes of Age**

In a foreword written for the book *For a Child’s Sake*, Dr. Wheelock tells of a hospital in its infancy far different from the modern hospital of his day: "For decades successive boards of directors, assisted considerably by the Tammen and Boettcher families and other devoted benefactors, had charted the course of a relatively uncomplicated organization – a ‘cottage industry.’"

For the world, and the hospital, the 1960s marked a shift in lifestyle, politics, philosophy, and self-expression. America was coming of age and so too was The Children’s Hospital. No longer a cottage industry, Children’s followed a national growth trend as specialties increased and pediatrics exploded with enlightenment.

Dr. Max M. Ginsburg alluded to these changes in remarks delivered at a general staff meeting on March 28, 1962: “Many still love a ride over a peaceful country lane, but these lanes are getting scarcer and scarcer. . . . We may decry the lost art, but we are saving infinitely more patients with science. In fact it is precisely because of the genius of scientists and the introduction of magic bullets that we no longer can afford the simple luxuries of the past.”
"We are saving patients with"

– Dr. Max Ginsburg
infinitely more science."
Dr. Ginsburg’s words would prove prophetic, as soon after Children’s would embrace new technologies and therapy like never before. A new era of research and advances in clinical care was not far from reach. But growth and recognition would not come easily.

The next decades would test the hospital. At times it faced closure; at other times it battled an inevitable merger with the University of Colorado Medical Center, later to become the University of Colorado School of Medicine. According to hospital annual reports from the time, the fate of the hospital seemed to rest in the success of the merger as it oscillated between overcrowding and decreasing patient numbers. The Children’s Hospital attracted patients from farther and farther away while more hospitals in the Denver area began to offer pediatric services and competition increased.

The 1960s also ushered in one of the first pediatric subspecialties at Children’s – newborn care. The Children’s Hospital Newborn Center gained international renown for its direct work with newborns, and for the establishment of one of the world’s first regionalized systems of care.

The program started in a small, abandoned office suite, spearheaded by a pediatrician with a wholehearted dedication to infants and a knack for turning a phrase to bring attention to his cause.
Dr. L. Joseph Butterfield

Dr. L. Joseph Butterfield came to Children’s as a pediatric resident in 1957. When his daughter, Brigid, was born a year later with a congenital illness, Dr. Butterfield and his wife put off plans to leave Denver. Instead, he accepted a fellowship in premature infant care at the University of Colorado (CU) School of Medicine. Dr. Butterfield saw the fellowship as an opportunity to buy some time to see how his daughter progressed and to decide between an academic career and private practice.

By 1964, Dr. Butterfield was an assistant professor at CU and pediatrician-in-charge of the premature center at the University of Colorado Hospital. That’s when Children’s officials sought his advice about opening their own newborn service.

Dr. Butterfield urged Children’s not to duplicate CU’s emphasis on premature infants, suggesting instead that administrators develop a regional service for all sick newborns. The center started, in Dr. Butterfield’s characteristically catchy language, as a “little log cabin” intensive care unit with seven beds.

Dr. Butterfield’s sense of mission was clear. Infant mortality was high and had remained virtually unchanged for decades. That made the neonatal period – the first 28 days of a child’s life – “one of the last frontiers of medicine where much remains unmapped and some of the present methods of treatment hardly deserve a scientific association.” The doctor literally mapped out his next steps: Children’s would provide a neonatal center for patients in a 500,000-square-mile area.

Dr. Butterfield’s center would reach out to physicians across that territory, offering advice and training in dealing with sick infants, and a communications hotline if a doctor needed to consult about a case. When a doctor referred a patient to Children’s, the hospital provided the transport.

In its first year, the center took in 523 patients from 22 communities in Colorado and six other Rocky Mountain states. Before long, a Colorado Springs newspaper reporter dubbed the concept “Newborn USA.” Dr. Butterfield, who recognized the value of good promotion, happily spread the name.
Dr. Butterfield didn't reach out just to his far-flung colleagues. He came up with a new way of dealing with parents. His manual for transport crews mandated that parents be allowed to see the baby before it left for Children's. Preparing for the worst case, the crews were to carry cameras to snap photos of the baby for the parents, in case the child died en route to Children's.

Once the family reached the hospital, parents were encouraged to be at the bedside from day one. There were no set visiting hours – relatives were to come and go as they pleased. Parents could call for information day or night, and out-of-towners were welcome to stay in a dormitory next to the hospital.

“From day one, Mom had total access. We invented 'mothering in,'” Dr. Butterfield said. The parents were also encouraged to cuddle and help care for their children as early as possible. “This warmness, touching and exercise is vital to the newborn's future development,” Dr. Butterfield said. “If a child hears music from the beginning, he will be musical. If a child has warmness and touch from the beginning, he will respond with active warmness and touch.”

Those theories would evolve over the years to include a program that provided everything from financial advice to psychotherapy to counseling family members about their fears to their relationships with each other and hospital staff, and their plans for going home. Children's staff members were called family-care coordinators and the concept spread literally around the world.

The center's system for transporting infants began simply. At first, new fathers whose babies were in trouble came to the hospital, got transport incubators and a nurse, and returned with infant in tow. Within a couple of years, Dr. Butterfield was flying to pick up babies. His first trip was in a DC-3 “gooney bird” that landed on an airstrip between the Colorado towns of Monte Vista and Del Norte to pick up a baby named Segura. “The local doctor brought a baby to the airstrip in a pickup truck. He was replete in jeans and a cowboy hat and could have been the Marlboro Man,” Dr. Butterfield wrote.

Dr. Butterfield couldn’t resist telling stories like that when he wrote about the center's early days. There was, for instance, the predawn call from medical fraternity brother Dr. Dean Girard, a surgeon in Durango. Dr. Girard told Dr. Butterfield he needed transport for a baby with an
abdominal abnormality. Dr. Girard “said he had wrapped the baby in gauze and placed it in a turkey bag up to the neck to preserve heat, wrapped the baby in a blanket and added hot water bottles to fend off the cold,” Dr. Butterfield recounted.

The baby went off in the care of a fire department ambulance crew but they took so long to arrive that Dr. Butterfield started to worry. Turned out, crew members spotted a fire as they drove through Strasburg. “They pulled over, sent someone to call the [local] fire department and then stayed to help put out the fire, leaving the baby in the ambulance,” Dr. Butterfield said.

Dr. Butterfield’s techniques grew in sophistication and in scope. In the late 1960s, four Denver-area hospitals began cooperating to provide care for seriously ill infants. Colorado’s infant mortality rate – the fifth highest in the nation in 1960 – was the second lowest by 1978.

By the mid-1970s, the Newborn Center recorded 11,000 patient days, up from 4,100 just five years earlier.

Somehow, Dr. Butterfield found time away from the center to advocate for causes large and small. One such effort began in the doctor’s childhood. In 1933, his aunt took the young Dr. Butterfield to the Century of Progress World’s Fair in Chicago, where he encountered Dr. Martin Couney, who was famed for traveling the nation’s fair circuit exhibiting babies in incubators. In adulthood, Dr. Butterfield became enchanted with Dr. Couney’s odd specialty and spent years in international correspondence with other experts to document Dr. Couney’s history as the “incubator doctor.”

Dr. Butterfield served on innumerable medical panels, winning national endorsement for – and adoption of – his regionalization model. Helping to establish a tradition of advocacy at Children’s, he lobbied, and trained others to lobby, on children’s issues.

“From day one, Mom had total access. We invented ‘mothering in,’” Dr. Butterfield said.
The Boettcher School

There were few quick outpatient visits for early Children's patients. They could count on spending at least a few days in the hospital, and many spent weeks or months. That didn't, however, necessarily mean escape from school.

It was clear that more was needed. A 1936 survey showed 4,000 handicapped children statewide lacked schooling altogether or were at least two years behind.

As early as 1917, volunteers ran a “kindergarten school,” where children did handicrafts. That evolved into classes for all ages taught by Junior League volunteers and, from 1929 to 1932, a fully accredited program run by Denver Public Schools. When the Depression forced the school district to withdraw its support, the Tammen Educational Endowment Fund picked up the salaries for full-time teachers and kept classes going. From 1932 to 1939, the hospital school served an average of 86 students in kindergarten through 12th grade.

It was clear that more was needed. A 1936 survey showed 4,000 handicapped children statewide lacked schooling altogether or were at least two years behind. But when Denver's voters were asked to help local children, they remained unconvinced, rejecting a bond issue to build a special school.

That’s when Denver’s Boettcher family stepped in. Charles Boettcher grew up the son of German hardware merchants. He immigrated to Cheyenne, Wyoming, in 1869 to help his brother run a hardware store, then ran similar stores in Greeley, Fort Collins, and Boulder for 10 years. In 1879, at the height of the silver boom, he opened a store in Leadville to supply miners. He turned the profits into a fortune that included the ownership of Ideal Cement Co., The Great Western Sugar Co., and Denver’s Brown Palace Hotel.
In 1937, Boettcher and his son, Claude, formed a family foundation to distribute some of the family’s wealth toward the public good. It was Claude who contributed $193,500 toward a new school at The Children’s Hospital in honor of his father.

The building, connected to the hospital by a tunnel, was designed by famed Denver architect Burnham Hoyt. It was lauded in Architectural Forum, an architectural magazine of the day, as an early example of a school building designed specifically for the disabled.

A reporter for Time magazine wrote the following shortly after the school’s opening day in September 1940: “As pupils with canes, crutches [and] wheelchairs arrived at their new school at 19th and Downing streets, next to Denver Children’s Hospital, five teachers and a nurse ushered them in. The children sat in its red leather chairs, hobbled up its ramps . . . found handrails along every wall, adjustable chairs and tables, two lavatories, a drinking fountain and a grassy outdoor playground next to each classroom. Other equipment: arts and crafts shops, sewing machines, and two model kitchens.”

The Boettchers chose the school’s motto, “A Child Whose Health Is Watched Is a Happier Child,” and donated the building to Denver Public Schools, which chose the school’s curriculum and hired its teachers. The school was free to Denver children. Students from out of town paid $300 a year.
The Boettcher School’s students had a variety of disabilities, ranging from cerebral palsy and polio to cardiac conditions and developmental problems. A doctor visited every day, and school schedules were arranged to provide rest or care for those who needed them.

The Boettchers chipped in again in 1956, doubling the size of the school to accommodate 320 students.

Many of Boettcher’s students went on to jobs or college after graduation ceremonies that were “some of the most inspiring things I ever saw,” said Dr. Wheelock. “The students hobbled to the stage on crutches, crossed it in wheelchairs, or even accepted their diplomas lying flat on their backs.”

Educational theorists eventually turned away from the idea of placing handicapped children in separate schools. In 1983 the Atlantis Community, a Denver handicapped-citizens’ group, filed a federal civil rights complaint charging that the Boettcher School was segregated and that it offered a substandard education. The Denver School Board agreed to tell Boettcher parents they could send their children to other schools, and to counsel them about the best possible placements. The district closed the school in 1991, but the Boettchers’ donations to the hospital continued. Claude Boettcher’s daughter-in-law, Mae, was Children’s longest-serving board member, and the soaring atrium at the new hospital was named in the family’s honor.
Hospital Sports Program

As pediatric subspecialties grew popular in the 1960s, orthopedics at The Children's Hospital began to evolve. One of those orthopedic programs emerged as an internationally renowned rehabilitation program thanks to two Denver doctors and their spirit of cooperation.

It seemed natural to couple physical rehabilitation with skiing — this was Colorado, after all.

In 1967 Dr. William Stanek, chief orthopedist at the Children's Amputee Clinic, discussed an idea with his counterpart at Fitzsimons Army Hospital, in Aurora, Colonel Paul Brown. Why shouldn't they try to teach their patients to ski together? Dr. Stanek treated children who had limb amputations secondary to birth defects and trauma as well as children who lost the use of a limb due to polio. Colonel Brown cared for war veterans with amputations returning from Vietnam.

It seemed natural to couple physical rehabilitation with skiing — this was Colorado, after all, and according to Margot Thompson, a Children's physical therapist, it was a simple conclusion for Dr. Stanek and Col. Brown. Neither a skier, they quickly lassoed enough equipment, volunteers, and instructors to take 18 children and veterans to Arapahoe Basin (A-Basin) in January 1968. Thanks to volunteers like Willy Shaeffler, coach of Denver University's ski team and head of the Arapahoe Basin Ski School, and Children's rehab nurse Willy Williams, it was the first of many trips for the Three Track Ski Club (so named for the tracks left in the snow).

“Oh, they just loved it,” Thompson remembered. “It opened up their world. It was so laborious to move and all of a sudden, gravity was on their side.”
“It means a lot to get a chance at being people again,” said Army Captain Ron Morrison in a profile that appeared in the Denver Post on February 1, 1968. Captain Morrison was a Vietnam War veteran who lost his leg in battle.

An amputee ski program had started a decade earlier in Mt. Hood, Oregon, for adults. The Children’s Hospital ski program, however, was the first of its kind in pediatrics. “Two things were novel,” said Thompson, “combining hospitals and sports, and combining kids and adults.”

Two years after the program began, the privately owned A-Basin was sold and the program’s future was uncertain. Dr. Stanek moved the program to George Engel’s ski school at Winter Park Resort. Winter Park provided free lift tickets, equipment, and instruction.

Although Winter Park’s Board of Directors had approved hosting the Three Track Ski Club, no one knew how to teach skiers with disabilities and few wanted to try. Engel approached one of his young instructors, Hal O’Leary. In need of a challenge, O’Leary accepted his offer.

O’Leary, an advocate of empowering children to rise above their disabilities, used the ski techniques he already knew and adapted them to the three-track ski method, which he first had to teach himself. Children with one limb skied on a single ski and used outriggers for balance – aluminum forearm crutches with small skis attached to the end.

“The instructional techniques and adaptations of ski gear were, and still are, incredible,” said physical therapist Carol Page, who later became director of the Hospital Sports Program. “Hal gets major kudos for that.”

Shortly after beginning the program, Dr. Stanek passed the program to Dr. Duane Messner, a skier and resident from Minnesota who later joined a private orthopedic practice in Denver. Dr. Messner became medical director of the Children’s ski program, accompanying ski trips to the mountains every weekend during ski season. Dr. Messner served on several committees and, along with Vietnam War veteran Jack Benedict (who himself had lower extremity amputations), was instrumental in creating the National Paralympic Ski Committee.
According to Page, Dr. Messner influenced the Olympic Committee to understand that athletes with disabilities were still athletes. Volunteering since 1968, Dr. Messner remained involved in the program until 2000.

The program quickly expanded. By 1971, children from the Three Track Ski Club were traveling across the country and around the world to compete in races, demonstrating that children with amputations could ski just like other children.
In the mid-1970s, Page founded a separate ski program for children with neurological impairments such as cerebral palsy and spina bifida. The Three Track Ski Program eventually became the Hospital Sports Program (HSP), thanks to Page who became director of the HSP in 1982 when she paired the Three Track Ski Program with the Neurologically Impaired Ski Program. The HSP eventually expanded to include sports such as golf, tennis, horseback riding, archery, rafting, sailing, and fishing.
Dr. James Todd and the Discovery of Toxic Shock Syndrome

Throughout the 1960s, medical directors and leaders made further commitments to research. The 1974 annual report announced a $500,000 award from the National Cancer Institute "to initiate a broad, multidisciplinary, and cooperative research program."

It was a natural inclination of an institution growing in regional importance to want to contribute to improvements in the care of its patients; research at the hospital most notably had begun with the recruitment of Dr. Palmer in the 1940s.

Dr. James Todd, an infectious-disease specialist at Children's, wrote about the change Dr. Palmer influenced: "He implemented teaching conferences and summer clinics, emphasizing new innovations. He fostered research both in the laboratory and in the clinical arena. By 1948 he introduced the first scientific publication – The Bulletin of the Children's Hospital – that primarily consisted of case reports."

After graduating from the University of Michigan Medical School, Dr. Todd himself arrived at The Children's Hospital in 1973 as its first infectious-disease specialist, a position resulting from Children's growing population of children with severe infections. He would go on to bring recognition to Children's for contributing to a major scientific discovery.
Dr. Todd consulted on the care of seven patients, six at the hospital and one by phone. Of those children, he noticed recurring symptoms of fever, rash, and shock. Suspicious that they’d encountered a new disease, Dr. Todd and his colleagues associated the illness with a common organism, *Staphylococcus aureus*, that appeared to be producing a newly recognized toxin. He was hesitant to claim that they’d discovered a new disease, so he asked Dr. Henry Kempe – then head of CU’s Department of Pediatrics – for advice. Dr. Kempe encouraged him to publish their findings.

Naming the mysterious infection toxic shock syndrome (TSS), Dr. Todd and his colleagues submitted their paper to the *New England Journal of Medicine*, which immediately rejected it out of disbelief. “One of my colleagues was furious at the editor,” remembered Dr. Todd. “But this is how the scientific process works. You put something new out there and it’s not validated until it’s repeated. You have to have a certain sense of humility when you present a new disease.”

So they sent their manuscript to *Lancet*, the most widely read medical journal in the world, which published it in 1978. Shortly thereafter physicians around the country began recognizing and reporting cases of TSS.

Just two years after the article’s appearance in *Lancet*, physicians working for the health departments in Illinois, Minnesota, and Wisconsin noticed the correlation between TSS and menstruation. Shortly thereafter they linked TSS to tampon use, and the world took increased notice.
One of the great things about The Children’s Hospital is that its mission to improve clinical care empowered us to follow these opportunities even before research was a formal part of our mission. I feel so lucky because in other institutions I might not have had the opportunity to follow my ideas.

– Dr. James Todd
The explosion of media attention following this development resulted in a “large influx of research funding in the early 80s and brought the first national media attention for research to The Children’s Hospital of Denver,” Dr. Todd wrote in “Clinical Science with a Heart: The History of Research at The Children’s Hospital, 1910–1990.”

Dr. Todd and other researchers at Children’s remained active in defining the epidemiology and pathogenesis of TSS and developing approaches to treatment and prevention. Years after the disease’s discovery, the fatality rate of TSS decreased to less than 5 percent, and TSS and its variants became recognized around the world.

Due in part to Dr. Todd’s discoveries, and similar advances in the care of children with cancer and neonatal diseases, the hospital soon needed a more formal program. This culminated in 1980 with the formation of the C. Henry Kempe Center for Investigative Pediatrics funded by a grant from the Gary family, by way of The Piton Foundation.

Upon the affiliation of Children’s with the University of Colorado Hospital in 1990, the Kempe Center for Investigative Pediatrics became The Children’s Hospital Research Institute.

“It was an important advance,” said Dr. Todd, “bringing The Children’s Hospital name to research – a far cry from its roots in ‘not a penny for experimentation.’

“One of the great things about The Children’s Hospital is that its mission to improve clinical care empowered us to follow these opportunities even before research was a formal part of our mission,” he said. “I feel so lucky because in other institutions I might not have had the opportunity to follow my ideas.”

Throughout its history, The Children’s Hospital pioneered a number of firsts. As the Research Institute grew, the rate of its accomplishments increased exponentially. Throughout the last quarter of the 20th century and beyond 2000, Children’s gained national and international recognition because of the tireless efforts of physicians and nurses who pushed the boundaries of science in the hopes of finding better treatments and cures for children.
In 1956, Dr. C. Henry Kempe arrived in Denver to head the Department of Pediatrics at the University of Colorado School of Medicine. Startlingly young, Dr. Kempe had already accomplished much in his short life. Born Karl Heinz Kempe in Germany in 1923, he survived a confrontation with Nazis during the Holocaust and later immigrated to the United States. He attended medical school at the University of California San Francisco and served as first lieutenant in the U.S. Army. As a resident at Yale University, Dr. Kempe showed great promise as a pediatric virologist, developing knowledge and skills that would lead him to India to participate in smallpox eradication efforts.

As a result of this work, Dr. Kempe became one of the world’s leading experts on the dangers of the smallpox vaccine. While the disease continued to threaten much of the world in the late 1950s, Dr. Kempe urged the United States to discontinue mass smallpox vaccinations, to the shock of his colleagues. Instead, he advocated for localized responses to each epidemic outbreak, especially in third world countries. Dr. Kempe believed, and proved, that smallpox vaccine, as a mass preventive effort, posed too many risks to the health of children who would not likely contract the illness.

When Dr. Kempe arrived at the University of Colorado, there were just three doctors in the Department of Pediatrics. According to Don Bross, M.D., medical sociologist and pediatric lawyer at the Kempe Center, Dr. Kempe quickly and methodically recruited physicians from around the world, building a department with “depth and breadth of experience.”

One of the physicians he recruited was Dr. Henry Silver, a colleague from his days at Yale. Together, they were commonly referred to as “the two Henrys,” and they collaborated on many significant studies and reforms.

Two years after Dr. Kempe became chairman, he began to notice something peculiar in his clinics: several patients had injuries that “didn’t seem like accidents,” said Dr. Bross.

At that time, the idea of adults inflicting injury on children was not a widely accepted truth. Few had even described it. According to Dr. Bross, the ancient Greek physician
Galen warned women about the dangers of allowing “choleric” nursemaids to care for their children; Tardieu, a Parisian morgue physician, documented in 1860 descriptions by some subjects who said they acquired injury from abuse; in the 1940s, Caffie, a radiologist, observed injuries on film that appeared to have been caused by abuse.

At that time, the idea of adults inflicting injury on children was not a widely accepted truth.

But these observations went largely ignored by the general public, which refused to acknowledge the severity of the problem, and the medical community, which did not identify child abuse as a diagnosis.

Responding to doubts about the possibility of child abuse, Dr. Kempe and Dr. Silver surveyed hospitals and prosecutors’ offices around the country. What they found astonished them: there were 302 cases of abuse reported from 71 hospitals, and 447 cases reported by 71 district attorneys. There had been 78 deaths.

By 1960, Dr. Kempe and his colleagues, including University of Colorado psychiatrist Dr. Brandt Steele, submitted a paper and presentation for the annual meeting of the American Academy of Pediatrics (AAP). Their presentation described child abuse as a cause of childhood injury and death.

The AAP, however, rejected the paper on the basis that it was “unscientific.” Dr. Kempe wasted no time becoming chair of the Scientific Committee for the 1961 meeting and resubmitted the paper. The AAP published “The Battered Child Syndrome” in 1962.

In the paper, the five authors described typical injuries and discussed psychiatric features of caregivers who abused their children. Later Dr. Steele described to Dr. Bross how those in attendance at this first presentation sat in “dead silence.” But as they filed out of the auditorium, several told Dr. Kempe and other presenters that they had witnessed similar injuries in their own clinics.
Following the publication of his paper, Dr. Kempe helped pass legislation that resulted in mandatory child abuse reporting laws. It took just four and a half years for all 50 states to pass the law.

Dr. Kempe then acquired grants from various foundations to open the first multidisciplinary center in the world focusing on children suffering from mistreatment.

In 1972, the National Center for the Prevention and Treatment of Child Abuse and Neglect opened within the Department of Pediatrics at the University of Colorado School of Medicine. With its own mission and financing, the center sought to alleviate through prevention and treatment what Dr. Kempe considered “a public health issue, a suspected vector of harm, and a danger to kids,” said Dr. Bross. Years later, Children’s renamed the center for Dr. Kempe.

After the University of Colorado Hospital affiliated with The Children’s Hospital, the C. Henry Kempe Center transferred from the Department of Pediatrics to become part of The Children’s Hospital. It moved to the Gary Pavilion when Children’s relocated to the Anschutz Medical Campus in 2007.

“I think the Kempe Center has been an identifiable symbol of the importance of advocating for children and the commitment of our special pediatric community and The Children’s Hospital to children’s protection,” Dr. Bross said. “It stands for the proposition that we need dedicated study and committed advocacy for children.”

Today, the C. Henry Kempe Center cooperates with The Children’s Hospital in several important campaigns, including a national effort to recognize and prevent shaken baby syndrome.
As merger talks continued and pediatric specialties flourished in the 1960s and 1970s, something was happening at the University of Colorado Hospital. A doctor there by the name of Thomas Starzl was gaining international attention for performing the first human liver transplant in 1963 and was recruiting and training physicians who would one day directly impact patients at Children’s. One of those was a quick-witted, quirky little man named Dr. John Lilly. His work in pediatric liver disease would serve as an important precursor in the development of The Children’s Hospital’s own solid organ transplant program and pediatric surgery fellowship training program.

Born in Milwaukee, Wisconsin, in 1929, Dr. Lilly trained with Dr. Starzl as a surgical research fellow in transplantation at the University of Colorado in 1969. Following that, Dr. Lilly moved to Washington, D.C., where he trained with the renowned Dr. Judson Randolph. According to Dr. Lilly’s obituary, he and Dr. Randolph “built one of the preeminent pediatric surgical services and training programs in the country.”

While Dr. Lilly trained in Washington during the 1970s, a new procedure had been invented in Japan to treat children with a rare and sometimes fatal liver disease known as biliary atresia. Called the Kasai procedure, it was “pooh-poohed in this country because people didn’t believe that results in Japan would apply to the patient population in America,” said Dr. Frederick Karrer, chief of surgery at The Children’s Hospital, in an interview years later. The procedure uses a loop of intestine to reconstruct the bile duct. Despite doubts, Dr. Lilly and his colleague, Dr. Peter Altman, demonstrated success with the procedure and soon became national leaders in the treatment of pediatric liver disease.
In retrospect, Dr. Lilly was doing at the time something no one else was doing.

– Dr. Frederick Karrer

Following this success, Dr. Starzl recruited Dr. Lilly to head Pediatric Surgery at the University of Colorado School of Medicine, where, according to his former executive assistant, Linda Burk, “he was the consummate teacher.” Dr. Lilly rigorously quizzed his fellows both on the details of a surgery and the details of popular children’s fairy tales. He pushed his fellows – including Dr. Karrer, who published many papers with him – to perform at a higher standard.

Under the direction of Dr. Lilly, the liver program attracted a much larger patient population because of his reputation in pediatric liver disease. “We had liver patients from all over the country and world because of John Lilly,” Burk said. The program at The Children’s Hospital accepted children from as far away as Yugoslavia and Israel.

Dr. Lilly died in 1995, five years after the affiliation with the University of Colorado pediatric programs with The Children’s Hospital. Largely due to Dr. Lilly’s reputation, Children’s established a pediatric surgery fellowship training program that lived well beyond him.

“Without him, I don’t know where I’d be,” said Dr. Karrer. “Without him, I never would have gotten into my niche. . . . In retrospect, Dr. Lilly was doing at the time something no one else was doing.”
Financial Woes

At the beginning of the 1980s, Children's publications bleakly described the state of the hospital as one wrought with “uncertainties and unpredictable events.” The decade began with a devastating announcement: for the first time in its 70-year history, The Children’s Hospital would not accept children who couldn’t pay.

It was a discouraging time for the hospital and many believed Children’s would not survive. According to Len Dryer, who served as the chief financial officer at Children’s, people during that era “lived paycheck to paycheck,” and so too did the hospital.

Despite the dismal outlook, Children’s maintained a positive bottom line and solid reputation, a tradition it continued for years into the future.

By 1983, Children’s had climbed out of its slump – if barely – and again accepted all children regardless of their ability to pay. The annual report that year gave credit to the millions of dollars the community gave in support of Children’s patients.

Despite the dismal outlook, Children’s maintained a positive bottom line and solid reputation, a tradition it continued for years into the future.
Raising Millions for Colorado’s Sickest Children

In 1978, the Children’s Board of Directors formed a Foundation in order to increase the organized effort to engage the community in philanthropic endeavors.

Early on, the Foundation’s programs were primarily organizing special events and engaging donors through estate planning. In 1988, the Foundation organized the inaugural Courage Classic fundraiser, a 150-mile, three-day bike ride through the Rocky Mountains. With the long-established Children’s Hospital Gala and other events ranging from golf outings to fashion shows, the events engaged volunteers and allowed the community to support Children’s.

Under the leadership of President Diana Boulter, the Foundation began to expand the individual giving programs in the 1990s. Major gift efforts grew substantially during this time and culminated in 1995 in a successful $15 million campaign to construct the new East Wing at Children’s. This initial campaign would mark the beginning of a far more comprehensive and stratified fundraising plan. The intent of this growth was to build a comprehensive fundraising program that could engage everyone in the community – all who wanted to invest in Children’s, “whether it’s one dollar or a million dollars,” said Steve Winesett, who took over as Foundation president in 1999.

With more ambitious fundraising goals in mind, the Foundation grew its events, programs, and partnerships and established various giving societies. In addition to the Red Wagon Society for annual gifts and the Tammen Society for planned gifts or estate gifts, they created two lifetime giving societies: the Gates Society for gifts of more than $1 million and the Boettcher Society for gifts of $250,000 or more. The Foundation also established annual giving clubs for individuals and corporations, such as the Children’s Circle of Care for gifts of $10,000 and the Circles of Hope, Courage, Promise, Leadership, and Champions for annual gifts between $1,000 and $50,000.

By early in the 21st century, the fundraising program had grown and the community’s support of Children’s had reached new thresholds. For the first time, Children’s received
more than 100,000 gifts annually. A new campaign in 2001 focused the Foundation’s fundraising energies on the very visible project of building a new hospital on what would become the Anschutz Medical Campus in Aurora.

In the years following the Foundation’s creation, it has remained committed to the mission established in 1978: to ensure the fulfillment of the hospital’s mission and vision for better health for children through community donations and sound management of the hospital’s endowment, which, as of 2010, included more than 20 chairs.
A Voice for Nursing

After The Children's Hospital closed its nursing program in 1953, it opened its doors to students from 13 Denver-area schools. These nurses trained in either a diploma program or an associate degree program and often became Children's employees upon graduation, usually as licensed practical nurses.

Then, in 1963, the American Nurses Association (ANA) declared support of the baccalaureate standard for all nurses. This gesture set a significant precedent: all incoming nurses should complete a four-year bachelor of science degree in nursing (BSN) before entering health care as a professional. Few hospitals, however, paid attention to the ANA's declaration and continued to hire nurses with varying standards of education and credentials. The Children's Hospital was no exception.

Sixteen years later that would change when the determined, educated, progressive Dori Biester, Ph.D., joined the Children's staff, bringing with her a spirit of independence and empowerment. When Dr. Biester arrived at Children's in 1979 as a nurse administrator, she immediately began to change the image of the nurse at the hospital, from passive caregiver to active collaborator. In the past, nurses had been very much the unheard voices of the hospital. They reported to their patients' doctors and had little or no power to make decisions about the care of their patients.

“Back in the day, the physicians influenced patient care and hospital decisions, and nurses had little say in the process,” said Norine Hemphill, who joined Children's as a nurse in 1978.

With Dr. Biester’s influence, that changed.

“The idea was to have nurses more involved because they were so intimately involved in the child’s care,” Dr. Biester said in a 2010 interview. “That’s what we worked to create: active participants and decision makers.”

Hemphill described a new spirit of respect between physicians and nurses as hospital administrators and physicians began to recognize the perspective that nurses brought to care. “We were with those kids 24 hours a day,” Hemphill said. “So they trusted our assessment.”
Dr. Biester continued her quest to legitimize nursing when in 1983 she pushed Children’s to adhere to the ANA’s standards to hire only baccalaureate-educated nurses. Although it was a tough sell, “Dori fought for BSN,” said Hemphill, and hospital leadership adopted the mandate.

“We were hurting ourselves by not having a sole entry into nursing,” Hemphill said. “Because we changed to BSN standards, we created an amazing caliber of nurses. BSN was huge. We were way ahead of the curve.”

Once nursing hiring standards changed, fewer schools contributed nurses-in-training to Children’s, creating a more focused, higher-education-based program at the schools that continued to send graduates to Children’s.

“Many years ago, nursing was about received or procedural knowledge,” Dr. Biester said. “Now, nursing education is about having a knowledge base and critical judgment.”

With a higher requirement of education came research and in turn, greater emphasis on evidence-based practice. As one of the first BSN programs in the country to host a nursing research program – created by Dr. Maureen Keefe – Children’s contributed to significant advances in nursing practice, both in the hospital and across the country, in areas such as pain management, “fussy” babies, and “quiet time.”

Another integral player in changing nursing at Children’s was Karen Miller, R.N., Ph.D., who served as chief nursing officer. Hemphill credited Dr. Miller for bringing the idea of shared governance to Children’s. Shared governance maintained that nurses on the floor should have the right to contribute to decisions made about staffing in their department. It encouraged independent voices among nursing and collaboration among staff and leadership to make the right decisions.

Hemphill said shared governance had a significant impact on the retention of the nursing staff, which once posted a turnover rate of about 60 percent. The new system helped nurses feel embedded in the culture as soon as their employment began.

The initiatives Dr. Biester set in motion changed which nurses Children’s hired and how Children’s hired them, and it elevated the level of excellence expected from all of them.
“I admire Dori greatly. She changed nursing,” Hemphill said. “She was educated and progressive. She was a voice for nursing. That’s her legacy to The Children’s Hospital.”

By 2005, the hospital received the prestigious Magnet Status from the ANA, one of the first in the country and one of three hospitals in Colorado. Dr. Biester went on to become chief operating officer of Children’s in 1994 and served as chief executive officer from 1998 to 2007. As chief executive officer, she led the decision to relocate from downtown Denver to the Anschutz Medical Campus in Aurora.
Reaching Beyond 19th and Downing

As the hospital transitioned from a self-contained organization to one engaged in outreach, its satellite locations grew in response to community doctors who needed help managing their patient volume. Dr. Steven Poole helped create an entire system of care simply by accommodating pediatricians who had stretched their schedules thin and needed a break. Hired in 1982, Dr. Poole “made a career out of listening to the guys out in the practices and tried to do what they asked us to do,” he said.

In 1986, a physician serving a rural community near Thornton sought help when he no longer could support pediatric patients in the emergency department and inpatient units at St. Anthony North Hospital. Dr. Poole responded by sending Children’s physicians to staff the hospital after hours. Before long, Children’s had established a permanent residence there.

Another local pediatrician, Dr. Sol “Buddy” Bassow, approached Dr. Poole and his colleague, Dr. Barton Schmitt, when he could no longer take after-hours calls. Drs. Poole and Schmitt worked with emergency department nurses to create an after-hours phone triage system. It is believed that their program was the first of its kind in the world. It was so successful that more than 50 hospitals throughout the country used the Children’s system as a model for their own phone triage systems.

Similarly, Dr. Poole helped establish the nation’s first pediatric locum tenens in 1990, a support system he created to help staff small community practices so physicians could take a vacation. Dr. Schmitt went on to create the world’s first symptom-based mobile phone application for children in 2009.

Dr. Steven Poole helped create an entire system of care simply by accommodating pediatricians who had stretched their schedules thin and needed a break.
In the course of 20 years, The Children’s Hospital had expanded far across the Denver metropolitan area. John Howard, a “special projects guy,” as Dr. Poole called him, thought to market Children’s specialty clinics, urgent care clinics, and “hospitals within hospitals” as a branded system of care. Sometime between 2003 and 2004, Howard pitched his idea to then–chief executive officer Dr. Dori Biester. Under her leadership they coined Children’s satellite locations as The Children’s Hospital Network of Care.

In the mid-1980s, health care organizations had made a trend of forming parent companies. As such, The Children’s Hospital formed its own Children’s Health Corporation that encompassed several entities, including the hospital and Foundation, as well as the Kempe Research Center, Children’s Emergency Transport, Rocky Mountain Services, Early Horizons Daycare, and Child Health Management.

After almost a decade, the parent board and the hospital board agreed that a simpler structure was in order. Many of the entities had dissolved over the years, and in a move to streamline operations and the corporate structure the parent company board was disbanded.
The Association of Volunteers

In 1985, Lua Blankenship, then president and chief executive officer of Children’s, founded the Association of Volunteers in an effort to encompass benevolence in the community. “It was a way to say you could still support the hospital through events and activities in the community, without being physically present at the hospital,” said Kathleen McBride, who became director of the Association of Volunteers. “The goal was to be more inclusive.”

In the hospital’s early days, the informally organized volunteers, known as the auxiliary, visited with patients and helped with tasks around the hospital. Once founded, the Association of Volunteers grew in volume and diversity. According to McBride, the volunteers were as young as 13 and as old as 90. The association included men and women, and young professionals, many committed to both “the organization and the experience.”

Over the years, the efforts of the volunteers kept The Children’s Hospital alive and compassionate. One exceptional volunteer was Lenore Stoddart, former chair of the Board of Directors and founder of La Cache, a high-end consignment boutique benefiting the hospital. When Stoddart first proposed the idea of a consignment shop, most at the hospital doubted its success. Starting in a storage closet in the hospital, Stoddart wasted little time moving to a quaint shop on the corner of Downing Street and 4th Avenue in Denver’s
Country Club neighborhood. At this location, La Cache amassed more than $2.7 million on behalf of Children’s in the course of 26 years, McBride said.

Stoddart herself volunteered at Children’s for 63 years, donating more than 31,000 hours of her personal time.

The Children’s Hospital Toy Run, for example, which celebrated its 25th anniversary in 2010, harnessed the power of hundreds of leather-clad motorcyclists to deliver toys to Children’s patients at Christmastime.

Countless efforts brought the outside world into the hospital for Denver's sickest children. The Children's Hospital Toy Run, for example, which celebrated its 25th anniversary in 2010, harnessed the power of hundreds of leather-clad motorcyclists to deliver toys to Children’s patients at Christmastime. The Make-a-Wish Foundation hosted an annual “Holiday Store” where long-term patients could shop for their families. Long-time volunteer Lloyd Lewan dressed as Santa Claus and visited with patients every Christmas Day for more than 25 years.

“That’s what’s important,” McBride said. “Keeping alive these traditions that have been built up.”

The hospital welcomed many visitors to entertain its patients. Children’s once opened its doors to the circus, the zoo, and the Anheuser-Busch Clydesdale horses.

Celebrities also joined in cheering up patients. Children’s hosted actors and musicians such as Will Smith, Jewel, John Legend, and American Idol contestants. When the Colorado Avalanche hockey team won the Stanley Cup, they made a special trip to the hospital. Britain’s Princess Anne visited in 1979.
The Healing Power of a Pet

If the middle of the 20th century meant a departure from caring for simple childhood illnesses like tonsillitis and appendicitis – instead favoring subspecialist care – the 1980s refocused on less acute cases. Although Children's indeed specialized in treating the acutely ill child, it promoted the “continuum of care,” offering services both simple and complex. The hospital by this time served every facet of a child's health.

In 1974 the Children’s director of volunteers Fern Bechtel was outside her home with her son, who had been in a car accident, when the neighbor’s golden retriever approached them. Her son’s spirits brightened immediately. Bechtel concluded that if her neighbor’s dog could have this uplifting effect on her son, certainly other sick children could benefit as well.

Bechtel brought her idea to Drs. Jan Facinelli and Jim Houchens, Denver veterinarians, and Mary Jo Cleaveland, head nurse of oncology at Children’s. Because oncology was the most restrictive area of the hospital, Bechtel figured that if pet visits could succeed there, they could succeed anywhere. They devised a program in which Children's physicians would write a “prescription” for patients to receive a pet visit. Thus was born the program’s moniker, Prescription Pets.

Bechtel concluded that if her neighbor’s dog could have this effect on her son, certainly other sick children could benefit as well.

Drs. Facinelli and Houchens worked with Cleaveland and Bechtel to gather a solid crew of volunteer veterinarians with support from the Denver Area Veterinary Medical Society to complete evaluations. One of those vets was volunteer Dr. Sara Marks.

Dr. Marks first became involved in 1985, at a time when the hospital hoped to expand the program beyond oncology. At that time, there were just five dogs in the program. Given the expansion, program organizers deemed it necessary to create a more formal screening process.

Dr. Marks led the development of these screenings, and when Prescription Pets won an award from the DELTA Society (an organization dedicated to improving human health through therapy and service animals), program leaders realized they had no protocols in place to guide evaluations. They recruited Dr. Marks to develop the protocols that would one day make it one of the most successful programs in the country.
Implementing the protocols resulted in a more formal screening process, which allowed Prescription Pets to accept more dogs into the program, Dr. Marks said. Protocols also “gave the program more credibility.”

The protocols Dr. Marks created included immunizations, mandatory baths and teeth cleanings the night before visits, and rigorous stress tests to evaluate health, temperament, and obedience.

In 1986, Prescription Pets expanded beyond oncology, with at least one dog on floors six, eight, and nine as well as in rehabilitation, dialysis, psychiatry, and KidStreet, a licensed care center for children with special needs.

“I remember the surprise and shock on the floors that a dog was in the hospital,” said Jill Lorentz, who began volunteering at the hospital in 1985. “It was somewhere between delight and disbelief. You could definitely see the positive effects on patients and staff. It’s a real stress-buster.”

The Prescription Pet program was the nation’s first pet visitation program for a medical facility and became the international model. The program became so popular that there was regularly a five-year waiting list for new dogs.
Behavioral Health
For many years, the medical community largely believed that children did not feel emotions the same way as adults. In fact, most physicians believed that children couldn’t get depressed, nor could they suffer from major pathologies such as schizophrenia or bipolar disorder.

Later discoveries would prove that children did suffer from psychological abnormalities, and they had few resources to become healthier. There were school counselors or mental health counselors, but these resources were mostly unequipped to provide the intense, extended care that more serious cases required.

But when the same children continued to present the same physical symptoms in clinics and emergency rooms, some physicians finally noticed. Anxiety or depression could be the root cause of chronic stomach pain or headache, doctors concluded.

The Children’s Hospital followed the national trend of behavioral health inadequacies until about 1986, when it began to lead the pediatric behavioral health community, said Jeffrey Dolgan, Ph.D., a senior psychologist at the hospital.

Dr. Dolgan joined the Children’s staff in 1986 when there existed just a small outpatient clinical service for children with emotional, mental, or behavioral disorders. Services aligned to provide in-house consultation and therapies, but could not welcome the larger community.

At about the same time, the Children’s emergency department (ED) was receiving a large volume of calls for psychiatric emergencies. Sometimes patients presented these cases in the ED, and physicians did not have the special skills or training to manage them. In response, the hospital created the Cycles Team, a 24-hour-a-day, seven-day-a-week ED presence to meet the community need.

When the hospital began offering psychiatric consultation to inpatients, the community noticed and asked for help. So the hospital created a makeshift inpatient clinic that would house psych patients around the clock, every day of the week.
"You can feel a this hospital."
difference in

– Dori Biester, Ph.D.
Dr. Dolgan described the first effort as “small” and “substandard” because there was no money for this new service. But by 1988, physicians began requesting an adolescent psych service at about the same time that senior management saw the need for it. The hospital thus appointed a Chief of Psychology and a Chief of Psychiatry.

Then, said Dr. Dolgan, who was appointed Chief of Psychology, “there was a very interesting effort to combine adolescent medicine and adolescent psychiatry into a joint unit. It was a very, very successful effort.” Once the adolescent unit opened, “the genesis of programs grew from that,” including Medical Day Treatment and an Eating Disorders unit. “So many pediatricians were trying to treat kids but there was no specialized program for it,” Dr. Dolgan said. “Things snowballed from there. What started as an external effort became a community effort.”

The Children’s Hospital began to expand its psych programs to its Network of Care. At all its campuses, it began reporting a higher rate of success. Because of this new and expanding service, patients could return home and function, clinically stable.

Years later, when Children’s moved from its location in downtown Denver to the Anschutz Medical Campus in Aurora, exciting possibilities materialized. At first, Dr. Dolgan said, in all the excitement for the new hospital, psych and behavioral health “took a back seat,” and he expected they might receive just a piece of shelled space on the ninth floor.

But then one of Children’s psychologists sought a benefactor to ensure that behavioral health would receive its fair share. Dr. Marianne Wamboldt, a child psychiatrist, also served on the space and planning committee for the new hospital. She was close friends with Dr. Nancy Gary, a clinical psychologist in the community who was “very savvy about mental health” and who was also a benefactor to the hospital. Dr. Wamboldt teamed up with Dr. Gary, and out of many discussions came one of the biggest changes in psychiatric services at The Children’s Hospital.
The Gary Pavilion on the Anschutz Medical Campus.
Dr. Nancy Gary and her husband Sam Gary, along with Ron and Cille Williams, donated $10 million on behalf of the Gary-Williams Company to the Imagine the Miracles fundraising campaign. Their donation helped build an building adjacent to the new hospital that is dedicated entirely to behavioral health. It was renamed the Gary Pavilion in 2008 “to honor the contributions of time, professional expertise, civic commitment, visionary leadership, and resources that Nancy and Sam Gary have given to Children’s over the years,” TCH News, the hospital’s internal newspaper, reported in June 2008.

The new building united inpatient and outpatient services and also housed the Kempe Center for Child Abuse and Neglect, Medical Day Treatment, and Ponzio Creative Arts Therapy.

With this new facility, Children’s became unique among pediatric hospitals across the country. Few offered such comprehensive behavioral health services for children; they included treating the autistic population, psychotic disorders, mood disorders, eating disorders, and the oppositional and defiant patient.

*Surgery nurses with a patient.*
Advocating for the Young

In 1997, the National Association of Children's Hospitals and Related Institutions (NACHRI) passed a resolution that encouraged hospital boards to adopt grassroots advocacy. That same year, The Children's Hospital hired Maren Stewart, a registered lobbyist, as director of public affairs to head policy and legislative relations. Within just two years, Stewart had assembled an independent, board-level advocacy committee “charged with assisting in the development of advocacy strategy and helping to set legislative priorities,” a 2003 case study said.

“Our main message was that ‘advocacy’ was the one part of our mission statement that everyone associated with the hospital could support,” Stewart said years later. “Literally every person at the hospital could be involved and contribute to it.”

This advocacy committee included hospital representatives who spoke on behalf of constituencies such as staff, physicians, nurses, volunteers, patients, and families.

“Our main message was that ‘advocacy’ was the one part of our mission statement that everyone associated with the hospital could support,” Stewart said in an interview years later. “Literally every person at the hospital could be involved and contribute to it.”

With the help of advocacy coordinator Christine Staberg, Stewart focused on specific legislative issues that would affect children’s health and the hospital’s mission. Together, they
formally created the Grassroots Advocacy Network (GAN) in 1999 and used NACHRI’s Grassroots Management System to organize the structure of the successful group. Although they initially targeted employees and patient families, the GAN promoted membership throughout the state. Through newsletters, e-mails, and events, the GAN encouraged members to contact state legislators, send letters to the congressional delegation, and remain knowledgeable about legislative activities in order to advocate on behalf of children.

“It’s been exciting to see the development of such a strong advocacy program over the years,” Stewart later said. “Even though at the time it seemed like our progress was slow, we always had a vision and a plan. Looking back I can see we’ve accomplished so much.”

Stewart’s strategy was simple. Her first aim was to educate about grassroots advocacy and its value. She then worked to engage staff in the process, and finally made it a part of the culture of the hospital. “We ran it like a typical campaign,” she said.

By 2000, the GAN had accumulated 500 members; 10 years later, that number had grown to more than 5,000.

“This was a wonderful opportunity to give meaning to the ‘advocacy’ component of our mission and bring it to life,” Stewart said. “And most importantly, it resulted in legislative policies that improved the health and well-being of children throughout Colorado who couldn’t speak up for themselves.”
In 1981, Dr. Frank Chang joined The Children’s Hospital as a general pediatric orthopedic surgeon, by way of St. Louis University and the DuPont Institute. Five years later, the U.S. Olympic Freestyle Ski Team recruited him to serve as a team physician, and he traveled with the athletes overseas for one or two events a year. During this time – while he continued to work at Children’s – he studied many videos of the athletes with their coaches to analyze their complex movements in order to improve how they skied. Simultaneously, his practice at Children’s became stronger in the treatment of patients with cerebral palsy (CP).

From there it was an easy conclusion: “To me it seemed like a natural evolution to use technology to see how we could help these [CP] patients improve their function,” Dr. Chang said in a 2010 interview.

The idea of pairing technology and motion analysis began in 1872 when English photographer Eadweard Muybridge settled a bet by providing photographic proof that a horse momentarily lifts all of its legs off the ground when galloping. Soon those photographs grew into a series of photographs, and then movies, as researchers, scientists, and physicians looked beyond animals and began studying athletes and medical patients.

Meanwhile, Dr. Dennis Matthews began consulting with The Children’s Hospital to develop Denver’s first pediatric rehabilitation program. A transplant to Denver, Dr. Matthews had developed an interest in movement analysis during his residency and faculty position at the University of Minnesota. By 1988, Dr. Matthews had become chair of Children’s Rehabilitation Medicine.

Together, he and Dr. Chang began planning a multidisciplinary program in pediatric rehabilitation, laying the foundation for a hospital-based clinical motion analysis facility, which would later become Children’s Center for Gait and Movement Analysis (CGMA).
When the doctors first conceptualized the lab in 1988, technology was, unfortunately, quite behind. Furthermore, financial resources proved insufficient to start a facility that could succeed in the clinical and research environments. It would take significant commitment from the hospital and advances in technology to make the lab a reality.

Less than a decade later, computer and video technology had progressed so much that by the mid-1990s it was feasible for the hospital to consider a clinical movement analysis facility. Dr. Chang credited the film and video game industries for this important development. While medicine had conceived the idea of motion analysis, Hollywood adopted the idea for advanced animation. Lucas Films, for example, makers of the Star Wars franchise, used the same technology as gait analysis centers to create captivating animated creatures. Special equipment captures markers on a moving human. A computer then turns that into a model of a skeleton. And while makers of movies and video games covered those skeletons in animation, physicians analyzed the skeletons to determine force, pressure, and abilities of joints and muscles in a patient.

Once the technology landed in Hollywood, considerable funding flowed in to constantly improve it – which benefited the gait analysis industry. Because of this, Drs. Chang and Matthews continued their efforts to establish a CGMA.

Developing a CGMA at Children’s would require collaboration between specialties, so Drs. Chang and Matthews assembled a consortium that included the Rehabilitation Medicine and Orthopedic Surgery departments at Children’s and the University of Colorado Health Sciences Center (UCHSC), the program in physical therapy at UCHSC, the VA Medical Center in Denver, the Colorado School of Mines, and the University of Colorado, Denver.

Until Children’s opened its CGMA in 1999, Colorado’s children had to travel to California, Texas, Minnesota, or farther to understand why they couldn’t walk like other children. Several of these children underwent tests and treatments to no avail. These were children who could barely walk 20 steps; they were crouched and their joints were stiff.
Dr. Dennis Matthews and his colleague fit a patient for a cast.
A patient walks during a gait lab test.
But then, in 1998, The Children’s Hospital leadership committed to building a comprehensive center to analyze and treat children with significant gait challenges. That year, the hospital hired biomedical engineer Dr. James Carollo from the Mobility Research and Assessment Laboratory at UT Southwestern Medical Center in Dallas to build them a sophisticated, state-of-the-art Gait Lab.

**Until Children’s opened its Center for Gait and Movement Analysis in 1999, Colorado’s children had to travel to California, Texas, Minnesota, or farther to understand why they couldn’t walk like other children.**

And what a lab he built. It was nothing short of a medical marvel. Cameras digitally recorded high-speed, high-resolution video of a child walking and performing other physical tasks. Specialized motion-capture cameras recorded the precise position of a child’s body more than a hundred times per second. Sensitive force-measuring plates in the lab floor recorded the amount of force the child applied to the ground while walking. Sensors captured electrical signals in the child’s muscles. Computers then combined this information with specific body measurements to create a detailed model of the child’s motion.

The result was precise, three-dimensional graphs of the child’s limb and body movement, force and power production, and muscle activity as he walked or moved freely in a normal environment.

Children’s experts – including physical therapists, kinesiologists, orthopedic surgeons, physiatrists, and engineers – reviewed the reports to help design a one-of-a-kind treatment plan for each patient. Treatment could include surgery, physical therapy, medications, or modifications to orthotics or prosthetics.
"If you focus on for the children, insurmountable.

– Dr. Richard Krugman"
what’s best no issue is “
Once implemented, gait analysis remarkably changed the lives of young children with gait abnormalities. According to Nancy Denniston, kinesiologist at Children’s Gait Lab, these children “could walk more smoothly and join their peers at school and participate in outside activities with their friends and family.” The successful surgeries had a “complex impact on the physical, functional, emotional, and developmental lives of children,” she said.

The Gait Lab opened originally to care for children with cerebral palsy. Through the years, Children’s expanded its efforts to include care for many other neuromuscular conditions, although cerebral palsy long represented 80 percent of the total patient load.

So successful was Children’s CGMA that it took on adult patients and went on to become the nation’s first accredited gait analysis center in 2009, and just the second in the world.

**Pain Management**

Until the 1970s, many caregivers paid little attention to children’s pain, and it went undiagnosed or unrecognized. According to Children’s nurse Roxie Foster, Ph.D., those caregivers believed that children didn’t feel pain or couldn’t remember it.

But then a nurse named Joanne Eland, Ph.D., from Iowa, published a study that examined children and adults with identical injuries. What she found was that while adults received adequate medicine to handle the pain, children received almost none.

As the study of children’s pain escalated around the world, researchers were studying it in parallel at The Children’s Hospital. In the early 1980s, Dr. Foster began working with oncology physician Dr. Lorrie Odom to collect data for her master’s thesis on pain management. Together, she and Dr. Odom asked how they could make pain tolerable for children, especially those facing spinal taps or bone marrow aspirations.

Dr. Foster first became interested in pain management when her godson underwent invasive procedures to treat his leukemia. Watching his mother’s devastation at seeing her son suffer motivated Dr. Foster to ask if there were a better way.
Throughout the 1980s, Dr. Foster worked with nurse scientist Nancy Hester and other researchers to develop pain assessment tools, studying better ways for children to express their pain, since a 0 to 10 scale was too complex for young children. Likewise, she researched the widely held belief that vital signs could indicate pain and found that it was false.

“We are sensitized as health-care providers to the fact that pain is not necessary,” Dr. Foster said in a 2010 interview. “We now recognize that a child in pain should not be in pain. The old belief was ‘you’re in the hospital, what do you expect?’ We now know that pain has to be relieved.”

In the early 1990s, her efforts merged with Dr. Biester’s vision to create a pain service at Children’s.

Dr. Biester became interested in the idea when, in 1990, she was walking through the pediatric intensive care unit and saw a child having a chest tube removed. The child was in terrible pain and Dr. Biester said to the child’s nurse, Chris Hagelstein, that there must be a better way to treat these children.
Under Dr. Biester’s advocacy and leadership, Children’s began to create a pain service in 1991, one of the first hospitals in the country to do so.

By January 1992, the hospital saw its first patient in its pain management service. Dr. Desmond Henry, Dr. Don Jacobs, and Dr. Foster became the service’s three directors, charged with its implementation and leadership.

Together, they created a comprehensive service for children who experienced pain outside normal parameters. These were children who did not respond to the mostly effective methods of pain medication like opioids, acetaminophen, or ibuprofen. Many of these children were in recovery from complex surgeries or chemotherapy.

Dr. Foster and her colleagues developed several effective treatments for pain, based on national research and best practices. They implemented the use of local anesthetics through epidural catheters, and comfort measures such as holding, heat, cold, and distraction.

By 1995, Children’s had become a forerunner in epidural catheter treatment for children, especially because any nurse on any floor was trained to handle these patients – a universal ability rare at most hospitals at that time.

The Pain Clinic went on to welcome children in the outpatient setting who felt chronic or persistent pain. For the next 18 years, the Acute Pain Service and Chronic Pain Clinic grew in breadth and depth, offering everything from pain psychologists to a pain resource nurse program, integrating with practices throughout the hospital and across its Network of Care.

“Pain is never the purview of one discipline. It’s everybody’s job,” Dr. Foster said. “Pain is the one thing that is common to every child accessing The Children’s Hospital, and all children and families fear that treatment will mean more pain.”
Ponzio Creative Arts Therapy

In 2003, Naropa Institute in Boulder – a “Buddhist Inspired Contemplative Education” university – contacted Children’s to request an internship for one of its music therapy students to gain real-life training in a pediatric hospital. Dr. Jeffrey Dolgan agreed to supervise this intern in an informal program. The subsequent music therapy intern, Tony Edelblute, developed music therapy intervention to help Children’s patients with emotional healing.

Before long, Naropa requested another internship for one of its art therapy students, Michele Turek, who Wendy Smith, Ph.D., a hospital psychologist, would supervise.

Simultaneously, Jenny Madden, an oncology nurse, was implementing a creative arts therapy research project for Pat Rutter, a dance therapist.

Together the interns, Madden, and Rutter created therapies to help “less verbal kids express themselves. It helped draw out of them what was going on emotionally,” Dr. Dolgan said in a 2010 interview.

In May 2004, TCH News reported about creative arts therapies described as “healing through music, art and dance/movement therapies.”

A member of the hospital’s Board of Directors, Craig Ponzio, read the article and became immediately interested. An art lover himself, Ponzio had made a name for himself in the art world by designing and creating custom art frames for some of the most famous galleries and museums around the world, including the Louvre in Paris. His two children had been patients at the hospital, and for that reason, he felt deeply connected to its mission of improving the health of children, especially in creative ways.

After reading the article, he called the hospital and asked Dr. Smith what the program needed to flourish. Shortly thereafter, the Ponzio family donated $2 million to establish a comprehensive creative arts therapy program.

The donation paid the salaries of seven staff members, including three art therapists, two music therapists, a yoga therapist, and a dance movement therapist. Art therapist Katherine Reed oversaw the program and made sure every behavioral health inpatient could experience creative arts therapy each day. Additionally, creative arts therapy integrated with care teams for medical patients throughout the hospital.
The Ponzio family donation also helped equip three specialized studio spaces as creative arenas for art, music, dance/movement, yoga, and video therapy.

Ponzio Creative Arts Therapy provided services to psychiatric patients from Inpatient Adolescent and Child Psychiatry, Psychiatric Day Treatment, the Eating Disorder unit, Medical Day Treatment, Neuropsychiatric Special Care, and the Intensive Outpatient Program.

It also offered services – such as art, music, dance, and yoga – to families in conjunction with a hospital-wide approach to offer more family-centered care.

Throughout the hospital, two public galleries featured ongoing exhibits of artwork and photographs of creative arts therapy experiences by patients and families, as well as staff and professional artists. In 2009, the program hired a community arts liaison to further enhance partnerships with the arts community throughout Colorado.
Saving Newborns with Nitric Oxide

Neither Dr. John P. Kinsella nor Dr. Steven H. Abman entered medical school dreaming of becoming world-famous neonatology researchers. Little did they know they would meet as colleagues at The Children’s Hospital, that they would partner in new research frontiers, or that they would discover a lifesaving procedure for thousands of newborn babies.

For most of his education, Dr. Abman believed he would study public health or practice medicine in third world countries. But during his residency at the University of Colorado, he became interested in pediatric critical care and newborns with pulmonary hypertension, a condition in which the lungs don’t work properly. At that time, the medical community had limited knowledge of how to treat newborns with the disease. Of the treatments that did exist, none worked well. Dr. Abman soon felt his calling: “to better understand the disease and try to change the course of how we treated these babies.”

Dr. Kinsella similarly noticed a lack of information on treating babies with pulmonary hypertension. He joined forces with Dr. Abman when they discovered their mutual interests in sick newborns with heart and lung disease.

While practicing critical care medicine, the doctors felt they were treating conditions the same way, with the same outcomes. They were driven to better understand the condition and ultimately to develop a treatment with better outcomes.
According to the doctors, newborns suffering from heart and lung disease faced a grim survival rate and a future likely full of long-term medical problems.

“There were large gaps between basic research and the translation of this research to patient populations,” Dr. Abman said. “At most hospitals, multidisciplinary teams were not working together to address this issue. To fix it, a complete paradigm shift was necessary.”

But then, in 1991, along with their research team, Drs. Abman and Kinsella made a miraculous discovery: they found that inhaled nitric oxide was a safe and effective treatment for these babies. By using low doses of nitric oxide blended with oxygen in a ventilator, doctors could increase blood flow to the lungs in sick newborns with pulmonary hypertension, thereby avoiding the need for oxygenating a newborn’s blood through ECMO, a heart-lung bypass procedure.

“What’s exciting about research is that you can either read the textbook and treat a patient the way we’ve always treated patients. Or, you can work very hard to find new ways of thinking,” Dr. Abman said.

The result of this early work was so significant that the National Institutes of Health awarded a $6 million grant to the team and designated The Children’s Hospital, in conjunction with the University of Colorado School of Medicine, as the nation’s first specialized research center devoted to neonatal pulmonary hypertension.

The groundbreaking nitric oxide discovery contributed significantly to the 1999 approval of nitric oxide for use in term and near-term newborns with persistent pulmonary hypertension. This led to the widespread acknowledgment that nitric oxide was safe and could offer some protection from chronic lung disease, a risk for many babies with breathing problems.

Nitric oxide went on to become the primary treatment for most babies with persistent pulmonary hypertension, drastically reducing the use of ECMO worldwide.

Drs. Abman and Kinsella’s treatment changed the lives of many patients and their families, including the Culshaw family. In 1992, Alexa Culshaw was the 13th baby to receive nitric oxide treatment at The Children’s Hospital.
Alexa’s father, Peter Culshaw – who would later become chair of the Foundation’s Board of Trustees – wrote about the experience years later. He recounted the day Alexa was born, how she looked bluish and wouldn’t eat, and before the end of the day doctors had broken the bad news: their baby would likely die from persistent pulmonary hypertension, “a condition where her lungs were unable to function,” he wrote. “It was devastating. It doesn’t matter if you have a child for a day or 10 years. It’s just devastating.”

Culshaw and his wife Cathy had two options for their daughter: a heart-lung bypass with a poor prognosis or the experimental nitric oxide treatment. “Despite the uncertainties, we decided to go ahead,” Culshaw wrote. “Faced with no other options, we fought for our child’s life with an experimental procedure. Within 15 minutes of starting treatment, Alexa’s pulse/ox reading was up to 98 percent. And she never turned back. More than 10 years of careful research had paid off – it was a complete success.”

Drs. Abman and Kinsella continued research testing the use of nitric oxide in premature babies. Funded by another grant from the National Institutes of Health, this time $7 million, their study determined whether a low dose of nitric oxide, used early in premature babies who require mechanical ventilation, could reduce lung inflammation and minimize the risk of chronic lung disease in newborns with respiratory failure.

Inhaled nitric oxide therapy was used in patients of all ages, newborns to adults, who had diverse causes of pulmonary hypertension. These diseases included acute respiratory distress syndrome, congenital heart disease, sickle cell disease, complications following bone marrow transplantation, and many others.

From this experience, the team developed the Pediatric Heart Lung Center, which launched unique programs in pediatric pulmonary hypertension and ventilator care and encouraged interdisciplinary collaborations in research, patient care, education, and training.
“Affiliation put us top 10 hospitals departments in

— Dr. James Todd
in the
and pediatrics
the country."
Affiliation

On July 2, 1969, two young doctors chatted the night away while on duty at The Children’s Hospital. The two doctors, Doug Jones and Richard Krugman, were part of the inaugural class of the joint residency program between the University of Colorado Health Sciences Center (UCHSC, later to become the University of Colorado School of Medicine) and The Children’s Hospital. That night, they predicted that a total merger of the two institutions was inevitable. It had been the longtime vision of their mentor, Dr. Kempe.

Drs. Jones and Krugman would indeed see the day the two institutions united, but not without debate, negotiation, patience, and time. Though he “never thought it wouldn’t happen,” Dr. Krugman later said, “Jones and I both believed that ultimately this was win, win, win.”

That same year Children’s Executive Director Francisco D. Sabichi wrote of two options the hospital faced: both included academic affiliation and one favored moving to Colorado Boulevard, across from UCHSC. Both he and Lenore Stoddart, president of the Board of Directors, announced Children’s commitment to developing a formal relationship with UCHSC.

By 1970, Lawrence R. Reno, then president of the Board of Directors, announced a formal, signed affiliation agreement “which was the culmination of several years of intensive negotiations between the two institutions.” In 1971, he declared that the Children’s Board of Directors would “pursue the concept of building a totally new facility on land adjacent to the University of Colorado Medical Center.”

But no sooner had the hospital raised $1 million for the new facility than progress on the building halted, and by 1977 the annual report declared that “the relocation became impossible.”

The 1970s were a tumultuous time for affiliation, and for the next two decades Children’s and CU evolved in what Dr. Krugman called “parallel play,” a term used to describe toddlers who play side by side rather than with each other. This expanded twin pediatrics services, one at the University Hospital and one at Children’s. The two facilities together recruited nearly 40 pediatricians, considered full-time CU faculty in the Department of Pediatrics, but whose salaries Children’s paid. These physicians worked primarily at Children’s to supervise doctors in training.
Near the end of the 1980s, tensions came to a head when Dr. Fred Battaglia, then chair of the Department of Pediatrics, approached CU’s Chancellor with an ultimatum: either the university affiliate with The Children’s Hospital or it had to buy back its faculty and compete with Children’s for pediatricians. Up to this point, most community physicians had been referring their patients to Children’s instead of sending them to the University. By this time, Children’s had recruited 45 physicians from the University. A study conducted by the university showed that it would cost the university more than $3 million to buy back its physicians – and its business – and would require additional office space it didn’t have.

Shortly after completing the study, the university declared a truce and entered into affiliation with The Children’s Hospital in 1989. Implementation began in 1990.

Despite the positive implications of affiliation, it was contentious. “My recollection is that the vote by Children’s Board was 16–13,” said Dr. Krugman. “It was very close.”

Not all physicians supported affiliation, either. They feared the ramifications of partnering with a university based heavily on research and academics. They also feared how this would affect clinical care. As a result, some disgruntled physicians left Children’s for Presbyterian–St. Luke’s, where they founded a for-profit competing pediatric service focused solely on clinical care that purposely excluded research and academics.

As a result, Dr. Battaglia, himself a world-renowned perinatal and neonatal researcher, stepped down as chair, worried that the remaining Children’s employees and faculty physicians would view him negatively as a leader focused only on research.

“Finally, Dr. Kempe’s vision was brought to fruition,” said Dr. Todd. “Affiliation put us in the top 10 hospitals and pediatrics departments in the country. Neither the university nor Children’s could have made those claims on their own.”

“I think affiliations and partnerships are a lot like families and friends,” said Dr. Krugman. “You learn how to work together.”
Dr. John Burrington, chief of surgical service in 1970.
To replace Dr. Battaglia, the university recruited Dr. Doug Jones, the long-ago CU-Children’s resident and faculty member in its newborn center, back from Johns Hopkins. Dr. Krugman credited Dr. Jones for the success of the affiliation because of his rare ability to bring the two organizations together. Dr. Krugman went on to become Dean of the School of Medicine.

Under the affiliation agreement, CU’s Department of Pediatrics moved almost entirely to Children’s. The two institutions also signed a page-and-a-half-long document that set out general principles guiding their relationship, and affiliation discussions continued through the 1990s. They signed an expanded formal agreement in 1996, and again in 2010.

“It became clear that as the hospital invested in the Department of Pediatrics, not only did clinical programs grow but so did research,” said Dr. Krugman. “The overarching road has been enormously positive.”

One of the most exciting days for Dr. Krugman and Dr. Jones was when The Children’s Hospital Board of Directors voted to move to the Fitzsimons Medical Campus (later to become the Anschutz Medical Campus). According to Dr. Krugman, at a meeting sometime in 2001, Ron Williams, then chair, said, “If you look at what’s happening on the Fitzsimons Campus, you’ve got to think there’s going to be a world-class children’s hospital there, too. Why not let it be us?”

At that moment, Board member Caroline Rickenbaugh stood up and admitted that she had voted against affiliation, but that in retrospect, she had been wrong. “We’ve seen extraordinary results,” Dr. Krugman remembered her saying. “I want to be the person that moves to the new Fitzsimons Campus.” After her testimony, the Board immediately voted on the move. It passed unanimously.

“Deep down, they believed this would be the best for the children of the Rocky Mountain region,” Dr. Krugman said. “If you focus on what’s best for the children, no issue is insurmountable.”

The affiliation strengthened as both institutions co-located to the Anschutz Medical Campus. Now in close proximity, Children’s and CU could more easily collaborate on research, education, and patient care, with easy access to facilities and resources at both hospitals.
“It was a quantum leap for both,” said Dr. Todd. “The academic achievement of the two combined was much better together than on their own. I don’t think anyone here can imagine not being together.”

Immediately following affiliation, Children’s volume in patient days increased by 10 percent, said Dryer. The following year, however, volume barely increased at all. That, combined with the 17.8 percent increase in absorbed costs, had set Children’s back more than $20 million. “In that day and age, that was a lot of money,” said Dryer. The year 1991 was one of Children’s worst in terms of finances and one of the few times in its history that the hospital laid off employees. “It was pretty tough,” Dryer said. “That year would have a ripple effect for years to come.”

Following the period of layoffs, Dryer “vowed to always look into the future and make sure we’re prepared for these things. Finance people have to see around corners.”

The hospital nevertheless maintained a positive bottom line and had, according to Dryer, “enjoyed leadership that’s understood that we have to mind the finances to take care of children. In all cases, they understood that you have to balance all aspects of your mission.”

In the 1990 annual report, Board Chair Frances Welborn and Chief Executive Officer Lua Blankenship wrote, “It was believed that together we could create a financially efficient, comprehensive national center of pediatric excellence. Together, we are able to provide children and their families with some of the world’s most advanced pediatric medical services.”

By the end of the decade Children’s recouped the loss and saw significant growth in patient volume and number of employees. Since affiliating with CU, the now-combined Department of Pediatrics and The Children’s Hospital had seen “continuous expansion of programs,” said Dr. Jones in a 2010 interview.

According to Dr. Jones, the expansion by Children’s in services and expertise after 1990 had as much to do with affiliation as it did with Denver’s unique geography and population density. Unlike pediatric hospitals in other urban centers, Children’s served a large population almost entirely on its own.
"If you look at what’s happening on the Fitzsimons Campus, you’ve got to think there’s going to be a world-class children’s hospital there, too. Why not let it be us?"

– Ron Williams
"In bigger cities you might find one hospital good at one thing, one hospital good at another, but not one hospital good at almost everything," Dr. Jones said.

Isolated by the Rocky Mountains to the west and the vast plains to the east, Denver was the center of a region sweeping at least 500 miles in every direction. Its hospitals attracted populations from remote areas of Wyoming and Montana, and others from New Mexico or Nebraska, where hospitals may not have had the expertise or skill in pediatric subspecialties.

Because of the demand from Denver, Colorado, and the Rocky Mountain region, Children's significantly expanded its range of services. "The happy result of our secluded geography was that this hospital just grew and grew," Dr. Jones said. "Without sufficient patient populations, you can't build big, excellent programs."

As the market grew, so too did knowledge. Historically, as knowledge grew in medicine, so did subspecialties. Dr. Jones said that after affiliation, the Department of Pediatrics became one of the first departments in the country to grow as a result of subspecialties in pediatrics. It was well on its way to establishing itself as an elite department of both depth and breadth, offering a wide range of specialties, Dr. Jones said, each with multiple sub-departments. Hematology/oncology, for example, expanded expertise not just in leukemia or sickle cell anemia, but also in solid tumors and brain tumors. Pulmonary medicine offered expertise not just in asthma, but in cystic fibrosis, interstitial lung disease, and sleep disorders. By 2008, the Children's Heart Institute became one of only eight stand-alone pediatric research centers in the nation and the only full-service pediatric cardiac care center in the seven-state region.

Because of the continuous research efforts at the University of Colorado School of Medicine, The Children's Hospital Research Institute, and the University of Colorado Denver, Children's either led or significantly participated in developing many noteworthy studies, clinical trials, and implementations. The Heart Institute, for example, collaborated with the Division of Surgery to help lead an international movement to better evaluate cardiac surgeons' performance. Some 50 surgeons from 23 countries, including Dr. Francois Lacour-Gayet, a world-renowned cardiothoracic surgeon who joined Children's in 2002, developed a method that took into account the complexity of an operation. They named it the Aristotle Score.
The Children's Center for Cancer and Blood Disorders developed an Experimental Therapeutics Program that was the first in the world to treat three different patients in three different revolutionary research protocols. The National Cancer Institute commended the hospital for its success in increasing access to early-phase clinical trials for younger patients, particularly those with brain tumors.

Expertise in fields grew. "It builds on itself over time," said Dr. Jones. "When all you do is treat the same thing over and over, you become very good at it. The great thing about this place is when a child needs a specific service, the person who does that deals 100 percent of their time with children. That's what makes us extraordinary."

That reputation was acknowledged in 1995 when Children's was awarded a top ranking by *U.S. News & World Report*. That year, the publication named Children's as one of the top 10 children's hospitals in the country. For years to come, the hospital would earn national and international recognition, including the prestigious Magnet Status from the American Nurses Credentialing Center in 2005. The Department of Pediatrics followed suit, with large awards from the National Institutes of Health and others. Physicians earned similar reputations in academic arenas.

In 2000, the hospital recorded more than 278,000 outpatient visits, nearly 7,900 inpatient admissions, and nearly 56,000 total days of patient care. The total number of full-time employees had increased to 1,855; by 2009, that number had increased to 3,345.

By 2008, The Children's Hospital had 47 subspecialties and more than 300 programs and services. By 2010, Children's had acquired a number of “firsts” and “onlys”: it was the only provider in the Rocky Mountain region to provide multispecialty liver transplants; it was one of only eight Cystic Fibrosis Therapeutic Development Centers in the country; it hosted the first comprehensive infant pulmonary function testing program in the Rocky Mountain region; it had one of the best hospital-based pediatric eating disorders programs in the country; its KidStreet became one of the nation's only community-based licensed child-care centers designed to care for the medically complex child; its Blood Donor Center was the region's most comprehensive pediatric transfusion service.

Moving to Fitzsimons and into the Future

As the 20th century drew to a close, The Children’s Hospital came face to face with an all-too-familiar problem: it was running out of space. Its ever-expanding clinical programs and growing research efforts prompted constant juggling of space among the eight buildings of the inner-city Denver campus.

The Children’s Hospital needed more space. But how best to provide it? The hospital’s Board of Directors looked at expanding the existing 27-acre campus at East 19th Avenue and Ogden Street. But renovation of the 90-year-old campus was costly and disruptive to patient care.

They also weighed moving to other metro-area sites such as the former Stapleton International Airport, the old Lowry Air Force Base, and the one-time Gates Rubber plant, recalled Diane Gates Wallach, chair of The Children’s Hospital Board of Directors from April 2000 through March 2002, and board member from 1996 to 2005.

Then in 1996, the federal government closed Fitzsimons Army Medical Center in Aurora, later to become the Anschutz Medical Campus. Plans were announced shortly thereafter to transfer ownership of the government’s 578 acres to local authorities and transform them to an educational campus and vast biomedical park.

The Children’s Hospital leaders realized they had an exciting new alternative: they could build an entirely new, state-of-the-art facility at Fitzsimons and be just a stone’s throw from colleagues at the new University of Colorado Hospital.

Leaving the heart of Denver wasn’t easy, even though the old Fitzsimons base near Interstate 225 and East Colfax Avenue lay only seven miles east of the original hospital.

“Emotionally, this was a difficult decision for many of us because of our historic ties to Denver,” said Dr. Biester, then president and chief executive officer of Children’s, in a 2006 interview.
Wallach was among those who favored remaining in Denver. Her father, Charles C. Gates Jr., who had been chairman of the board and chief executive officer of the Gates Corporation and Gates Rubber Company, helped her change her mind. This once-in-a-lifetime opportunity to rebuild Children’s for future generations would be expensive and involve unprecedented fundraising, but there were no viable alternatives to allow the hospital to modernize and assemble key research, patient care, and educational resources in one location. The right decision became clear.

“When I came to him with the concept of a new Children’s Hospital, he quickly became an advocate,” Wallach said. “He latched onto the vision and encouraged me to move forward with the idea. He could see this would not only benefit children, but the area’s economy and the institution’s prestige.”

Wallach concluded that going to Fitzsimons was the right move at the right time.

“The Fitzsimons opportunity coupled with our own urgency to expand Children’s to meet the needs of tomorrow’s children was absolutely compelling in the final analysis,” she said. “This would be a facility to last another 100 years, well into the 22nd century.”

Groundbreaking ceremony on the Anschutz Medical Campus, June 10, 2004.
Founder’s Great-Grandson Chosen as Architect

The Children’s Hospital invited architects from around the country to vie for the opportunity to design the new hospital. They chose Zimmer Gunsul Frasca (ZGF) Architects LLC of Portland, Oregon, a specialist in architecture, urban design, and interior design, and H+L Architects. Choosing ZGF was fitting, as ZGF partner Robert G. Packard III was the great-grandson of The Children’s Hospital founding physician Dr. George Packard.

“Though the connection was as much with the people there today, working in a place with such historical ties to my grandfather and my great-grandfather made it a more personal, and special, experience for me,” the younger Packard said. “I met nurses and other staff who remembered my grandfather, Dr. Robert Packard. I have fond memories of my grandfather, who was head of orthopedics, bringing me with him to the hospital.

“The driver for me on The Children’s Hospital was to help create the best place to practice, treat kids, and support their families, today and in the future, since these are truly the founding principles my grandfather, Robert, and great-grandfather, George, professed,” he said.

Millions Raised for a New Children’s

With the new hospital expected to cost hundreds of millions of dollars, leaders and supporters of The Children’s Hospital were well aware of the daunting fundraising challenge. The last time The Children’s Hospital Foundation had undertaken a major campaign had been in 1995. Then, the Foundation raised more than $15 million to construct the East Wing of the old hospital.

In early 2001, the Foundation formed its core leadership group and set the goal of raising an astounding $250 million through a comprehensive campaign named Imagine the Miracles. Of the goal amount, $150 million would support construction of “the world’s most healing hospital” while $100 million was earmarked for “the best minds, hands and hearts” through the creation of 10 new endowed chairs at $2 million each, unrestricted support of $30 million, and programmatic support of $50 million.
Imagine the Miracles kicked off quietly in October of 2001, under the leadership of campaign co-chairs Ron Williams, Marcy Benson, and Don Elliman. Foundation Board Chair Caroline Rickenbaugh and Wallach provided critical leadership for garnering support from both boards. Rickenbaugh served until her death in 2002.

Given his dedication to children and his family’s involvement over the years, Charles C. Gates Jr. agreed to serve as the honorary chair, a position he held until his death in 2005.

In June 2004, the campaign moved into its public phase and during the next four years garnered support from all corners of the Rocky Mountain region. On its completion in December 2007, the campaign had raised more than $273 million. Members of both boards led the way with donations totaling more than $89 million in this effort. More than 130,000 members of the Rocky Mountain community gave more than 450,000 gifts to Children’s during the campaign.

Just three years after voting to move to Aurora, The Children’s Hospital broke ground on its $567 million state-of-the-art hospital. The hospital was completed in September 2007.

Construction on the Anschutz Medical Campus.
Moving Day: Saturday, September 29, 2007

At dawn, moving operations began. Staffers occupied two incident command centers, one in the old hospital, one in the new. “Commander” Jerrod Milton and his key assistants monitored activities with a half-dozen computers, personal communications devices, and cell phones.

About 7 a.m., the first of 111 patients was placed in an ambulance and driven to the new campus. Lights flashing, the vehicle pulled up to the new emergency department about 7:45. As media and hospital staff fell silent, the receiving team carefully unloaded the isolette of a tiny Newborn Intensive Care Unit patient. The new hospital was in business.

Patients at the old hospital were divided among an acute care track, a critical care track, and a psychiatric track. It took approximately 45 minutes to move each child, bed to bed. More than a dozen ambulances took care of the acutely and critically ill children. A small van, driven by a hospital administrator, transported the psychiatric patients.

The moving-day team included 200 to 300 volunteers who directed traffic, ran elevators, and delivered food. Among them were members of a local rugby team and volunteers from the Aurora Fire Department, who had the muscle to help ambulance crews load and unload the heavy gurneys hour after hour. Members of the hospital’s Board of Directors and staff physicians also came in to volunteer their help or to savor the history-making moment.

Anticipating that the move might involve as many as 170 patients, the planning team had prepared to run patient transfers for up to 24 hours. But the smaller patient census and the practiced ease of the transfers meant everyone was snug in a bed or room in the new facility in roughly half that time. The day brought no surprises, pleasant or unpleasant.

“What stands out for me is the enthusiasm of all the people who participated in the move,” said Jim Shmerling, chief executive officer at the time of the move. “There was such emotion.”

For Children’s founders, the new hospital would have been a manifestation of their greatest dreams for the children of Colorado. From the grand atrium, with sunlight spilling onto its custom-designed tile mosaic, to its light-filled and colorful rooms and corridors, to its greenways, alcove gardens, and play areas, the 1.45-million-square-foot hospital welcomed every visitor with signs of hope and healing.
Packed up and ready to move to Children's on the Anschutz Medical Campus.
The book *Future Tense*, written about the hospital’s architects ZGF, described the new Children’s Hospital on the Anschutz Medical Campus: “The result reflects the thought given to all factors that can influence healing: color, texture, natural light, art, access to the outdoors and amenities ranging from hotel-like sleeping rooms for families to a teen center with a movie theater and gelato bar. The focal point of the building’s interior is a central atrium that serves as the hospital’s ‘living room.’”

Progress did not stop with the move to the new hospital. Physicians, nurses, and administration had barely settled in before leadership unveiled a slew of initiatives: pioneering one of the first electronic health record systems in the country, pushing for a dramatic increase in research activity, and aligning with community physicians with ambitions not just to reach into the region or across the country, but to effect change in children’s health around the world.

By 2009, The Children’s Hospital recorded an astounding 452,712 outpatient cases and almost 13,000 inpatient admissions. Average length of stay was less than seven days, and the hospital counted more than 80,000 total days of patient care. In early 2011, the hospital renamed itself Children’s Hospital Colorado so that it might be more familiar to those in other states and countries.

Children’s Hospital Colorado has progressed significantly since its conception in the alfalfa field of City Park. Gone are the tents and public gawking, replaced by healing designs and private rooms. The few determined voices of Children’s first advocates are now an extensive network of doctors, nurses, administrators, volunteers, donors, and legislators. Children’s Hospital Colorado no longer turns away contagious children, but accepts them into the open arms of world-class nurses and surgeons.
What remains unchanged is the ideology on which those first tents were pitched. Today, physicians treating Denver’s children are not so different from the city’s first pediatric surgeon, Dr. George Packard Jr., sharing his self-assured passion for improving children’s health.

The intentions of Denver’s first Women’s Club were no less noble than today’s community organizations. The Grassroots Advocacy Network and the Colorado Children’s Campaign, for example, lead a continuous revolution to treat children as meaningfully as adults.

Innovations from 1917 were just as cutting-edge as they are now. Then, ideas of sterile equipment, steam tables, and blanket warmers made just as much impact as the DaVinci™ Surgical Robot, “camera pill,” and stem-cell therapies available at today’s Children’s Hospital Colorado.

The Tammen family once donated an unprecedented $2 million in 1924 to heal children with solariums and warm-water pools. Today’s Foundation provides children with glass atriums and art therapy.

Children’s Hospital Colorado is an ever-expanding medical wonder built on the simple goal of providing a safe place for children to heal. Once a reactive hospital merely treating tonsillitis and indigestion, Children’s Hospital Colorado now leads in proactive child health care and pioneering standards for education, research, and treatment. From Dr. Packard to Cushman, Tammen, Butterfield, and Boettcher, treating children from all backgrounds and incomes, Children’s Hospital Colorado believes that curing sick children today secures a hopeful future for all.
In 1906, Children’s founder Dr. Love sought to purchase a building for a hospital to care for sick and disadvantaged children. Dr. Love approached Lawrence C. Phipps, a future senator from Colorado and prominent Denver citizen, for support.

After amassing a great fortune as an executive at Carnegie Steel, Phipps had moved west to Colorado. According to the Children’s first annual report, he responded to Dr. Love’s plea by selling his property at 2221 Downing Street to the hospital and included an endowment in the purchase price. The President’s Report from 1910 stated: “I must pause . . . to thank the former owner of the property for transferring to us, as part of the purchase price, an endowment of $5,000, the only obligation resting upon us being the agreement to maintain one free bed in our Hospital in the name of Dorothy C. and Helen C. Phipps.”

In the same report, the hospital’s secretary, Amelia A. Appel, wrote of the need for “a large, very large annual subscription list.” She stated a goal of $10,000 before 1911. According to Phipps family lore, Lawrence was influential in reaching that goal.

“He understood the community’s needs and shared his vision of what could be accomplished,” said Cris Goldy, great-grandson of Lawrence. “He supported The Children’s Hospital throughout his life.”
Lawrence C. Phipps was deeply interested in supporting landmark institutions in Colorado. He actively promoted Fitzsimons Army Hospital, built the auditorium wing of the Denver Museum of Nature and Science, and played a major role in the Moffat Tunnel project.

In 1952, Gerald H. “Gerry” Phipps, Lawrence’s son, founded Gerald H. Phipps, Inc., a construction company. By 2008, it had become GH Phipps. Throughout the decades, the GH Phipps touch has graced many expansions or remodeling projects at Children’s former hospital campus in central Denver. Most recently, the company partnered with McCarthy Building Companies Inc. to construct the new Children’s Hospital Colorado.

In the 1960s, Gerry and his brother, Alan, forever changed the fate of two Denver sports teams. At that time, the brothers were minority partners in Empire Sports, owner of the Denver Broncos and Denver Bears (a minor league baseball team). In 1965, the other partners seriously considered moving the franchises to another state. Upon learning this, Gerry and Alan successfully negotiated the buyout of the other partners of Empire Sports to guarantee that the franchises would stay in Denver. They did so under the belief that it was in the best interest of Colorado and Denver to retain these professional sports franchises.

More than 100 years after Lawrence’s initial donation to the hospital, GH Phipps Construction donated $1 million to the Imagine the Miracles campaign for The Children’s Hospital.

“Philanthropy was always emphasized in my family,” said Goldy, a senior project manager at GH Phipps Construction. “One of the things my grandfather used to say is something others say as well: ‘Of those to whom much is given, much is expected.’”

We feel truly honored to be a part of all that Children’s has become. It is a magical place that is very special to each and every one of us at Phipps. – Charlie Graft
Over the years, GH Phipps Construction gave much to Children’s in contributions of money and volunteer time and through its work as a general contractor on a multitude of hospital projects.

“GH Phipps Construction has done more than 80 construction jobs for The Children’s Hospital over the years, including helping to build the East Project in the mid-90s,” said Steve Winesett, president and chief executive officer of The Children’s Hospital Foundation.

“This employee-owned company is inextricably tied to the success of our hospital and to the Denver metropolitan area. GH Phipps Construction has always been a critical philanthropic partner with Children’s, and their support during our move to the new facilities was no exception. The $1 million gift was just one more clear example of this partnership.”

“I remember sitting with Dennis Brimhall, former president and CEO of University of Colorado Hospital, in Strings restaurant,” said Charlie Graft, chief executive officer of Phipps. “When he told me they were going to move to Fitzsimons, I said that I could see it becoming a National Institute of the West. I knew things were going to happen there.

“We feel truly honored to be a part of all that Children’s has become. It is a magical place that is very special to each and every one of us at Phipps.”
“The pediatric community is pretty special. These are people with a certain sensitivity to what a child experiences. You can feel a difference in this hospital.”

– Dori Biester, Ph.D.
Prominent women, led by Dr. Minnie C. T. Love, found a “tent hospital” at the corner of 18th Avenue and York Street at the edge of City Park in Denver. A small group of Denver women join together with a common vision of establishing a hospital for children.

The Children’s Hospital Association incorporates.

The Association elects its first Board of Directors.

Rooftop view of 17th Street in downtown Denver, Colorado, between 1892 and 1900.

A physician’s bag size and shape generally depended upon the type of medicine the physician practiced.
The Children’s Hospital opens its doors to its first patients on February 17, 1910, at 2221 Downing. Oca Cushman becomes superintendent.

1910

The first class of nurses graduates. The association purchases 12 lots for a new home at 19th and Downing.

1912

A gala summer fund-raising dinner succeeds in collecting funds toward the $250,000 needed for a new hospital, equipment, and endowment.

1915

The Children’s Hospital Association breaks ground on February 24, 1916, for its first building. It cost $182,170.

1916

Young patients move to the new hospital at 19th and Downing with room for 65 patients – and expansion space to accommodate 135. The extra space turns out to be timely, as a massive flu epidemic hits the Denver area.

1918

An early IQ test made by the C.H. Stoelting Company.
The Junior League of Denver adds $3,176.69 to The Children’s Hospital endowment.

Harry and Agnes Tammen donate $103,500 for a new orthopedic wing.

Harry Tammen dies and bequeaths half his estate ($2 million) to the hospital. “For a Child’s Sake” is engraved above the entrance of the new Tammen Wing.

Dr. George Packard Jr. performs the first pyloromyotomy—a type of stomach surgery—in Denver.

Dr. George Packard Jr.

Patients in recreation room, 1924.

This kit contains surgical dental tools from the early 1900s.
<table>
<thead>
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<th>Year</th>
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| 1931 | Children's completes the heliotherapy solarium on the roof of the hospital – a donation from Agnes Tammen.  
|      | The hospital hires its first pediatric nursing supervisor and initiates an eight-hour duty period for nurses.  
|      | With the acquisition of the property at 18th Avenue and Ogden Street, the hospital now owns the entire block, with the exception of a small plot. |
| 1932 | Children’s hires its first physical therapist.  
|      | The hospital admits more than 3,000 patients this year, with more than a third of them member charity cases.  
|      | The X-Ray Department opens. |
| 1936 | The hospital adds an addition to the Tammen Wing, which includes a large medical gymnasium, a salt-water pool, a hot pool, and a large warm-water pool. The addition increases the bed and crib capacity of 75 to 225.  
|      | Hydro-physiotherapy acknowledged as the finest department of its kind in the U.S. |
| 1937 | The hospital appoints DeMoss Taliaferro as its director and hires its first teacher of pediatrics to direct the residents’ program.  
|      | Agnes Tammen donates the hospital’s first “iron lung” machine, providing treatment for children who have trouble breathing. |
| 1938 | Hospital names Agnes Tammen honorary life president.  
| 1939 | A series of talks on the care of premature babies is held in Wyoming.  
|      | The hospital logs its first medical record. |

**Hydro-physiotherapy**

**Iron lung machine**

**Agnes Tammen**
The hospital completes the Boettcher School and opens it in September. Tonsillectomy is the hospital's most common surgical procedure in the 1940s.

1942

The hospital’s isolation unit is completed.

1946

The hospital treats its first patient with lymphatic leukemia. The Cerebral Palsy Clinic is organized. The general surgery residency, as a part of a combined program, begins with Dr. David Akers as the first resident.

1947

The Hospital develops a complete cerebral palsy department, thanks to a gift from Claude K. Boettcher. Dr. Ralph Verploeg is elected president of the medical staff.

1948

Hospital opens its speech therapy department. The Children’s Hospital Infant Surgery Ward opens, headed by Dr. George B. Packard Jr.

Boettcher School

Crutches for children with polio.

Audiology and speech therapy.

Stencil Design Test from the Psychological Corporation, 1947.
1950s

1952
Scottish Rite becomes involved with the speech department.

1953
The Children’s Hospital Research Foundation is established. Dr. John Grow performs the region’s first pediatric open-heart surgery.

1954
An atrial septal defect closure is performed for the first time. Dr. David Akers is the first Denver surgeon to devote his practice exclusively to children while working at The Children’s Hospital. He would serve as Chief of Surgery from 1958 to 1968.

1956
The Boettcher Evaluation Clinic opens, directed by Dr. Jean L. McMahan. The last class in Children’s Hospital Training School of Nurses graduates. The Oca Cushman Wing opens with 72,000 square feet of modern medical facilities, including new operating rooms and a recovery room.

DeMoss Taliaferro with Oca Cushman.
Dr. Seymour E. Wheelock is named chief of medical services. Pediatric cardiology begins.

1965

The hospital expands into psychiatric and psychological services to include treatment of the emotionally disturbed child.

1968

Founded under the direction of Dr. L. Joseph Butterfield, The Children's Hospital Newborn Center becomes an internationally recognized leader in the prevention and treatment of birth defects and for its expertise regarding low-birth-weight babies and premature births.

Colorado's first amputee ski school opens at Arapahoe Basin ski area, sponsored by The Children's Hospital. Men join the Board of Directors for the first time since 1915.

1969

The Pediatric Oncology Unit is established. The Children's Hospital is the only pediatric hospital in the region with a full-time anesthesiologist on staff.

A guide to administering fluids to patients.

Publications about the history of The Children's Hospital.
<table>
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<tr>
<th>Year</th>
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<td>1970s</td>
<td>The Board of Directors establishes a volunteer department. The first Burn Program in Colorado treats its first pediatric patients. Dr. James Todd discovers toxic shock syndrome. The Children's Hospital Foundation is formally established as a separate organization to raise and invest funds on behalf of The Children's Hospital. Pediatric congenital heart surgery program is established. The hospital establishes a regional cancer research center. A new and integrated intern and resident pediatric program is instituted at The Children's Hospital, Denver General, and Colorado General. Dr. C. Henry Kempe directs the opening of one of the country's first child-abuse identification, prevention, and treatment programs. The hospital breaks ground for a 130,000-square-foot addition. Mental Health Inpatient Unit opens. The average length of stay ranges from four to six weeks. Dr. James Todd discovers toxic shock syndrome. The Children's Hospital Foundation is formally established as a separate organization to raise and invest funds on behalf of The Children's Hospital.</td>
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First Courage Classic bicycle tour raises funds for the Foundation.

The hospital adopts a policy limiting the admission of patients who do not have the ability to pay for services or who do not qualify for any medical assistance programs.

The Children’s Hospital forms a parent corporation, Rocky Mountain Child Health Services, Inc. Construction begins of a rooftop helipad.

Dr. Myron Levin, a physician at The Children’s Hospital, completes research that leads to the pivotal trial of a new shingles vaccine.

Colorado becomes the first state to require newborn screening for cystic fibrosis.

First pediatric heart transplant is performed. Affiliation papers are signed with the University of Colorado School of Medicine.

Dr. Seymour Wheelock at a pancake breakfast, 1983.

Darin Weidert, first heart transplant patient.
1990s

1990

Affiliation with the University of Colorado School of Medicine is implemented.

1991

Children’s ranks among the nation’s top 10 children’s hospitals according to U.S. News & World Report and Child magazine.

1993

Pulmonary hypertension program begins path to national prominence.

1994

Children’s physician Dr. Harley Rotbart patents the first rapid molecular test for the diagnosis of human enterovirus infections, the leading cause of childhood meningitis, summer colds and flu, and a leading cause of serious heart infections.

1997

The first two endowed chairs are established: the Rose Brown Chair in Pediatric Orthopedics and the L. Joseph Butterfield Chair in Pediatrics. A living individual donates the first million-dollar gift (made anonymously). The Children’s Hospital becomes one of the first pediatric hospitals to establish a Pediatric Clinical Trials Organization to facilitate the study of new therapies in children.

1999

The FDA approves the use of inhaled nitric oxide in newborns for the treatment of pulmonary disease, a treatment pioneered at Children’s in 1990. Colorado’s only clinical gait laboratory opens at Children’s.

Kinesiologist Nancy Denniston with a patient in Children’s gait lab.

Dr. Frank Accurso with pulmonology patients.

2000s

2001
The Children’s Hospital becomes a Children’s Miracle Network member hospital.

2002
Cardiac Intensive Care Unit is created.

2003
The hospital forms its Heart Institute. Children’s physician Dr. Lia Gore co-founds the Pediatric Oncology Experimental Therapeutics Investigators’ Consortium (POETIC) to develop novel therapies for children, adolescents, and young adults with cancer.

2005
Children’s achieves the prestigious Magnet Status designation for nursing excellence. Dr. David Akers dies and leaves his entire estate to the hospital to fund the first endowed chair in the Department of Pediatric Surgery.

2007
Children’s makes the transition to a fully integrated electronic health record system, the first freestanding pediatric facility in the nation to do so. Move is made to a state-of-the-art, 1.45-million-square-foot main hospital at I-225 and East Colfax Avenue. The Children’s Hospital expands in the Denver metro area through its Network of Care.

2008
Children’s celebrates its 100th birthday. Dr. Ronald J. Sokol at The Children’s Hospital plays a key role in the awarding of a $76 million Clinical and Translation Science Award (CTSA) grant from the NIH to support research and training on the Anschutz Medical Campus. It is the largest research grant in Colorado history.

2009
Children’s ranks fifth on the U.S. News & World Report Best Children’s Hospital’s 2011–12 Honor Roll.

2011
The hospital changes its name to Children’s Hospital Colorado. Children’s ranks fifth on the U.S. News & World Report Best Children’s Hospital’s 2011–12 Honor Roll. The American Nurses Association re-designates Children’s Hospital Colorado as a Magnet Hospital.
Special Thanks

If only there were enough pages to name every nurse, physician, volunteer, community member, or administrator whose contributions made Children’s Hospital Colorado what it is today. For those whose stories did not appear in these pages, know that your influence is forever instilled in the spirit of this bright and hopeful institution. Know that you have shaped the story of Children’s, that in one way or another you have changed at least one young life.

We owe many thanks to the book’s sponsors, GH Phipps and ZGF Architects, for their generous donation and contributions to sections of the book. It is philanthropists like you who remind us of the meaning of community support. Thank you to Pete Eckert and ZGF for allowing us to use his gorgeous photos in this book.

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Works Consulted


School of Nursing Register. Denver: The Children’s Hospital Association, 1912.


