### BAYLOR COLLEGE OF MEDICINE AND TEXAS CHILDREN'S HOSPITAL

### PEDIATRIC EMERGENCY MEDICINE



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Childrent

Baylor <sup>College of</sup> Medicine

### **Texas Children's** Introduction

Texas Children's mission is to create a healthier future for children and women throughout the global community by leading in patient care, education, and research.

> Think Differently, Lead Differently Think Differently Think Differently Control Contro

People, Diversity . Equity and Inclusion

> Quality Service and Safety

**MISSION Create a healthier** 

future for children Customer Obsession and women

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Research and Academics

**Core Values Embrace Freedom** Lead Tirelessly Live Compassionately **Amplify Unity** 

Mission Extension

# **Texas Children's Introduction**

#### FOUNDING AND GROWTH

Since opening its doors in 1954 in a three-story building with 106 beds and 4,558 patient visits, Texas Children's has grown to become the nation's largest pediatric health system and one of the most comprehensive destinations in the world for patient care.

Texas Children's Hospital (TCH) offers the highest quality inpatient, emergency, rehabilitative, and subspecialty services, as well as outpatient clinical care across Texas. The system's robust network includes three hospitals across Greater Houston and also includes Texas Children's Pediatrics, the largest pediatric primary care network in the country, and specialty care centers throughout Houston and Austin. In February 2024, Texas Children's expanded its reach with a new hospital location opening in Austin. Additionally Texas Children's Health Plan, the nation's first HMO for children, has approximately 600,000 members. With over 900 beds and more than 15,000 faculty and staff across its hospitals and community locations, the system provides pediatric and women's healthcare services on a large scale

### In 2022, Texas Children's had approximately:





## **Division of Pediatric Emergency Medicine**

#### **OVERVIEW**

The Division of Pediatric Emergency Medicine's vision and mission is to optimize health outcomes for all acutely ill and injured children and excel in family-centered care, education, research, and innovation, with a commitment to service and quality that enhances the health and well-being of children needing emergency care.

The Division of Pediatric Emergency Medicine, one of the largest in the nation, consists of approximately 70 Pediatric Emergency Medicine fellowship-trained physicians, five general pediatricians, 18 pediatric emergency medicine fellows and two additional global health and point-of-care ultrasound fellows. Additionally, there are 18 advanced practice providers and over 30 emergency physicians from the Department of Emergency Medicine at Baylor who are credentialed to work at Texas Children's to provide emergency care for patients. Collectively, approximately 180,000 patients in the Houston metropolitan area are seen annually across the system's four current clinical sites.

Many pediatric emergency medicine faculty possess or are pursuing advanced certifications and degrees in business, education, clinical research, public health, simulation, and quality. Several faculty members hold critical leadership positions or roles within state and national organizations, including the Governor's EMS and Trauma Advisory Council, Children's Hospital Association, American Academy of Pediatrics, American Red Cross, and American Board of Pediatrics.

## **Division of Pediatric Emergency Medicine** (continued)

#### **CLINICAL OPERATIONS**

As a level 1 trauma center in a quaternary hospital and the largest pediatric emergency center in South Central Texas, the emergency center at the Texas Medical Center has 42 rooms and 2 resuscitation beds, a dedicated sexual assault room, and a specialized isolation room and has approximately 70,000 visits per year.

Additionally, the West Campus and The Woodland's emergency centers house level 4 trauma centers that each have approximately 55,000 visits per year. Each campus has more than 20 beds to treat patients who visit their emergency centers. The emergency center at the North Austin campus, that opened in February 2024, has 11 beds. Renovation is underway for the EXPANSION of the Emergency Center at the Medical Center Campus.

As part of an overall assessment of clinical care delivery systems' infrastructure, in conjunction with Texas Children's administration, the Department of Pediatrics and Emergency Center have been intently focused on renovating and expanding facilities to accommodate the rapidly rising need in the community for emergency medicine services.

In fact, a major renovation of West Tower One at the Medical Center campus is now underway for an Emergency Center expansion to 64 treatment rooms with a targeted completion in three to five years.

#### EDUCATION

The Division of Pediatric Emergency Medicine offers three fellowships.

**Pediatric Emergency Medicine Fellowship:** Established in 1992, Texas Children's and Baylor's accredited Pediatric Emergency Medicine fellowship is one of the largest and most highly competitive programs in the country and currently has 18 fellows. The three-year fellowship provides fellows with the opportunity to build skills in the following areas: evaluation and care for pediatric patients in the emergency center, teaching, research, administration, and quality and performance improvement.

**Pediatric Emergency Medicine - Global Health Fellowship:** The Pediatric Emergency Medicine - Global Health Fellowship was established in 2005 in response to growing interest in global health and international emergency medicine among applicants applying to the pediatric emergency medicine fellowship program. This program is the first combined fellowship of its kind in the United States. It offers one of the few specialized tracks in global health and provides fellows the opportunity to receive extensive exposure and training in quality, medical education, research, point-of-care ultrasound, emergency medical services, disaster medicine, informatics, child abuse, simulation, community emergency medicine, trauma, hospital administration, customer service, and advocacy.

**Pediatric Point-Of-Care Ultrasound (POCUS) Fellowship:** The POCUS Fellowship was established in 2015 and is the only pediatric POCUS fellowship in the South. The one-year fellowship helps fellows gain expertise in ultrasound image acquisition and interpretation, develop research and administrative experience, and integrate ultrasound skills with clinical practice to become a leader in the field of pediatric point-of-care ultrasound.

## **Division of Pediatric Emergency Medicine** (continued)

#### RESEARCH

Within the Division of Pediatric Emergency Medicine, funded research efforts include prehospital care, simulation medicine, global health, and emergency care.

BCM faculty are involved in local, regional, and national projects for prehospital care, including the Houston Fire Department and the CHaMP prehospital node of the Pediatric Emergency Care Applied Research Network. In addition, the <u>Texas Emergency Medical Services for Children State Partnership</u> has been housed at BCM for the last decade.

Many pediatric emergencies are low-frequency, high-risk events, resulting in scenarios that are well suited to simulation medicine. The Medical Director of the <u>Texas Children's Hospital Simulation Center</u>, who is a member of the PEM Division, is nationally and internationally recognized as an expert in simulation medicine.

The PEM Division has a long-standing history of involvement with global health clinical care and research at several <u>Baylor International Pediatric AIDS Initiative</u> sites in sub-Saharan Africa, as well as work in Latin America. Sustainable, bidirectional care has been implemented at sites to improve the emergency care of ill and injured children.

PEM faculty are involved in two of the seven nodes within the <u>Pediatric Emergency Care Applied Research</u> <u>Network (PECARN)</u>. Recent projects have included optimal treatment of benzodiazepine-refractory status epilepticus, optimal rate of fluid administration for the reversal of diabetic ketoacidosis, tools to identify adolescents with suicidal ideation and at risk for substance use and abuse, and the creation clinical decision rules to identify febrile neonates at low risk for bacteremia and meningitis. Current studies involve creation of decision rules to identify children with cervical spine injuries (to guide imaging studies), headaches (to identify factors associated with emergent intracranial findings on neuroimaging), pulmonary embolism, and sexually transmitted infections using patient-reported risk factors. In addition, PEM faculty are evaluating optimal fluid resuscitation in children with suspected sepsis.

PEM faculty are heavily involved in the <u>Pediatric Emergency Medicine Collaborative Research Committee</u> of the American Academy of Pediatrics' Division on Emergency Medicine and in the <u>Pediatric Emergency Research</u> <u>Network</u>, a global network of networks.

Notable and ongoing PEM Division Research Studies include:

- PECARN: C-spine prediction, Arginine for sickle cell VOC, Identification of pulmonary emboli, Febrile baby study, Screening for sexually transmitted infections in the ED, Infections in solid organ transplant recipients, Interobserver agreement in historical and examination variables for headaches, and PROMPT Bolus optimal fluid management (NS vs LR) for sepsis.
- PEM CRC: Submersion, IBIs in acute otitis media, HUS, HSV, Omphalitis/mastitis, Short-gut and CLABSI, Utility of neuroimaging for children with psychosis, Survey competition (quarterly).
- INDUSTRY: New drug for sickle cell VOC, Bluetooth monitoring of vital signs, New diagnostic platforms for rapid strep, Salivary biomarkers for traumatic brain injury, Pneumococcal urinary antigen, and Novel biomarkers for respiratory tract infections.

## **Division of Pediatric Emergency Medicine** (continued)

#### PEM Division Research Funding 2018-2028

Research funding within the PEM Division is extensive, including sixteen grants led by eight Pls/site Pls with **> \$25 million** in funding through various means to include:

- Health Resources & Services Administration (HRSA)
- National Institutes of Health
- National Heart, Lung, and Blood Institute
- HRSA-Maternal & Child Health
- National Institute of Neurological Disorders and Stroke
- American Academy of Pediatrics
- National Institute of Child Health and Human Development
- Consumer Product Safety Commissions

#### **PEM Division Publications**

Baylor/PEM faculty continue to strive and contribute to the highest standards of academic and scholarly activity by publishing and presenting across the United States and abroad.



#### 2012-2022

# **Organizational Structure**

The Chief will oversee all clinical care, research, education, operations, and administration, as well as quality and safety activities for the Division of Pediatric Emergency Medicine. They will interface closely with the Baylor College of Medicine and will be responsible for the overall scholarship for the Division, including appointments and promotions for all faculty and trainees.

Directly accountable to the Chief are several leaders designated to strengthen links between clinical operations, research, and educational innovations in concert with administrative leadership, thereby enhancing Division communications and collaborations. The current Division leadership team includes:

- Associate Division Chief, Education
- Associate Division Chief, Clinical Operations, Quality & Safety
- Associate Division Chief, Research
- Associate Division Chief, Clinical Operations Austin



# **Organizational Structure (continued)**

#### TEXAS CHILDREN'S DIVISION OF PEDIATRIC EMERGENCY MEDICINE



# **Texas Children's Overview**

#### HOSPITALS AND LOCATIONS

### **Texas Medical Center**

<u>Texas Medical Center</u> is the largest medical complex in the world and houses the primary campus of the Texas Children's Hospital system. Beginning with one building, the campus has expanded over the years to include numerous facilities, including the:

- Lester and Sue Smith Legacy Tower: Home for the Texas Children's Heart Center, Intensive Care, and Surgery.
- WallaceTower: Houses most of Texas Children's Hospital outpatient clinics.
- West Tower: Home to patient care services, including the Emergency Center, Newborn Intensive Care Unit (NICU), and the Gastroenterology and GI Surgery Center.
- Jan and Dan Duncan Neurological Research Institute: This building is designed to foster a multidisciplinary, collaborative environment that facilitates fundamental discoveries in neuroscience, with the ultimate goal of translating them to therapies for many incurable neurological and neurodegenerative conditions.
- Texas Children's Pavilion for Women: This tower is dedicated to obstetrics, gynecology, and fetal intervention, embracing women throughout the spectrum of their healthcare from birth to menopause. Specialties offered at the Pavilion for Women include pelvic medicine and reconstructive surgery, menopause treatment, maternal- fetal medicine care, the Texas Children's Fetal Center, reproductive psychiatry, reproductive endocrinology and infertility, and minimally invasive gynecology surgery. With a level IV neonatal intensive care unit (NICU), the facility is equipped with the proper technology and specialized staff needed to give mothers and babies the best care in any situation. On August 7, 2023, Texas Children's announced the opening of its newest medical tower, Pavilion for Women Tower II, a \$245 million expansion connecting the original facility with women's outpatient clinics.
- FeiginTower: Texas Children's hub for pediatric research. The 20-story building allows researchers to intensify their research in areas of fundamental importance in microbiology, immunology, cell biology, and sciences of infection and inflammation.
- Abercrombie Building: The original Texas Children's building at the Medical Center campus and is currently home to Pathology, Auxiliary and Volunteer Services, International Services, Medical Staff Services, and Security Services.

### West Campus

Texas Children's Hospital West Campus is Houston's first suburban hospital designed exclusively for children. With its serene, park-like setting, bright and inviting spaces, playrooms on every floor and medical equipment created for children's needs, the entire facility has been designed with kids and families in mind. The hospital offers expert pediatric outpatient services, inpatient care, and surgical services and has an emergency center with 26 beds.





#### HOSPITALS AND LOCATIONS (CONTINUED)

### The Woodlands

Texas Children's Hospital The Woodlands is the first true free-standing pediatric hospital serving families in the Woodlands and communities north of Houston with the passion and dedication that the entire hospital system is known for. From asthma and allergies to sports medicine and speech therapy, the hospital provides more than 20 specialty clinics. The Woodlands outpatient building includes 72 exam rooms, and the inpatient building features the area's only dedicated pediatric emergency center, with 25 patient rooms, 32 acute care beds, 4 operating rooms, 12 radiology suites, and 28 critical care rooms.





#### Austin

Texas Children's currently serves Austin families with more than 20 locations across the city, offering pediatric, urgent care and specialty care services. To broaden its reach, the system opened

Texas Children's Hospital North Austin, a hospital and outpatient facility, in February 2024. The 365,000-square-foot main hospital will have 52 beds and deliver state-of-the-art, top-tier care for children and women, including specialized pediatric care and community maternal fetal medicine services for the north central Texas community. The adjacent 170,000-square-foot outpatient facility will provide added value by directly connecting patients and their families to Texas Children's many subspecialties, including cardiology, oncology, neurology, pulmonology, gastroenterology, rheumatology, fetal care, dialysis, and more.

Please visit the <u>Maps and Directions page</u> to explore Texas Children's many locations across the state in greater detail.



#### **GLOBAL IMPACT**

Texas Children's impact is felt around the globe through its <u>Global Health</u> <u>Network</u>. The institution's team members share their medical expertise, resources, and care with local, national, and global communities. From Houston to Austin, to 18 countries and counting – Texas Children's is bringing life-changing care to people everywhere and treating more than 360,000 patients overseas for a wide range of medical needs.



#### **EDUCATION AND TRAINING**

The Texas Children's Hospital Medical Center campus is the primary teaching hospital for Baylor College of Medicine, which offers a variety of multidisciplinary programs. Through this affiliation, medical school students, including nursing, doctoral, and physician candidates, learn from and shadow Texas Children's clinicians and scientists throughout their programs. In fact, Texas Children's provides medical care across more than 40 pediatric subspecialties, allowing a rich learning environment for Baylor's medical students, residents, and fellows. The hospital also serves as a primary referral site for some of the world's most challenging pediatric patients, providing Baylor learners an opportunity to routinely care for patients with conditions rarely seen in most training programs.

To read more about the Texas Children's/Baylor affiliation, see page 23.



#### RESEARCH

<u>Texas Children's Research</u> yields innovation and breakthrough developments in the treatment of a variety of pediatric health conditions across nearly all disciplines. The institution's four state-of-the-art <u>Research Centers</u> create a hub of top pediatric clinical care, working in concert with the world's leading scientists to provide solutions in the United States and abroad.

Research at Texas Children's Hospital spans more than 800 active clinical trials with one of the largest and most diverse pediatric patient populations in the country. With funding of more than \$115 million annually, over 120 Texas Children's and Baylor College of Medicine principal investigators are conducting over 1,000 clinical, basic science, and translational research projects at any given moment.

#### STRATEGIC PATH FORWARD

Texas Children's strategic plan aims to establish itself as the system of choice for children, women, faculty, and staff and become the undisputed global leader in pediatric and women's health.

Please see details in the Texas Children's 2022-2026 Strategic Plan.

#### **DIVERSITY, EQUITY, AND INCLUSION**

Texas Children's was founded to serve all children – regardless of race, religion, creed, or ability to pay. From the beginning, Jim Abercrombie and Leopold Meyer set this clear intention as the guiding principle of Texas Children's.

Texas Children's culture is based on equity, inclusivity, love, and compassion. The institution wants to create an environment where all voices are heard, understood, and respected – a place where team members feel a sense of ownership in the actions and the outcomes they create. By living out each of the core values, Texas Children's continually strengthens the already-strong culture in place. It's here that challenges are transformed into opportunities that will make a difference.

Learn more about Texas Children's commitment to Diversity, Equity, and Inclusion.



#### RECOGNITION

Texas Children's is honored to once again be named a leader in pediatric healthcare by <u>U.S. News & World</u> <u>Report</u>, ranking No. 1 in Texas and No. 3 nationally in its 2023-2024 Best Children's Hospitals report.

This recognition starts and ends with the organization's teams offering the best care imaginable. In addition to its overall national ranking, Texas Children's was recently ranked in the top ten for the following specialties:



In 2023, Texas Children's received Magnet® Designation for Nursing Excellence for the fifth consecutive time since 2003. The honor awarded by the American Nurses Credentialing Center (ANCC) acknowledges the steadfast commitment to nursing excellence and innovation of select healthcare organizations and their personnel. Texas Children's Hospital is now among less than one percent of U.S. hospitals to have sustained the designation for this duration. Awarded every four years, the designation reflects Texas Children's ongoing commitment to providing quality patient care and advancing nursing practice.

Additionally, Texas Children's has achieved HIMSS Stage 7 designation for Inpatient and Ambulatory across the system, which demonstrates the organization's successful implementation of healthcare information technology to address quality initiatives and improve the delivery of patient care, efficiency, and safety. In 2019, only seven percent of hospitals in the U.S. achieved Stage 7 designation.







# **Baylor College of Medicine**

#### AFFILIATION BETWEEN TEXAS CHILDREN'S AND BAYLOR COLLEGE OF MEDICINE

Since opening its doors, Texas Children's Hospital has been affiliated with <u>Baylor College of Medicine</u> in the areas of pediatrics, pediatric surgery, and obstetrics and gynecology to promote healthier mothers and children. Fulltime physicians at Texas Children's are members of the Baylor College of Medicine faculty. In addition to providing expert care across the full range of pediatric subspecialties, Baylor faculty direct centers and services that include Texas Children's Pavilion for Women, Texas Children's Emergency Center, pediatric surgery suites, a Pediatric Intensive Care Unit, a Cardiac Intensive Care Unit, a Neonatal Intensive Care Unit, and the Texas Children's Cancer Center. The Texas Children's/Baylor College of Medicine partnership celebrates close collaboration in educating health providers and scientists.

In February 2013, the pediatric faculty of <u>CHRISTUS Children's</u> (formerly The Children's Hospital of San Antonio) joined Baylor College of Medicine. Texas Children's worked with CHRISTUS Children's to ensure that the children of San Antonio and South Texas have access to world-class pediatric care.

Ranked by U.S. News and World Report as one of the nation's top 25 medical schools for research, Baylor College of Medicine is known for advancing the health of women, children, and families through scientific discovery.

Baylor College of Medicine is a RESEARCH POWERHOUSE, receiving \$651 million in total funding from 2,990 sponsored project awards in FY2022.



## Department of Pediatrics at Baylor College of Medicine

The Department of Pediatrics, one of the nation's largest, most diverse, and most successful pediatric programs, plays a preeminent role in providing the highest quality comprehensive pediatric healthcare, research and education available. The Department is comprised of <u>Clinical Divisions and Centers/Labs</u> (40+) providing expert care across the full range of pediatric subspecialties as well as clinical, translational, and basic science research and related endeavors. The Department's superior programs of instruction for medical students and residents advance specialty knowledge in the medical sciences, particularly as it relates to the health problems of children, therefore maintaining its role as a major contributor to research training and scientific activities that enhance the health of children everywhere.

#### **SPOTLIGHT ON THE DEPARTMENT OF PEDIATRICS (2022)**

#### **BY THE NUMBERS**

- One of the largest, most diverse departments of pediatrics in the United States
- **No. 6** rank for Pediatrics in National Institutes of Health funding by Blue Ridge Institute for Medical Research

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- No. 7 rank on U.S. News & World Report's Best Pediatrics Programs list
- 1,586 full-time, part-time, secondary, and voluntary faculty
- 273 clinical and research postdoctoral fellows and 157 pediatric residents
- **1,142** U.S. applications for 34 slots in pediatric categorical residency program
- **2,783** journal articles, chapters or books written or edited
- \$142 million in total research funding
- **\$17.6** million in gifts and contributions from individuals and foundations

Please see the Department of Pediatrics' <u>2022 Annual Report</u> for further details

### **About Houston**



A dynamic, multicultural city, Houston is the fourth largest city in the United States and home to a thriving blend of ethnic populations. Houston's hospitality, affordable cost of living, cultural amenities, world-class restaurants, and healthy economy make the city an exceptional place to live and visit.

Houston boasts a vibrant student and research community, which is supported by numerous major universities and corporations. Texas Children's Hospital and Baylor College of Medicine join numerous institutions of higher learning, all engaged in cutting-edge scientific and medical research. Over 49 institutions are located within walking distance of each other in and around the world-famous Texas Medical Center.

Houston's multifaceted economic center includes internationally known core businesses in energy, shipping, education, and medicine, among countless others. An international port and business center, Houston also serves as the touchstone for our national space program.

Locals enjoy Hermann Park, a 445-acre park and garden center in Houston. Hermann Park conjoins Houston's Museum District, home to 11 top-ranked museums. The Museum District features the Houston Museum of Natural Science, the Houston Garden Center, Miller Outdoor Theatre, and the Houston Zoo. Houston's downtown Theater District houses eight world-class performing arts organizations, including the Houston Grand Opera, the Houston Symphony, and the Houston Ballet.

Houston offers a wide variety of options when it comes to neighborhoods and housing. Between downtown city living, suburban neighborhoods, master-planned communities and more, there is an option for everyone. Additionally, Houston is an epicenter for professional sports. Sports enthusiasts can enjoy the Houston Texans, the Houston Rockets, the Astros, and the Houston Dynamo. Athletes from these teams may be spotted visiting Texas Children's Hospital often.