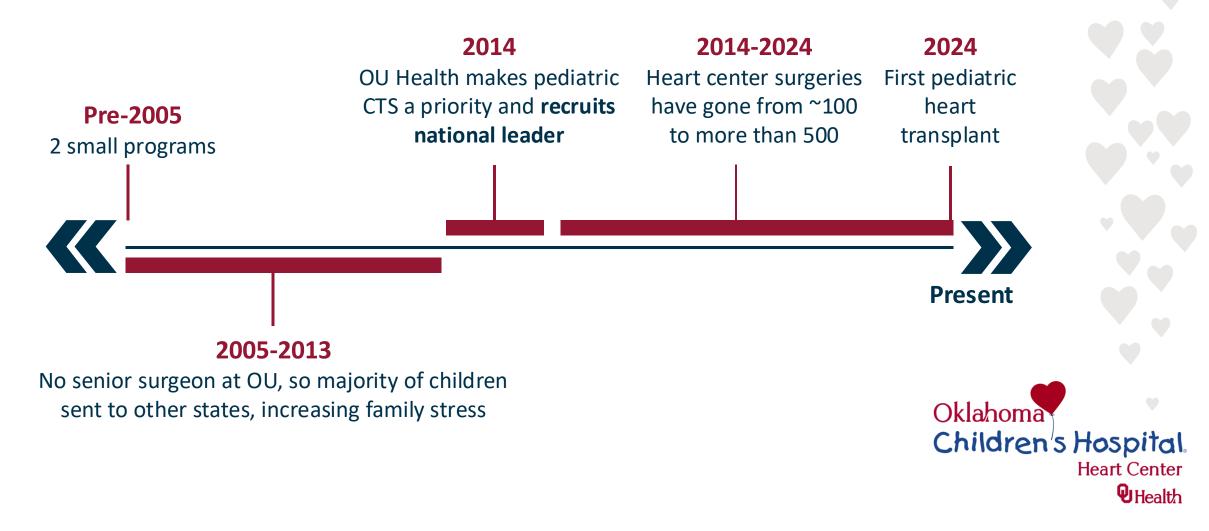
## Oklahoma Children's Hospital @Health

#### Oklahoma Children's Hospital Heart Center Project

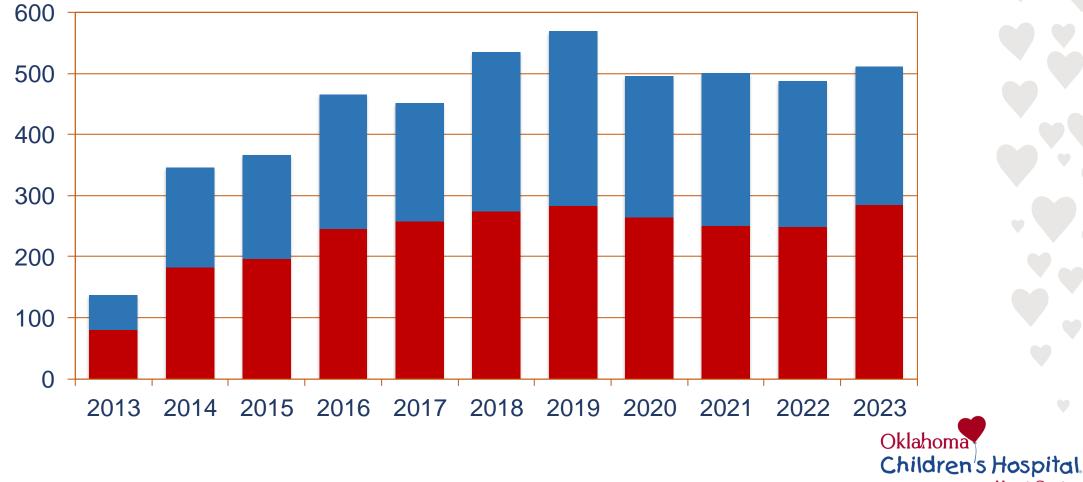


#### **History of Pediatric Heart Surgery in OK**

Investment generated massive growth in pediatric heart surgeries

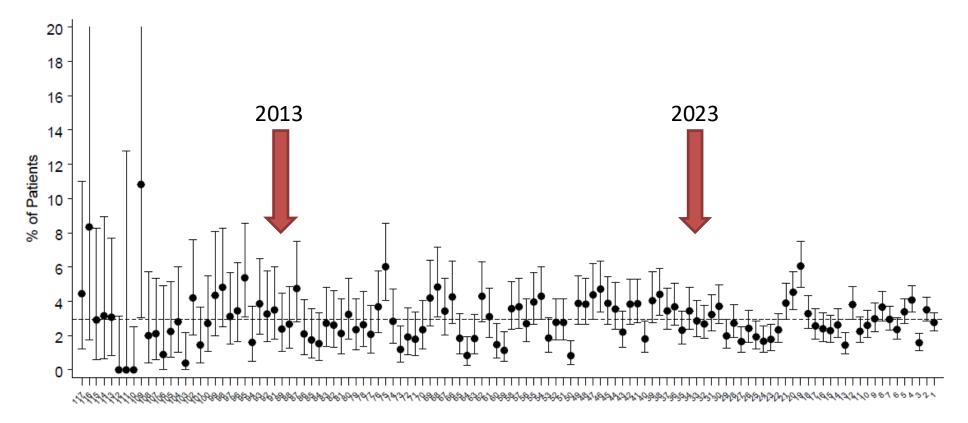


#### **Surgical volume**



Heart Center **Q** Health

#### **STS national volumes**



Participant



## **Surgical results** 2023

- 512 cases
  - 285 CPB cases
  - 30% neonates
  - 2/3 < than 1 yr

- Mortality
  - 2.20% observed
  - 4.11% expected

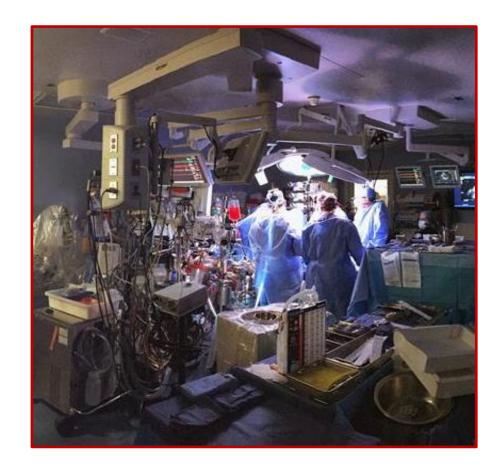
Oklahoma

- 1.42% AMR
- STS 2.66%



#### **OCH Heart Center**

- 7 > 17 Pediatric cardiologists
   9 CICU Intensivists
   3 Anesthesiologists
   9 OR nurses
- Tulsa closed surgical program
- 25 bed CICU
- Cardiac transplantation



## **CTS research**

#### Autologous stem cell therapy for hypoplastic left heart syndrome: Safety and feasibility of intraoperative intramyocardial injections

UCB Collection UCB Processing UCB Processing UCB-MNC Delivery UCB-MNC Delivery

Harold M. Burkhart, MD,<sup>a</sup> Muhammad Yasir Qureshi, MBBS,<sup>b</sup> Joseph W. Rossano, MD,<sup>c</sup> Susana Cantero Peral, MD,<sup>d</sup> Patrick W. O'Leary, MD,<sup>b</sup> Matthew Hathcock, MS,<sup>e</sup> Walter Kremers, PhD,<sup>e</sup> and Timothy J. Nelson, MD, PhD,<sup>b,d,f,g</sup> the Wanek HLHS Consortium Clinical Pipeline\*

#### A pilot investigation of the tricuspid valve annulus in newborns with hypoplastic left heart syndrome

Colton J. Ross, MS,<sup>a</sup> Elizabeth J. Trimble, MD,<sup>b</sup> Emily L. Johnson, PhD,<sup>c</sup> Ryan Baumwart, DVM,<sup>d</sup> Matthew A. Jolley, MD,<sup>e</sup> Arshid Mir, MD,<sup>f</sup> Harold M. Burkhart, MD,<sup>b</sup> and Chung-Hao Lee, PhD<sup>a,g</sup>



#### **Pediatric Heart Transplant in Oklahoma**

Over the past decade, an average of five Oklahoma children have had to travel out of state for heart transplants every year.

In Feb. 2024, OU Health received UNOS approval to list our first pediatric heart transplant on the national waiting list.

Patients can now receive this high level of care within the state.





#### **1<sup>st</sup> Pediatric Heart Transplant in Decades**

10-month-old Parker Helmerich was born with critical pulmonary stenosis, a congenital heart defect. He spent ~300 days in the pediatric cardiac ICU of Oklahoma Children's Hospital awaiting a new heart.

In Oct. 2024, a multidisciplinary team of more than 20 OU Health physicians, nurses and experts successfully completed the transplant.

Parker's parents shared their joy with a simple phrase, "There's an angel in heaven who left their heart for me."







#### **OCH Heart Center**

- Top 50 pediatric cardiac programs in the country
- National attention for our commitment to outstanding care for the cardiac children of Oklahoma



#### **US News & WR Ranking**

- 50% score based on surgical and transplant results

   OU Oklahoma Children's Hospital had no transplants
   during the time of this ranking.
- Survival after congenital heart surgery
  - -Oklahoma Children's Hospital 5/5, Very High Survival
  - -Only **9 programs** received this high of survival out of the **125 programs** in the country.
  - -No program in the region received this ranking.

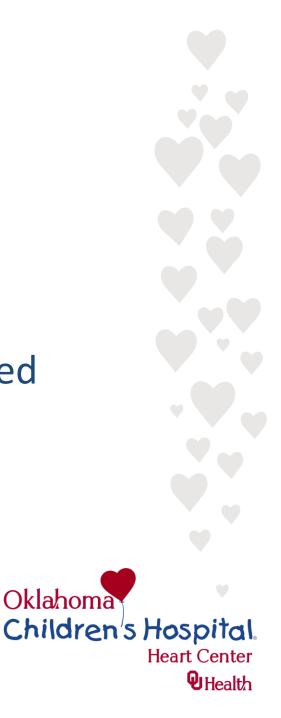


# **US News Regional**

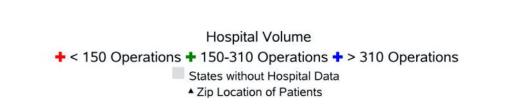
	Rank
Children's Medical Center Dallas UTSW	35
Oklahoma Children's Hospital OU Health	37
SSM Health Cardinal Glennon St Louis	39
Children's Mercy Kansas City	43
Arkansas Children's Hospital	45
Cook Children's Medical Center Fort Worth	NR
Medical City Children's Hospital Dallas	NR
St Louis Children's Hospital Washington University	NR

Regionalization of congenital cardiac surgery

- Recent media attention: UNC, All Children's Fla, and UK
- 1990s Bristol England: high mortality, NHS reduced programs from 11 to 7, minimum 500 cases/yr
- Higher volumes, better outcomes, less cost
- Ideal center USA: >300 cases/yr, 2 or more surgeons, dedicated cardiac ICU, 4M population Oklahoma



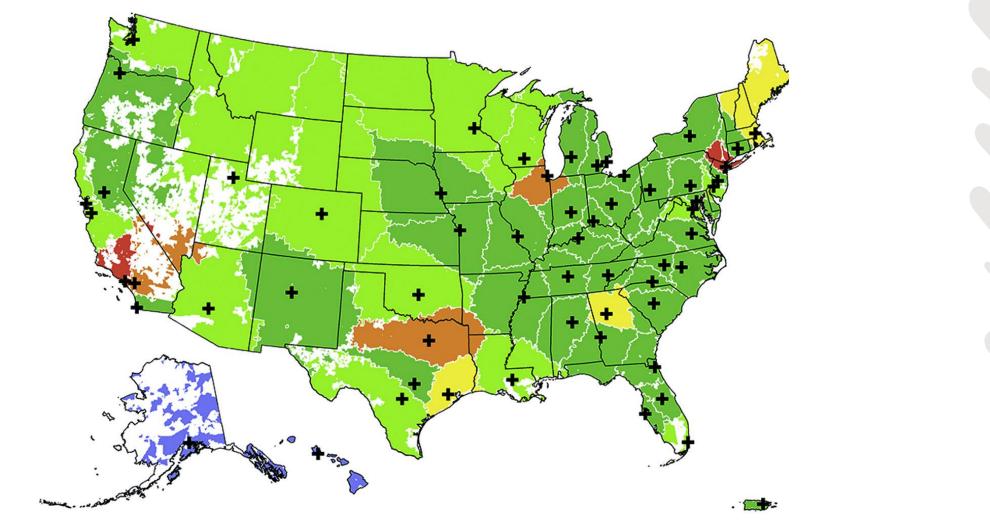
#### Regionalization



#### Welke et al, Sem in Thor Surg. 2019

. . .

## Regionalization



Welke et al, Ann Thor Surg. 2021

### **OCH pediatric CTS**

#### What's next...

- We have established ourselves as the CTS program for the state
- Growing with transplant, adult congenital, and improved survival of single ventricle pts
- Currently have patients on 5 different units (6)
- OCH needs space for several areas of growth
- We have to plan now



#### OCH pediatric CTS Heart Center

- All cardiac care in one place, ease of navigation, patient/family satisfaction
- All physician and hospital staff expertise together
- All focused on improving quality and outcomes
- OCH gains 25 ICU beds, 15 NICU beds, 15 floor beds, 2 ORs and interventional suite



#### **What Really Matters - Amelia**



oklahoma.childrens ·	Fol	low	
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oklahoma.childrens Meet our June Kid with Heart ♥ — Amelia, who has been at Oklahoma Children's Hospital OU Health Heart Center since she was just 6 days old and was postnatally diagnosed with hypoplastic left heart syndrome. She recently underwent her second open heart surgery with pediatric cardiothoracic surgeon Harold Burkhart, M.D., and she did great! Her family is thrilled to welcome her back home soon! 12w

joni.vaughan.31 This is the perfect shirt for this sweet angel. She has an Army of loving family, friends and medical providers to support her through this journey. 🖤 🍹 12w Reply

faithhelmerich 🤎 🤎 💜

12w Reply

riley.e.metzger The strongest girl I know

12w Reply

208

Liked by carriebforokc and 371 others
 June 27

...

C

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#### PHASE 1:

LEVEL 01 LOBBY / PATIENT SUPPORT LEVEL 02 NICU (15 BEDS) / PICU (15 BEDS- SHELLED) LEVEL 03 SURGERY / CATH/ IMAGING LEVEL 04 CVICU (15 BEDS) LEVEL 05 CVICU (15 BEDS) LEVEL 06 - LEVEL 08 SHELLED

#### PHASE 2:

LEVEL 01 DIAGNOSTIC IMAGING PRE ANES. TESTING CLINIC / HEART CLINIC LEVEL 02 PICU (15 BEDS) LEVEL 06 MED/SURG UNIT (15 BEDS)

#### PHASE 3:

LEVEL 07 MED/SURG UNIT (15 BEDS) LEVEL 08 OFFICE & RESEARCH

#### PHASE 4:

LEVEL 09 - 10 EVALUATE CLINIC NEEDS BUILD UP TO ACCOMIDATE GROWTH



## **Estimated Project Budget**

Project Element	Estimate
Construction (200,500 sq ft at \$800/sq ft.)	\$160,400,000
Furniture, Fixtures & Equipment	\$30,075,000
Soft Costs (Design, Preconstruction, Commissioning, Permits, etc.)	\$48,000,000
Construction Cost Escalation	\$19,300,000
Contingency (15%)	\$36,225,000
Total	\$294,000,000



\*Design process will be necessary to truly estimate project budget. This is an estimate based on square footage.

# **Proposed Funding**

Funding Sources	Estimates
Bond Issue or Appropriations via UHAT	\$250,000,000
OU Health & Philanthropy	\$44,000,000
Total Funding	\$294,000,000



# Thank You

