



Stanford
Children's Health

Lucy Packard
Children's Hospital
Stanford

Specialty and Subspecialty Shortage and How it Affects

Strategy

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A photograph of two young children lying on a patterned blanket, laughing joyfully. The child in the foreground is wearing a blue and red plaid shirt, while the child behind them is wearing a pink top. The background is a light-colored wall.

About Us: Stanford Children's Health

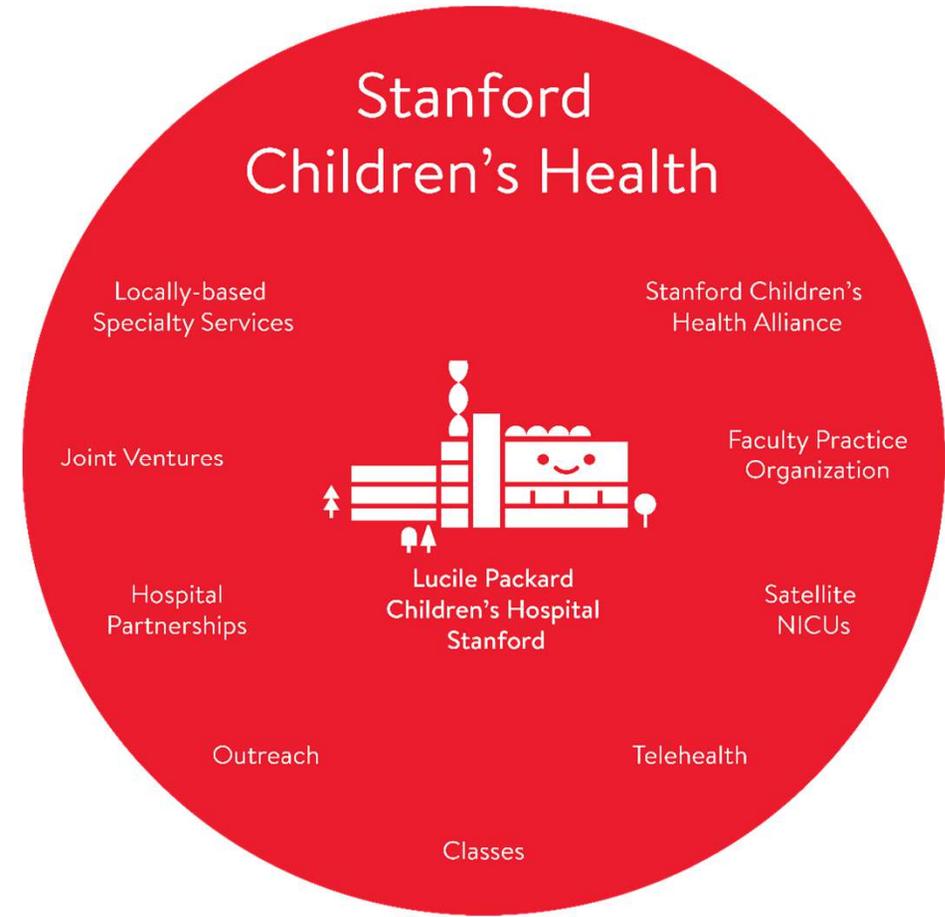
Lucile Packard Children's Hospital Stanford

-  361 beds with new facility
-  Approximately 13,000 annual pediatric discharges
-  5 joint ventures
-  65+ locations in our integrated network
-  ACS-verified Level 1 pediatric trauma center
-  The largest Ronald McDonald House in the world, accommodating 123 families



Multiple care models

Now and in the future, providing extraordinary care to children and expectant mothers requires adoption of many care models.





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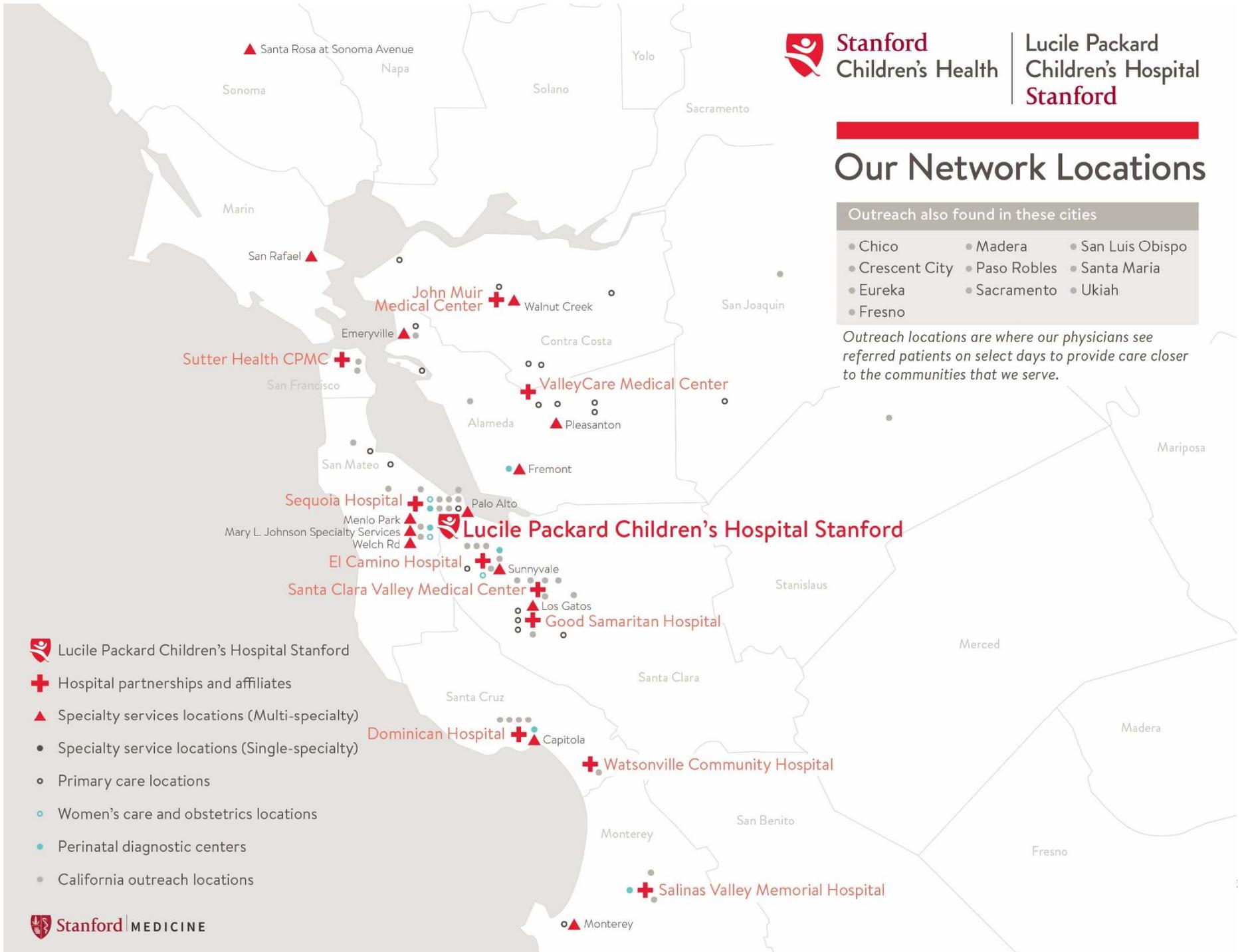
**Lucile Packard
Children's Hospital
Stanford**

Our Network Locations

Outreach also found in these cities

- Chico
- Crescent City
- Eureka
- Fresno
- Madera
- Paso Robles
- Sacramento
- San Luis Obispo
- Santa Maria
- Ukiah

Outreach locations are where our physicians see referred patients on select days to provide care closer to the communities that we serve.



- Lucile Packard Children's Hospital Stanford
- Hospital partnerships and affiliates
- Specialty services locations (Multi-specialty)
- Specialty service locations (Single-specialty)
- Primary care locations
- Women's care and obstetrics locations
- Perinatal diagnostic centers
- California outreach locations

Pediatric Specialty and Subspecialty Shortage

Why such a shortage of pediatric specialists and subspecialists?

INTEREST

Children represent less than 20% of the U.S. population. Most are healthy. Children's hospitals provide for the small percentage with chronic, complex and rare conditions

TIME

After four years of medical school, education continues with three years of pediatric residency and another three years minimum of subspecialty training

TRAINING

- Children's Hospitals Graduate Medical Education (CHGME) less secure than adult GME that is funded by Medicare and pays less per resident
- Fewer pediatric fellowship programs exist in the nation
- Some specialties have so few programs that only a small number of fellows graduate from each year

INCOME PARITY

Salary differential between adult and pediatric specialists is significant, in some specialties the salaries of pediatricians are approx. 20 - 40% lower than their adult counterparts.

Shortages burden children and families

Pediatric specialties with the highest average wait times. Days to third-next available appointment.

Medical specialties:



Surgical specialties:



Pediatric specialists and subspecialists tend to cluster at children's hospitals

Group mentality

- Physicians typically prefer to be part of a larger group of like physicians
- A group of physicians provides access to a community, opportunities for research collaboration, and sufficient bandwidth for call coverage (minimum 3 physicians)

Recruitment

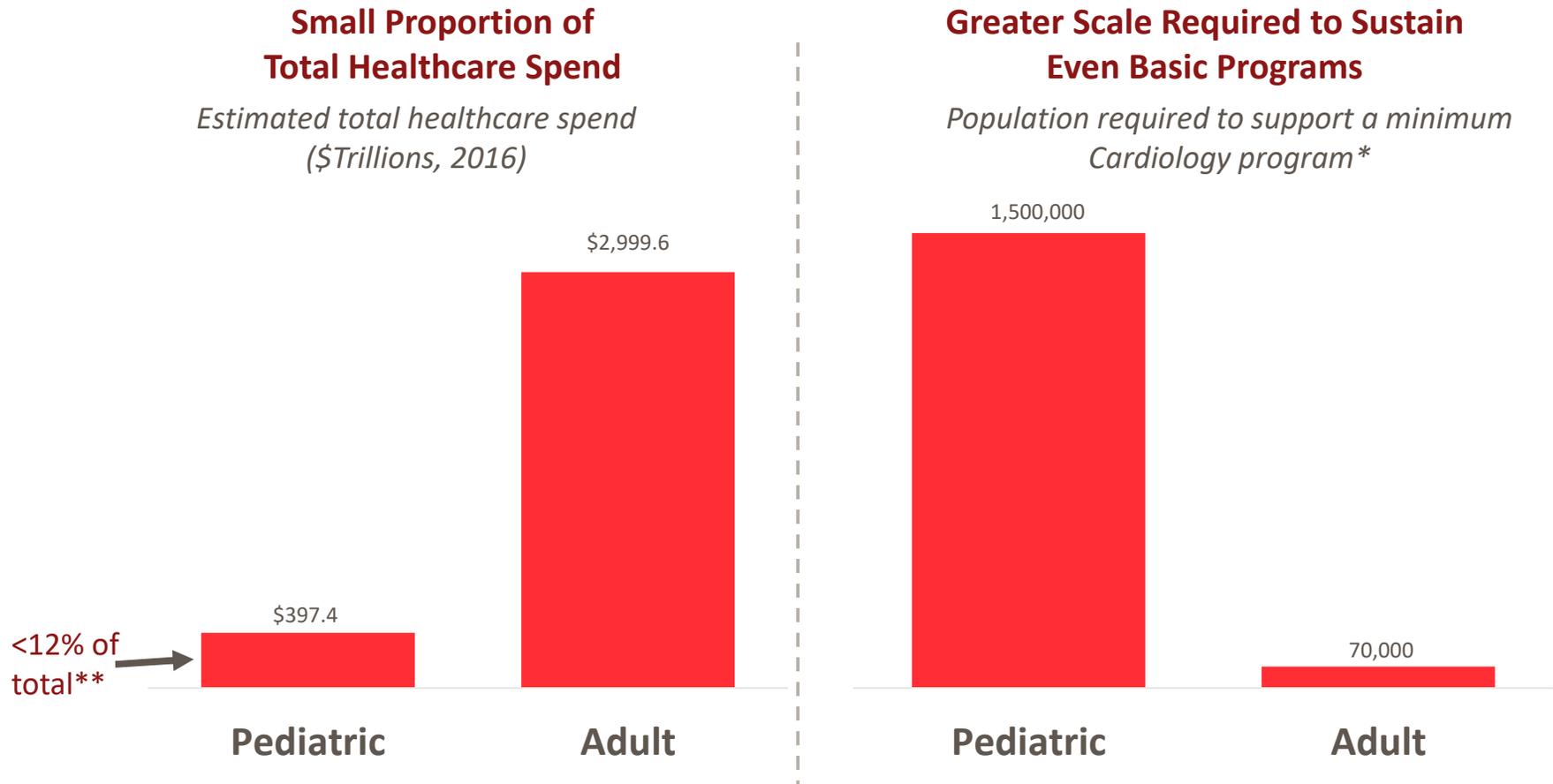
- Often easier for Children's Hospitals to recruit pediatric specialists due to:
 - Access to new graduates from their own training programs
 - Research and academic missions
 - Large group of pediatric physicians to be part of

Program development

- Very expensive for a hospital to build up a pediatric specialty program
- Easier and less expensive to "buy it" than to "make it" so community hospitals tend to utilize subspecialists from Children's Hospitals

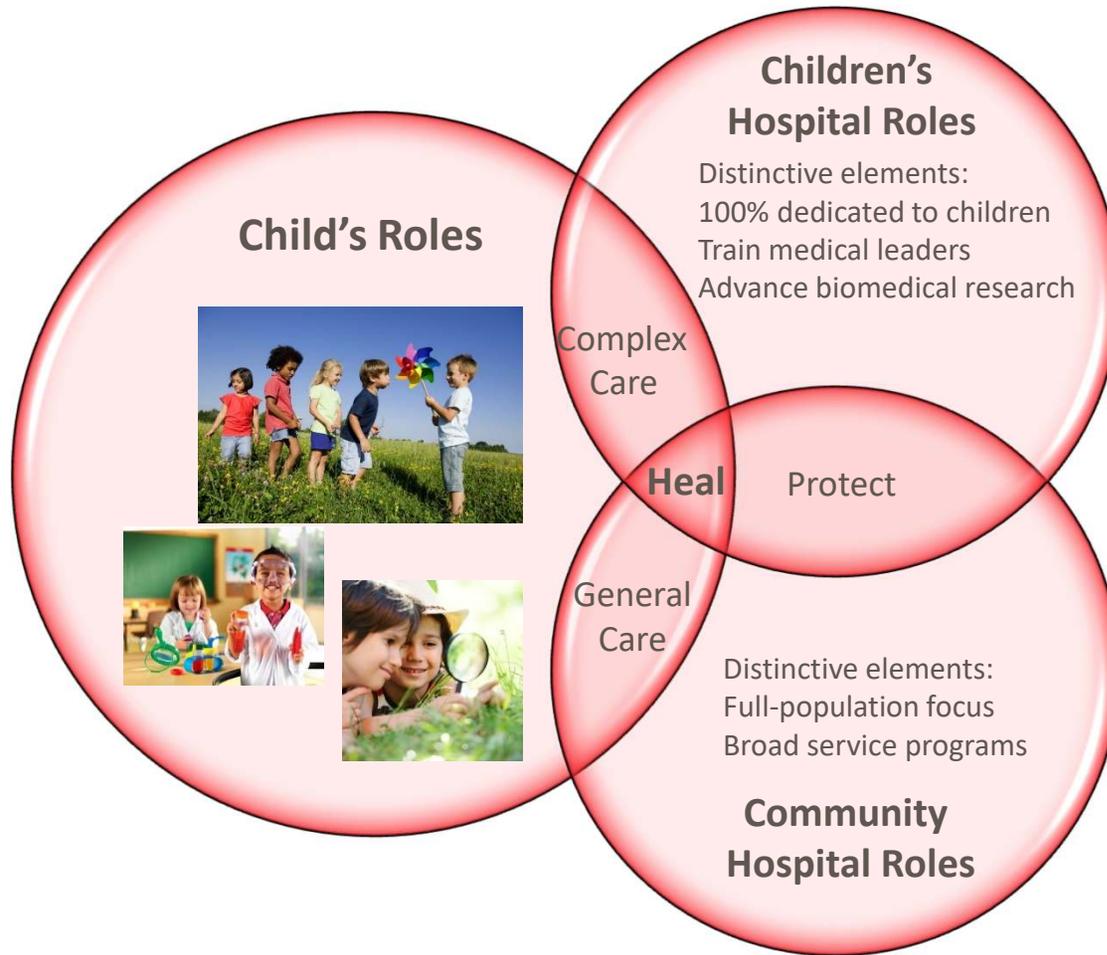
Creating Access

Pediatrics requires a different lens



Children's hospitals distinctive from community hospitals

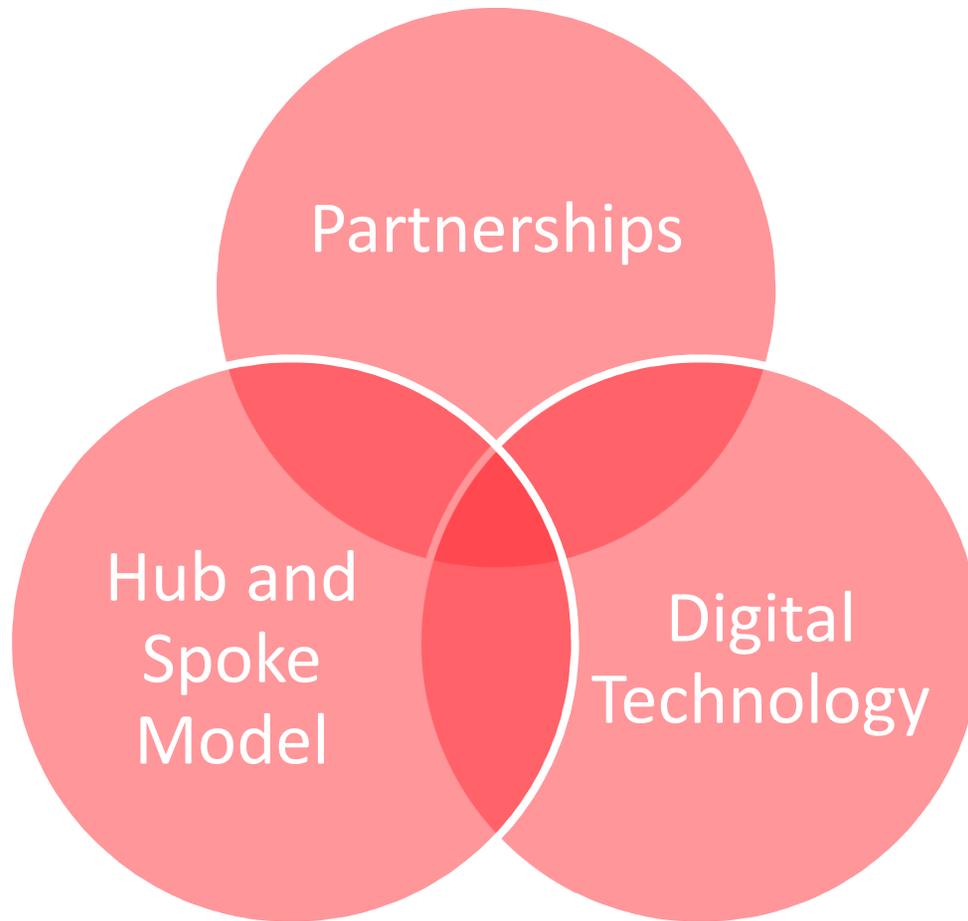
We share and have distinctive roles for the medical care of children



In addition, Stanford Children's has equal roles for expectant mothers and fertility / reproductive health

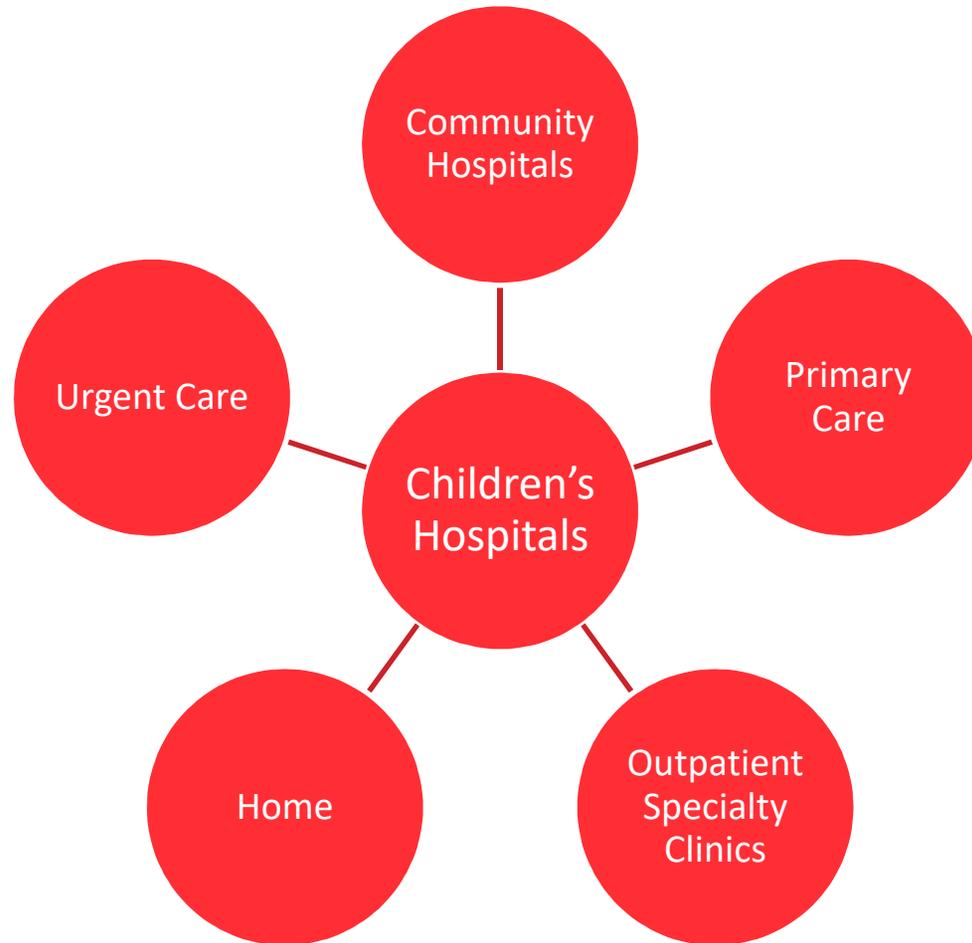
Community hospitals abound and there are lots of great ones with pediatric programs; however, all may not have readily available clinical expertise for children with complex medical conditions

Strategies to create access



Key strategy: Hub and spoke model

Allows pediatric care to be provided to the largest number of children



Key strategy: Acute care partnerships

By partnering together, children's hospitals and community hospitals can help fulfill each other's pediatric specialist needs

Partnership Benefits to Children's Hospitals

- Provide access to pediatric specialists for more children, closer to home
- When care cannot be provided at community hospital, provide seamless transition of care to the children's hospital and continuity of care
- Potential for additional training sites for residents and fellows to get access to diverse conditions
- Potential for additional sites for research studies

Partnership Benefits to Community Hospitals

- Access to pediatric specialists at the community hospital without having to build an entire program
- Access to children's hospital clinical care pathways, quality programs, program expertise
- Opportunities for education and program optimization
- When care cannot be provided at community hospital, seamless transition of care to the children's hospital and continuity of care
- Potential opportunities for research and training collaboration

SCH System of Care: Hospital Partnerships and Joint Ventures



Case example: Hospital partnership

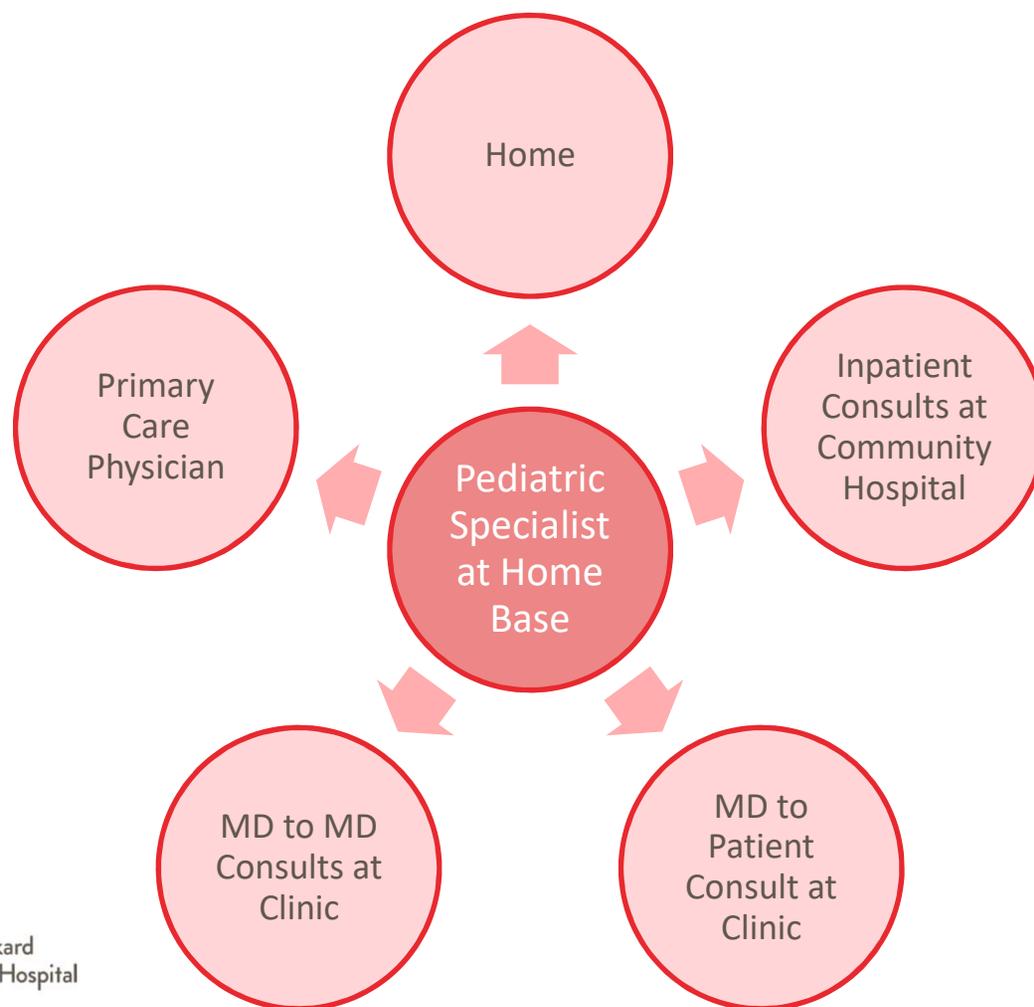
Stanford Children's joint venture with John Muir Health for pediatric services brings pediatric specialty care to John Muir patients close to home. Distance = 52 miles.

- Stanford Children's and John Muir collaborated to build a Pediatric Intensive Care Unit at John Muir. Stanford Children's pediatric specialists provide in-person and telephone coverage of this unit, the general pediatric unit, the NICU and the ED at John Muir
- Stanford Children's pediatric specialists also staff outpatient clinics located across the street from John Muir
- Telemedicine is used when specialists cannot be on-site
- When patients need to be transferred to Stanford Children's for higher acuity care, the transition is seamless and specialists provide care continuity
- Due to traffic conditions in the Bay Area, these patients would otherwise have to spend several hours on the road to have this same access



Key strategy: Digital technology

Virtual / Real-time - Telemedicine allows pediatric specialists to reach more children closer to home



Key strategy: Digital technology

Asynchronous / Time lag – Focus the clinician’s interaction time to capture scale economies

Medical second opinions

- For children and families facing a complex medical issue or difficult treatment decision, a second opinion from an academic, children’s hospital can provide valuable guidance
- Create opportunities to access our sub-specialty expertise in verticals that we would not necessarily attract with traditional outreach approaches
- Planning to implement and brand as a single product for both Stanford Healthcare (“adult hospital”) and Stanford Children’s
- Convenient access through a web-based platform

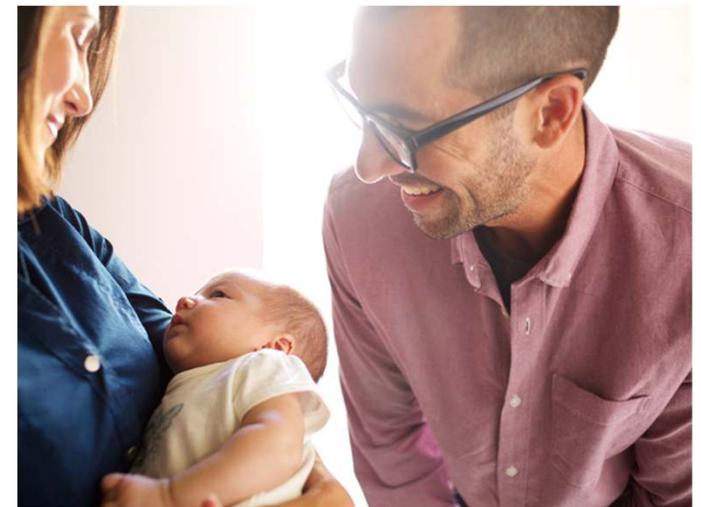
Remote Image Reading

- Remote and virtual reading of images such as:
 - Video EEGs
 - Eye exams for Retinopathy of Prematurity
- Utilize digital technology to view images from locations that do not have access to their own specialists
- Patients can stay close to home while having access to services of peds specialists

Case example: Using technology to provide access to pediatric specialists

Stanford Children's Health uses digital technology to provide community hospitals and their patients access to pediatric ophthalmologists

- Many infants born very prematurely require eye exams to screen for Retinopathy of Prematurity (ROP)
- Pediatric ophthalmologists who are trained to read these exams are very rare
- If a hospital does not have access to a pediatric ophthalmologist who can read the eye exams, they have to transfer the babies out of their NICU for the eye exam, causing great disruption to care and to families
- Stanford Children's contracts with close to 10 hospitals, including out-of-state, to provide remote ROP exam readings
- Stanford pediatric ophthalmologist receives eye exam images electronically from hospital, reads them on his computer and sends back an electronic report



Summary

Today's pediatric subspecialty shortage is significant and impacts hospitals and patients alike

Strategies to address this shortage center around partnering with other hospitals and include:

- Building or participating in a hub and spoke model of collaboration
- Participating in partnerships with other hospitals to increase access to specialists
- Using digital technology to enhance access



Questions?