



YALE-NEW HAVEN
CHILDREN'S HOSPITAL

Partnerships in Care: Northeast Pediatric Specialists, Inc.

Cynthia N. Sparer, Executive Director

Clifford W. Bogue, MD, Chief Medical Officer and Vice Chair, Pediatrics

Paul Kirshbom, MD, Chief, Pediatric Cardiac Surgery

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Overview

- Learning Objectives
- About Yale-New Haven Children's Hospital (YNHCH)
- Environmental Forces for Collaboration
- Northeast Pediatric Specialists, Inc. (NEPS)
- Lessons Learned
- Next Steps
- Discussion

Learning Objectives

- Discuss factors that lead to partnership between two competitors – Yale-New Haven Children's Hospital & Connecticut Children's Medical Center
- Describe the development process and implementation of NEPS
- Describe next steps

Yale-New Haven Hospital

- Two New Haven campuses
 - York Street Campus
 - Saint Raphael Campus
- Yale-New Haven Children's Hospital
- Yale-New Haven Psychiatric Hospital
- Smilow Cancer Hospital at Yale-New Haven



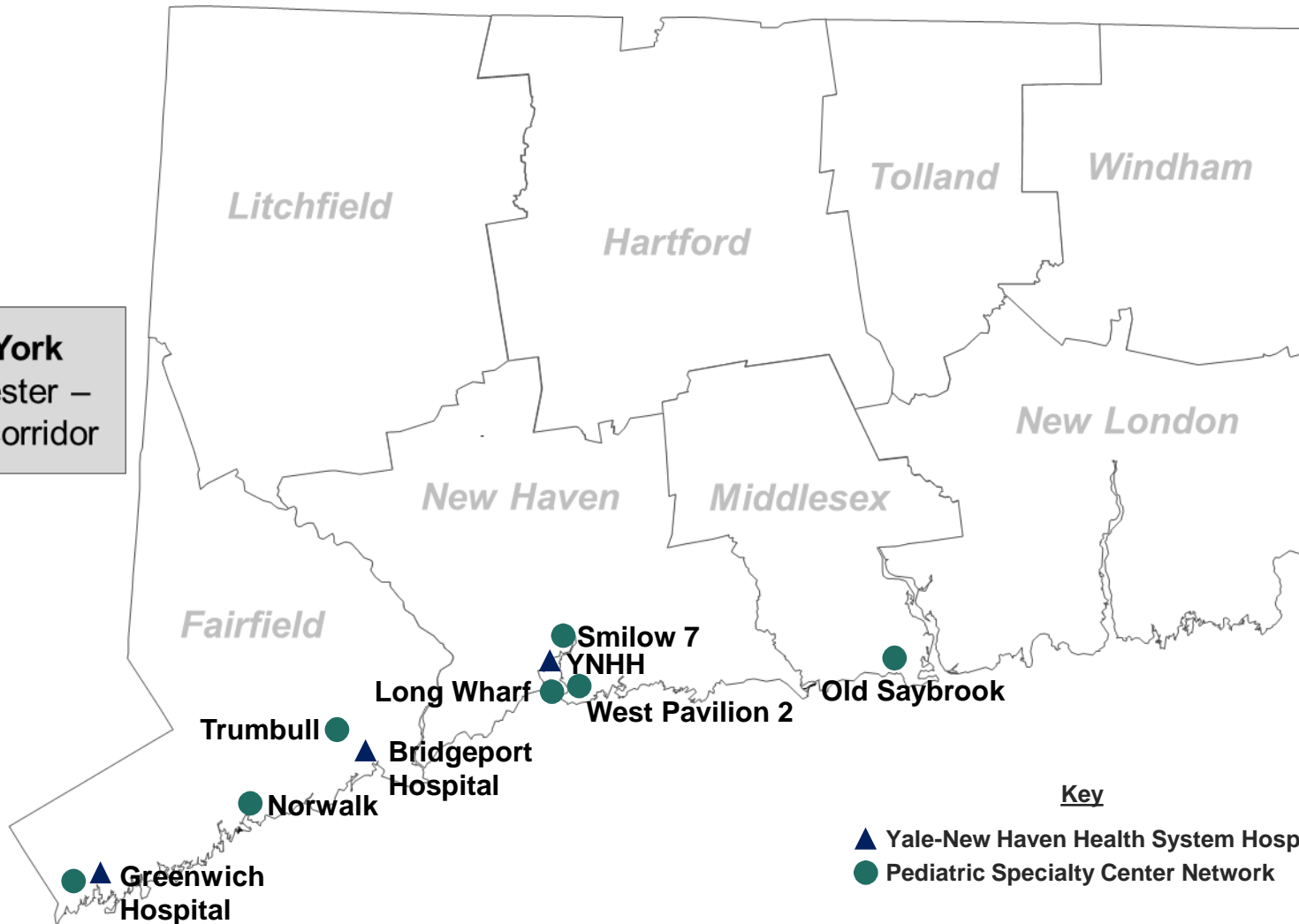
- Founded in 1826
- Fourth oldest voluntary hospital and fifth largest hospital in the U.S. (1,541 beds)
- Primary teaching hospital of Yale University School of Medicine
- Magnet Designation
- 11,436 employees
- 2,500 volunteers

Yale-New Haven Children's Hospital



Opened	1993
Hospital Type	Children's Hospital within a System
Total Beds	222
Medical School Affiliation	Yale School of Medicine
Full Time Equivalent Employees	1,200
Pediatric Medical Staff	650
Two Inpatient Campuses	New Haven, Bridgeport
Specialty Center Network	New Haven (3), Norwalk, Trumbull, Greenwich, Old Saybrook

YNHCH Network



Key

- ▲ Yale-New Haven Health System Hospital
- Pediatric Specialty Center Network

Environmental Forces for Collaboration

- Quality and outcomes
- Market forces
- Economics
- External considerations
 - State and local governmental agencies
 - Payors
 - Community
 - Philanthropy

Connecticut Market Landscape

- Slight increase in Connecticut children ages 0-4, decline in older age cohorts
 - 0-4 age group accounts for ½ of pediatric discharges
- YNHCH and Connecticut Children's Medical Center in Hartford account for 75% of state's pediatric discharges
- Outmigration from Connecticut to neighboring states (NY, RI and MA) declined by 12.9% between FY 2010 and 2013
- YNHCH in-migration increased 4.5% between FY2011 and FY2013

NEPS Guiding Principles

- Yale-New Haven Children's Hospital and Connecticut Children's Medical Center would be equal partners
- Partnership would be inclusive of respective Schools of Medicine – Yale and UConn
- Focused and expedited implementation
- Equal contribution to capitalization

Elements of Program Development

- Improved ability to recruit and retain top quality physicians
- Enhanced clinical outcomes linked to increased volumes
- Single pediatric cardiac program for State of Connecticut
- Improved brand equity and recognition regionally and nationally
- Increased philanthropy opportunity

Objective

- Establish a 501(c)(3) medical foundation to recruit and employ pediatric sub-specialists to provide professional services to both Yale-New Haven Children's Hospital, Connecticut Children's Medical Center, Yale School of Medicine, and University of Connecticut School of Medicine.

Initial focus on cardiac surgery and interventional cardiology.

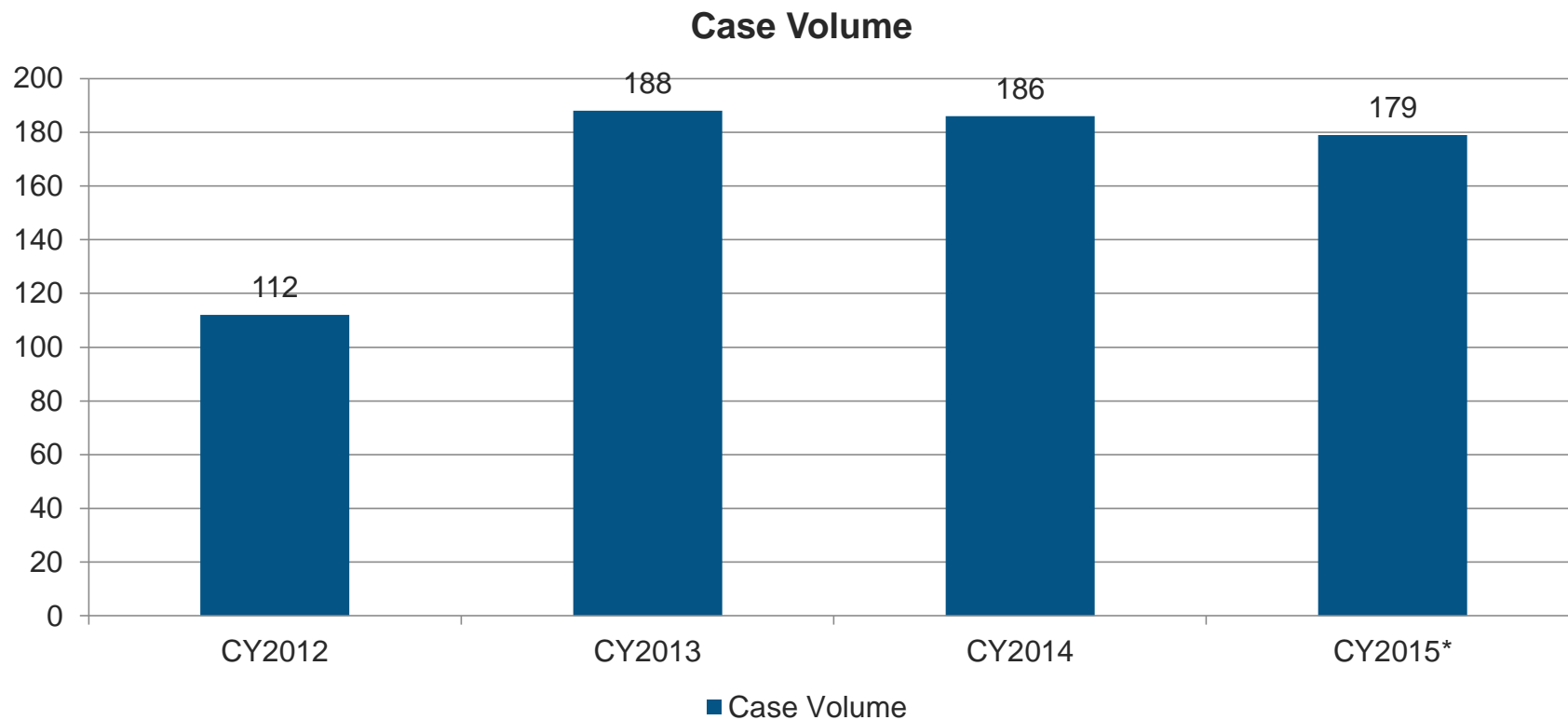
Structure

- Tax-exempt, non-profit
- Two members: Connecticut Children's Medical Center and Yale-New Haven Hospital
- Eight member Board of Directors - four seats CCMC and four seats YNHH (2 YNHH, 2 YSM)
- Equal contribution to capitalization
- Physicians recruited for the specified subspecialties hold privileges and are clinically active at both hospitals

Recruitments & Services

- Recruited Paul Kirshbom, MD as Chief and Mohsen Karimi, MD as Associate Chief of the joint pediatric cardiac program
- Grew program volume by 60% over 2 years
- Expanded services to include Cardiac Intensive Care and Electrophysiology
- Developed mechanism for joint Society for Thoracic Surgeons outcomes report
- Approved to submit as a single program for the US News & World Report Best Children's rankings

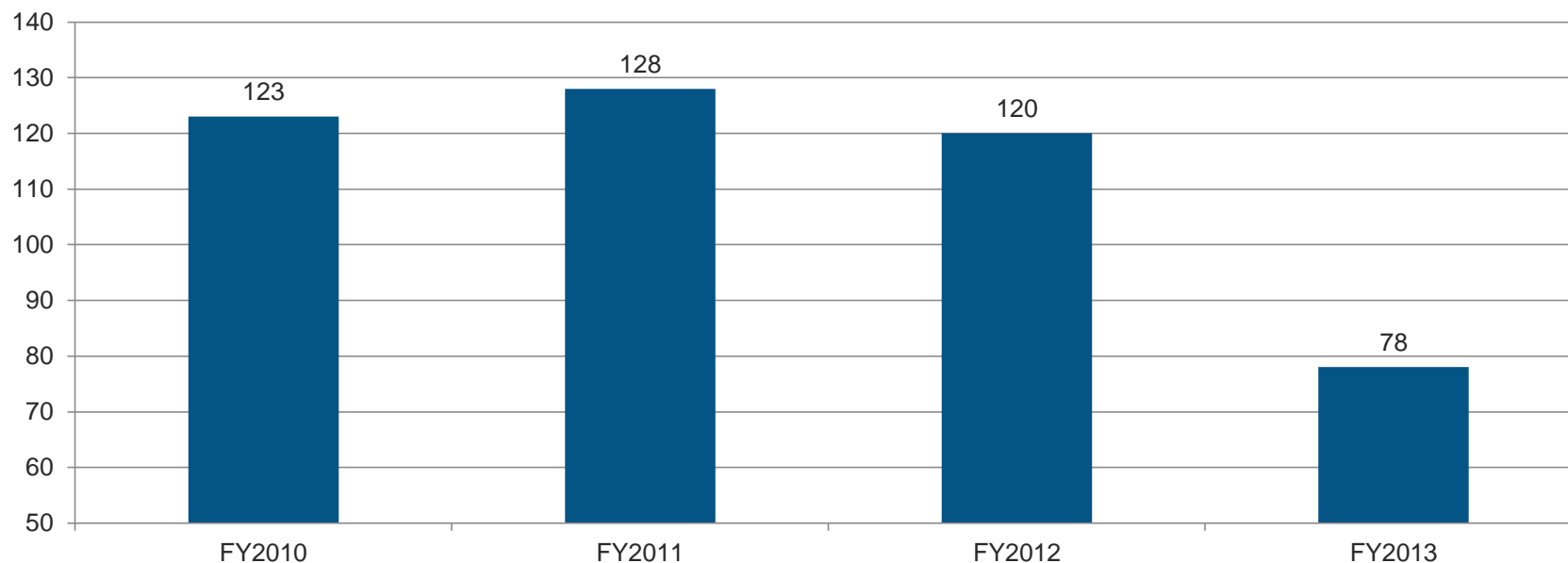
NEPS Case Volume Trend



* CY 2015 YTD September Annualized

FY10-FY12 Outmigration – NY SPARCS, MA Data Health Consortium, and RI Dept of Health

Cardiac Surgery Outmigration

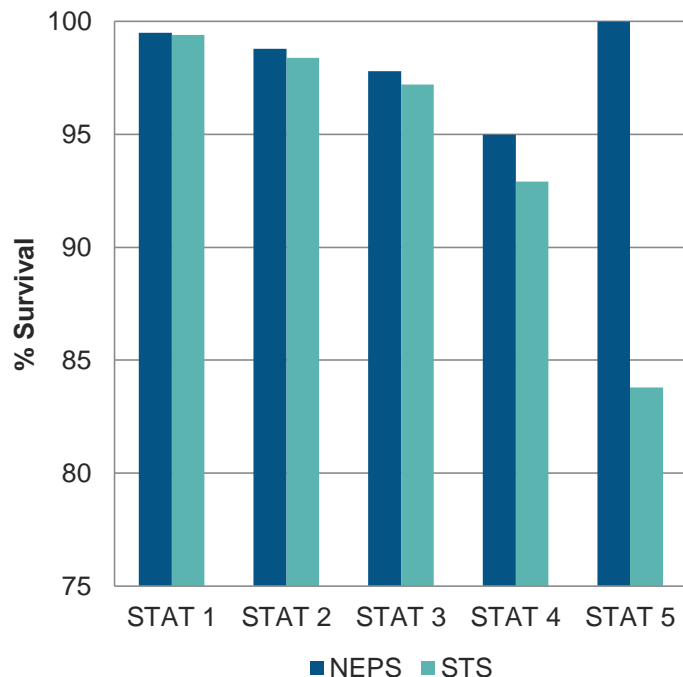


State	FY2010	FY2011	FY2012	FY2013	% Change
Massachusetts	73	84	83	38	-47.9%
New York	50	44	37	40	-20.0
Total	123	128	120	78	-36.6

Source: Connecticut CHIME, NY SPARCS, MA Center for Health Information and Analysis, RI Department of Health
 Definition: PHIS DRG definition; Ages 0-17

Clinical Outcomes

Operative Survival



STAT categories: Case risk model defined by the Society of Thoracic Surgeons with increasing expected surgical risk by group.

Outcomes by Age Group

Age Group	Eligible Operations*	Mortalities	NEPS Mortality %	STS Mortality %
Neonates	91	5	5.5%	9.2%
Infants	176	1	0.6%	2.9%
Children	175	0	0.0%	1.1%
Adults	75	2	2.7%	1.9%
Total volume	517	8	1.5%	3.3%

Outcomes by Procedure

Operation	Number	Mortalities	Mortality %	STS Mortality %
Coarctation	50	0	0.0%	1.0%
VSD Closure	43	0	0.0%	0.7%
TOF repair	35	0	0.0%	1.0%
AVC	13	0	0.0%	3.2%
Arterial switch	6	0	0.0%	2.7%
ASO + VSD	4	0	0.0%	5.3%
Glenn shunt	20	0	0.0%	2.1%
Fontan	18	0	0.0%	1.4%
Truncus	2	0	0.0%	9.6%
Norwood	5	0	0.0%	15.6%

Next Steps

- Submit first joint survey to US News & World Report
- Discussion of additional collaboration opportunities
- Explore opportunities to further align pediatric cardiology
- Further develop outreach and marketing

Discussion