

CARDIOLOGY
2025 ❤️

Programmatic
approach and
systems of care:
Fetal Heart Program

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 Children's Hospital
of Philadelphia®
Cardiac Center

HOPE. HEAL. LEARN.



THE FETAL HEART PROGRAM (FHP)

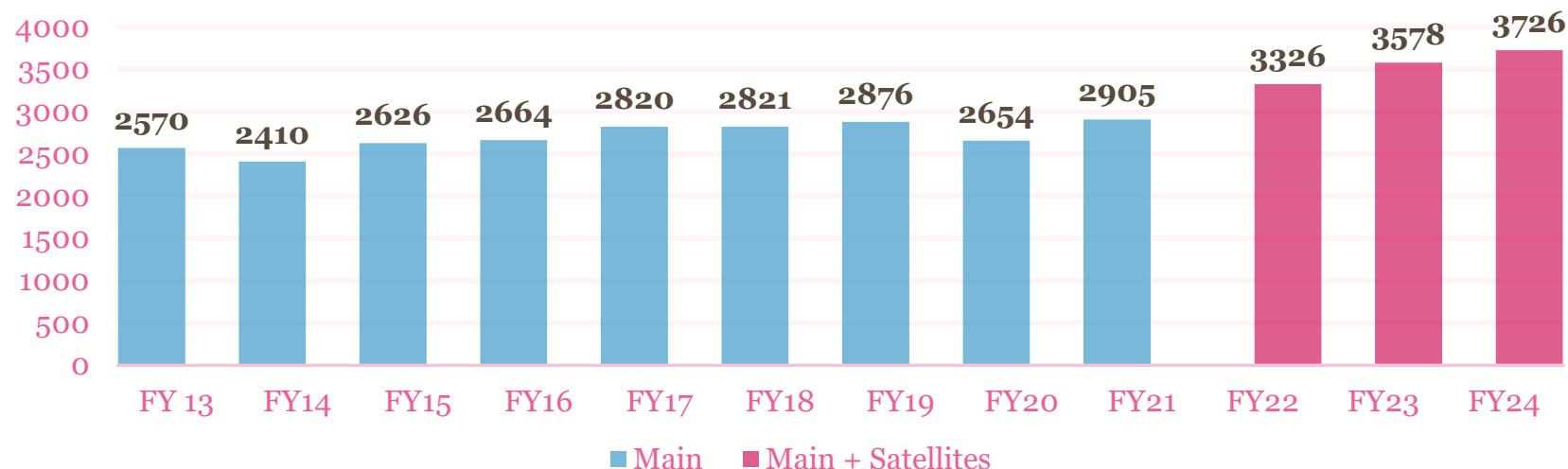
- Established in 2001
- Mission
 - Offer state of the art diagnostic care and management to the fetus with heart disease
 - Offer counseling and educational opportunities to parents of a fetus with heart disease
 - Create an environment that optimizes research and teaching in order to advance convey knowledge in the field of fetal cardiovascular science

THE FETAL HEART PROGRAM

- The FHP is part of the CHOP Cardiac Center
- Locations:
 - CHOP Main
 - Fetal Heart Program Annex at CHOP Bryn Mawr (PA) Specialty Care Center
 - Brandywine Valley (PA) CHOP Specialty Care Center
- Local, regional, national and international reach
- Main FHP: maximum 17 patients scheduled per day for fetal echocardiograms
- Collaborative relationship with our Center for Fetal Diagnosis and Treatment colleagues (CFDT) = “sister departments” – partnering in the care of patients requiring cardiac and MFM/OB care in our outpatient and inpatient Special Delivery Units.

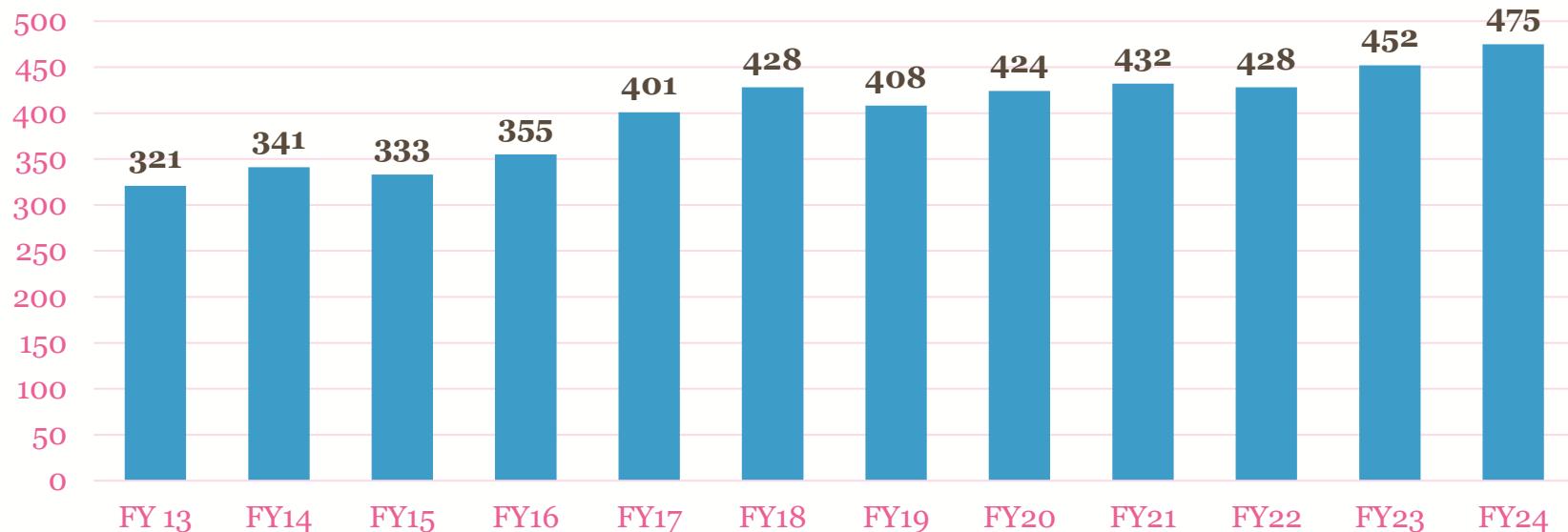
THE FETAL HEART PROGRAM

Number of Fetal Echocardiograms per Fiscal Year



THE FETAL HEART PROGRAM

Number of Fetuses with Congenital Heart Disease



THE FETAL HEART PROGRAM CLINICAL TEAM



+ 14
fetal
cardiologists



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THE FETAL HEART PROGRAM

- **Timing and indications for fetal echocardiograms (2 time points):**

- Conventional timing: 18-22 weeks gestation

- suspected CHD
 - known CHD
 - screenings
 - maternal diagnoses— diabetes, autoimmune, CHD
 - family history of CHD
 - SUA
 - IVF
 - medication exposures
 - increased NT
 - genetic/chromosomal
 - known anomalies outside the heart

THE FETAL HEART PROGRAM

▪ Timing and indications for fetal echocardiograms (cont.)

- Early Fetal Cardiovascular Imaging (EFCI) : 14-15 weeks gestation with specific indications
 - family history or prior child/pregnancy w/ CHD
 - increased NT
 - genetic/chromosomal concerns
 - suspected CHD

ACCESSING THE FHP

- **Two Points of Entry**

- External Referrals to FHP-only:

- MFM/OB/peds card/self-referral for fetal echocardiograms ONLY or second opinion image review
 - Communication and scheduling directly through FHP with FHP nurse and office coordinators

- Internal Referrals to FHP from CFDT :

- New patient CFDT evaluation referrals
 - 6 dedicated fetal echo slots in FHP per day
 - Scheduled/coordinated by the CFDT fetal therapy coordinators
 - Indications for FHP fetal echo: all fetal dx except gastroschisis
 - Outpatient CFDT OB patients— follow-up echos for any patient s/p CFDT new patient evaluation who is accepted into/receiving care in the CFDT system for OB care/delivery at CHOP.

THE FHP APPOINTMENT

- Fetal Echocardiogram:
 - Targeted ultrasound of fetal heart and cardiovascular system
 - Performed by dedicated FHP fetal echosonographers
 - Simultaneously viewed by fetal cardiologists in adjacent reading room in our suite



THE FHP APPOINTMENT (CONT.)

- FHP Consultation:

FHP-only patients

- All FHP-only patients meet with a **FETAL CARDIOLOGIST + FHP NURSE COORDINATOR** to receive echo results same day as test regardless of normal or abnormal findings
- If CHD diagnosis, **FHP SOCIAL WORKER** joins the counseling

CFDT patients

- CFDT patients with CHD/significant cardiac findings – **FHP team** counsels
- CFDT patients with normal fetal echo results - **CFDT MFM** provide the results to patients

FHP CARE

- During FHP and CFDT evaluations, if patients have identified fetal CHD: routine follow-up echocardiograms are scheduled every 4 -6 weeks in FHP or more frequently as clinically warranted.
- If the need for postnatal cardiology evaluation and/or interventions are identified, patients may be candidates to deliver at CHOP in our Special Delivery Unit (SDU)
- Each FHP patient with fetal CHD has a dedicated FHP nurse coordinator to serve as the FHP point of contact to shepherd through their CHOP prenatal cardiac care course:
 - coordinate cardiac fetal care
 - available for questions/provide anticipatory guidance
 - tour CHOP CICU
 - arrange consults with applicable team members (CT surgery, CT anesthesia)

FHP + CFDT TEAMS = COLLABORATIVE CARE



Work closely to *determine best CHOP point of entry* for patients based on clinical referral and appt availability (CFDT vs. FHP echo first with referral to CFDT as needed)



Ensure all CFDT patients referred to FHP and all FHP patients referred to CFDT are *scheduled according to determined plans* and in a timely manner



Adjust patient echo appts in real time to accommodate appt or clinical changes during course of patients' evaluation day



Ensure effective communication and patient flow through the course of all mutual patient *appointments/ evals*



Ensure effective two-way communication between FHP and CFDT *during course of ALL patient prenatal and fetal care at CHOP*



Ensure effectively coordinated, seamless multidisciplinary fetal medical management, maternal medical management, education, and anticipatory guidance for ALL mutual patients

THANK YOU!

