

# Cardiology Education in the Pediatrics Residency: A Needs Assessment

Megan SooHoo, MD and Angela Czaja, MD  
University of Colorado Anschutz Medical Campus- Department of Pediatrics, Children's Hospital Colorado, Aurora, CO



Children's Hospital Colorado

## BACKGROUND

- Congenital heart disease (CHD) is the most diagnosed congenital disorder in newborns
- Given this incidence, it is important that pediatricians have a fundamental understanding of cardiology and feel comfortable caring for these patients
- Not all pediatric residents are required to rotate with cardiology during residency
- Variety of pediatric specialists and outpatient pediatricians will care for these patients
- Comprehensive curriculum for pediatric cardiology is needed to achieve competency in this area to ensure appropriate patient care

## OBJECTIVE

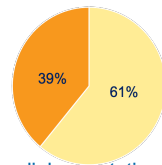
To assess the educational needs for a pediatric cardiology curriculum using a needs assessment survey including current and former pediatric residents at the University of Colorado

## METHODS

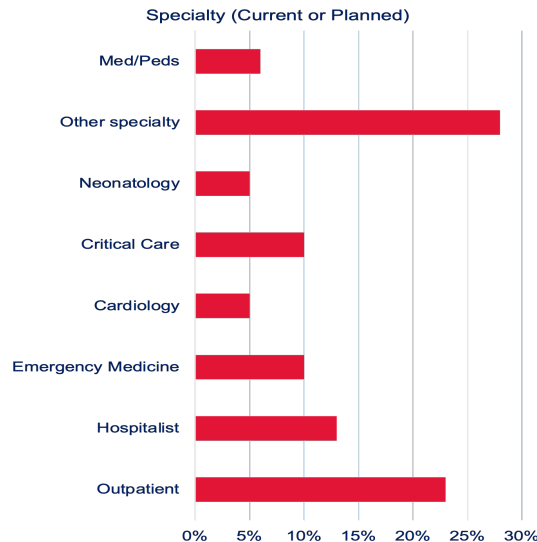
- Survey of current residents and the previous 10 years of graduates of the pediatric residency program at the University of Colorado
- Using a likert scale, survey evaluated perceived clinical competency and reported self-efficacy in pediatric cardiology as identified by the American Board of Pediatrics general pediatrics cardiology content specifications
- Respondents were asked about their level of training, specialty (or planned specialty), and past cardiology experience
- Graduates were asked which cardiology topics they think are most important to be covered
- Satisfaction with the cardiology education received in training was assessed, as well as preferred methods of learning

## RESULTS

Respondents = 138  
Graduates (n=84)  
Current Residents (n=54)



- ❖ 65% had completed a cardiology rotation, while 18% were planning to do so
- ❖ 38% reported feeling "somewhat" or "very satisfied" with their cardiology education
- ❖ 76% have needed to supplement their cardiology knowledge outside of residency cardiology learning activities
- ❖ 91% thought completing a cardiology rotation during residency was "fairly" or "extremely important"



Of the 32 ABP cardiology competencies questioned regarding self-efficacy, only 8 competencies had >50% of responses of "fairly" or "extremely confident"

### High Yield Topics

- Evaluation of chest pain
- ECG interpretation
- Murmur auscultation
- Hypertension & dyslipidemia
- Evaluation of cyanosis in a newborn
- Categories & presentation of CHD

### Preferred learning methods

- Small group case-based learning
- Bedside Rounds
- Cardiology Handbook

## CONCLUSIONS

- Almost all residents and graduates identify the importance of cardiology training
- Few are satisfied with their cardiology education, and most have needed to supplement their education either during residency or following
- There is need for an updated and practical curriculum for cardiology in the pediatric residency
- High yield topics were identified along with preferred methods of teaching which can shape objective driven curriculum

## NEXT STEPS

- Ongoing development of the cardiology curriculum based on findings from the needs assessment including
  - Objectives and learning guideline for cardiology elective
  - Academic half-day content
  - Sharepoint website created with reservoir of online materials
  - Cardiology handbook
- Post-cardiology survey
- Once fully implemented, the effect of the new curriculum on pediatric resident knowledge, self-efficacy, and rotation satisfaction will be evaluated