TSDA THORACIC SURGERY DIRECTORS ASSOCIATION

ACGME

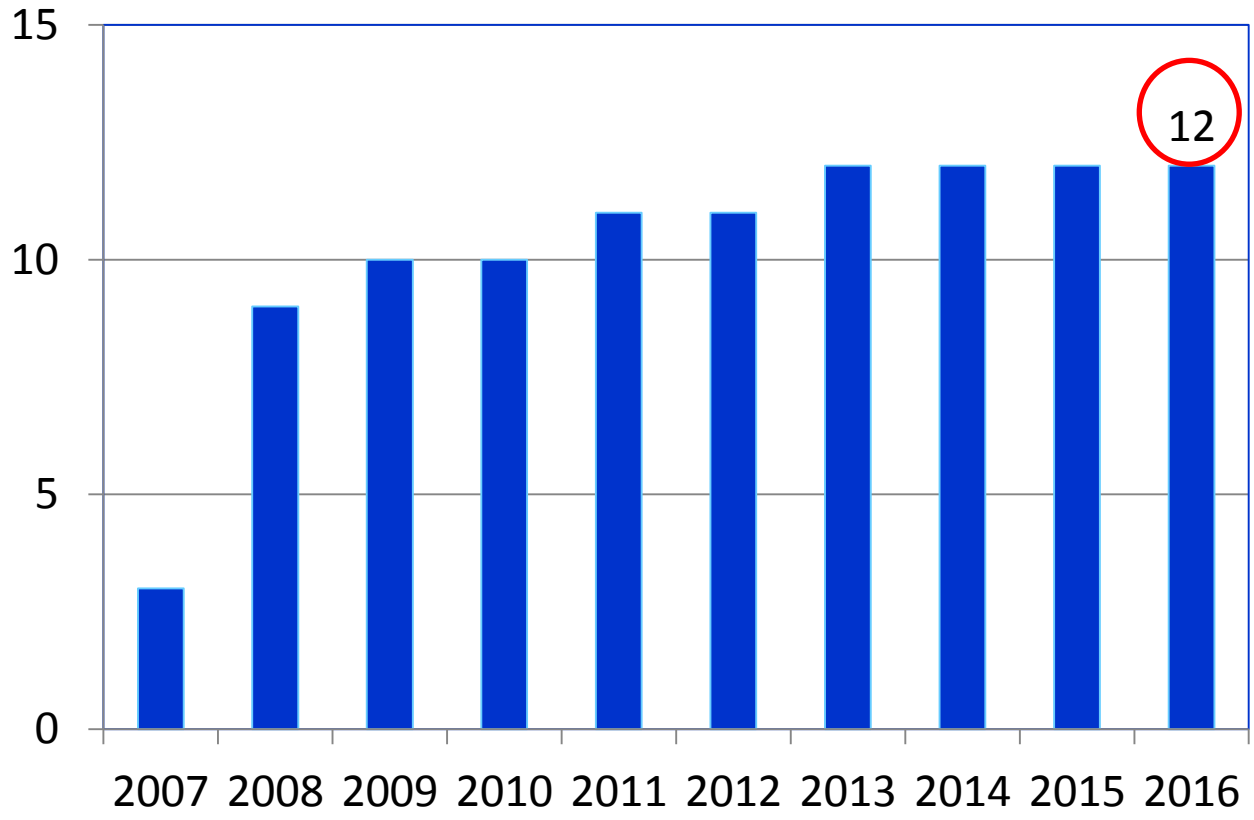
ACGME Congenital Residency Update

Carl L. Backer

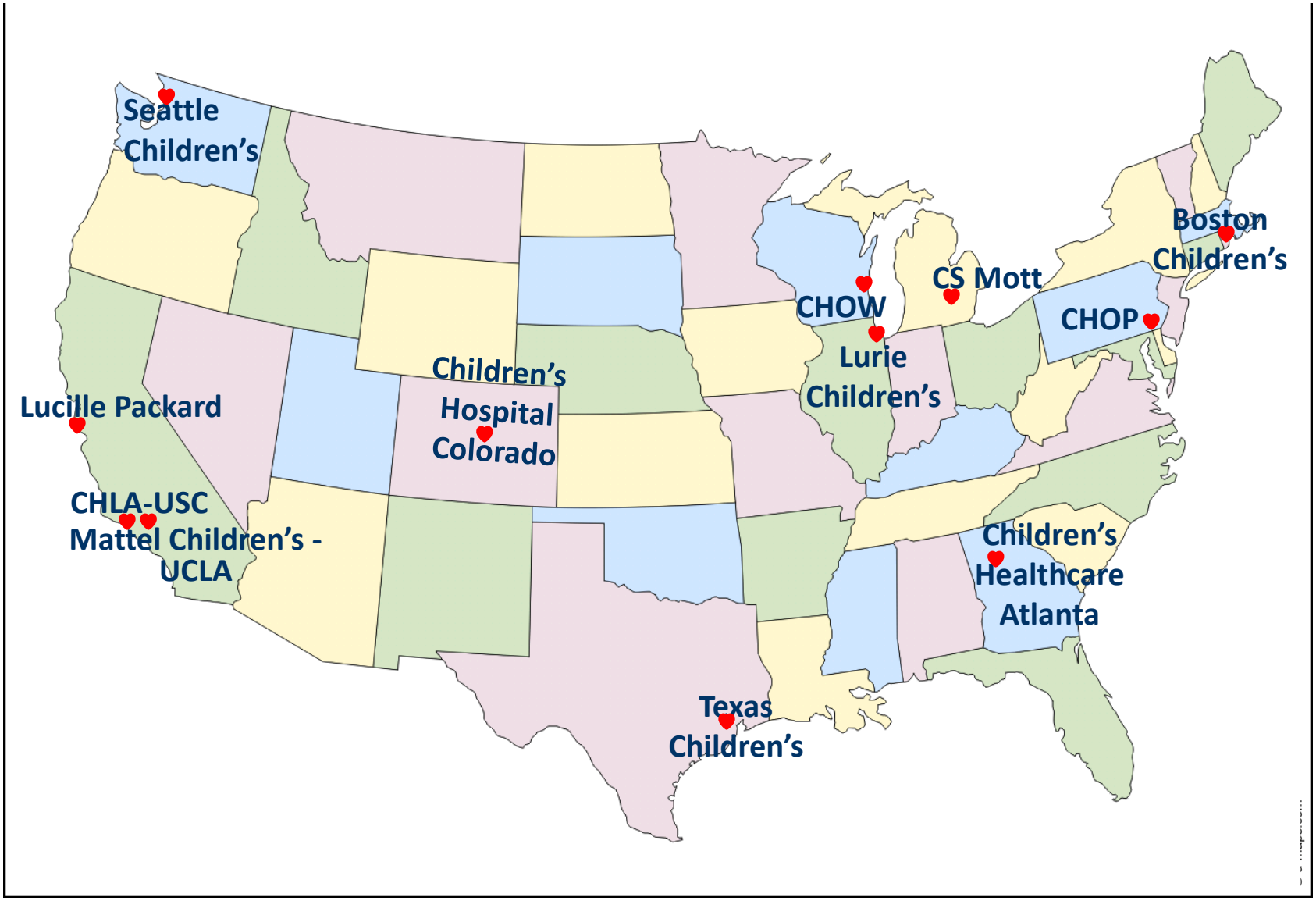
Chair, Congenital Program Directors
Thoracic Surgery Directors Association

May 14, 2016
Baltimore, MD

Total Congenital ACGME Programs Per Year



Congenital Cardiac Programs in U.S.



Current ACGME Congenital Cardiac Programs

Carl Backer, MD (Chair)
Lurie Children's Hospital

David Campbell, MD
Children's Hospital Colorado

Charles Fraser, MD
Texas Children's Hospital

Cynthia Herrington, MD
Children's Hospital of Los Angeles

Brian Kogon, MD
Children's Healthcare of Atlanta

Richard Mainwaring, MD
Lucile Packard Children's Hospital

Francis Fynn-Thompson, MD
Children's Hospital Boston

Richard Ohye, MD
CS Mott Children's Hospital

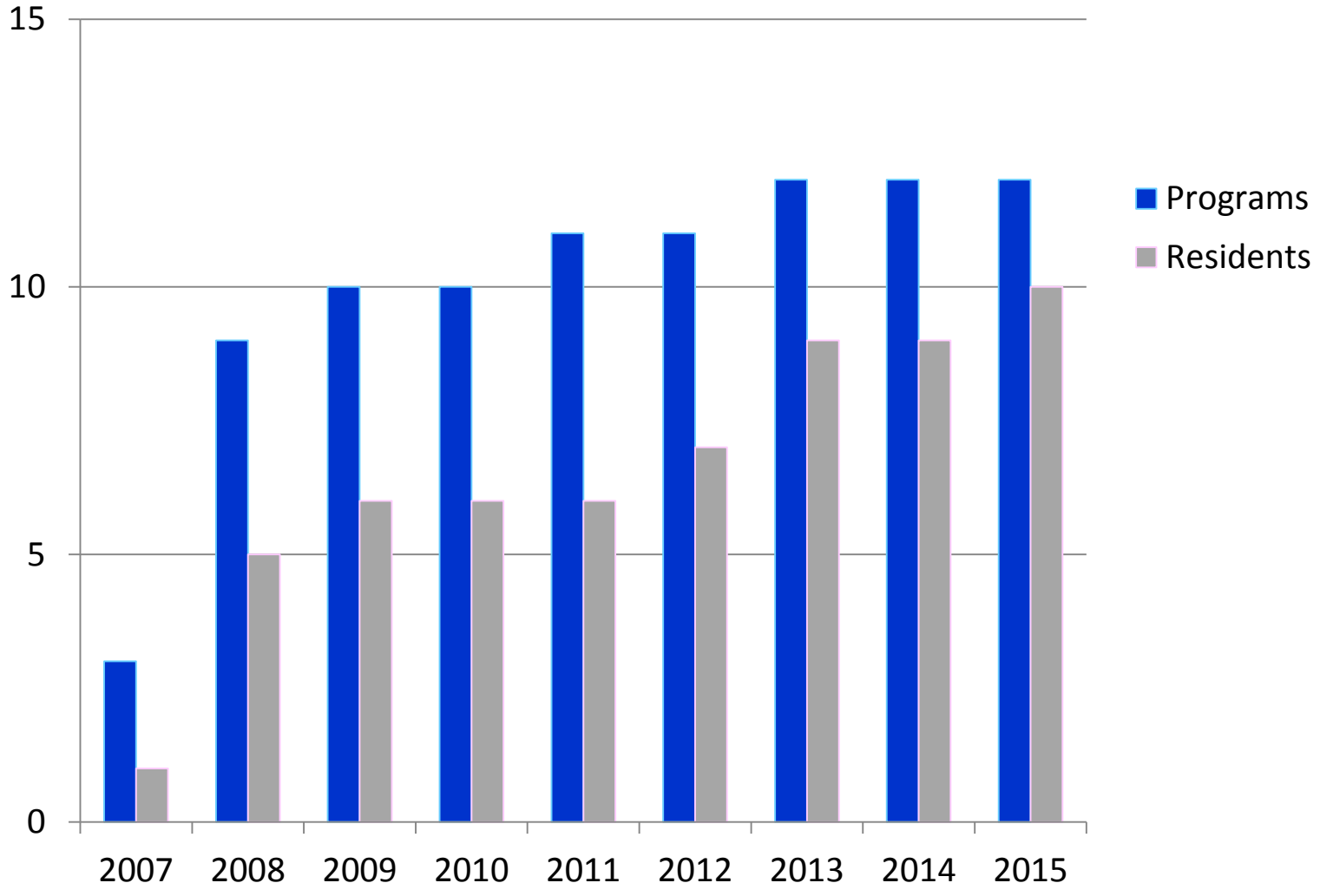
Lester Permut, MD
Seattle Children's Hospital

Brian Reemtsen, MD
University of California Los Angeles

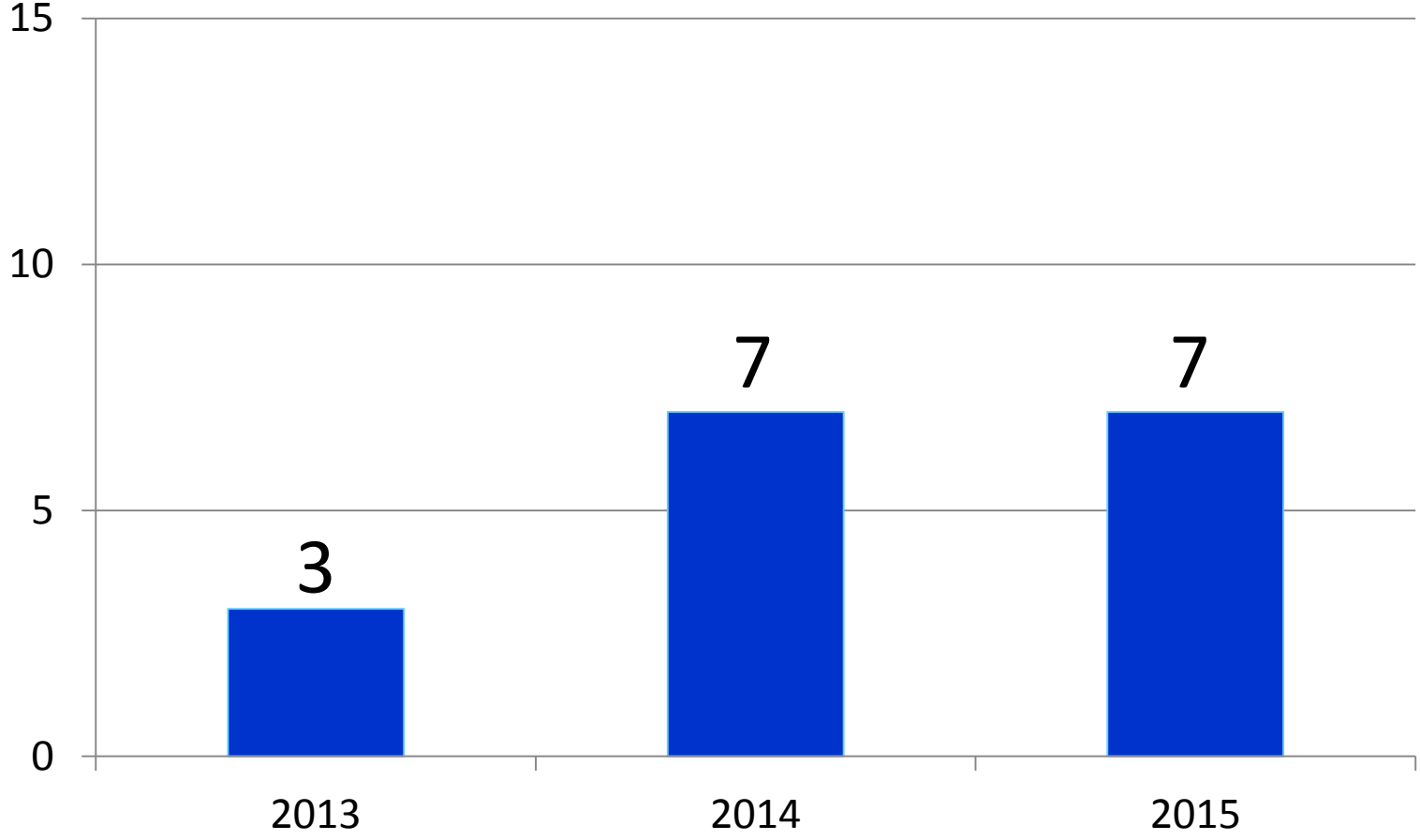
Stephanie Fuller, MD
Children's Hospital of Philadelphia

Michael Mitchell, MD
Children's Hospital Wisconsin

Congenital Programs with a Resident



Resident Participation in Congenital Match



2015: 6 Programs Matched

Programmatic Updates

2010 – Curriculum Outline – Paper Handout

2012 - Curriculum Online – Weekly

2014 - Curriculum Online – Weekly (Draft #2)

2015 – Curriculum Transition to Moodle to Astute (2016)

June 13, 2015 – First In-Service Exam
95 Questions, Average Grade = 89%

October 2015 – CHSS-Best Congenital Resident Paper

March 12, 2016 – Second In-service Exam
114 Questions, Average Grade = 82%

The training of congenital heart surgeons

Brian E. Kogon, MD

Objective: The training of congenital heart surgeons is extremely complex and challenging. It is frequently viewed as a 12-month fellowship followed by an apprenticeship. This study evaluates the initial experience of fellows training in pediatric heart surgery.

Methods: Fellows completing 12 months of training within the past 5 years were included. Questionnaires were completed by e-mail, mail, or telephone correspondence.

Results: Twenty-eight of 42 (67%) fellows responded from 11 training programs. Each fellow assisted in a mean of 294 (± 90) operations, 234 (± 86) of which were open, and **each fellow performed a mean of 75 (± 53) operations**, 51 (± 42) of which were open**.** Operations were grouped by risk-adjusted congenital heart surgery scores. Fellows were exposed to all groups as the assistant. As the surgeon, fellows typically performed operations only in groups 1, 2, and 3. Only 7 of 28 fellows performed operations in group 4, none in group 5, and 1 of 28 in group 6. On a scale of 1 to 10 (10 being satisfied), 28 of 28 fellows were satisfied with the exposure to congenital heart surgery (mean 9.5 ± 1.0), but only 10 of 28
with the operative experience (mean 4.9 ± 2.8). Twenty-six of 28 were satisfied with the training overall (mean 7.3 ± 1.8).

Conclusions: Challenges in the training of congenital heart surgeons remain. Although fellows received excellent exposure to surgery for congenital heart disease, there is a **perceived minimal operative experience** as the surgeon, particularly for the more complex operations. There is dissatisfaction with the operative experience, yet the majority of fellows finish satisfied with their overall training.

J *Thorac Cardiovasc Surg* 2006;132:1280-1284

Congenital cardiac surgery fellowship training: A status update

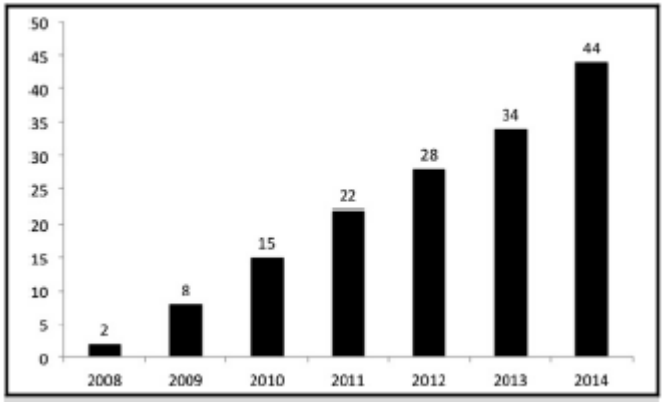
Brian Kogon, MD, Tara Karamlou, MD, William Baumgartner, MD, Walter Merrill, MD, and Carl L. Backer, MD

Background: In 2007, congenital cardiac surgery became a recognized fellowship by the Accreditation Council of Graduate Medical Education (ACGME) and leads to board certification through the American Board of Thoracic Surgery (ABTS). We highlight the strengths and weaknesses in the current system of accredited training.

Methods: Data were collected from program directors, the ACGME, and the ABTS. In addition, surveys were sent to training program graduates. Topics included program accreditation status, number of fellows trained per year and per program, match results, fellow operative experience, fellow satisfaction, and post-fellowship employment status.

Results: There are twelve active accredited fellowship programs, and 44 trainees have completed accredited training. Each active program has trained a median of 3 fellows (range: 0-7). Operative logs were obtained from 38 of 44 (86%) graduates. **The median number of total cases (minimum 75) was 136 (range: 75-236).** For complex neonates (minimum 5), the median number of cases was 6 (range: 2-17). Some fellows failed to meet the minimum requirements. Thirty-six (82%) graduates responded to the survey; most were satisfied with their overall operative experience, but less with their neonatal operative experience. Of this total, **84% are currently practicing congenital cardiac surgery**, and 74% secured jobs prior to completing their residency.

Conclusions: Since 2007, congenital cardiac surgery training has been Accredited by the ACGME. In general, the training is uniform, the operative experience is robust, and the fellows are satisfied. Although shortcomings remain, this study highlights the many strengths of the current system.



Cumulative number of congenital cardiac surgery trainees since ACGME accreditation began in 2007.

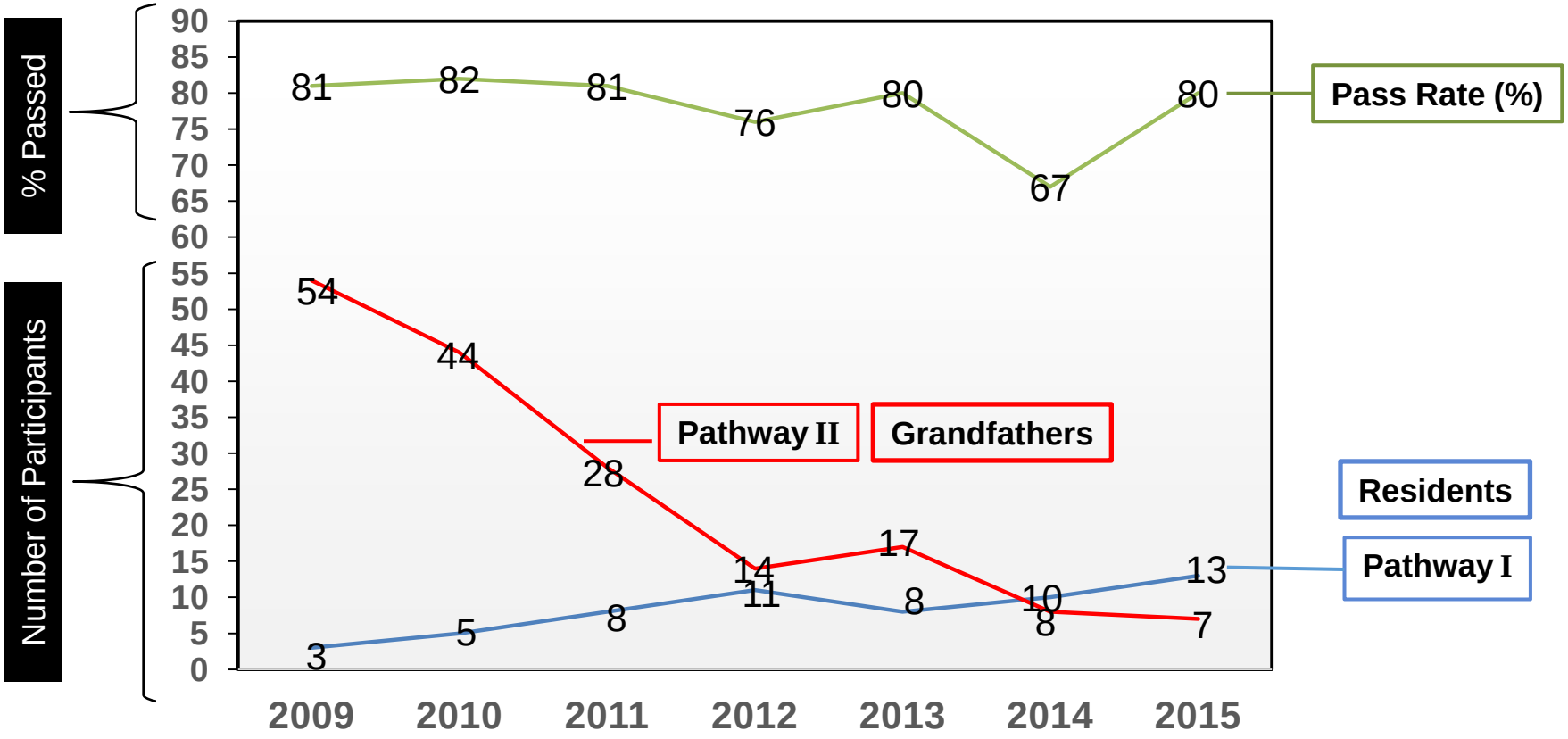
Central Message

With ACGME accreditation, congenital cardiac surgery training is robust; most graduates are well trained, satisfied, and thriving.

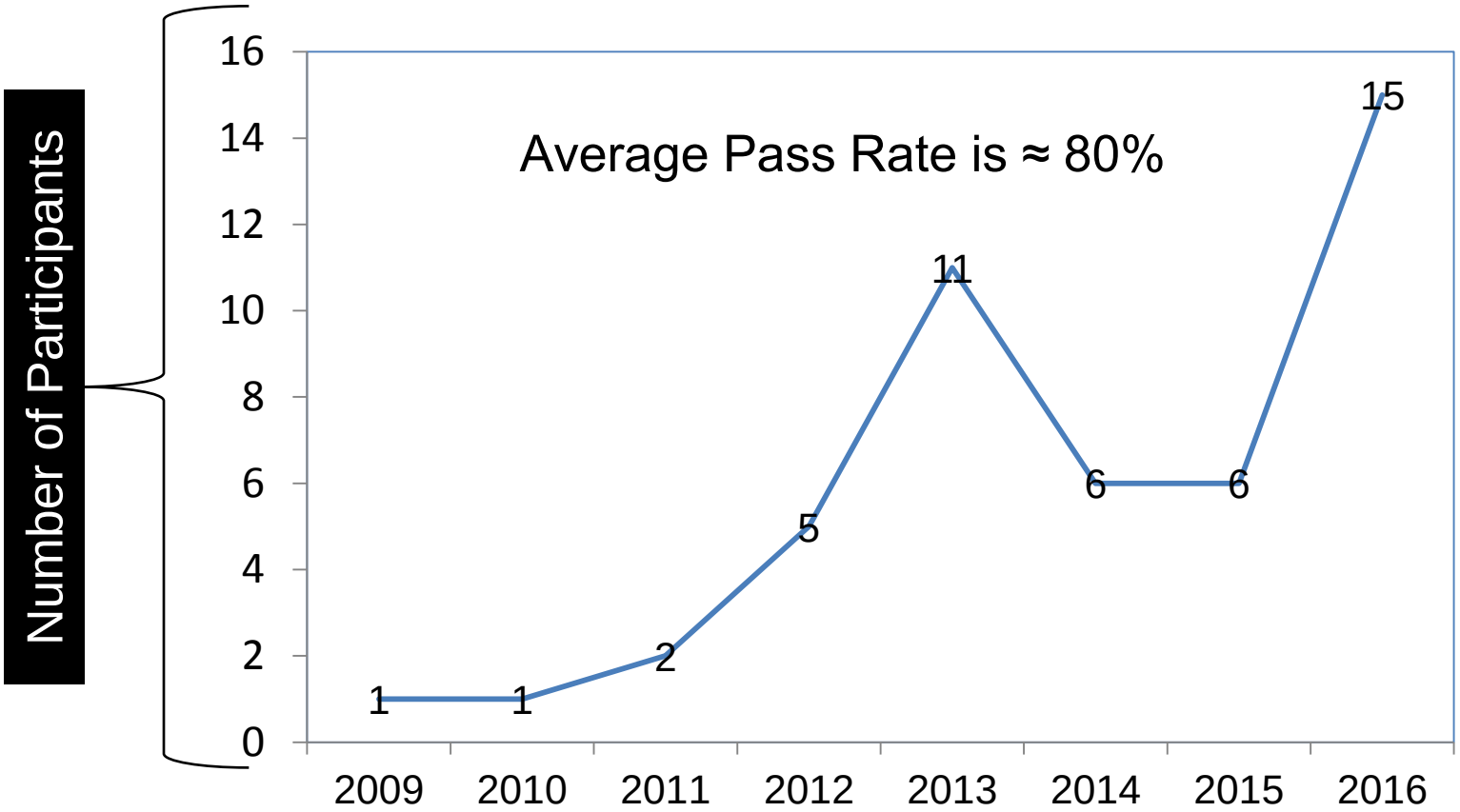
Perspective

Since ACGME accreditation began, congenital cardiac surgery training has been standardized. Fellows are operating and satisfied. A good balance has been achieved between the number of Job openings and the number of graduating trainees. Recent graduates seem to be thriving in practice. Nonetheless, shortcomings remain,and our intention with this study is to highlight these issues and stimulate future improvements.

J Thorac Cardiovasc Surg 2016;Feb. 24 [Epub ahead of print]



Congenital Written Exam



Congenital Oral Exam

Conclusions: ACGME Congenital Residency (2007-2016)

1. Application process standardized via the Match (now mandatory)
2. Curriculum standardized → Online
3. Case volume doubled (75 → 136 cases)
4. Residents now perform complex neonatal cases (0.5 → 6 cases)
5. In-training Exam in place
6. Number of programs stabilized at 12

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Congenital Cardiac Programs in U.S.