

Future Trends in Residency Training

Joann Prisciandaro, Ph.D.

Learning Objectives

Understand current trends and future directions in residency training for medical physicists

Outline

- Current state and future trends:
 - Entry pathways into residency programs
 - Residency training
 - Post-residency training

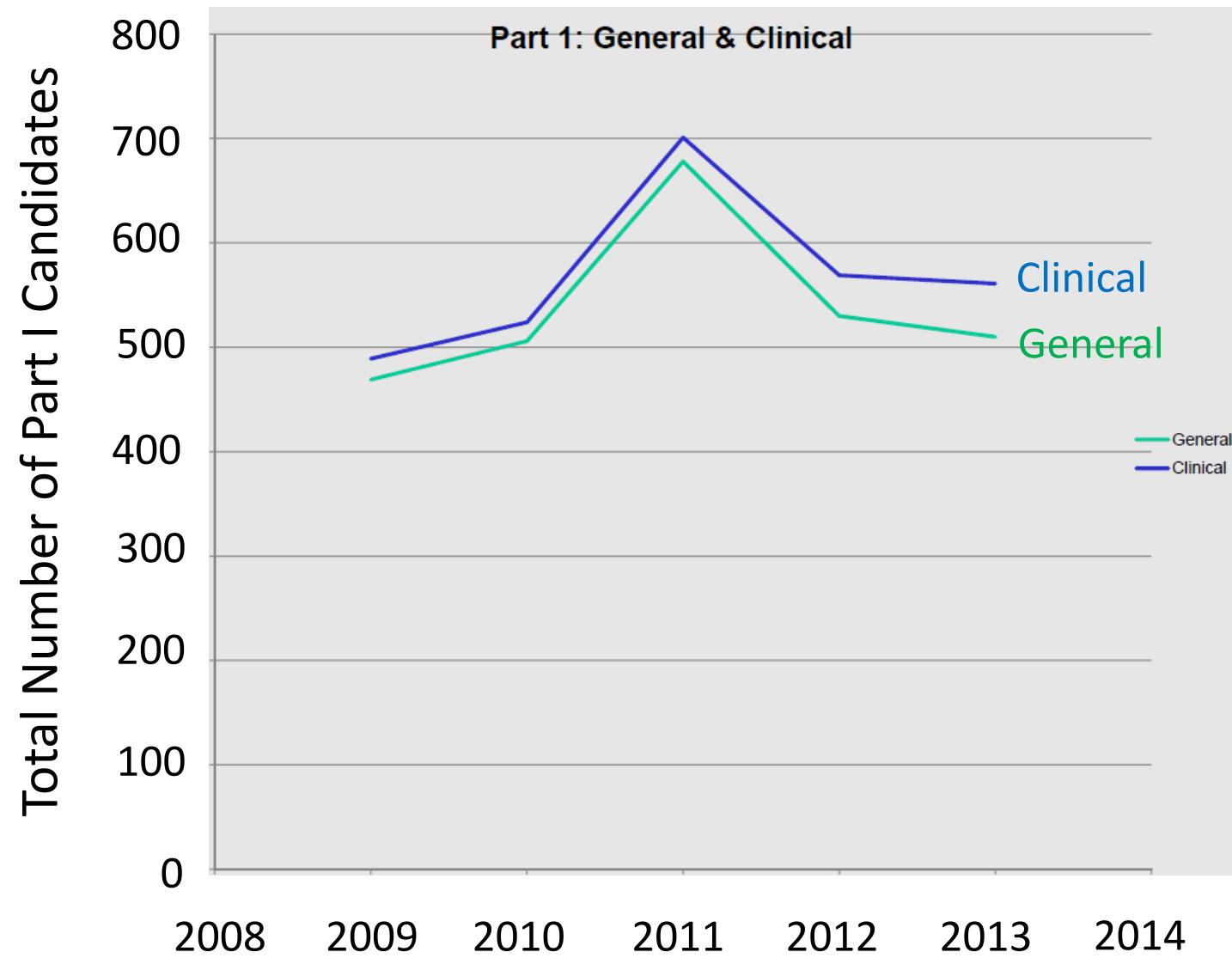
Entry pathways into residency programs

2012/2014 Initiative

- In 2002, the ABR announced that a CAMPEP education would be required to sit for ABR board beginning 2012
- Based on recommendations from the AAPM Board, in 2007 the ABR announced that beginning in 2014 a medical physics residency would be required to sit for the ABR board.

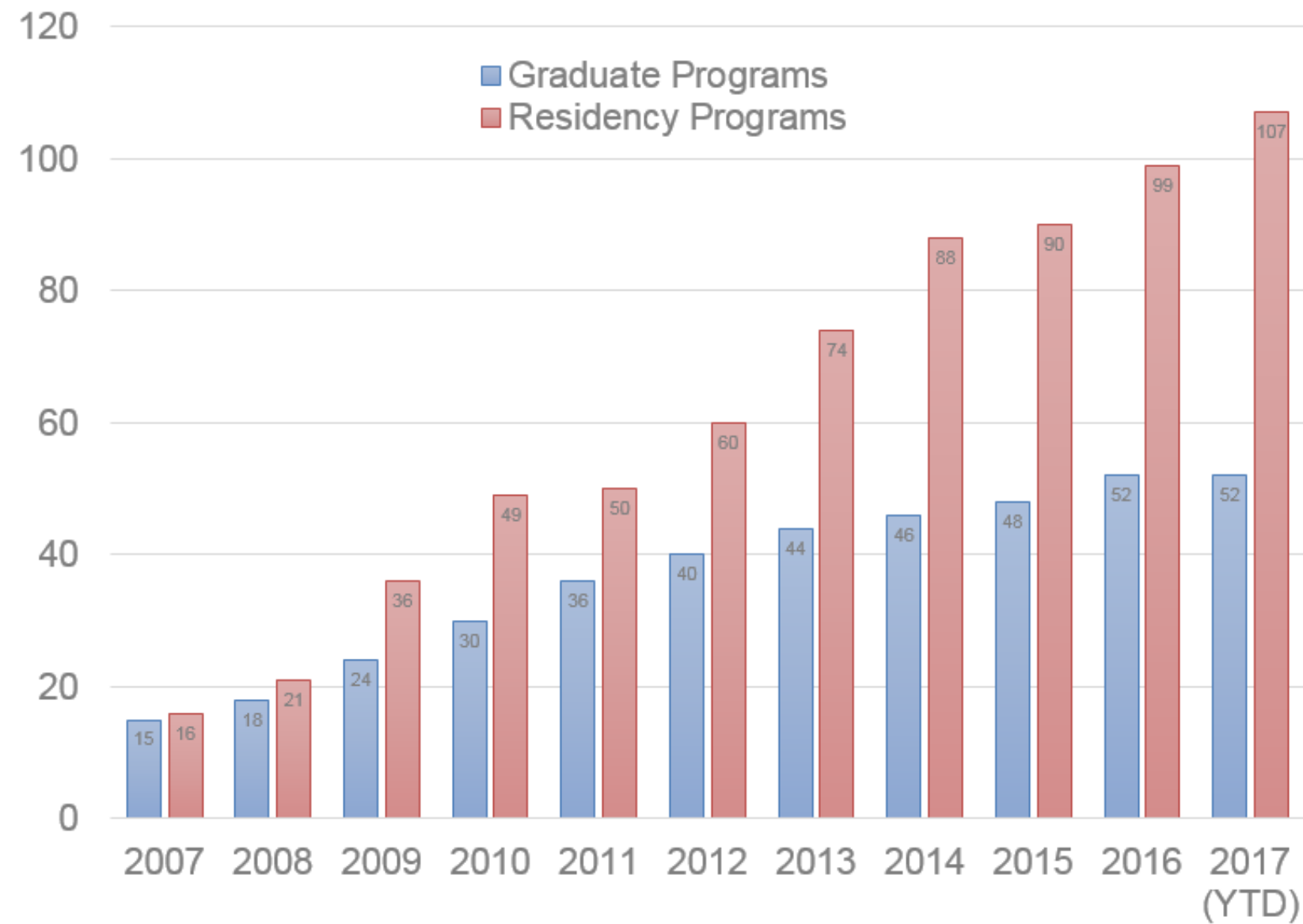
Donald Frey, <http://chapter.aapm.org/seaapm/meetings/2014/Frey.pdf>

Impact of 2012/2014 Initiative



Donald Frey, <http://chapter.aapm.org/seaapm/meetings/2014/Frey.pdf>

Impact of 2012/2014 Initiative



Courtesy of George Starkschall and Brenda Clark, CAMPEP Executive Secretary and Chair of the GEPRC

Development of the MedPhys Match

- Due to the growth in the number of residency programs, as well as the number of applicants for residency positions, attempts were made assist in the recruitment process
 - Gentleman's agreement (non-binding)
 - Attempt to establish common dates for residency interview process (application deadlines and offer dates)
 - MedPhys Match (initiated in the fall of 2014)
 - Program participation rate in the US was 92%

MedPhys Match

	2015	2016	2017
Participating Institutions	77	74	81
Participating Programs	86	77	81
Positions Offered	112	111	114
Participating Applicants	280	209	224
Matched Applicants	108 (39%)	106 (51%)	107 (46%)
Ranked Applicants*	185	157	174
Matched Ranked Applicants	66%	75%	78%

*Number of applicants ranked by at least one program.

<https://www.natmatch.com/medphys/aboutstats.html>

Current/Future State

- The next version of the Medical Physics Residency Application Program (MP-RAP) is being developed.
 - Streamlined interface
 - Similar functionality to current version
 - Text updated in areas to make it clearer
- MedPhys Match
 - This is the final year the AAPM will subsidize the match
 - Prices expected to rise in 2018
 - No major changes are expected

Courtesy of John Antolak, chair of the SubCommittee on the Oversight of MedPhys Match

Discussion on Coordinating Resident Interviews

- The Work Group on Coordination of Medical Physics Residency Programs has initiated discussions on trying to coordinate resident interviews
- Chief complaints from applicants
 - Significant amount of travel
 - Financial toll of travel
 - Impact on the completion of their graduate program
 - Duplication of interview dates
- Goal - collectively figure out a solution for coordinating residency interview schedules according to geographic location

Courtesy of Rajat Kudchadker , chair of the Work Group on Coordination of Medical Physics Residency Programs

Alternative Pathway

Task Group No. 298 - Task Group on Alternative Pathway Candidate Education and Training

- [bookmark this page](#) (bookmarks show under "My AAPM" in the menu to left)

No Website on file. | [Committee Wiki](#) | [Directory: Committee](#) | [Membership](#)

Email You may send email to this group now using [gmail](#) or [outlook](#).

- or -

You may save the address 2017.TG298@aapm.org to your local address book. This alias updates hourly from the AAPM Directory.

Charge

1. Review previous published recommendations on training for alternative pathway candidates (e.g., TG 197S), where an alternative pathway candidate is defined as an individual who wishes to enter the field of medical physics having previously received graduate education and training in an area of science or engineering other than medical physics.
2. Develop recommendations regarding the appropriate education and training for alternative pathway candidates based on data collected from professional organizations (e.g., AAPM, ABR, CAMPEP, SDAMPP), program directors, and/or the collective experience of the task group members.
3. Produce a white paper describing such recommendations.

Chair



J. Anthony Seibert
Task Group Chair

Residency Training

Expected Updates/Discussion Residency Training

- Task Group 249 on the Essentials and Guidelines for Clinical Medical Physics Residency Training Programs was published in 2013
 - Detailed lists of competencies
 - Sample templates rotation objectives
- The Work Group on Periodic Review of Medical Physics Residency Training has initiated discussion on the next revision
 - What is missing or needs updating?

Courtesy of Charles Willis, chair of the Work Group on Periodic Review of Medical Physics Residency Training

Expected Updates/Discussion Residency Training

- Due to the prevalence of imaging in radiation oncology, there have been discussions about recommending an imaging rotation in therapy residency programs

Courtesy of Rajat Kudchadker , chair of the Work Group on Coordination of Medical Physics Residency Programs

Extended/Hybrid Residencies

AAPM COMMITTEE TREE

Task Group No. 278 - Task Group on Combined Residency and Research Training in Medical Physics (TG-Hybrid Training)

- [bookmark this page](#) (bookmarks show under "My AAPM" in the menu to left)

[Committee Website](#) | [Committee Wiki](#) | [Directory: Committee](#) | [Membership](#)

Email You may send email to this group now using [gmail](#) or [outlook](#).
- or -
You may save the address 2017.TG278@aapm.org to your local address book. This alias updates hourly from the AAPM Directory.

Charge To develop a guidance document on the creation and management of combined Residency/Post-Doctoral Research Fellows programs.

Bylaws: Not Referenced. **Rules:** Not Referenced.

Approved Date(s) Start: 8/12/2015
End: 12/31/2018

Committee TG278
Keywords:

Chairs



[Joseph Deasy](#)
Task Group Co-Chair



[John Hazle](#)
Task Group Co-Chair

Post-Residency Training

Opportunities for Specialized Training

- Work Group on the Periodic Review of Medical Physics Residency Training is working on recommendations for the basic framework for fellowships
- Allow participants to learn about and gain experience in a specialize are of medical physics, for example:

Imaging	Nuclear Medicine	Radiation Oncology
MRI	Radionuclide therapy and dosimetry	Proton therapy
Hybrid imaging (PET/CT, SPECT/CT, PET/MRI)		Brachytherapy
		Stereotactic radiosurgery

Courtesy of Charles Willis, chair of the Work Group on Periodic Review of Medical Physics Residency Training

Summary

- In the last decade, we have observed a significant increase in the number of CAMPEP accredited training program
- In response, significant efforts have been made to streamline the application process for residency programs – MP-RAP and MedPhy Match
- We continue to review and update recommendation for the residency curriculum
 - Ensure training remains current with changing clinical environment
 - Provide research opportunities
- Post-residency – consider offering that would allow graduating residents to be more competitive/marketable