It's Complicated: Quantifying the Magnitude, Timing and Effect of Branching and Switching during Graduate Medical Education

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Presentation

- This presentation was originally given at the AAMC Health Workforce Conference 1st May 2014 using Tableau® (www.tableausoftware.com)

- Due to data use agreements it is not possible to distribute the Tableau file.

- If you would like to gain access to GME Track data used in this presentation please contact Paul Jolly at pjolly@aamc.org.

This project is funded by a grant from the Physicians Foundation.

Lets just have more GME slots.....

- Three bills to expand Graduate Medical Education (GME) by 15,000 positions have been proposed in Congress (HR 1201; HR 1180 and S 577).
- Each bill includes provisions to target between 1,000 and 1,500 new positions toward shortage specialties.
- The idea being that by “simply” increasing GME slots will increase supply in these shortage specialties

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However.....

- Increasing the number of residency positions in core specialties such as internal medicine (IM) and general surgery (GS) may only produce a fraction of the number of physicians in general IM and general GS relative to the number of new residency positions created in these specialties.

- This is because a significant proportion of IM and GS residents pursue subspecialty training. Jolly et al* have shown that of an entering cohort of 6,695 internal medicine residents, more than half (57%) subspecialize.

* Jolly, P; Erikson, C; Garrison, G. 2013. U.S. Graduate Medical Education and Physician Specialty Choice. Academic Medicine: April 2013 - Volume 88 - Issue 4 - p 468–474

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Even then.....

- There are less well quantified, or understood, flows that occur as residents switch from one specialty to another during training.

- This presentation illustrates some of these flows

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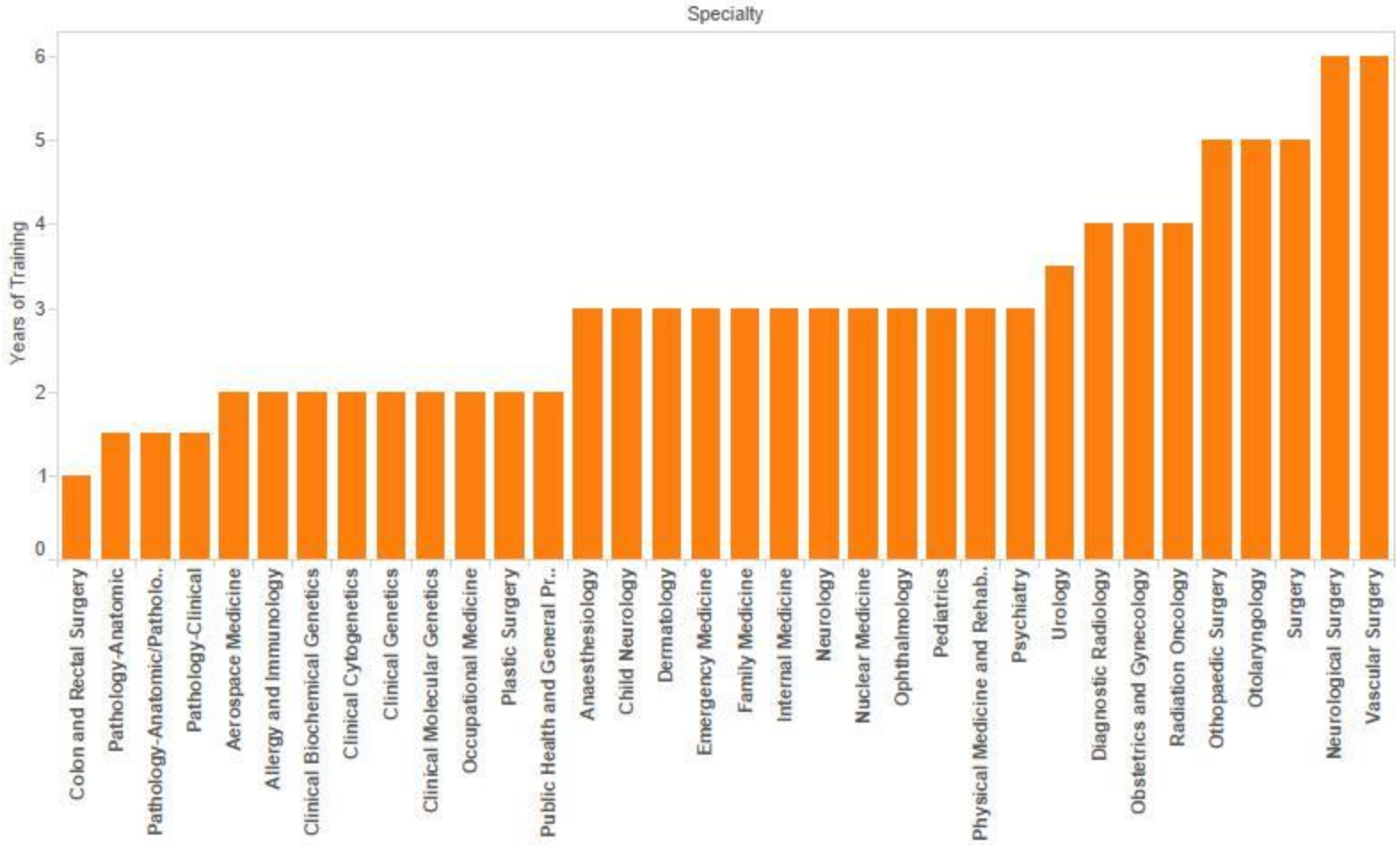
GME Training Lengths – initially looks simple



Source: American Board of Medical Specialties

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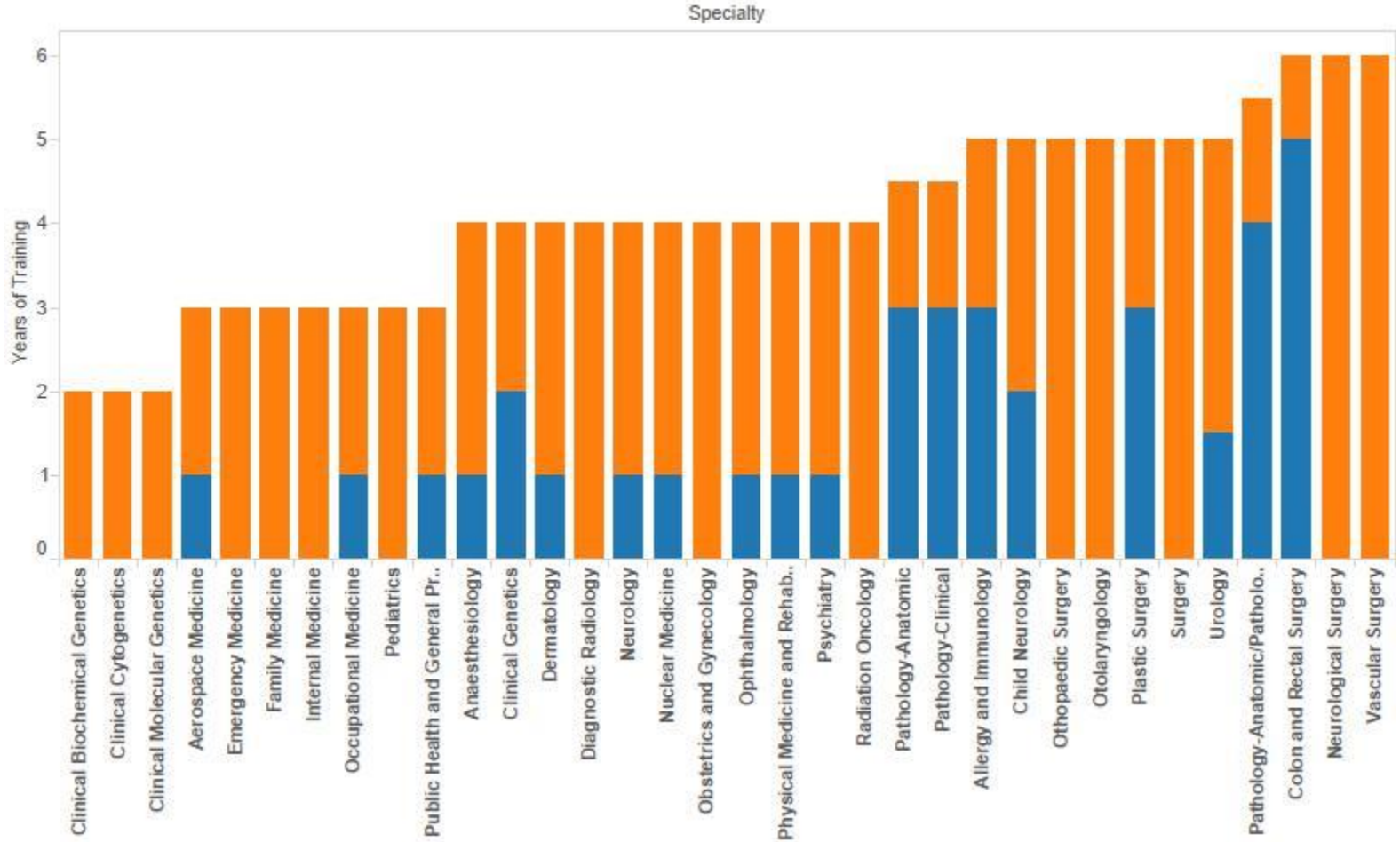
GME Training Lengths – now add in prerequisites and you get a hint of how complicated it is



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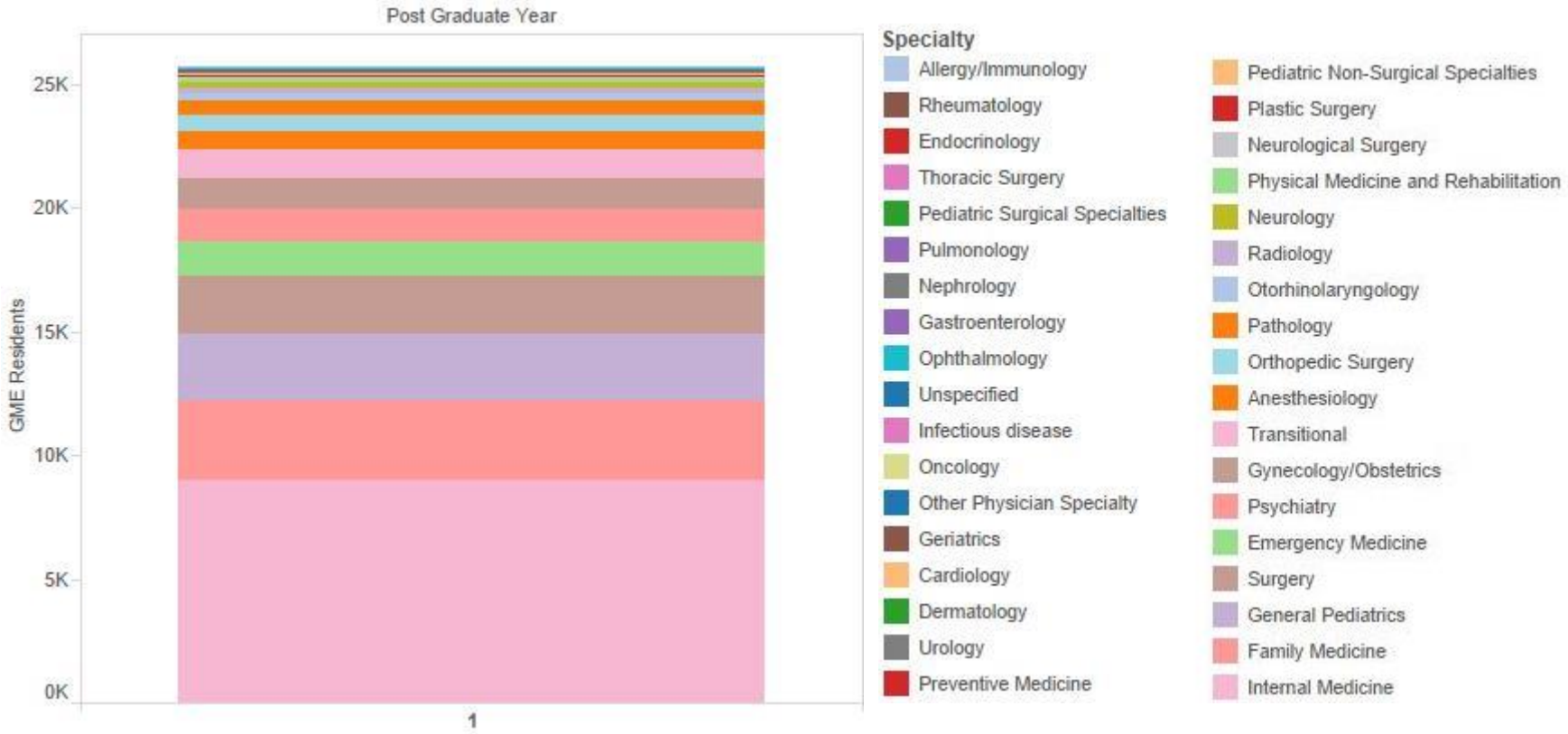
GME Distribution by specialty for PGY 1



The AAMC GME Track survey, averaged across 2004 to 2011, identifies a wide range of specialties in the 25K(ish) PGY1's

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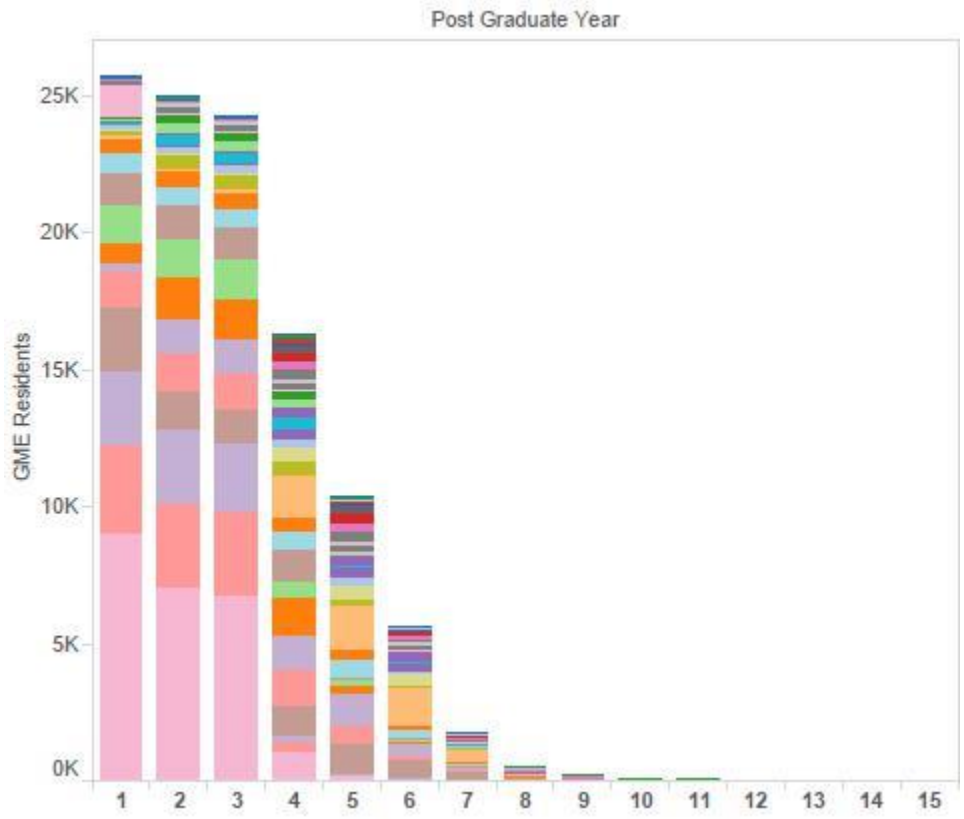
GME Distribution across all training



- Even though combined ABMS training lengths are all less than 6 years.
- The AAMC GME Track survey identifies some residents who have been in training for up to 15 years

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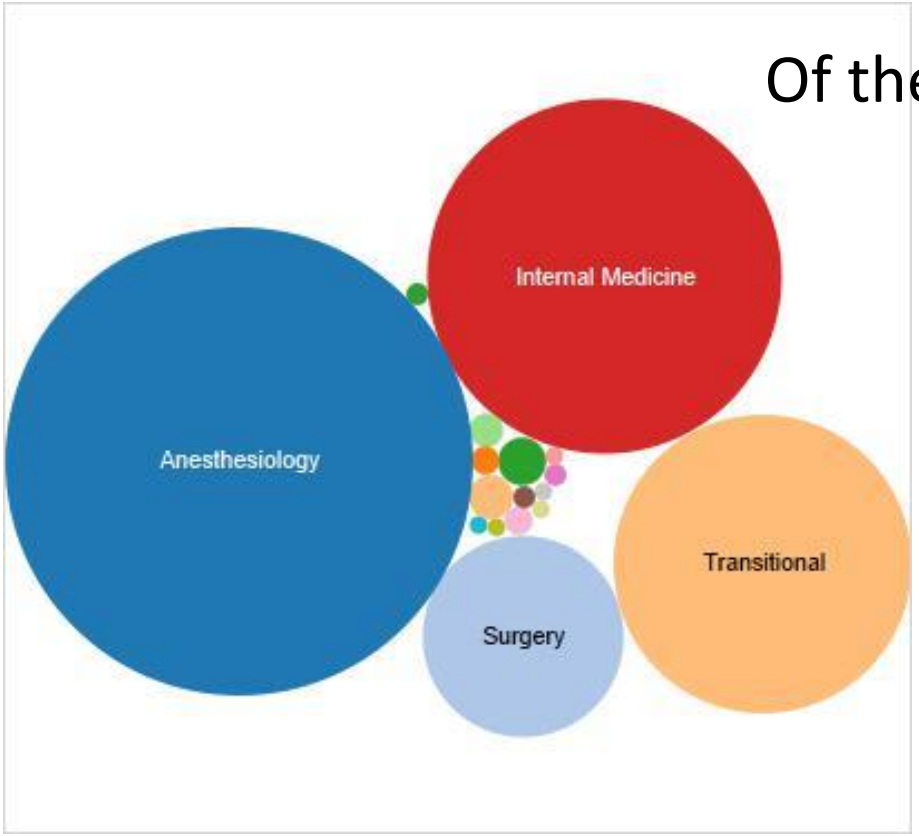
Across Specialty GME Flows into PGY2 Anesthesiology



Of the 1,493 PGY2's in Anesthesiology:

- 45.5% came from PGY1 Anesthesiology
- 26.1% from PGY1 IM
- 18.5% from PGY1 Transitional
- 8.4% from PGY1 Surgery
- The remaining 2.07% from 13 other PGY1 Specialties

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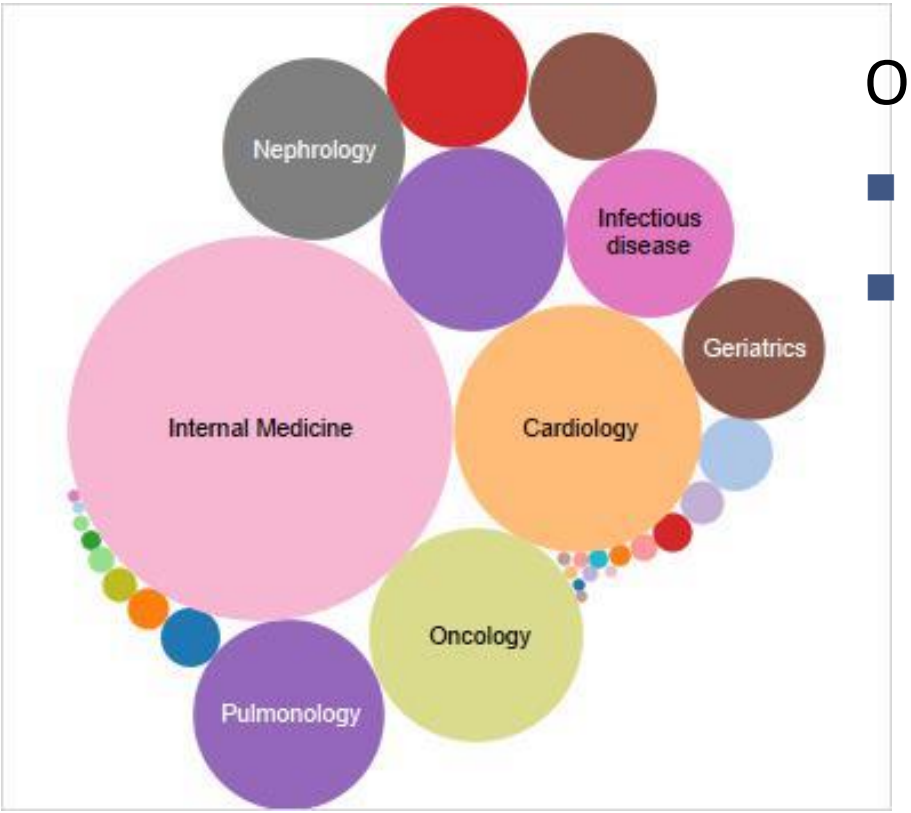
Across Specialty GME Flows from PGY3 Internal Medicine



Of the 6,748 PGY3 in IM

- ~3K are still in training in PGY4
- When they could have completed a 3 year generic IM residency.

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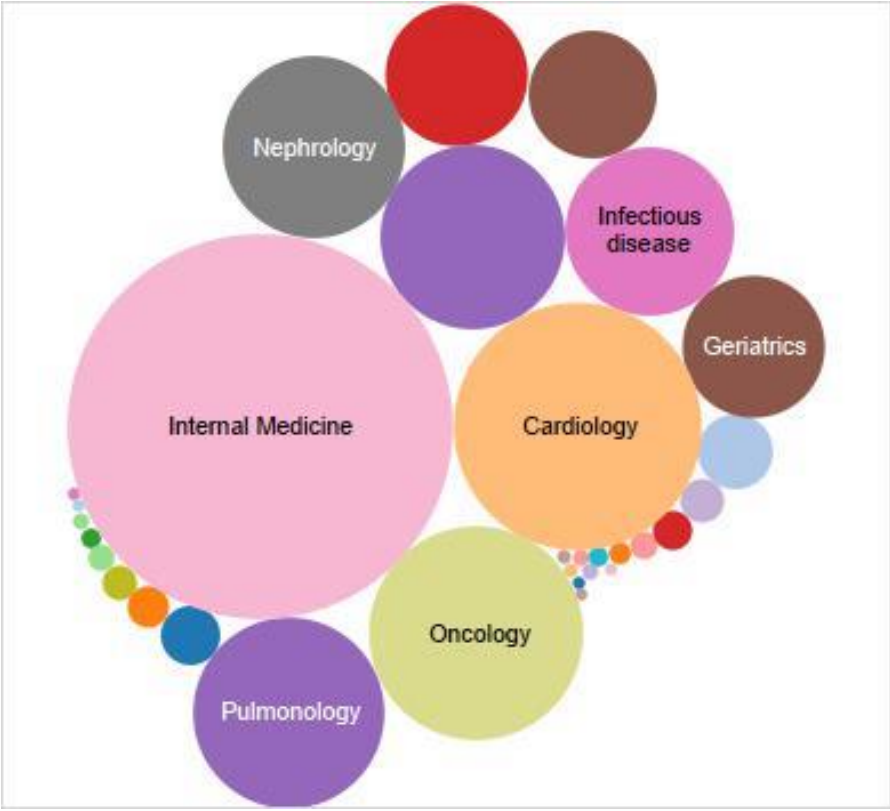
Across Specialty GME Flows from PGY3 Internal Medicine



The former PGY3 IM's still in residency flow as follows:

- 32% in IM
- 13.2% in Cardiology
- 9.87% in Oncology
- 7.9% in Pulmonology
- 7.3% in Gastroenterology
- 7.2% in Nephrology
- The remaining 22.8% across 25 specialties

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Take Away

- GME Training takes longer than the minimum training lengths - therefore changes in GME match numbers will take longer than expected to appear in practice
- There are flows in and out of specialty training pipeline that affect specialty output - therefore the numbers entering do not balance with the numbers completing.

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Conclusion

- Any changes in GME need to **ALSO** to adjust the training pipeline flows to ensure the expected outcomes are delivered.

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