

Who *doesn't* plan to become board certified?

Analysis of 1997-2004 graduates of five Midwestern medical schools and respondents to the AAMC GQ.

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The AAMC asks senior students...

“Are you planning to become certified
in a specialty or subspecialty?”

BUT RECENTLY.....

the percentage saying ‘yes’ has been
falling.

What does it mean to be Board Certified?

- Board of Ophthalmology first, in 1917
- ABMS (American Board of Medical Specialties) formed in 1933
- Currently 24 specialty board members
- All 24 ABMS member boards require:
 - Three-six years in an accredited program
 - Passing score on a rigorous knowledge exam

Positive Association with Quality

- Favorable impact on mortality from colon resection (Prystowsky JB 2002)
- Favorable impact on anesthesia-related mortality (Silber JH 2002)
- No impact on mortality, but impact on adherence to guidelines following Medicare patients' myocardial infarctions (Chen J 2006)

Positive Association with Behavior

- California state medical board disciplinary action negatively associated with specialty board certification (OR 0.42) Morrison J 1998
- Oklahoma state board action associated with lack of board certification (OR 3.3 univariate; 2.2 multivariate) Khaliq 2005

Who is Board Certified Now?

- 85% of practicing physicians in US
- US medical graduates > international; Non-US citizen IMG > US IMG (Norcini JJ 2005)
- Emergency room physicians 65.2% in urban areas vs. 30.8% rural (Wadman MD 2005)
- Graduates planning practice in underserved areas less likely to plan board certification (Jaffe DB 2006)

Purpose of Study

- Characterize graduates who *did* pursue residency training but answered 'no' to the AAMC GQ question re plans for board certification
- Data were examined for those graduates who released their information to their institutions
- A cohort of recent ('97-'04) graduates from 2 public and 3 private Midwestern medical schools
- IRB approval from each participating institution

Methods I

- Eligible graduates (1997 – 2004) identified through review of match lists, student affairs office data, graduation lists, AAMC GME-Track records
- Factors examined: medical-school ownership, year of graduation, age at graduation, AOA election, gender, race/ethnicity, specialty of residency, Step I and II scores

Methods II

- Chi-square, ANOVA tested for significance of differences between graduates pursuing residency who **did** or **did not** say '*no*' to AAMC GQ question re intention to become board-certified.

Results I: Prevalence

- One hundred eighty-one of 5,760 (3.1%) graduates in **residencies** identified who did **not** plan board certification
- Equal prevalence from private (101/3162, 3.2%) and public (80/2598, 3.1%) medical schools
- Increasing prevalence with time, from 0% (0/722) in 1997 to 6% (38/673) in 2004, $p=0.01$

Results II: Academic Strength

- Step One: 1997-2004 graduates **not** planning board certification
 - **Mean** (standard deviation) **217 (19)**

- Step Two:
 - **Mean** (standard deviation) **215 (22)**

AOA status

- 13.8% of clinical graduates *not* planning board certification
- National guideline: ~ 15%



Results III: Specialties

More likely to pursue **Internal Medicine** than all graduates nationally

– 87/181, **48%** versus 18,650/94,101, **19.8%**

More likely to pursue **Pediatrics** than all graduates nationally

– 45/181, **24.9%** versus 11,012/94,101, **11.7%**

Results IV: Gender

- Slightly more likely to be female
 - 99/181, **51%** versus 40,256/94101, **42.8%**



Summary: I

- A growing percentage of medical school graduates from 1997-2004 were not planning board certification
- They differ only slightly in gender, academic qualifications from other medical school graduates
- Board certification has been associated with good patient outcomes, and lack of physician problems

The Future of Board Certification...

Maintenance of Certification

Framework for 'Maintenance of Certification'

- Evidence of Professional Standing (e.g. lack of medical board actions)
- Lifelong learning/periodic self-assessment
- Cognitive expertise demonstrated by a secure examination
- Performance in practice (e.g. clinical outcomes compared with normative data)

Impact of Maintenance of Certification Framework ?

Clinical differences between board-certified and non-board certified physicians will likely **increase**



Conclusions

- Health care disparities may be exacerbated by the lower specialty board certification rates in underserved areas
- Medical school graduates *not* planning board certification are similar to their peers
- **All** current medical students and trainees should learn about board certification's role in maintaining their life-long learning