Teaching Hospitals & Medical Schools: Moving Beyond Affiliation Agreements to Impactful Strategic Partnerships

Prepared for: Alliance of Independent Academic Medical Centers Annual Meeting

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Disclosures

- Financial: none
- Experiential: to follow

Key Objectives:

All AIAMC members have affiliation agreements with medical schools, and many have multiple agreements. As was presented in the AIAMC's August webinar, truly successful agreements are strategically created and nurtured. Our members' C-Suites are acutely aware of physician shortages, workforce development challenges and DEI issues. Addressing these issues requires a continuum of education and partnership from UME to GME to CME. This session will allow a deep dive into these key issues and provide tangible tools to put in participants' toolkits to use upon return to their home institutions.

This session is designed to be an interactive education and a collective think tank.

Goals for today:

- Identify opportunities to develop current affiliation agreements into strategic partnerships
- Discuss strategies to enhance these relationships through GME programs
- Identify impact of the recent US Supreme Court Decision on on health disparities and diversity, equity, and inclusion (DEI)

Which of these have you heard a CEO say?

Residency programs =

A. A drain on the resources of the organization

B. Just another way for a medical school to take the hospitals' money

C. Decrease the quality of care for the system

D. All of the above

E. None of the above

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What has been your experience? …..

Graduate medical education programs are:

A. One of the best clinical resources available to the organization

B. A less expensive option than staffing with advanced practice providers

C. Serve as workforce development tool that should be a key part of organizational strategy

D. All of the above

E. None of the above

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GME Program Facts

- Replacing residents with advanced practice providers increases costs to an institution with no change in patient outcome resulting in net financial loss.[1]

- 7-, 30-, and 90-day mortality rates across more than 21 million Medicare admission in 15 common medical and 6 common surgical conditions are significantly lower in teaching hospitals than non-teaching hospitals, with a linear inverse relationship between volume and mortality.[2]

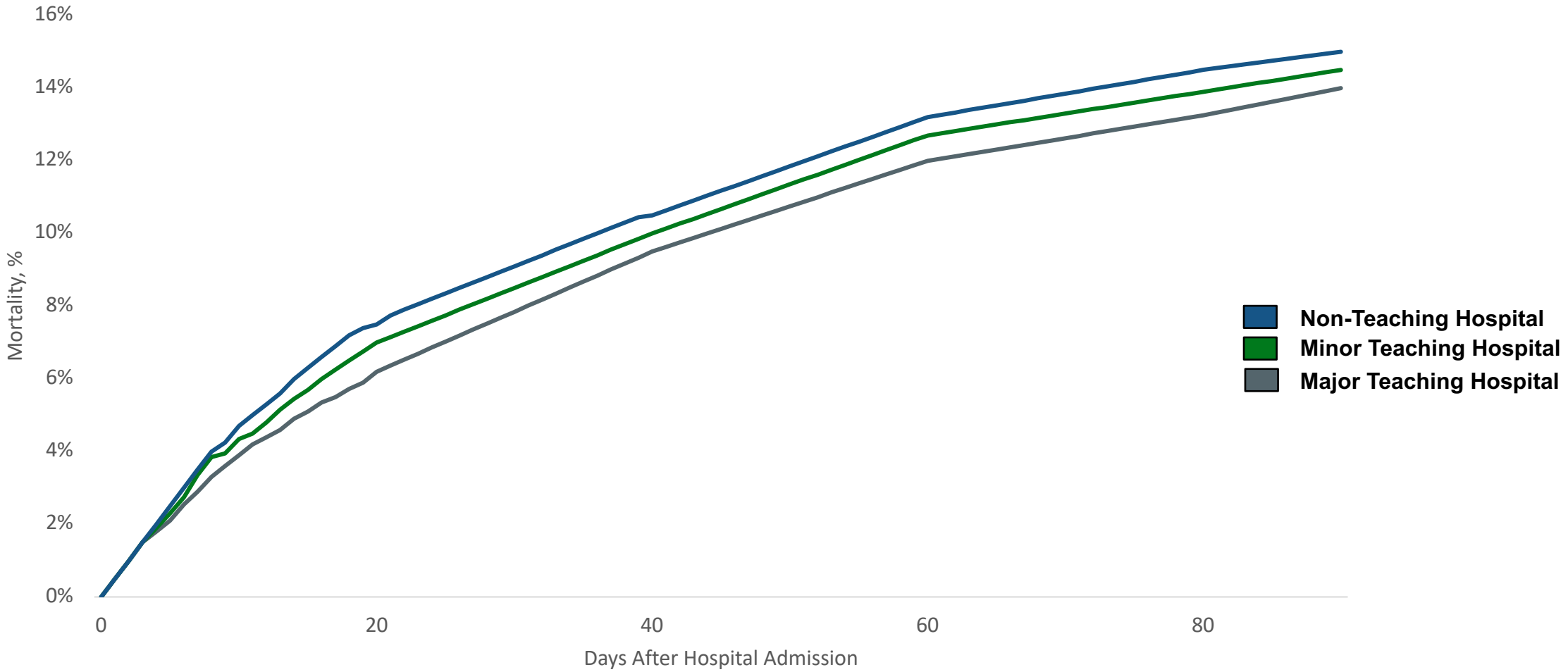
- This finding was replicated in specialty-specific studies focusing primarily on general surgery admissions, vascular surgery admissions, acute myocardial infarction, heart failure, and pneumonia.[3]

1) Chamberlain RS, Patil S, Minja EJ, et al. Does residents' involvement in mastectomy cases increase operative cost? If so, who should bear the cost? J Surg Res. 2012;178(1):18e27.

2) Burke LG, Khullar D, Zheng J, et al. Comparison of costs of care for Medicare patients hospitalized in teaching and nonteaching hospitals. JAMA Network Open. 2019Jun5;2(6):e195229.

3) Silber JH, Rosenbaum PR, Niknam BA, et al. Comparing outcomes and costs of surgical patients treated at major teaching and nonteaching hospitals: a national matched analysis. Ann Surg. 2020Mar;271(3):412–421

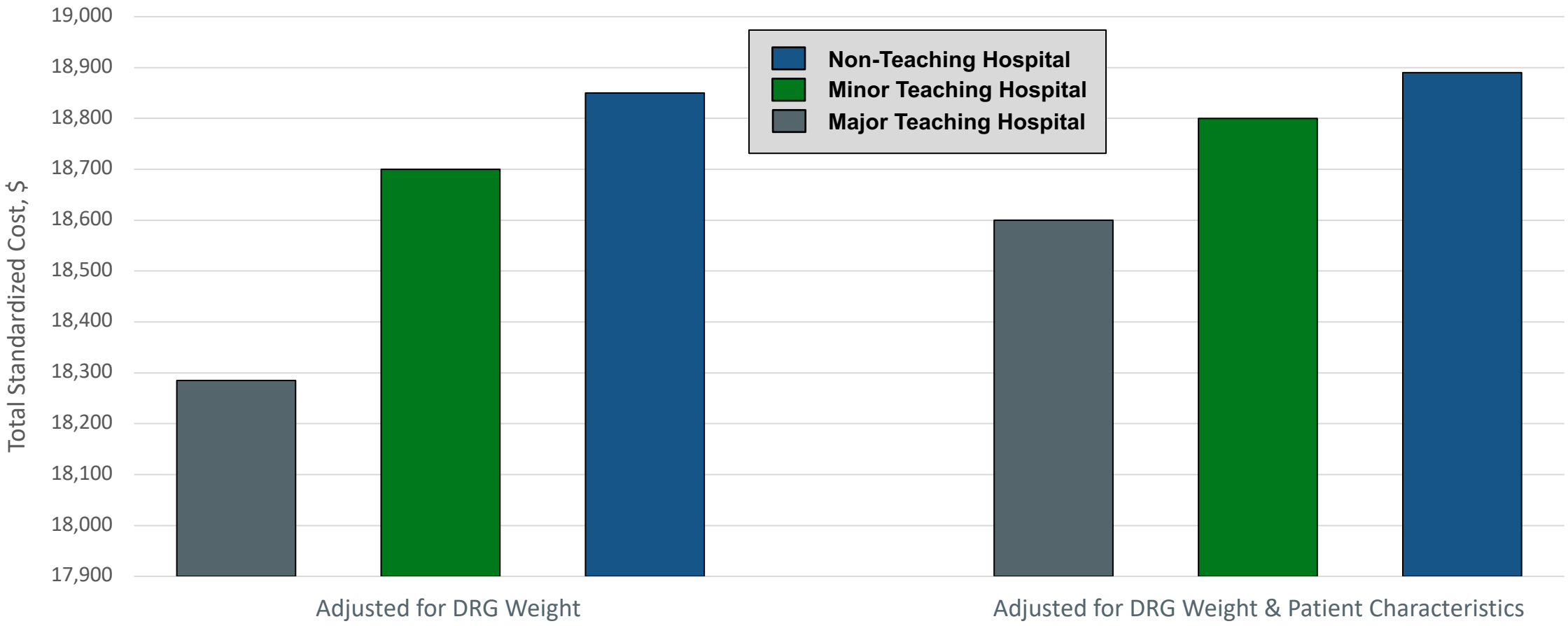
Association Between Teaching Status and Mortality in US Hospitals[1]



1) Mortality after hospital admission among major teaching, minor teaching, and nonteaching hospitals. All hospitalizations to acute care hospitals in 2012 – 2014 among continuously enrolled traditional Medicare beneficiaries 65 years and older. Major teaching hospitals were defined as those with membership in the Council of Teaching Hospitals (COTH). Minor teaching hospitals had medical school affiliation but no COTH membership. Nonteaching hospitals had neither COTH membership nor medical school affiliation.

Source: JAMA Network

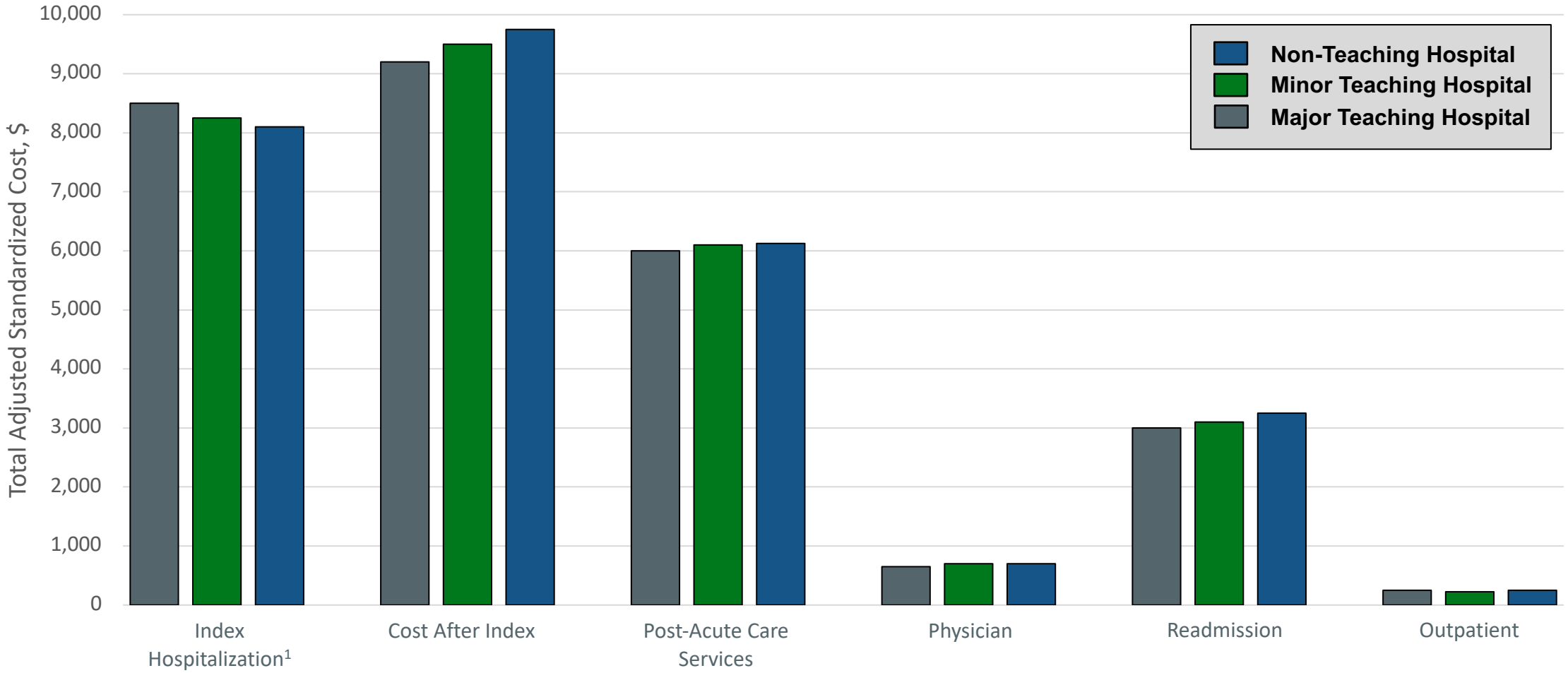
Comparison of Costs of Care for Medicare Patient Hospitalized in Teaching & Non-Teaching Hospitals[1]



Note: incorporates patient age, sex, Medicaid eligibility, & chronic conditions

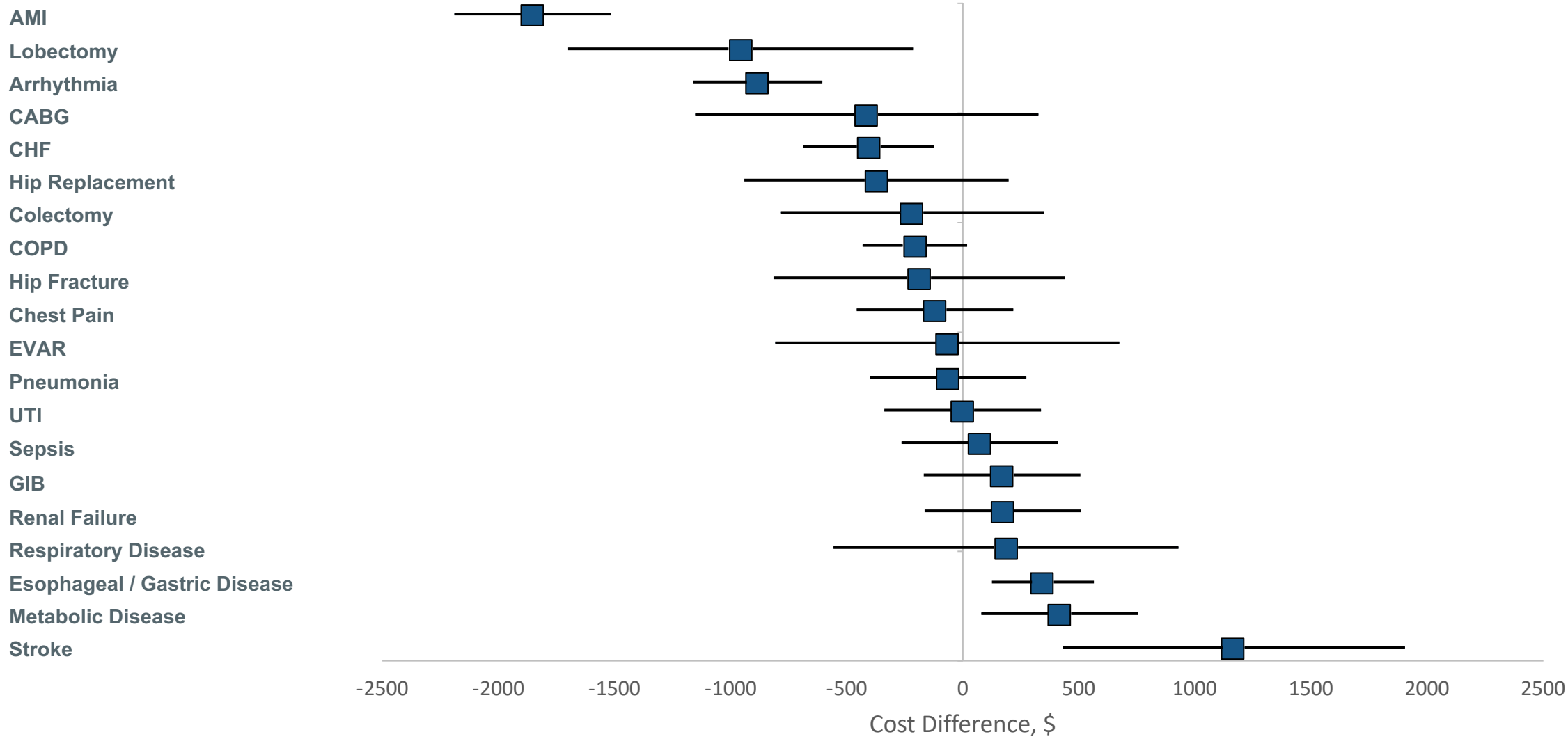
1) Total Standardized Costs Within 30 Days of a Hospital Admission by Hospital Teaching Status Total standardized costs for all hospitalizations for the 21 conditions in our sample (N = 1 249 006) are shown. The standardized cost method is described by the Centers for Medicare & Medicaid Services, in which each service is assigned a cost based on national Medicare payment rates without adjustments for wage index. Major teaching hospitals were members of the Council of Teaching Hospitals (COTH). Minor teaching hospitals had a medical school but no COTH affiliation. Nonteaching hospitals had neither COTH membership nor medical school affiliation. For the difference in costs between major and nonteaching hospitals in the model adjusted for diagnosis related group (DRG) weight, P < .001; in the model with patient characteristics added, P = .005. (Source: JAMA Network)

Comparison of Costs of Care for Medicare Patient (continued)



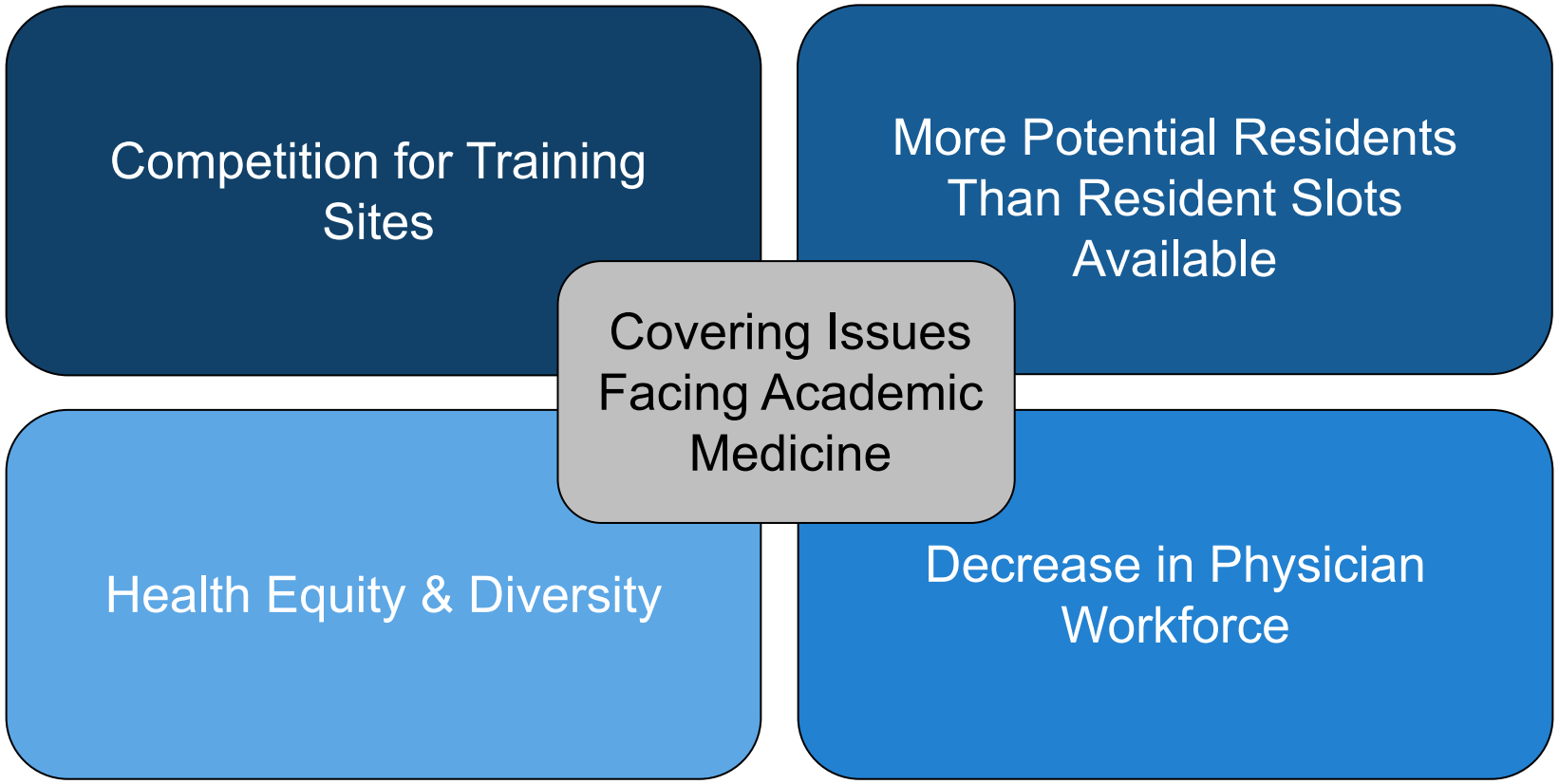
1) Difference between major and nonteaching hospitals. All differences are significant at P < .001. Study sample includes 1 249 006 hospitalizations for the top 15 medical conditions and 6 surgical procedures. (Source: JAMA Network)

Comparison of Costs of Care for Medicare Patient (continued)

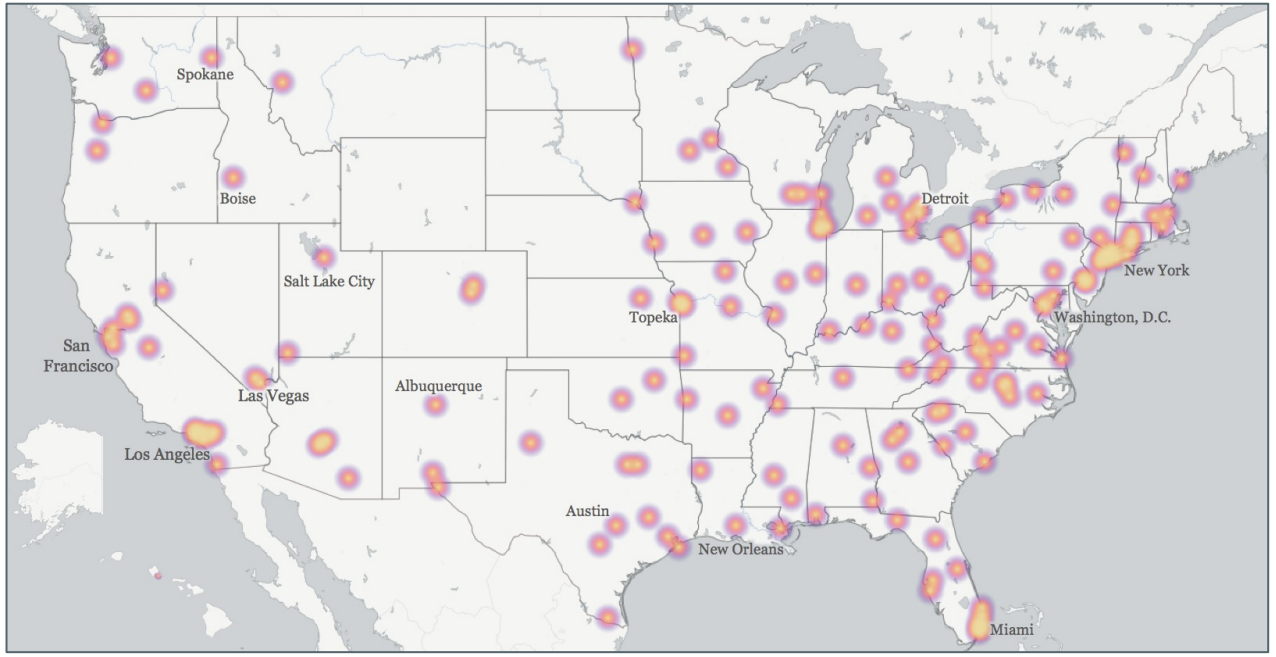


1) Comparison of the Difference Between Major Teaching and Nonteaching Hospitals With Respect to Adjusted Standardized 30-Day Costs for Individual Medical Conditions and Surgical Procedures Generalized linear models with a γ distribution for cost and a log link, adjusting for hospital referral region fixed effects, principal discharge diagnosis and/or surgical procedure, as well as diagnosis related group weight and patient age, sex, chronic conditions, and Medicaid eligibility. Major teaching hospitals were members of the Council of Teaching Hospitals. Minor teaching hospitals had a medical school but no Council of Teaching Hospitals affiliation. The remaining hospitals were considered nonteaching. The standardized cost method is described by the Centers for Medicare & Medicaid Services in which each service is assigned a cost based on national Medicare payment rates without adjustments for wage index. Displays costs based on 95% CIs. AMI indicates acute myocardial infarction; CABG, coronary artery bypass grafting; CHF, congestive heart failure; COPD, chronic obstructive pulmonary disease; EVAR, endovascular abdominal aortic aneurysm repair; GIB, gastrointestinal bleeding; and UTI, urinary tract infection. **(Source JAMA Network)**

In the current healthcare landscape, there are several forces at play impacting graduate medical education.

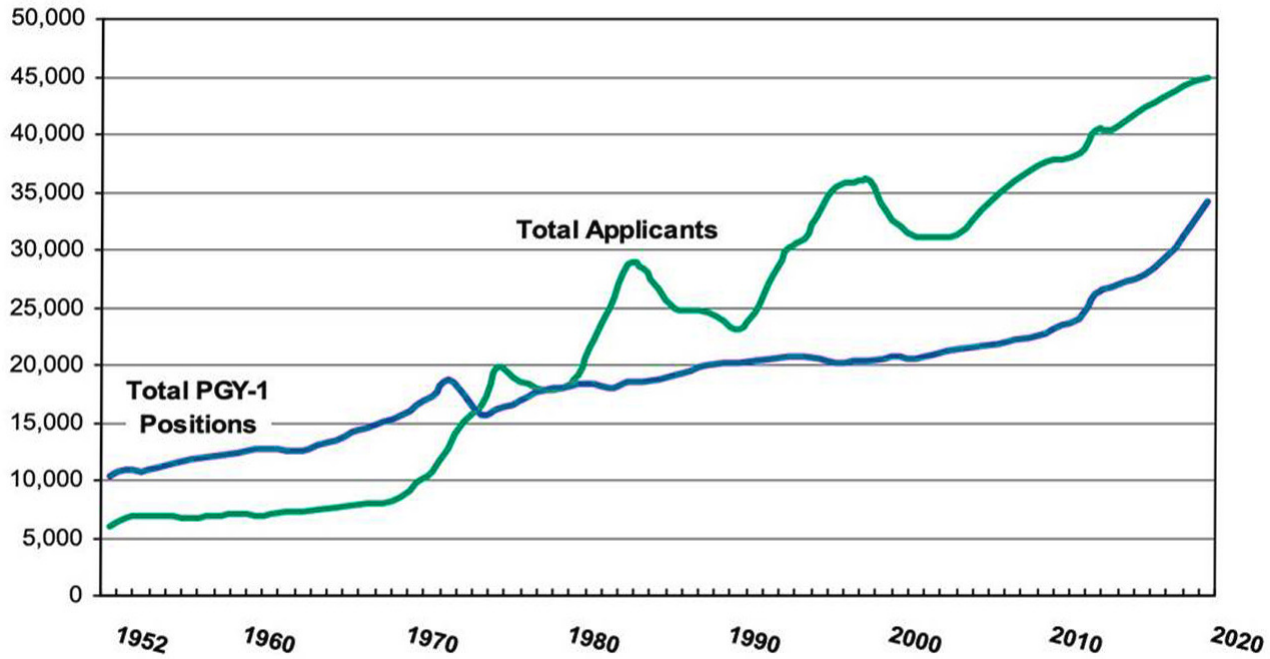


Competition for Training Sites



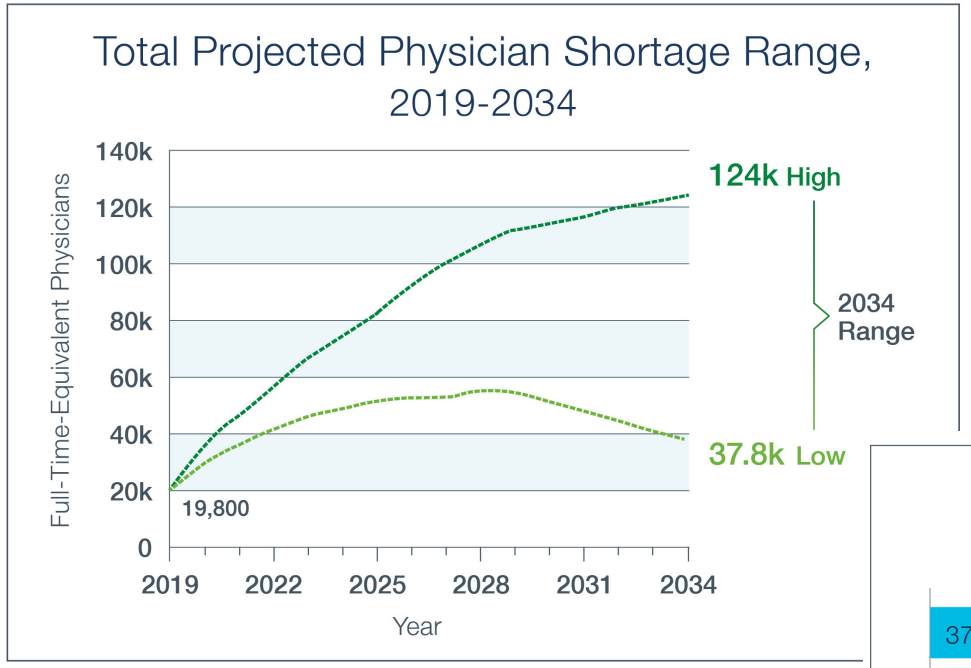
- As of September 2023, there are 195 medical schools in the U.S.:
  - 158 accredited MD-granting schools with 5 new programs in the applicant/candidate stage of accreditation
  - 37 accredited DO-granting schools – expected to grow to 40 with 65 locations in the 2023-24 academic year
  - Over the last 10 years, students attending DO schools has grown by 77%
- Medical schools are constantly seeking out partnership opportunities for clinical training.
- Contributing factors to increased competition:
  - Varied funding policies between DO and MD programs for GME
  - Limited number of providers willing to take on teaching roles

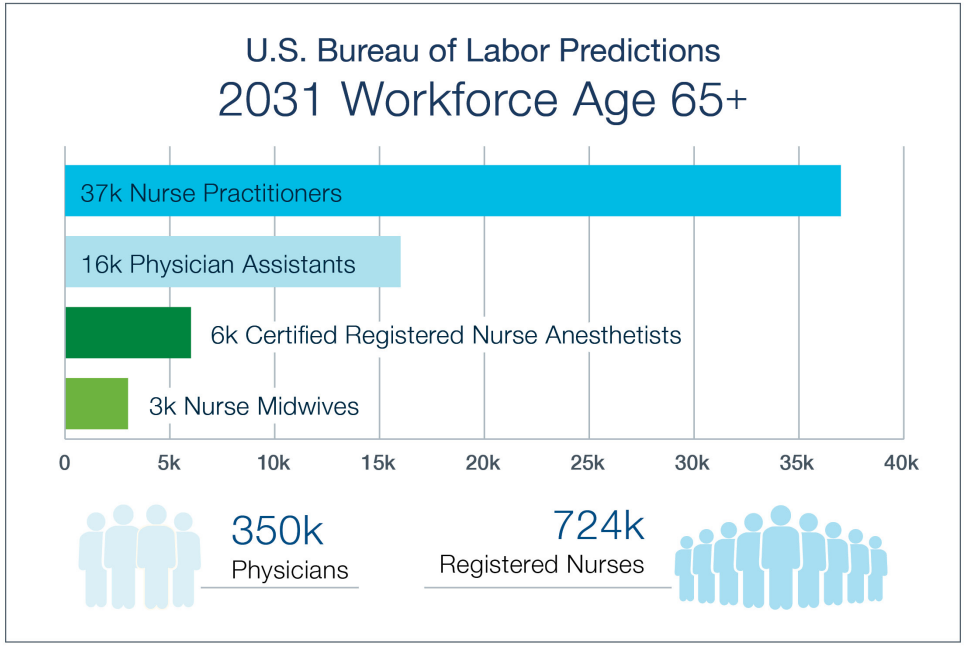
More Graduating Medical Students Than Resident Slots



- In 1972, the number of total medical residency applicants first exceeded total available post-graduate-year-one residency positions (residency training is required for physician licensure).
- The gap has only widened. In 2021, 42,508 graduating medical students applied for residency programs, but only 35,194 first-year positions were available, which left more than 7,300 students without immediate residency opportunities.
- Federal government is funding 200 additional spots per year over 5 years (1000 slots total) in part to address this growing gap (with restrictions).

Decrease in Physician Workforce





Decrease in Physician Workforce

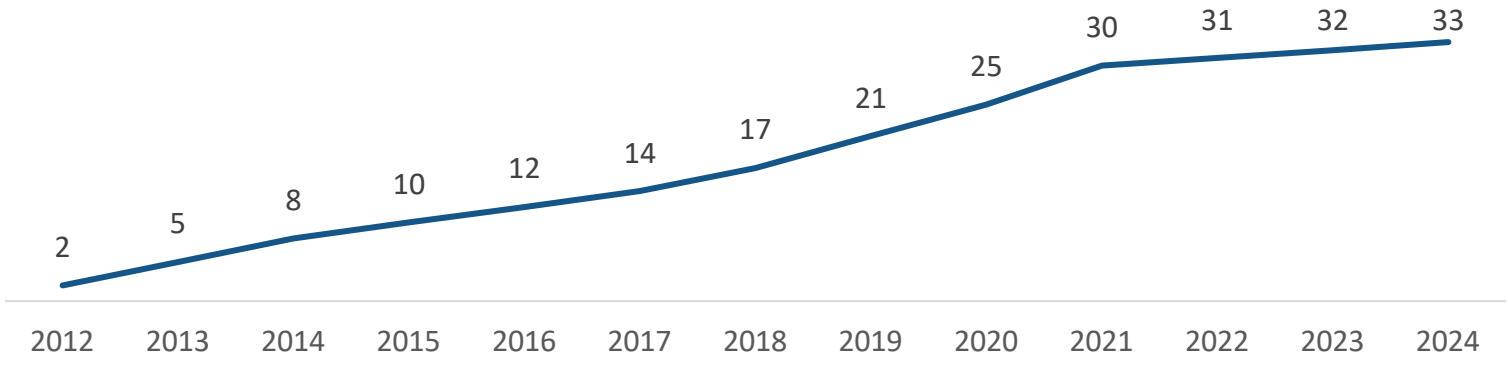
One Sample Solution:

Accelerated Medical Education

Early Start to Medical Residency Training

Year	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
1	Orientation	Study of Medical Life Sciences										
		Clinical & Interpersonal Skills Development										
2	Year 1 Summer Research	Study of Medical Life Sciences						Non-Clinical Electives		Transition to Clinical Care	Clerkship Rotations	
		Clinical & Interpersonal Skills Development						Step 1: Prep & Exam			Longitudinal Research	
3	Clerkship Rotations									Post-Clerkship Rotations		Residency Orientation
	Longitudinal Research									Step 2: Prep & Exam		
4	Medical Residency											

Growing Number of Accelerated Pathway Programs in the U.S., 2012 - 2024

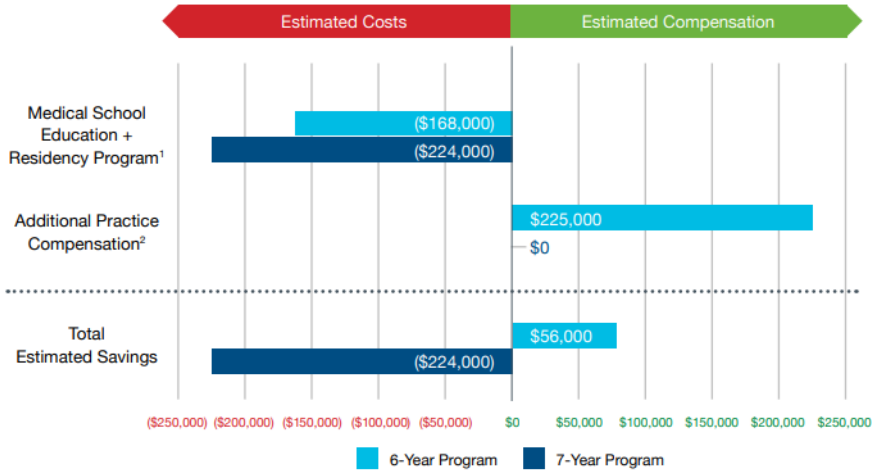


Decrease in Physician Workforce

One Sample Solution:

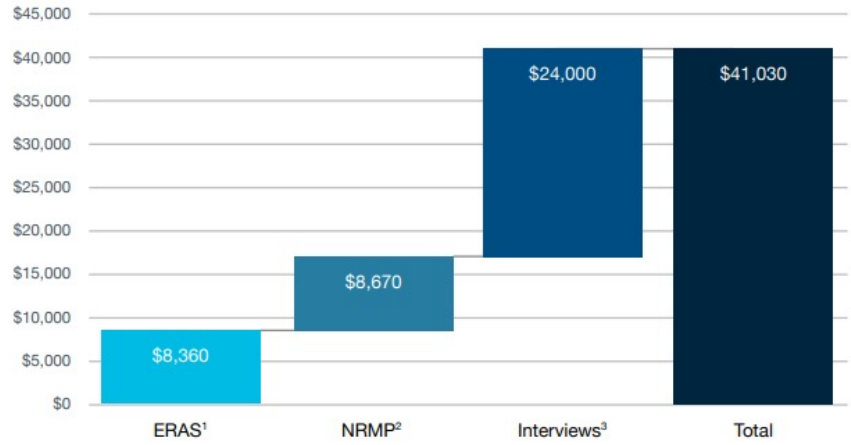
Accelerated Medical Education

Baseline Cost Savings From Accelerated Programs



1. Based on an average of $56,000 per year of medical school education for four years, as reported by Shemmassian Academic Consulting (Based on 2022 – 2023 School Year Tuition and Fees for All Medical Schools Nationwide)
2. Based on PYA experience for Primary Care Provider Starting Compensation

Additional Cost Savings From Automatic Residency Training Slot



1. Based on Electronic Residency Application Service 2024 Residency Fee Calculator. Assumes the cost of 300 applications and USMLE & COMLEX-USA Transcript fees
2. Based on National Resident Matching Program Fee Schedule. Assumes the cost of 300 residency application ranks
3. Based on an Association of American Medical Colleges 2022 report indicating that a candidate can spend as much as $24,000 in residency program interview process

Decrease in Physician Workforce

One Sample Solution:

Accelerated Medical Education

Possible Exceptions to the Main Match All In Policy:

- **Rural Scholars Programs**: Students commit to an enriched MS-4 year that focuses on rural health issues and tracks into primary care residency at the institution.
- **Family Medicine Accelerated Programs**: Students graduate medical schools in three years and make an early commitment to Family Medicine at the institution.
- **Innovative Programs**: Students recruited into programs that address a compelling public interest and differ qualitatively from traditional undergraduate medical education curricula.
- **Military Appointees to Civilian Programs**: Positions reserved for applicants placed in civilian training programs as part of the Joint Service Graduate Medical Education Selection Board, or Military Match, based on pre-existing arrangements between the civilian programs and military branch GME offices. Applicants who are provided funding by their military branch but not placed through the Military Match process into a civilian training program do not qualify for exceptions to the All In Policy. Those positions must be filled through the Match, and programs can create special tracks for military funded applicants in the R3 system.
- **Post-SOAP Positions**: Positions created by programs at the conclusion of Supplemental Offer and Acceptance Program for partially-matched applicants who need either a PGY-1 or PGY-2 position to achieve a full course of training.
- **Off-Cyle Appointments**: Positions becoming available after the Match opens in September and for which training will begin prior to February 1 in the year of the Match. If training will begin after January 31, the position must be filled through the Match.

Benefits to Communities:

- The mission of all hospitals and health systems, regardless of size and type of ownership, is to care for their patients and communities. In addition to providing financial assistance to those in need, hospitals have programs that are responsive to their community's needs. These community benefits include help with housing, accessing healthy food, educational programs, health screenings, transportation to ensure patients arrive at needed medical appointments, vaccination clinics and other programs to address the many other needs that affect the community's health and well-being.

Source: https://www.nrmp.org/policy/possible-exceptions-to-the-main-match-all-in-policy/

Health Equity & Diversity

SFFA vs. Harvard & SFFA vs. UNC

On June 29, 2023, in a 6 – 3 decision, the Supreme Court held that Harvard's and UNC's consideration of individual consideration of individual student's race violated the Equal Protection Clause of the 14th Amendment.

Chief Justice John Roberts (joined Justice(s) Kavanaugh, Alito, Gorsuch, Thomas, & Barret):

- *"… the Harvard and UNC admission programs cannot be reconciled with the guarantees of the Equal Protection Clause. Both programs lack sufficiently focused and measurable objectives warranting the use of race, unavoidably employ race in a negative manner, involve racial stereotyping, and lack meaningful end points."*

Other Key Supreme Court Decisions Influencing this Decision:

Bakke v. Regents of University of California, 438 US 265 (1978)

- × Remedying past discrimination
- × Quotas
- ✓ Advancing the educational benefits of diversity

Gratz 539 US 244 (2003) & Grutter v. Bollinger, 539 US 306 (2003)

- × "Points"
- ✓ Narrowly-tailored consideration of race (holistic review) to advance educational benefits of diversity

Fisher v. Texas, 570 US 297 (2013) & Fisher II, 579 US 365 (2016)

- ✓ Necessity regularly evaluated by exploring race-neutral alternatives

Source: American Health Law Association. February 6 & 7, 2004, Advancing Diversity in Academic Medicine After the Harvard/UNC Cases, Margia K. Corner (University of California), Tahvia Jenkins, Frank Trinity (Association of Academic Medical Colleges).

Health Equity & Diversity

SCOTUS Decision – Implications for Diversity Strategies in Academic Medicine

Department of Justice (DOJ) Civil Rights Division and Department of Education (DOE) Office of Civil Rights co-released two documents on August 14, 2023.

The Joint Guidance:

- ✓ "Institutions of higher education may continue to articulate missions and goals tied to student body diversity and may use all legally permissible methods to achieve that diversity."
- ✓ "Institutions may… consider race" when "identifying prospective students through outreach and recruitment."
- ✗ Admission Preference: If pathway program participants were selected using non-racial, criteria, "the Institution may give… participants preference in… college admission"
- ✓ Selection: "Institutions may not award slots in pathway programs based on an individual student's race without triggering that strict scrutiny that SFFA applied" (May consider "lived experience")

Source: American Health Law Association. February 6 & 7, 2004, Advancing Diversity in Academic Medicine After the Harvard/UNC Cases, Margia K. Corner (University of California), Tahvia Jenkins, Frank Trinity (Association of Academic Medical Colleges).

Health Equity & Diversity

SCOTUS Decision – Implications for Diversity Strategies in Academic Medicine

Considering Lived Experience (not data):

- ✓ Institutions may consider applicants' lived experiences – including those related to their "race, experiences of racial discrimination, or the racial composition of their neighborhoods and schools", as well as any quality or characteristic of a student "even if the student's application ties that characteristic to the student's lived experience with race."

Data Collection:

- ✓ "Institutions may continue to collect [applicant and matriculant demographic data] and use it for a variety of purposes so long as… data related to [applicants' race] do not influence admissions decisions."
- ✗ "Institutions should consider steps that would prevent admissions officers who review student applications from using the data to make admissions decisions."

Source: American Health Law Association. February 6 & 7, 2004, Advancing Diversity in Academic Medicine After the Harvard/UNC Cases, Margia K. Corner (University of California), Tahvia Jenkins, Frank Trinity (Association of Academic Medical Colleges).

Health Equity & Diversity

- Emerging research suggests disparities in health outcomes across racial lines may be ameliorated by racial concordance between the physician and patients.
- Findings suggest that when black newborns are cared for by black physicians, the mortality penalty they suffer as compared with white infants is halved.
- Black newborns are more than twice as likely to die in their first year as White newborns [1,090 vs. 490 deaths per 100,000 births, respectively].
- Under the care of White physicians, Black newborns experience 430 more fatalities per 100,000 births than White newborns. Under the care of Black physicians, the mortality penalty for Black newborns is only 173 fatalities per 100,000 births above White newborns, a difference of 257 deaths per 100,000 births, and a 58% reduction in the racial mortality difference.

1) K. F. Foundation, Number of births by race (2017). https://www.kff.org/other/state-indicator/births-by-raceethnicity/. Accessed 30 July 2020.

Source: Greenwood BN, Hardeman RR, Huang L, Sourner A. **Physician-patient racial concordance and disparities in birthing mortality for newborns.** PNAS 2020; 117(3521194-21200.

African American Enrolled Students & Graduates of Currently Open Historically Black Medical Schools

School	Enrolled Students in 2019 - 2020[1]	Graduates in 2019 - 2020[1]	Graduates in 2018 - 2019[1]	Graduates in 2015 - 2019[2]	Male to Female Ratio of 2018 – 2019 Graduates[1]
Charles R. Drew University of Medicine & Science (CA)[3]	72	22	4	36	1.2 : 1.0
Howard University School of Medicine (D.C.)	316	108	67	314	1.0 : 1.0
Meharry Medical College (TN)	335	104	82	339	0.7 : 1.0
Morehouse School of Medicine (GA)	260	73	53	207	0.8 : 1.0

1) Data obtained from the AAMC.

2) Total Graduates by U.S. medical school and race/ethnicity from 2013 to 2014 through 2018 to 2019 obtained from the AAMC.

3) Data from the joint program of the AAMC and the University of California, Los Angeles, provided by the Charles R. Drew University Office of Institutional Research.

Source: Campbell KM, Corral I, Infante Linares JL, Tumin D. **Projected Estimates of African American Medical Graduates of Closed Historically Black Medical Schools.** *JAMA Network Open.* 2020; 3(8):e2015220

Projected Estimates of Additional Graduates From Closed Historically Black Medical Schools

School	Est. Graduates Per Year (Mean)	Years Between School Closure & 2019, No.	Steady Expansion Model (Exp. Rate of 0.9 grads per year to max of 100 graduates)	Rapid Expansion Model (Exp. Rate of 1.3 grads per year to max of 100 graduates)
Flint Medical College of New Orleans University (LA)	5.27	108	5,862	7,396
Knoxville Medical College (TN)	2.60	109	5,678	7,396
Leonard Medical School of Shaw University (NC)	11.06	101	5,750	7,396
Louisville National Medical College (KY)	4.17[1]	107	5,646	7,396
University of West Tennessee College of Medicine & Surgery - Memphis (TN)	6.74	96	4,837	7,396
Total Projected Graduates: All 5 Schools	Not Applicable	Not Applicable	27,773	35,315
Total Projected Graduates: Leonard Medical School & University of West Tennessee (Only)	Not Applicable	Not Applicable	10,587	13,403

1) Mean number of graduates based on the lower limit of the known total number of graduates.

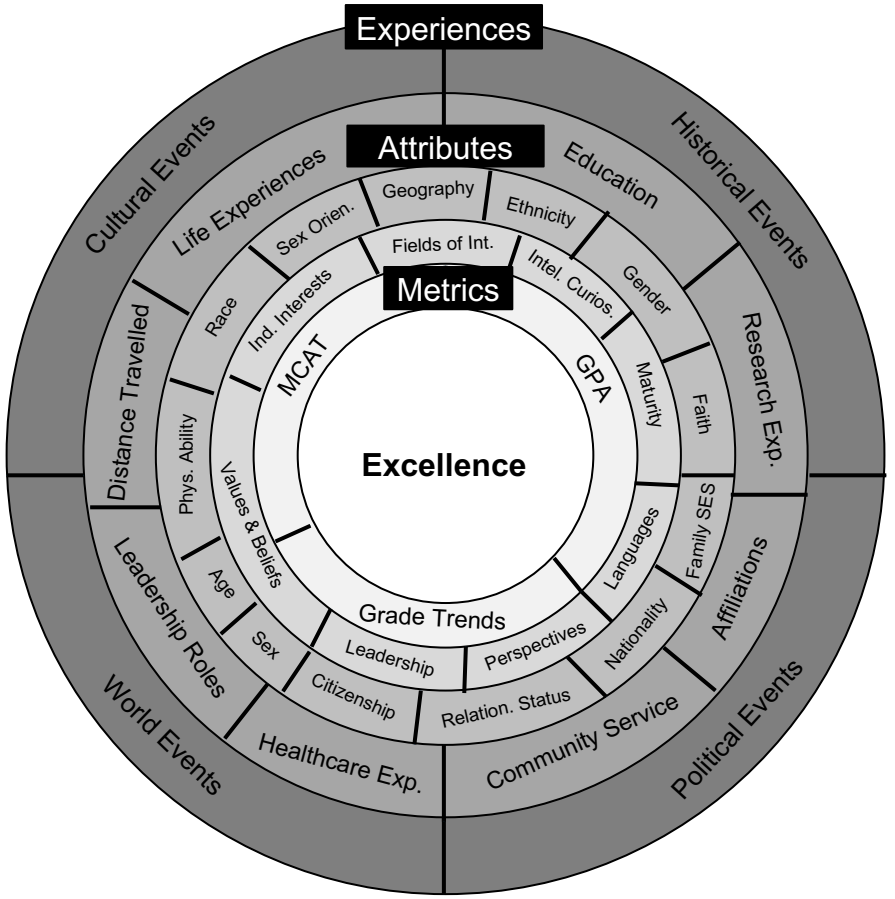
Source: Campbell KM, Corral I, Infante Linares JL, Tumin D. **Projected Estimates of African American Medical Graduates of Closed Historically Black Medical Schools.** *JAMA Network Open.* 2020; 3(8):e2015220

University of California, Davis School of Medicine Experience

Selection & Interview Process

- Parent's Level of Education
- 1st Generation
- Family Income <$50,000
- Need-Based Aid
- Family Assistance Programs
- Contributions to Family Income
- Home or High School in Underserved Area
- English as Second Language
- Contributions to Promote DEI
- Commitment to Health Equity Work

AAMC Experiences-Attributes-Metrics Model



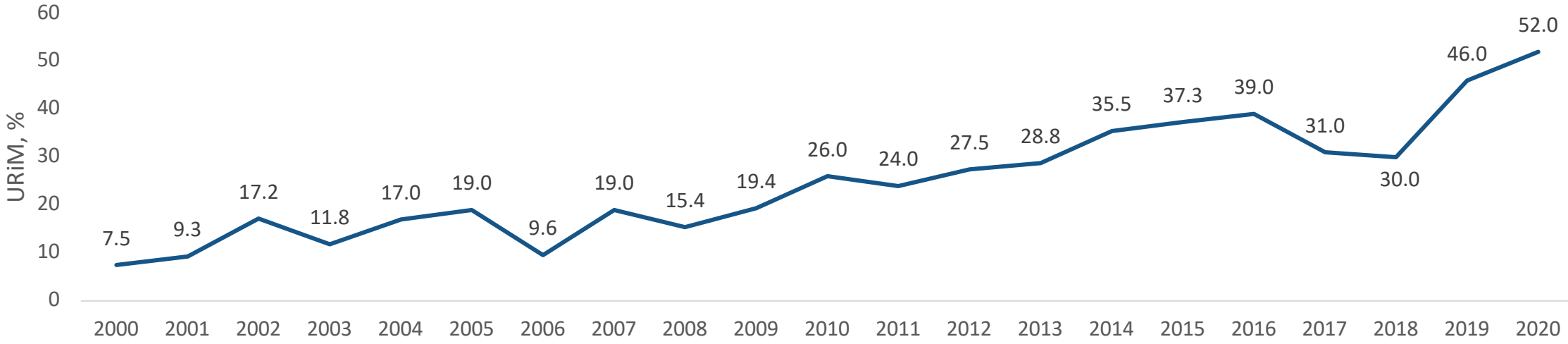
Source: American Health Law Association. February 6 & 7, 2004, Advancing Diversity in Academic Medicine After the Harvard/UNC Cases, Margia K. Corner (University of California), Tahvia Jenkins, Frank Trinity (Association of Academic Medical Colleges).

University of California, Davis School of Medicine Experience

Charlene Greene, PsyD

Tonya Fancher, MD, MPH

Mark Henderson, MD



Source: American Health Law Association. February 6 & 7, 2004, Advancing Diversity in Academic Medicine After the Harvard/UNC Cases, Margia K. Corner (University of California), Tahvia Jenkins, Frank Trinity (Association of Academic Medical Colleges).

Tabletop Exercise: Case Studies

Table Facilitators will guide small groups through the following steps:

- Step #1: Review case study.
- Step #2: Brainstorm potential solutions and resources.
- Step #3: Appoint a reporter to share their small group's findings with the larger group.

Note: Recorder is active on this conversation. AIAMC staff will type up session notes and distribute to participants prior to the end of the Annual Meeting

Tabletop Exercises

Option A:

- Make the case to your hospital / health system CEO as to why investing in graduate medical education should be a core strategy?
- How can you address workforce development in your strategy?
- Are there innovative programs you could implement in partnership with your medical school partner to meet not only their education but your organizations workforce needs?

Tabletop Exercises

Option B:

- Your hospital / health system has set a goal to improve health disparities / health equity across the system and is compelled by recent research suggesting patient / physician concordance would have an impact on improving outcomes.

- How can you work jointly with your affiliated medical school to address the pipeline of providers?

Tabletop Exercises

Option C:

- Your hospital / health system's approach to growth has been physician recruitment, you have identified "growing your own" physicians as an important strategy.
- Your organization has had a long affiliation with a local medical school but recently you have been approached by medical schools all over the country requesting clinical education training opportunities.
- Before ditching your current medical school, you decide to see if you can improve the relationship and meet both organizations needs.
- What would you put on the list to discuss with your Medical School affiliate?

Time for Individual Reflection

What is one key learning from today's presentation that you will take back to your home institution?

Questions, Closing Thoughts and Session Wrap-Up