

National Perspective on Building and Retaining  
the Physician Workforce in Wisconsin  
or  
Same Dynamic Everywhere in the US

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# Rural Residency Planning and Development and Teaching Health Center Planning and Development Technical Assistance Centers

A partnership between





# Disclosures

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# Jobs/disclaimers

Residency Program Solutions consultant (since 2001)

Lead advisor of the central hub of the Technical Assistance Center for two HRSA grant programs:

- Rural Residency Development Program Development (RRPD)
- Teaching Health Center Program Development (THCPD)

No conflicts to report



# Projections of physician shortages in the US

Per the AAMC 2021: United States could see an estimated shortage of between 37,800 and 124,000 physicians by 2034, including shortfalls in both primary and specialty care.

Specialty Area	Shortage Range
Primary Care (e.g. family medicine, general pediatrics, geriatric medicine)	Between 17,800 and 48,000 physicians
Nonprimary care specialties	Between 21,000 and 77,100 physicians
-- Surgical specialties (e.g. general surgery, obstetrics and gynecology, orthopedic surgery)	-- Between 15,800 and 30,200 physicians
-- Medical specialties (e.g. cardiology, oncology, infectious diseases, pulmonology)	-- Between 3,800 and 13,400 physicians
-- Other specialties (e.g. anesthesiology, neurology, emergency medicine, addiction medicine)	-- Between 10,300 and 35,600 physicians



# Critiques of the AAMC shortage estimate methodology

- Presumes care model will be (should be?) similar to current US model:
  - Specialist heavy vs all other western industrialized countries
    - A major reason behind the overall inefficiency and expense of the US health care system
  - Physician centered
- “Primary Care Physician” production model counts more Internal Medicine residency graduates than actually end up providing primary care = office based comprehensive continuity of care to a community (panel of patients).
- Undervalues distribution issues of physicians – rural and low-income urban populations
- Ignores impact of low morale and burnout on attrition



# AAFP projection and response

- “At a time when a shortage of more than 52,000 primary care physicians is predicted by 2025 and experts call for an increase in the proportion of physicians in the U.S. practicing primary care from 32% to 40%, the family medicine community is dedicated to doing its part to meet the need.”
- AAFP “25 x 2030” initiative “...goal is to ensure that, by 2030, 25 percent of U.S. medical students pursue family medicine as their specialty”
- This roughly *doubles* the current % of US graduates going into family medicine.
- Current number of US FM residency spots would need to substantially increase.



# Why shortages?

- Not enough young people wanting to be physicians? **No**
- Not enough young people with a propensity for service in underserved communities wanting to be physicians? **No**
- Not enough young people with a propensity for service in underserved communities accepted to medical school? **Yes**
- Not enough graduated MD and DO students and IMGs? **No**
- Not enough US residency positions? **Yes**
- Not enough residency or fellowship positions in critical specialties? **Yes**
- Not enough graduated medical students choosing critical specialties or training in underserved communities? **Yes**
- Not enough residency graduates going to areas/communities of need? **Yes**
- Early retirements, more part-time work and less retention in one workplace? **Yes**





# Why shortages?

- Significant barriers remain to licensing and entry into practice of physicians with no US training
- Overall graduate medical school pipeline “flow” not the issue
  - More new US MD and DO schools and school expansions
  - International Medical School graduates (US citizen and not) remain in high supply
- Entry into US MD and DO schools of candidates with propensity for under-served practice IS a problem
- Insufficient US residency training mainly – but not entirely - due to caps on GME funding
- Structural problems with Medicare GME funding not having “needed workforce” goals
- Payment and practice reform needed – training people to work in a broken system?
  - Low physician morale and high burn-out
  - Not enough primary medical, mental and dental health care
  - Not enough care in rural and low-income urban areas.

Increasing number of diverse applicants to medical schools

Applicants	Year								Percent Change from 2020 to 2021
	2014	2015	2016*	2017	2018	2019	2020	2021	
American Indian or Alaska Native	449	463	553	508	559	586	561	689	+22.8%
Asian	10,415	11,454	12,591	12,072	12,812	12,779	13,018	15,588	+19.7%
Black or African American	3,990	4,661	4,998	4,967	5,164	5,193	5,197	7,331	+41.1%
Hispanic, Latino, or of Spanish Origin	4,386	4,839	5,421	5,553	5,576	5,857	5,820	7,281	+25.1%
Native Hawaiian or Other Pacific Islander	177	192	173	184	189	232	214	256	+19.6%
White	26,800	28,025	29,397	27,626	28,625	27,794	27,235	31,028	+13.9%
Other Race/Ethnicity	2,276	2,345	2,094	1,983	2,164	2,164	2,311	2,800	+21.2%
Unknown Race/Ethnicity	2,698	2,438	910	1,817	1,013	2,641	2,644	2,440	-7.7%
Non-U.S. Citizen or Non-Permanent Resident	1,901	2,099	2,053	1,917	1,948	1,890	1,844	2,309	+25.2%
<b>Total Applicants</b>	<b>49,480</b>	<b>52,549</b>	<b>53,042</b>	<b>51,680</b>	<b>52,777</b>	<b>53,370</b>	<b>53,030</b>	<b>62,443</b>	<b>+17.8%</b>

# Increasing number of diverse medical students

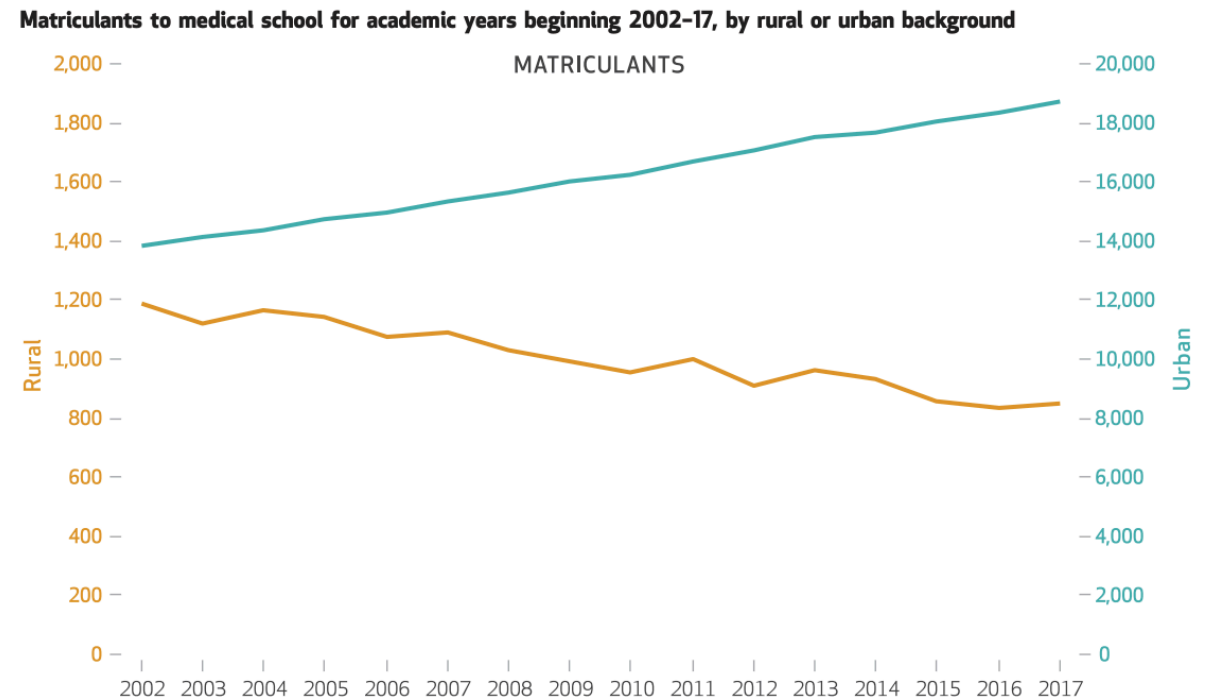
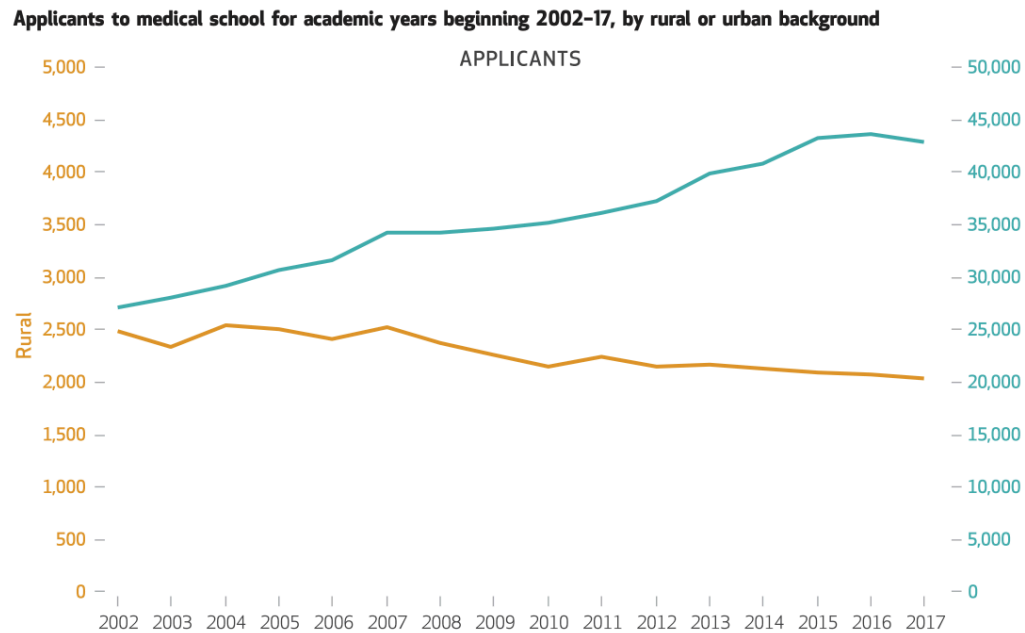
Matriculants	Year								Percent Change from 2020 to 2021
	2014	2015	2016*	2017	2018	2019	2020	2021	
American Indian or Alaska Native	202	196	194	205	218	230	248	227	-8.5%
Asian	4,320	4,619	5,121	5,166	5,486	5,431	5,543	6,004	+8.3%
Black or African American	1,412	1,576	1,771	1,775	1,856	1,916	2,117	2,562	+21.0%
Hispanic, Latino, or of Spanish Origin	1,859	1,988	2,203	2,295	2,319	2,466	2,678	2,869	+7.1%
Native Hawaiian or Other Pacific Islander	70	69	65	68	75	95	80	85	+6.3%
White	11,787	11,769	12,363	12,138	12,481	12,042	11,874	11,682	-1.6%
Other Race/Ethnicity	747	713	710	697	727	717	850	884	+4.0%
Unknown Race/Ethnicity	1,151	938	341	765	394	1,073	1,094	798	-27.1%
Non-U.S. Citizen or Non-Permanent Resident	300	329	269	275	280	272	276	328	+18.8%
<b>Total Unduplicated Matriculants</b>	<b>20,343</b>	<b>20,631</b>	<b>21,030</b>	<b>21,338</b>	<b>21,622</b>	<b>21,869</b>	<b>22,239</b>	<b>22,666</b>	<b>+1.9%</b>

\*During the 2016 application cycle, a technical malfunction in the collection of race/ethnicity data necessitated a request that applicants review and re-submit responses to the race/ethnicity question in their AMCAS applications. No applicants were asked to review this question prior to or after 2016.



# Fewer rural medical school applicants

# Fewer rural medical students



SOURCE Authors' analysis of data from the American Medical College Application Service, for 2002-03 through 2017-18. NOTE Rural or urban background could not be ascertained for 2.2 percent of the applicants included in the study.

# Mismatch remains...



	% of MD medical school applicants 2021`	% of MD medical school enrollment 2021	% of DO medical school applicants 2016	% of DO medical school matriculants 2016	% of US population 2021
American Indian or Alaska Native	1.1%	1.1%	0.3%	0.1%	1.3%
Asian	25.0%	26.8%	22.0%	22.7%	6.1%
Black or African American	11.7%	9.7%	6.4%	2.7%	13.6%
Hispanic, Latino or of Spanish Origin	11.7%	11.8%	8.2%	5.6%	18.9%
White	49.7%	55.4%	51.4%	58.1%	75.8%
other including >= 2 races reported, "foreign" and unknown	8.8%	5.0%	11.7%	10.7%	2.9%
Female	56.8%	52.7%	48.5%	45.9%	50.5%
	RUCA codes 6+				census bureau
Rural	4.5%	4.3%			14.0%



# Can we increase Medicare GME funding overall and funding targeted to workforce needs?

- The explosion in the number of Rural Referral Centers will likely have the ***biggest*** impact on overall funded GME positions.
- Provisions in the Consolidated Appropriations Act will also have an impact
- Other national legislative proposals of note:
  - Teaching Health Center reauthorization/expansion/permanence
  - Rural Physicians Workforce Production Act
  - AAMC led efforts to add even more slots (originally 15,000)



# The explosion in the number of Urban located Rural Referral Centers

- CMS lost lawsuit in 2015 and 2016  
<https://www.hallrender.com/2016/04/27/medicare-chess-game-new-moves-urban-hospitals/>
- As a result, urban located hospitals can reclass as “rural”, take a <= one year lower wage rate (the rural wage rate) then get their higher urban wage rate back but keep their rural reclass.
- This has lead to an explosion in urban located hospitals reclassing as “rural” to get the significant advantages of being an RRC.



# The “superpowers” that hospitals get when they are an RRC and retain “rural” reclassification

1. Access to 340B drug pricing at a lower DSH threshold. This is often the largest financial advantage.
2. A 30% bump in their IME cap. This happens right away.
3. The ability to start **new** GME programs (residencies or accredited fellowships) and add additional IME cap





# The changing landscape of RRCs

FY	2014	2022
total # of RRCs	333	781
in rural places	213	208
in urban places	120	<b>573</b>
total RRC residents	3,075	52,652
total residents in US	84,761	101,289
RRC % of all residents	4%	<b>52%</b>

“Residents” includes residents *and* fellows in accredited fellowships

Selected national RRC examples – now classified “rural” in “urban” locations

Hospital	Beds	Residents (Beds x IRB)
New York-Presbyterian Hospital	2325	1532.4
Nyu Langone Hospitals	1493	1266.5
Yale-New Haven Hospital	1306	831.1
Cleveland Clinic	1325	801.1
The University Of Chicago Medical Center	678	670.6
Massachusetts General Hospital	995	624.3
Henry Ford Health Hospital	687	613.0
Rush University Medical Center	585	609.0
Brigham And Women's Hospital	804	568.1
Ucsf Medical Center	785	558.4
Parkland Health And Hospital System	785	535.3
Duke University Hospital	960	533.2
University Of Illinois Hospital	434	495.7
University Of North Carolina Hospital	809	431.6
Northwestern Memorial Hospital	874	424.2
Loyola University Medical Center	517	423.0
Ohio State University Hospitals	1026	395.8
University Of Wi Hospitals & Clinics Authority	606	393.2
Stanford Health Care	554	372.0

# All Wisconsin RRCs

- 1286 residents and fellows training in Wisconsin (all hospital types)
- 1069 train in Wisconsin RRCs
- 83%

Hospital	Beds	Residents (Beds x IRB)
University Of Wi Hospitals & Clinics Authority	606	393.2
Froedtert Memorial Lutheran Hospital	693	320.4
Aurora St Lukes Medical Center	903	167.5
Gundersen Lutheran Medical Center	275	60.0
Ascension Columbia St Mary's Hospital Milwaukee	273	48.7
Mercy Health System Corp	196	18.3
Mayo Clinic Health System-Franciscan Healthcare	141	16.6
Aspirus Wausau Hospital	236	15.7
Sacred Heart Hospital	168	10.6
Mayo Clinic Health System In Eau Claire	187	9.8
Ascension All Saints Hospital	269	8.5
Aurora Sheboygan Memorial Medical Ctr	136	0
Aspirus Stevens Point Hospital *	82	0
Aurora Medical Ctr Oshkosh	79	0
Aurora Medical Center Summit	75	0
Marshfield Medical Center - Beaver Dam *	48	0

Source 2023 <https://www.cms.gov/medicare/acute-inpatient-pps/fy-2023-ippa-final-rule-home-page>

IRB – Intern Resident Bed ratio

“Residents” include fellows in accredited fellowships

\* hospitals in rural locations, all other are urban locations



RRCs can add *any specialty* new accredited residency or fellowship and build more IME cap

- Regardless of local/regional/national workforce need
- No need to have any “rural” health care mission despite the RRC name
- What motivations exist to add specific specialty GME programs?

Chasing the  
money?

specialty  
salaries

<b>Specialty</b>	<b>annual salary (MGMA 2020)</b>
Neurological Surgery	\$929,831
Orthopedic Surgery (Spine)	\$900,449
Orthopedic Surgery (General)	\$670,721
Radiation Oncology	\$589,514
Radiology (Interventional)	\$571,934
Radiology (Diagnostic)	\$563,549
Cardiology (Non-Invasive)	\$551,107
Obstetrics / Gynecology (MFM)	\$542,377
Dermatology	\$522,983
General Surgery (General)	\$473,367
Anesthesiology (General)	\$469,283
Critical Care	\$447,930
Obstetrics / Gynecology (General)	\$379,759
Emergency Medicine	\$372,895
Pediatrics (Critical Care)	\$337,142
Internal Medicine (Hospitalist)	\$317,093
<b>Psychiatry (General)</b>	\$306,059
<b>Internal Medicine (General)</b>	\$287,179
<b>Family Medicine</b>	\$270,334
<b>Pediatrics (General)</b>	\$245,860



# Chasing the money?

after **Internal Medicine** residency...

<b>Specialty</b>	<b>annual salary (MGMA 2020)</b>
Cardiology (Interventional)	\$708,677
Gastroenterology	\$582,471
Cardiology (Non-Invasive)	\$551,107
Hematology / Oncology	\$528,732
Pulmonary (Critical Care)	\$451,680
Allergy	\$384,999
Nephrology	\$384,596
Internal Medicine (Hospitalist)	\$317,093
Infectious Disease	\$316,037
Rheumatology	\$300,508
<b>Internal Medicine (General)</b>	<b>\$287,179</b>
Endocrinology	\$275,855

after **General Surgery** residency...

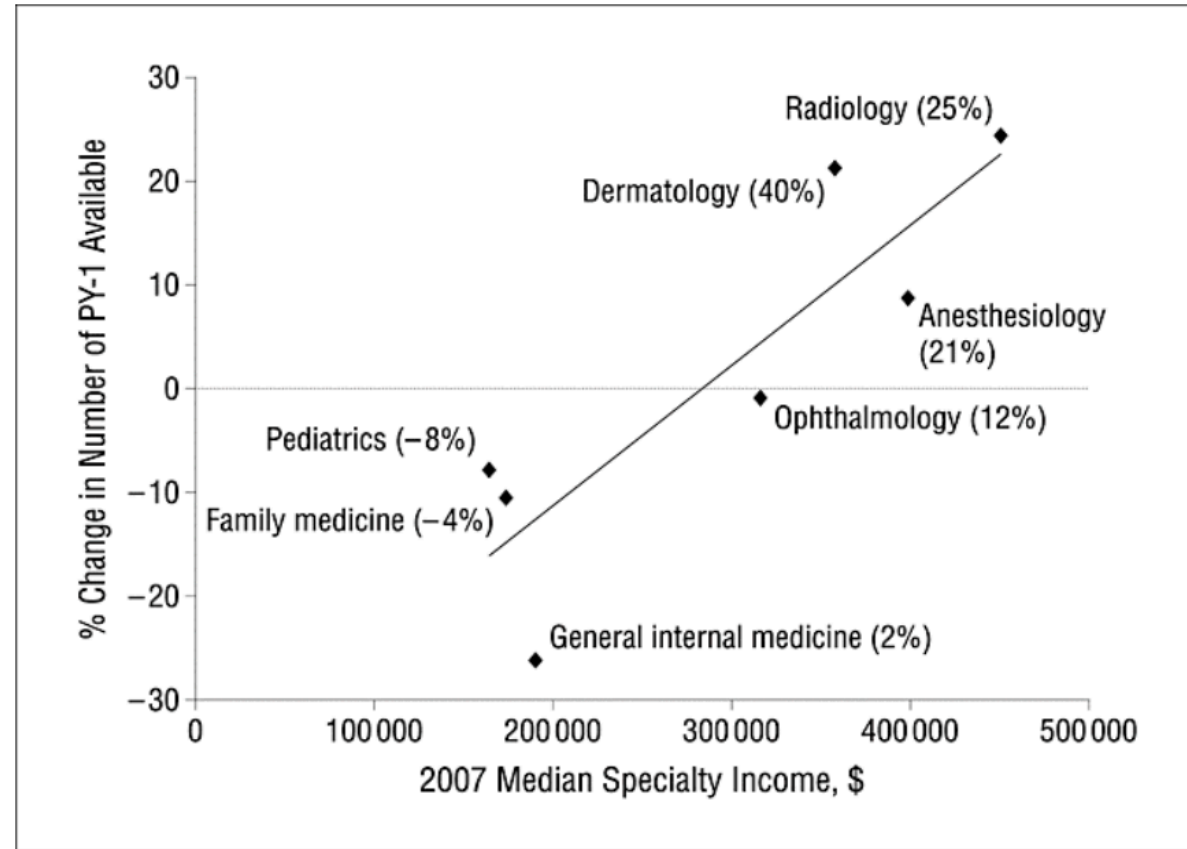
<b>Specialty</b>	<b>annual salary (MGMA 2020)</b>
General Surgery (Cardiothoracic)	\$810,767
Plastic Surgery	\$614,614
General Surgery (Vascular)	\$562,132
General Surgery (General)	\$473,367
General Surgery (Colorectal)	\$467,726



# Chasing the money?

# Impact of physician salaries on residency growth?

Figure 9: Percentage Change in Year-1 Residency Positions Offered



Source: Weida, Phillips, & Bazemore, 2010 [41]

Note: Percentage change in number of year-1 residency programs (PY1) offered from 1998 to 2008 vs. 2007 income by specialty. Percentages in parentheses are percentage growth in specialty income adjusted for inflation between 1998 and 2007.

# Provisions of the Consolidated Appropriations Act of 2020 facilitate some residency funding expansion



- Section 126 -1000 slots over 5 years, emphasis on HPSAs
- Section 127 – further encouragement of Rural Track Programs including allowing some expansion (new specialties or locations), better rural hospital payment eligibility and removing requirement for separate accreditation
- Section 131 – allowing some historically low-capped hospitals to reset low PRAs (thus increasing DGME funding) and/or add additional cap slots





# Other federal programs that provide support for GME

- THCGME program. Teaching Health Centers a (likely) growing GME funding opportunity. Needs reauthorization and efforts to make “permanent”. THCGME is ***ongoing sustaining*** funding.
- HRSA ***development*** grants.
  - Rural Residency Development Grant (RRPD) \$750,000 over 3 years
  - Teaching Health Center Development Grant (THCPD) \$500,000 over 2 years
- VA funding
- Military Residency Funding

# Medicaid

a growing and evolving source of GME funding



- A proliferation of state-specific programs to leverage Medicaid funding to advance state physician workforce goals.
  - Traditional Medicaid GME funding generally does NOT have workforce goals.
- Wide range – no Medicaid GME to Medicaid GME > Medicare GME
- High funding examples:
  - Colorado which funds residency development, residency sustaining funds, residency expansion, faculty loan repayment, etc.
  - New Mexico which funds ALL new and old primary care and psychiatry residency positions up to ~\$190,000 per FTE per year. ½ that for other specialties.
- Other examples - including Wisconsin's startup and expansion grants



# Other funding pathways to increasing total residency positions

- VA funding
- Military residencies
- Health system funding
  - Perception that GME loses money vs
  - Perception that GME adds value beyond directly attributed revenue and expenses



# A local path forward - Enhancing educational culture in a health care system

- Physician training as a *part* of overall production of health professionals
- Other players in this larger space
  - Community Colleges – Eau Claire example of embedded FM residency clinic
  - AHECs
  - Community Health Centers. “tHC” initiative by NACHC: “All Health Centers are teaching health centers”
  - Direct health system efforts
- A clinical operation that incorporates learners can enhance local mission and culture in ways that improve quality and make way for more learners.



# Reviewing the “pipeline”

- We need to recruit talented motivated **young people with a background and aspirations** for service where needed into all health professional careers
- We need to **enhance educational opportunities** in places where these students can more easily enter these career pathways
- At each step, the educational system needs to **maintain focus on workforce** needs.
- **Education that takes place IN communities** of need is more likely to produce health professionals who will work in communities of need.
- Health **professionals** who were competently **trained “elsewhere” need better access to entering US health professional pathways.** Focus BOTH on removing unneeded barriers and identifying and then remediating training/acclimation gaps.
- We need to **improve physician and other health care workers’ job conditions** and pay (for some) to encourage longer careers, better local retention and more full-time work.
- **Reforming the health system** (the “quadruple aim”) should make all of this easier!





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