NATIONAL ACADEMIES Sciences Engineering Medicine

# Exploring Opportunities to Improve Patient Access to Care through Strategic Changes to Graduate Medical Education: A Workshop

## Past Considerations and Recommendations:

### IOM's 2014 GME Consensus Report and NASEM's 2017 & 2019 GME Outcomes and Metrics Workshops

**Debra Weinstein, M.D.**
**President and CEO**
**Accreditation Council for Graduate Medical Education**

# Access to Care and GME: Context

- Significant potential workforce levers exist *outside* of GME to address maldistribution in physician specialty and geography
- Federal funding for GME is not linked to outcomes
- Ongoing efforts are supporting successful expansion of rural GME
- ~25% of U.S. physicians are international medical graduates (IMGs)
  - ~45% IMGs work in rural and underserved areas (MUA/HPSA)
  - ~ 30-40% of physicians in rural and underserved areas are IMGs

# Concerns About GME Funding & Accountability

**Medicare Payment Advisory Committee (MedPAC) "Aligning Incentives in Medicare" (2010) recommendations:**

- ❖ Restructure GME funding: Operational + Performance-based incentive pool
- ❖ Performance-based GME payments (from a portion of IME), linked to national workforce goals

*Suggested performance domains:*

- Training in needed specialties
- Training in underserved or rural areas
- Promoting care coordination and delivery reform
- Quality and efficiency of care

# Concerns About GME Funding & Accountability

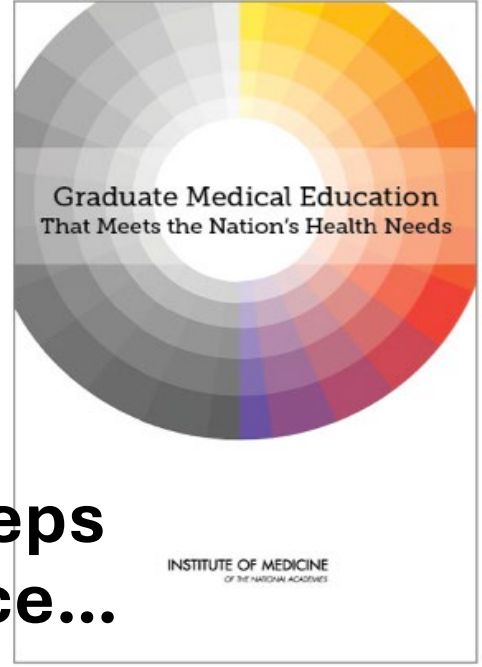
**Josiah Macy, Jr. Foundation (2011) -** *Ensuring an Effective Physician Workforce for the United States: Recommendations for Reforming Graduate Medical Education to Meet the Needs of the Public*

- GME must meet the needs of the public and be accountable to the public
- ...a "National Institute of Health Professions Education" should be established and charged with coordinating, prioritizing, and funding research on health professions education, with a substantial focus on GME

# IOM Committee on the Governance and Financing of GME Recommendations: *Charge*

- **Assess the current GME system**, including:
  - Financing mechanisms (especially Medicare/Medicaid)
  - Governance structures
  - Distribution and composition of the physician workforce
- **Evaluate whether the system is meeting national health needs**, i.e.:
  - Producing the *right number*, *types*, and *distribution* of physicians
  - Preparing physicians for high-quality, patient-centered, cost-effective care
- **Develop recommendations for improvement**, including:
  - Policies to better align GME with population health needs
  - Mechanisms to improve accountability

# IOM Committee on the Governance and Financing of GME Recommendations (2014)




## #1: Invest Strategically

- **Maintain Medicare GME support…while taking essential steps to modernize GME payment methods based on performance…**

## #2: Build a GME policy and financing infrastructure

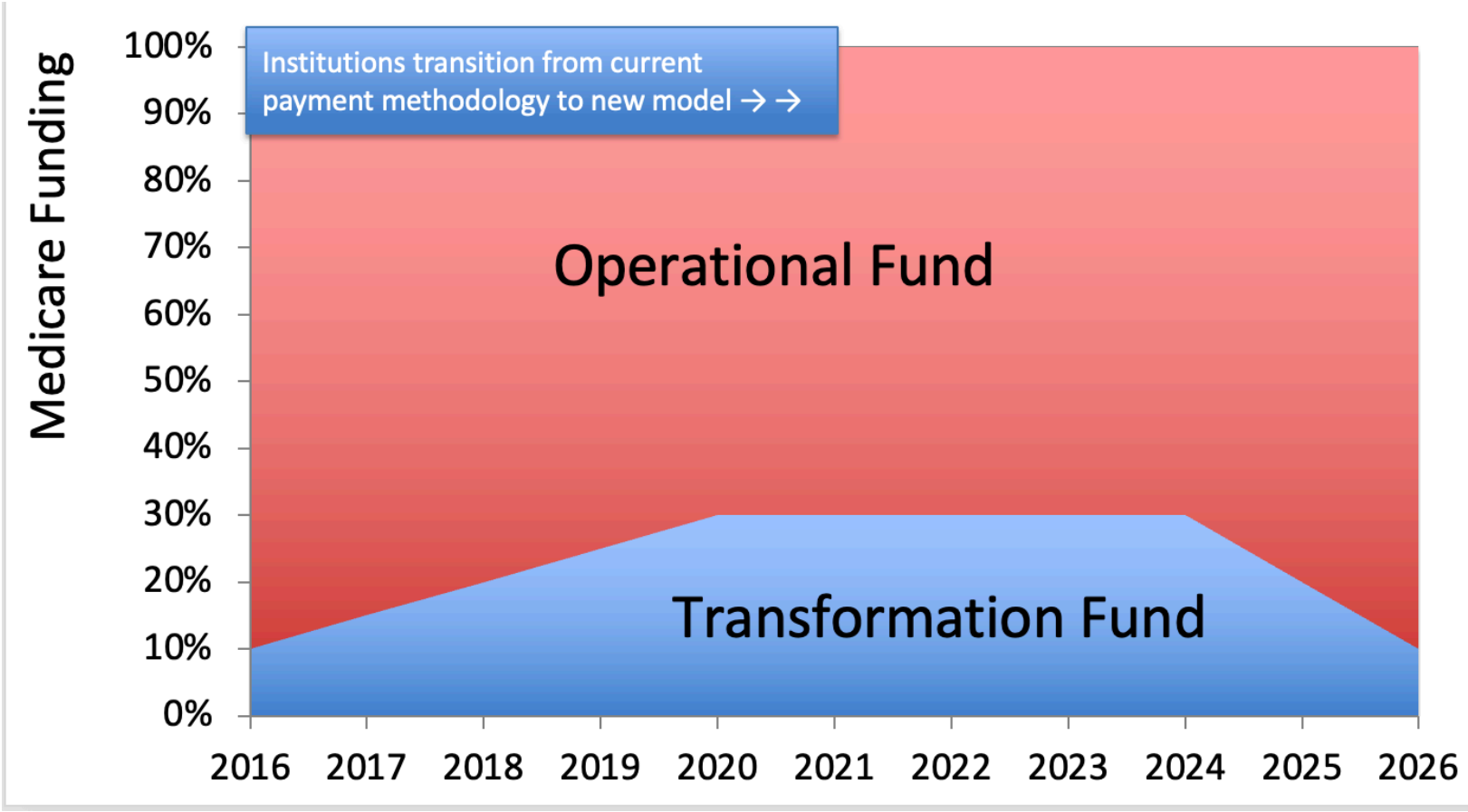
- **Create a National GME Policy Council**
  - Medicare GME strategic plan and policy
  - Physician workforce research and policy
  - Collaboration between federal agencies and accreditation/certification org's
  - Report to Congress and Executive Branch
- **Create a GME Center within CMS**
  - Manage Medicare GME funding
  - Manage GME Transformation Fund
  - Data collection and reporting

# IOM Committee Recommendations, cont.

## #3: Create one Medicare GME fund with two subsidiary funds

- **Operational Fund:** ongoing support for currently approved resident positions

- **Transformation Fund:** innovation, investigation; pilot (including payment methods); new GME positions targeting priorities



# IOM Committee Recommendations, cont.

## #4: Modernize CMS GME payment methodology

- Single payment (vs. DME and IME) based on national PRA with geographic adjustment
- PRA = Operational Fund ÷ # of current positions (slots)
- Direct funds to Sponsoring Organizations
- Implement performance-based payment w/ information from pilots

## #5: Medicaid GME funding should remain at states' discretion, with Congressional mandate for transparency and accountability

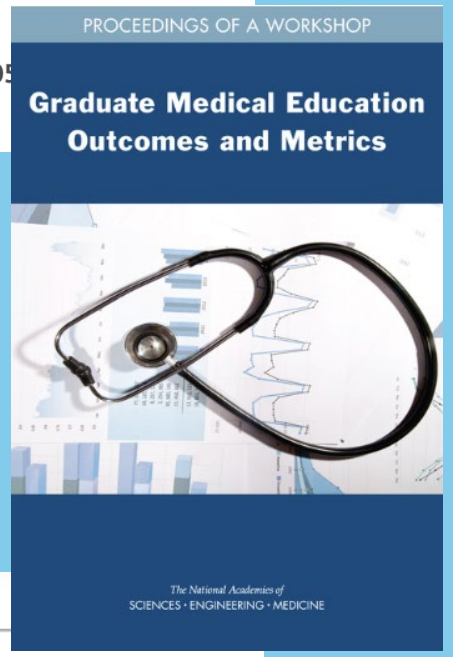
# NASEM Workshop: 2017

PERSPECTIVE

## Optimizing GME by Measuring Its Outcomes

**Author**: Debra F. Weinstein, M.D. Author Info & Affiliations

Published November 23, 2017 | N Engl J Med 2017;377:2007-2009 | DOI: 10.105
VOL. 377 NO. 21 | Copyright © 2017




## Illuminating Graduate Medical Education Outcomes in Order to Improve Them

Debra F. Weinstein, MD, and George E. Thibault, MD

***Informal consensus on relevant outcomes of GME:***

- Clinical Competency
- Workforce composition
- Scholarship and leadership contributions
- Cost-effectiveness of training

# NASEM Workshop: 2019

Participants

- National med /med ed organizations
- med ed data/research consortia
- CMS
- Institution-based GME leaders; VA

The ***value*** of creating a comprehensive, aggregated, longitudinal data infrastructure - pre-med thru practice - was recognized

- Improve GME outcomes (via evidence for best strategies)
- Guide local resource allocation, national policy, and accreditation standards

Barriers:

- Data governance, security, privacy
- Common data dictionary
- Cost, administrative burden
- Misuse of data

Planned next step: Proof of concept via grass-roots data-sharing pilot among large AMCs focused on high-value research question *[-derailed by pandemic]*

Thelen A, et. al. Improving Graduate Medical Education by Aggregating Data Across the Medical Education Continuum. Acad Med, 2024;99( 2):139-145.

# Progress

- Increasing focus on data collection and utilization to
  - drive improvements in GME and its outcomes
  - inform policy and facilitate its implementation
- Expansion in data-sharing across national organizations and with researchers
- Interorganizational efforts toward using common metrics and definitions

?! Growing enthusiasm for a comprehensive plan addressing national medical education data is regaining steam

# GME and the Physician Workforce: Recent Rhetoric – *IS GME THE BOTTLENECK?*

- Are there enough PGY positions for all U.S. medical school graduates?

**YES**…more than enough

40,041 positions
28,760 graduating U.S. medical students
**>11K excess**

- Does the ACGME determine the number of GME positions in the U.S.?

**NO**…determined by programs/SIs – though requested quota must be approved by ACGME, based on sufficiency of resources

# GME and the Physician Workforce: Recent Rhetoric – *IS GME THE BOTTLENECK?*

Are all/nearly all GME positions filled?

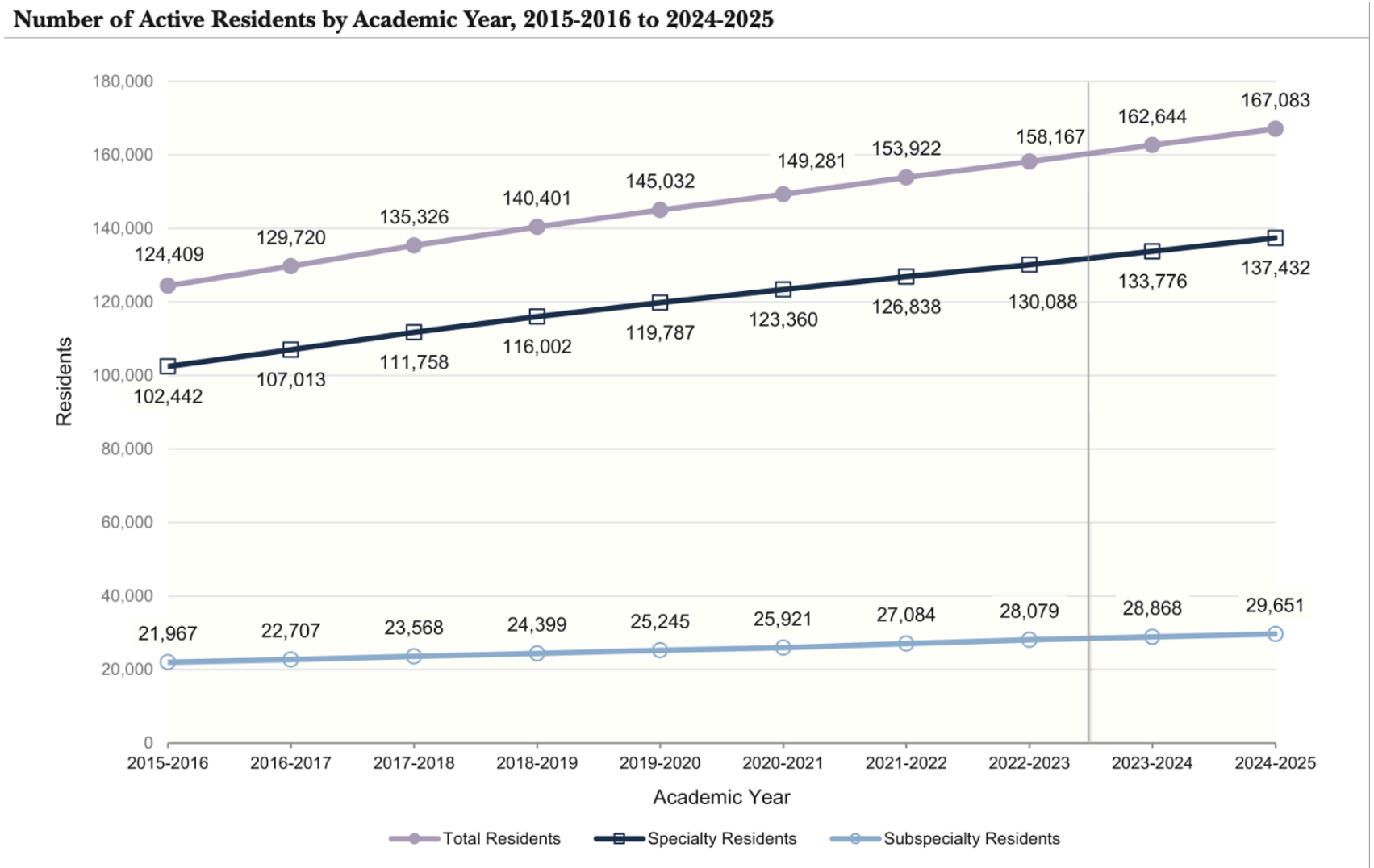
NO…~14% of approved, accredited positions are vacant

Potential reasons for unfilled slots:

- New programs have not yet filled
- Some programs/SIs do not offer all approved slots (financial constraints)
- Mismatch in supply vs. applicant demand by specialty and geography
- Some programs may not be appealing to applicants

# How are the Number of GME Positions Changing Over Time?

The number of residents and fellows continues to **increase**… (by >4400 over past year)



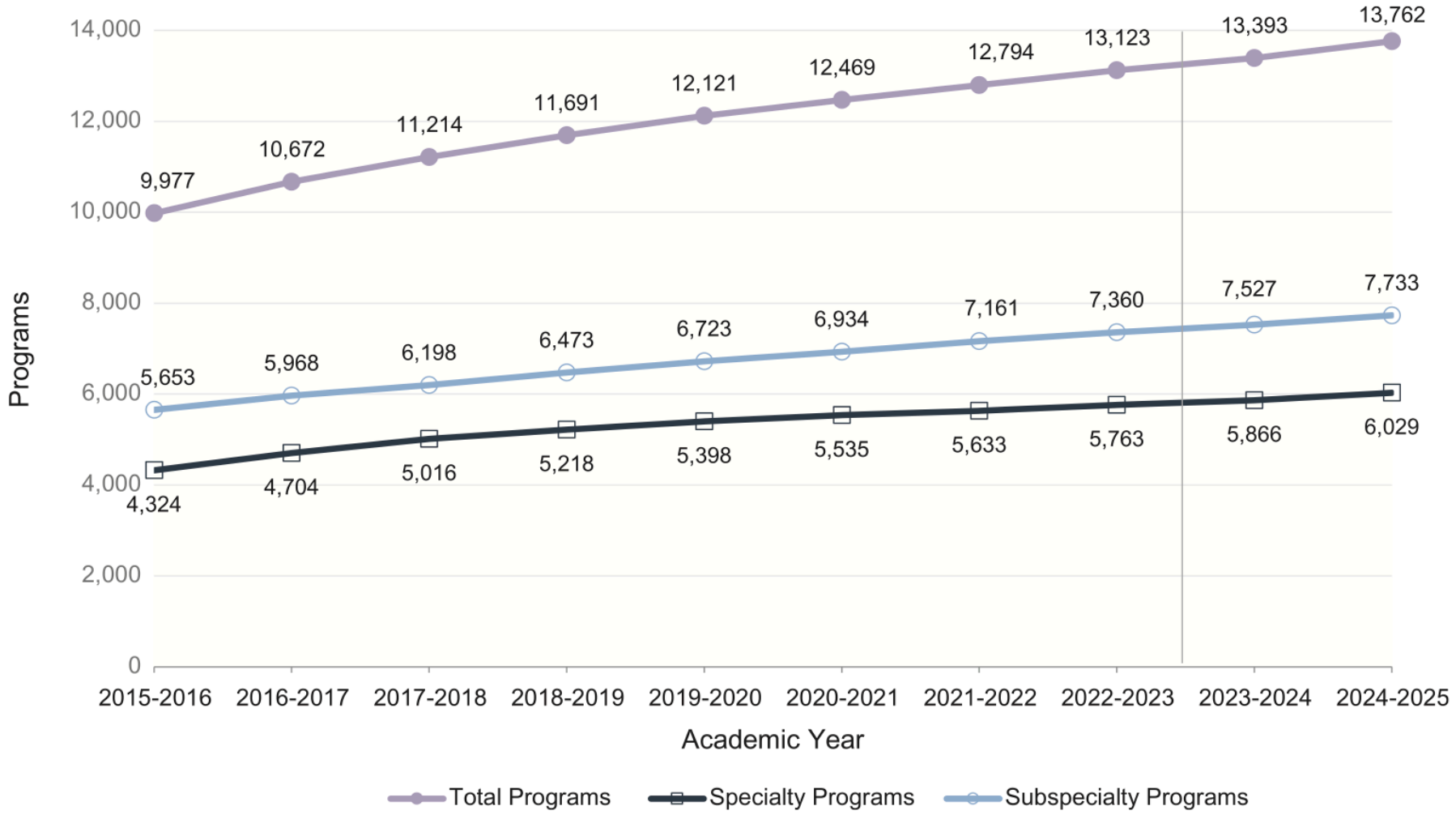
# Continued Growth in Programs and Sponsoring Institutions

AY2024-5:

*369* ***NEW*** **programs** approved (*163* residencies; *206* fellowships) and

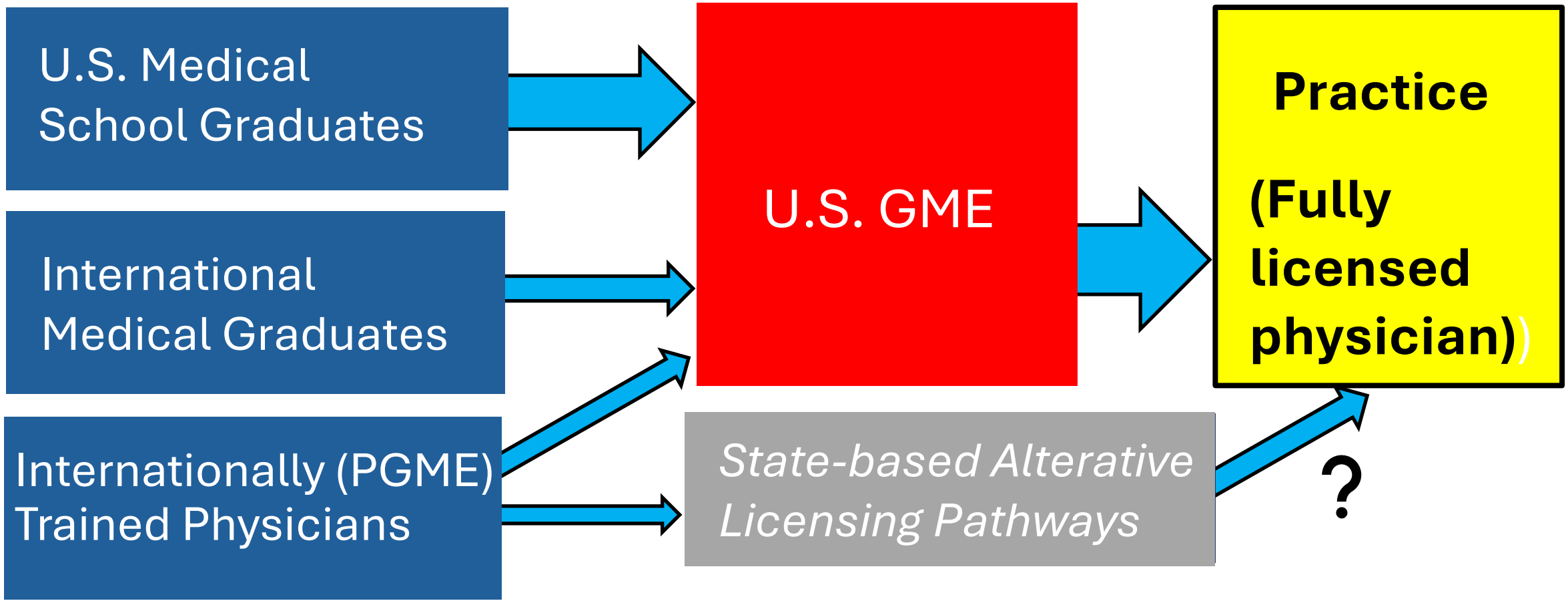
9 ***NEW*** **sponsoring organizations**

**Number of Accredited Programs by Academic Year, 2015-2016 to 2024-2025**




Note: Effective for the 2023-2024 Data Resource book, accredited programs will include medically related specialties. The trends in the 2023-2024 academic year and beyond will reflect these changes.

# The Physician Workforce Pipeline: Recent Perturbations



# Summary

- Consensus recommendations regarding GME funding have been offered, but not implemented
- Utilizing GME outcomes measures is essential; improvements are coming but this substantial challenge will take time
- U.S. GME continues to expand, with growth based on local decisions
- Substantial reliance on IMG physicians continues, both to fill GME positions and for care delivery in rural and underserved

# Thank you

March 24th, 2026

# Expanding Rural and Underserved GME: A Solution to Address Workforce Shortages

**Emily Hawes, PharmD, BCPS, CPP**
**Director, Sheps GME Technical Assistance Center**
**Professor, UNC School of Medicine**

The University
of North Carolina
at Chapel Hill

# DISCLOSURES

Rural Residency Planning and Development (RRPD) – Technical Assistance Center (TAC) is supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) under cooperative agreement #UK6RH32513.

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The contents are those of the author(s) and do not necessarily represent the official views of, or an endorsement by HRSA, HHS, the U.S. Government, the UNC System or the North Carolina General Assembly.

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- TAC Grant Recipients, Advisors, & Consultants

# Presentation in One Slide

- Gaps in rural and urban physicians continue to worsen.
- GME is one of the most powerful levers to address rural and underserved physician shortages.
- HRSA funding and technical assistance are expanding rural and underserved GME.
- There have been positive impacts from the Consolidated Appropriations Act, 2021.
- Additional payment reforms are needed.
- There is untapped potential for expanding rural and underserved GME.

# Rural populations face worse health outcomes and physician shortages are a contributor

- Rural-urban health differences are well documented, and the rural-urban mortality gap continues to widen.[1-2]
- Physician shortages are a major contributor.[3]
- Gaps in rural-urban physician density have widened over time.[4]

**Physicians per 10,000 Population for Metropolitan and Nonmetropolitan Counties, North Carolina, 2000-2023**

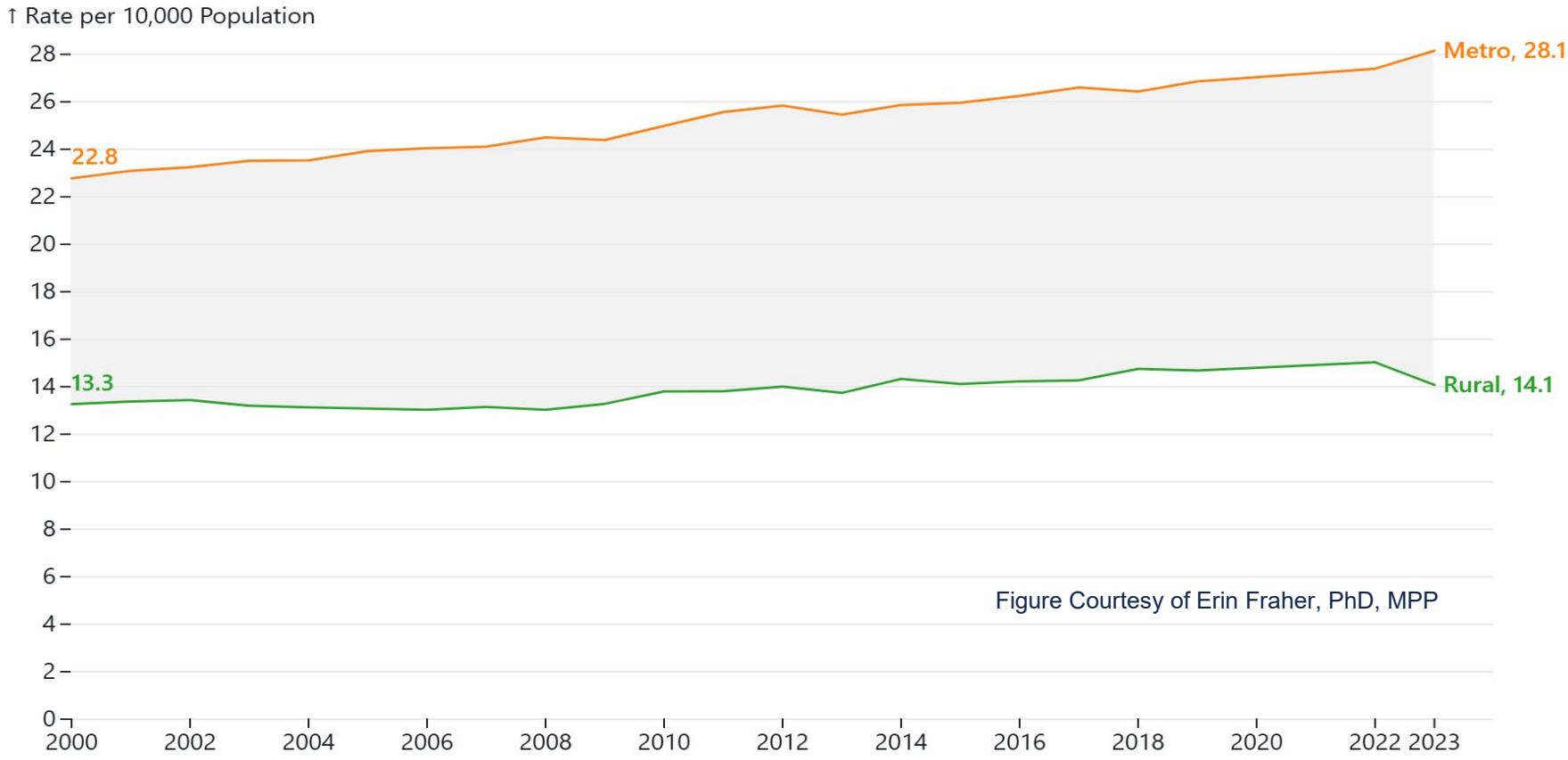



Figure Courtesy of Erin Fraher, PhD, MPP

Source: North Carolina Office of State Budget and Management population data based on US Census data. Map produced by North Carolina Health Professions Data System, Program on Health Workforce Research and Policy.


1. *J Am Coll Cardiol*. 2021;77(11):1480-1481.
2. *Health Aff (Millwood)*. 2019;38(12):2003-2010.
3. *JAMA Intern Med*. 2019;179(4):506-514.
4. *JAMA Network Open*. 2021;4(1):e2033994.

# GME is one of the most powerful levers to address physician shortages

**86%**

Of THCGME graduates are practicing in underserved care[1]

**65%**

Of THCGME graduates are practicing in primary care[2]

Rural-trained physicians are at least **twice** as likely to practice in rural areas[3-4]

## RRPD graduate (n=146) outcomes align with research

**50%**

in rural

**76%**

in mental health HPSAs

**65%**

in primary care HPSAs

RRPD = Rural Residency Planning and Development
THCGME = Teaching Health Center Graduate Medical Education
HPSA = Health Professional Shortage Areas


1. https://bhw.hrsa.gov/funding/apply-grant/teaching-health-center-graduate-medical-education
2. https://www.milbank.org/wp-content/uploads/2023/05/THC-Milbank_4.pdf
3. Health Serv Res. 2024 Feb;59(1):e14168.
4. J Grad Med Educ. 2022;14(4):441–450.

# GME increases access to care in rural and underserved communities

Increased coverage for underinsured and uninsured patients. Creation of new clinics, community programs, and school-based initiatives.

Timeliness is improved with earlier access to new patient visits, more visits overall, and more empaneled patients.

Expanded services for behavioral health, chronic disease management, pediatric and obstetric care, and specialty care.

Workforce is bolstered by new hires including pharmacists, behavioral health clinicians, nutritionists, nurses, physician specialists, etc.



Technical Assistance Center. Data on File

# GME is catalyzing the growth of interprofessional training

Yakima Valley Farm Workers Clinic

- Northwest Dental Residency (AEGD)
- NYU Langone Pediatric Dental Residency
- Sollus Northwest Family Medicine Residency
- Salud Rural Maternal Child Health Fellowship
- Sollus Advanced Practice Clinician Residency Program
- Pre-Doctoral Psychology Internship
- Ambulatory Care Pharmacy Residency

EL RIO HEALTH

| |
|---|
| **National Consortium Model** |
| ATSU-SOMA Medical School |
| NYU Langone Dental Residency Programs |
| National Family Medicine Residency Program - The Wright Center |
| **Local Collaborative Model** |
| Clinical Pharmacy Residency Program - University of Arizona |
| Pediatric Residency Program - Tucson Medical Center |
| Family Medicine Residency Embedded within El Rio Clinic – University of Arizona |
| **Autonomous Collaborative Model** |
| Family Medicine Nurse Practitioner Residency Program<br>Community Health Center, Inc. NCA |
| **Sponsoring Institution** |
| General Psychiatry Residency to begin in July 2025 |
| Family Medicine Residency Program Transfer in July 2025 |

Courtesy of Doug Spegman of El Rio

# GME investments are not well-aligned with population health needs

- In 2023, Medicare paid about $22 billion to support GME residency positions at over 1,400 hospitals
- Only 2% of Medicare funded GME occurs in rural areas

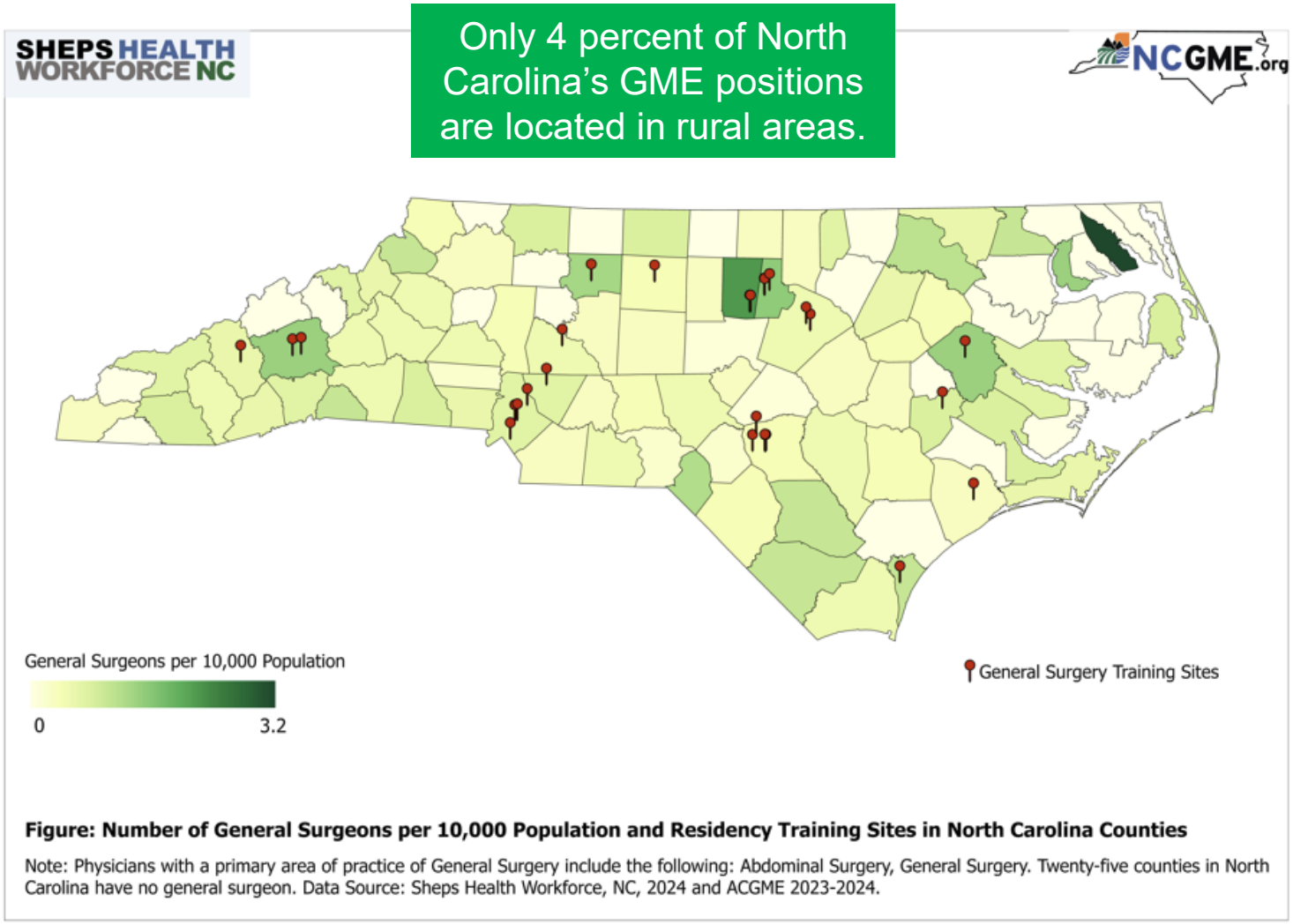
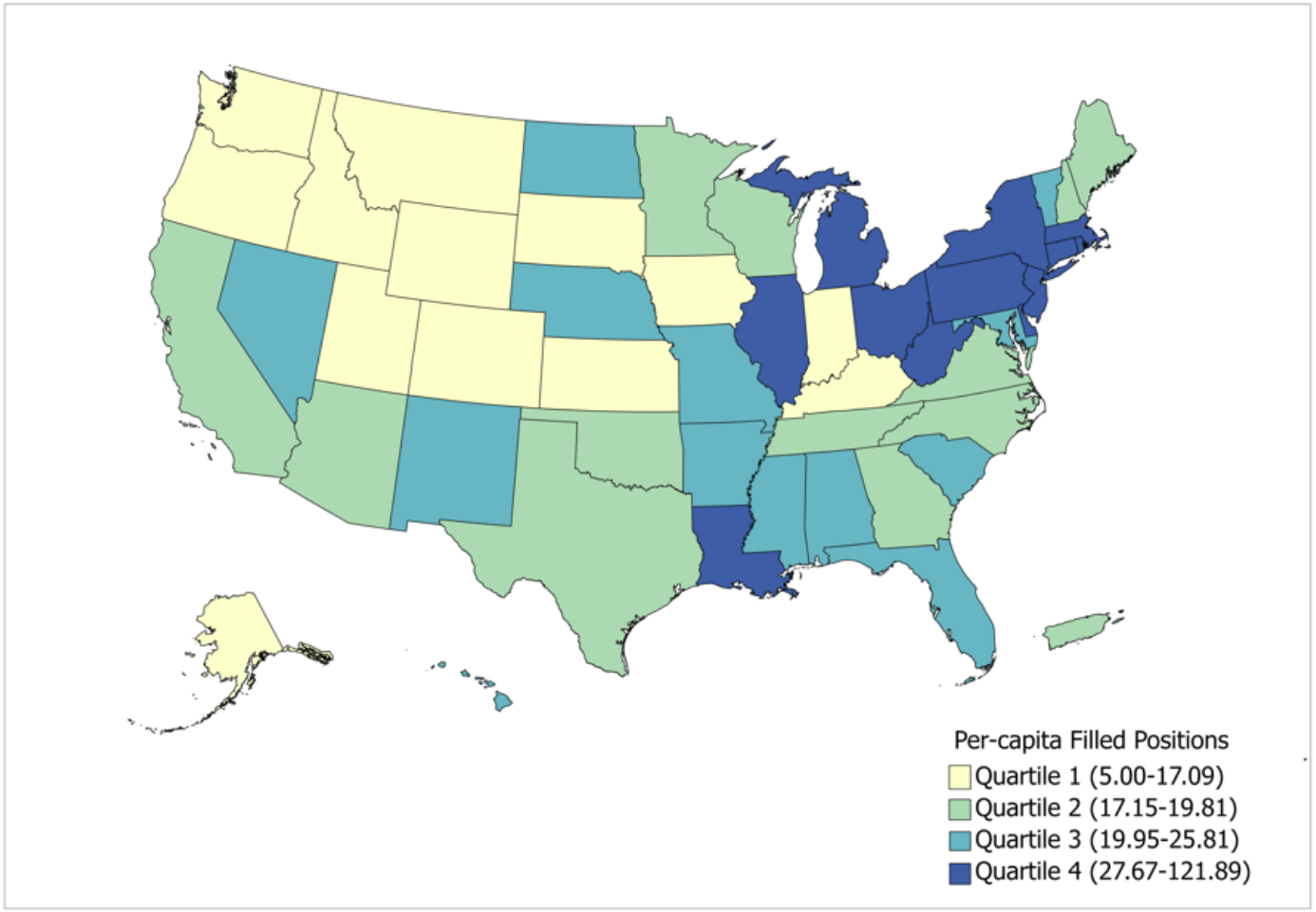



**Figure: Number of General Surgeons per 10,000 Population and Residency Training Sites in North Carolina Counties**

Note: Physicians with a primary area of practice of General Surgery include the following: Abdominal Surgery, General Surgery. Twenty-five counties in North Carolina have no general surgeon. Data Source: Sheps Health Workforce, NC, 2024 and ACGME 2023-2024.

# Training remains concentrated in the Northeast, even as population growth shifts to the South

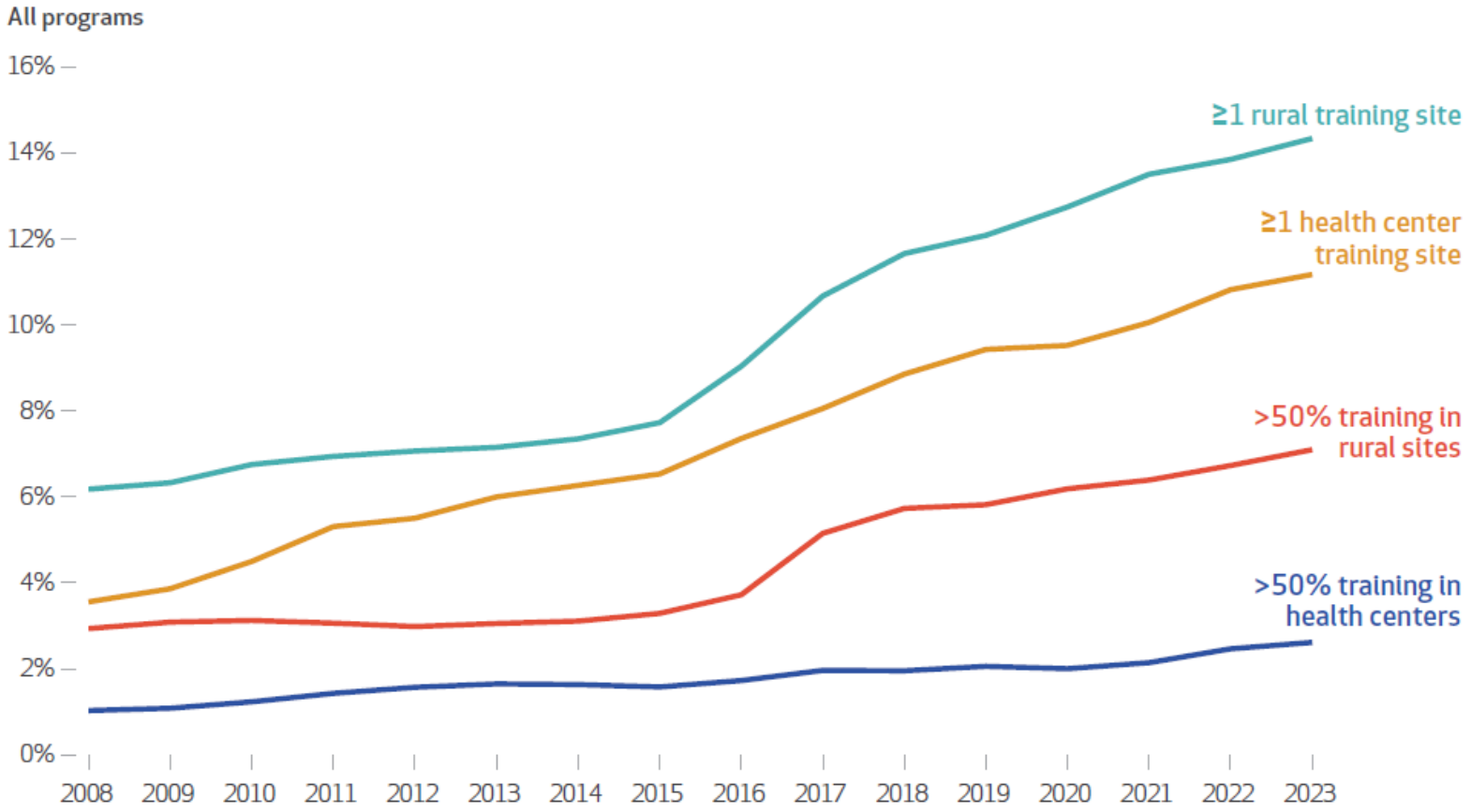
- Medicare GME funding is largely fixed and formula-driven, based on hospital cost structures from the 1980s.
- Payments per person vary widely across states






Technical Assistance Center. Data on File

# Rural and underserved training has increased.




Health Aff (Millwood). 2025 May;44(5):572-579.

# Rural program growth has been greatest in FM, IM, and psychiatry FQHC-based program growth has been highest in FM

**EXHIBIT 1**

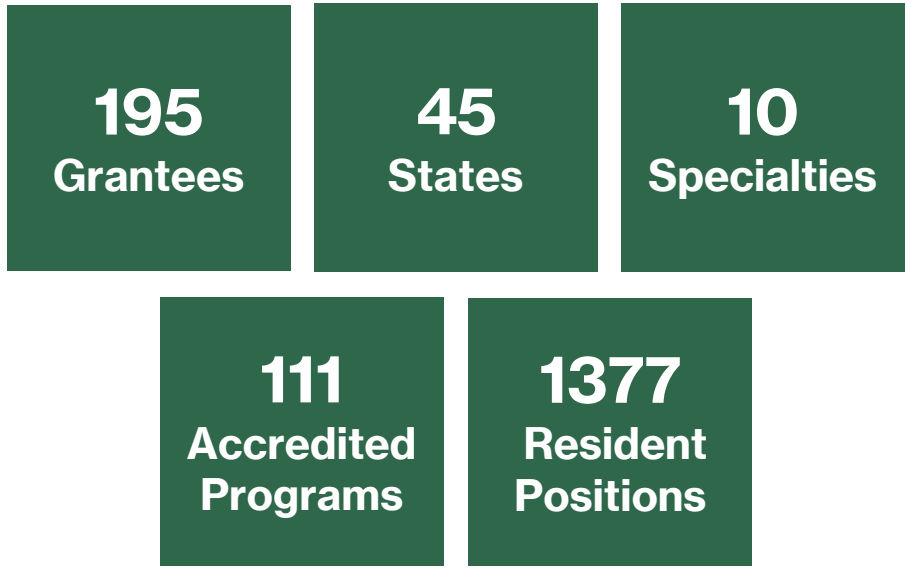
**Percent of physician residency programs with rural and federally qualified health center (FQHC) sites, by specialty and percent of training time, academic years 2008–09 and 2023–24**

| | | Rural training sites | | FQHC training sites | |
|---|---|---|---|---|---|
| | Total programs | At least 1 site | At least 50% training | At least 1 site | At least 50% training |
| **2008–09** | | | | | |
| All residencies | 1,942 | 6.18% | 2.94% | 3.55% | 1.03% |
| Family medicine | 442 | 14.93 | 7.47 | 4.07 | 1.13 |
| Internal medicine | 374 | 2.67 | 1.34 | 2.94 | 0.80 |
| Psychiatry | 181 | 7.18 | 1.66 | 4.97 | 1.10 |
| Surgery | 247 | 6.07 | 2.02 | 3.64 | 0.81 |
| Obstetrics-gynecology | 245 | 2.04 | 0.82 | 2.45 | 1.22 |
| Geriatrics | 137 | 2.19 | 1.46 | 2.19 | 0.73 |
| Pediatrics | 194 | 2.06 | 1.55 | 4.64 | 1.55 |
| Medicine–pediatrics | 80 | 2.5 | 2.50 | 5.00 | 1.25 |
| Preventive medicine | 42 | 4.76 | 4.76 | 0.00 | 0.00 |
| **2023–24** | | | | | |
| All residencies | 2,873 | 14.34 | 7.10 | 11.17 | 2.61 |
| Family medicine | 766 | 26.89 | 17.89 | 19.45 | 5.61 |
| Internal medicine | 639 | 9.08 | 5.16 | 8.29 | 1.25 |
| Psychiatry | 318 | 16.98 | 5.35 | 11.01 | 2.20 |
| Surgery | 358 | 12.85 | 1.68 | 3.91 | 0.56 |
| Obstetrics-gynecology | 294 | 6.46 | 1.02 | 8.84 | 2.38 |
| Geriatrics | 163 | 7.36 | 1.84 | 3.68 | 1.23 |
| Pediatrics | 217 | 3.23 | 1.38 | 11.06 | 1.84 |
| Medicine–pediatrics | 77 | 5.19 | 1.30 | 9.09 | 1.30 |
| Preventive medicine | 41 | 14.63 | 2.44 | 17.07 | 2.44 |

Health Aff (Millwood). 2025 May;44(5):572-579.

# Start-up funding is expanding rural and underserved GME

- Since 2019, Rural Residency Planning and Development (RRPD) has started 64 new accredited rural residencies.
  - 1 in 4 rural residencies nationwide were RRPD-initiated.
- Since 2021, Teaching Health Center Planning and Development (THCPD) has supported the creation of 47 new accredited residencies based in community health centers.






1. https://www.hrsa.gov/rural-health/grants/rural-health-research-policy/rrpd
2. https://bhw.hrsa.gov/funding/apply-grant/teaching-health-center-graduate-medical-education

# Technical assistance is a critical component to ensure GME growth and long-term sustainability.

- **Pairing technical assistance** with start-up funding helps ensure programs can launch, expand, and remain sustainable long-term.
- **Partnerships are important** to the success of rural GME programs.
- Designing a program that will be sustained through stable sources like **Medicare reimbursement is complicated** and can be impacted by several factors, such as hospital type, location, specialty, etc.

| RRPD Hospital Training Sites | N |
|---|---|
| Inpatient Prospective Payment (IPPS) Hospital | 76 |
| Rural Referral Center (RRC) | 60 |
| Critical Access Hospital (CAH) | 41 |
| Sole Community Hospital (SCH) | 32 |
| SCH/RRC | 27 |
| Children's Hospital | 26 |
| Veterans Affairs (VA) Medical Center | 19 |
| Psychiatric Hospital | 14 |
| Medicare-Dependent Hospital (MDH) | 9 |
| Indian Health Service Hospital | 6 |
| Disproportionate Share Hospital | 1 |
| Total | 311 |



Rural Residency Planning and Development Technical Assistance Center. Data on File

# STAGE 1 Exploration

## Community Assets

Identify community assets and interested parties.

## Leadership

Assemble local leadership and determine program mission.

## Sponsorship

Identify an institutional affiliation or sponsorship. Begin to consider financial options and governance structure.

To advance to the next stage: Make an organizational decision to proceed with investing significant resources in program development.

# STAGE 2 Design

## Initial Educational & Programmatic Design

Identify Program Director (permanent or in development). Consider community assets, educational vision, resources, and accreditation timeline.

## Financial Planning

Develop a budget and secure funding. Consider development and sustainability with revenues and expenses.

## Sponsoring Institution Application

Find a Designated Institutional Official and organize the GME Committee. Complete application.

To advance to the next stage: Finalize a draft budget. Complete program design to include curriculum outline and site mapping. Submit a Sponsoring Institution (SI) application & receive initial accreditation.

# STAGE 3 Development

## Program Personnel

Appoint residency coordinator. Identify core faculty and other program staff.

## Program Planning & Accreditation

Develop curricular plans, goals and objectives; evaluation system and tools; policies and procedures; program letters of agreement; faculty roster. Complete ACGME application and site visit.

To advance to the next stage: Achieve initial program accreditation – requires successful site visit and letter of accreditation from the ACGME.

# STAGE 4 Start-Up

## Marketing & Resident Recruitment

Create a website. Register with required systems. Market locally and nationally.

## Program Infrastructure & Resources

Hire core faculty and other program staff. Ensure faculty development. Complete any construction and start-up purchases. Establish annual budget.

## Matriculate

Welcome and orient new residents.

To advance to the next stage: Complete contracts and orient first class of residents. Hire all required faculty.

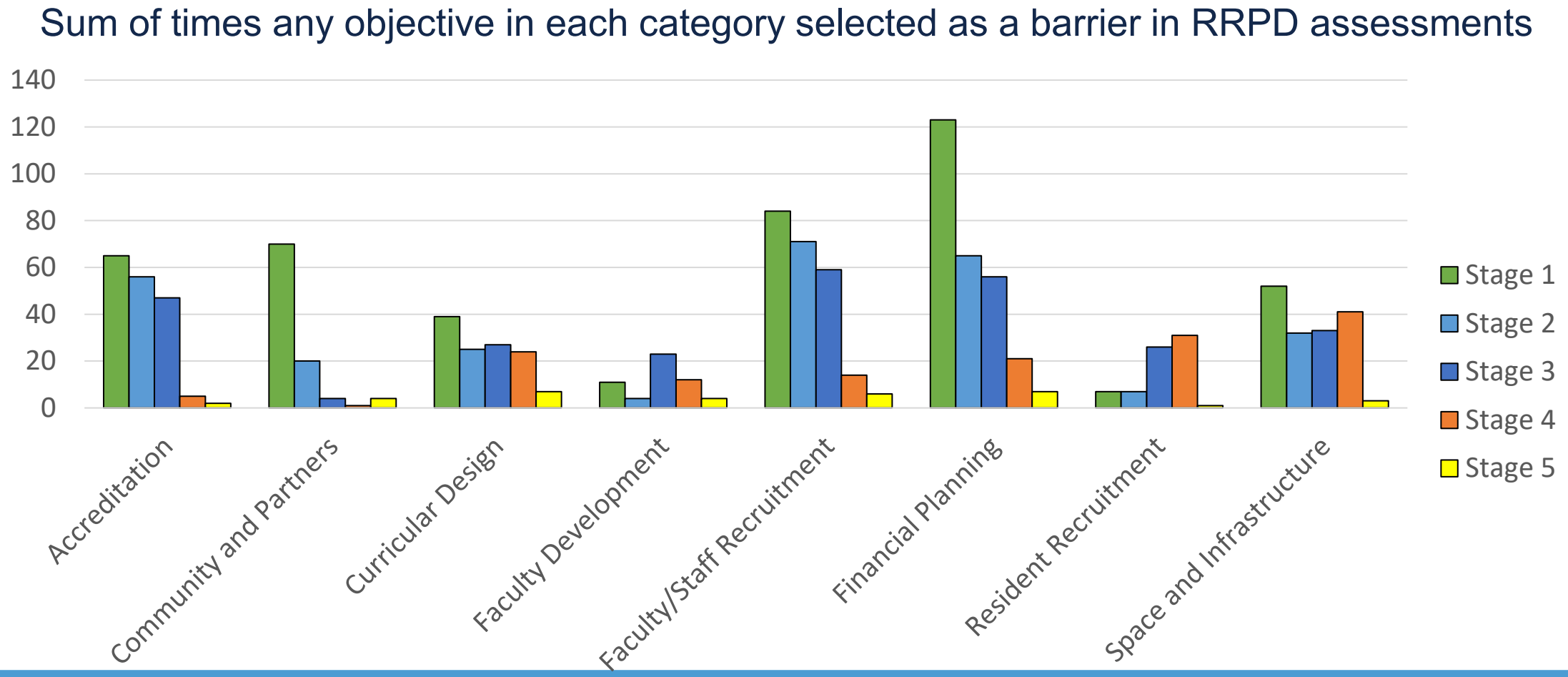
# STAGE 5 Maintenance

## Ongoing Efforts

Report annually to ACGME and the Sponsoring Institution. Maintain accreditation and financial solvency. Recruit and retain faculty. Track program educational and clinical outcomes. Ensure ongoing performance improvement.

J Grad Med Educ. 2020 Aug;12(4):384-387. doi: 10.4300/JGME-D-19-00932.1.

# There are unique barriers in developing rural and underserved residencies






Rural Residency Planning and Development Technical Assistance Center. Data on File

# THCGME funding is sustaining residency operations in community-based settings.

- Community health centers are not able to directly access adequate Medicare GME financing
- Through periodic appropriations, THCGME funds >1,250 medical and dental residents in 88 programs
  - Per resident amount is currently $160,000 while costing studies have found a rate of >$210,000
- The THCGME program has faced several fiscal cliffs where funding is set to expire until Congress extends the program
- There is more interest than available THCGME funding.



https://bhw.hrsa.gov/funding/apply-grant/teaching-health-center-graduate-medical-education
https://www.milbank.org/wp-content/uploads/2023/05/THC-Milbank_4.pdf

# There have been and will continue to be positive impacts from the Consolidated Appropriations Act, 2021

- Removing separate accreditation to meet eligibility for CMS Rural Track Program funding (Section 127)
- Resetting artificially low Per Resident Amounts or caps (Section 131)
- Providing 1,000 new GME payment slots (Section 126)

THE UNIVERSITY OF TENNESSEE HEALTH SCIENCE CENTER.



Three Sisters Rural Track Program

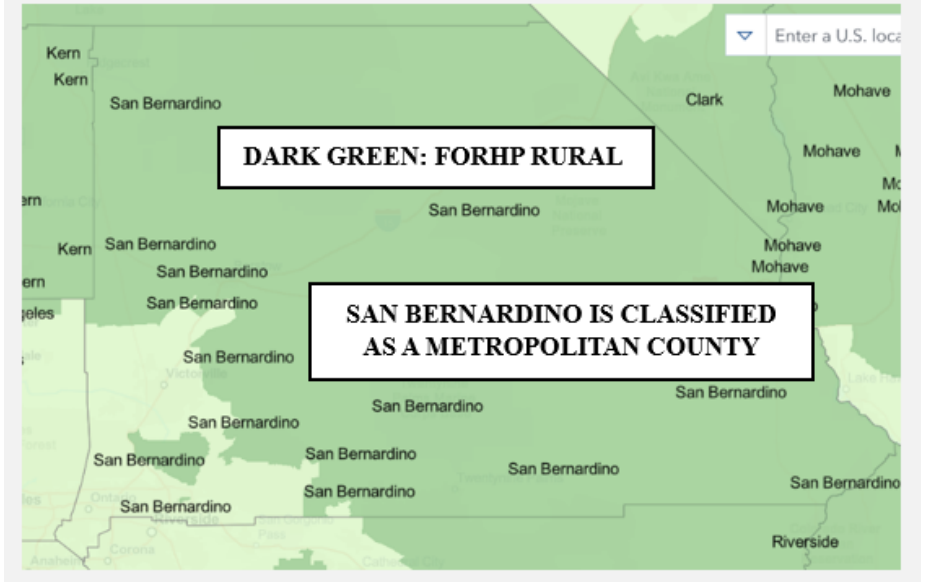




-Acad Med. 2022 Sep 1;97(9):1259-1263
-https://www.gao.gov/products/gao-26-107686
-https://www.aamc.org/about-us/mission-areas/health-care/section-131
-JAMA. 2023 Sep 12;330(10):968-969.

# There are Medicare funding restrictions that limit growth and sustainability

- Barriers persist
  - Section 126 payment slots mostly reached subspecialty training in large urban hospitals
  - Section 131 expired in Dec 2025
  - Ramp up to 5 years is not enough time to realize full training potential
  - Rural Track Program financing is limited to programs with >50% training time non-metropolitan counties

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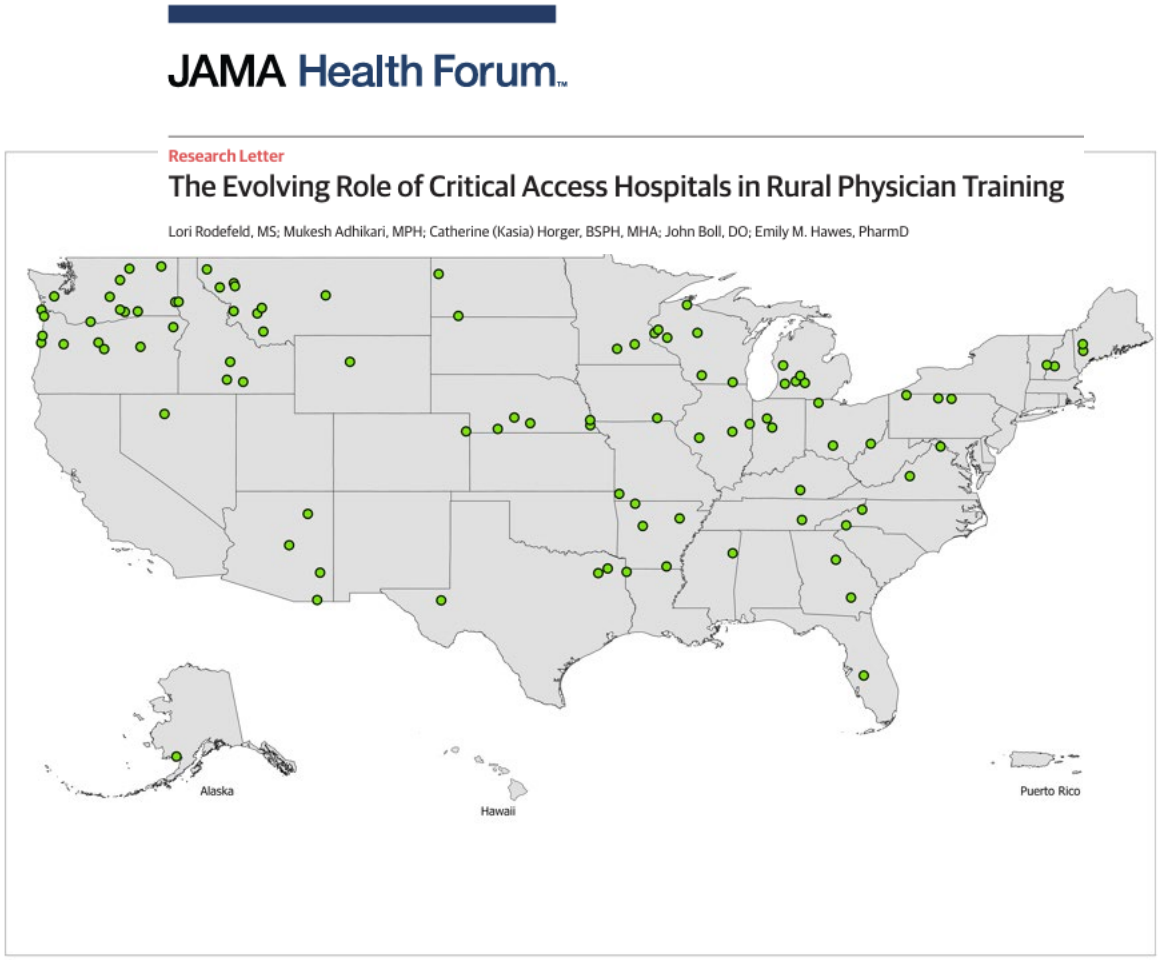
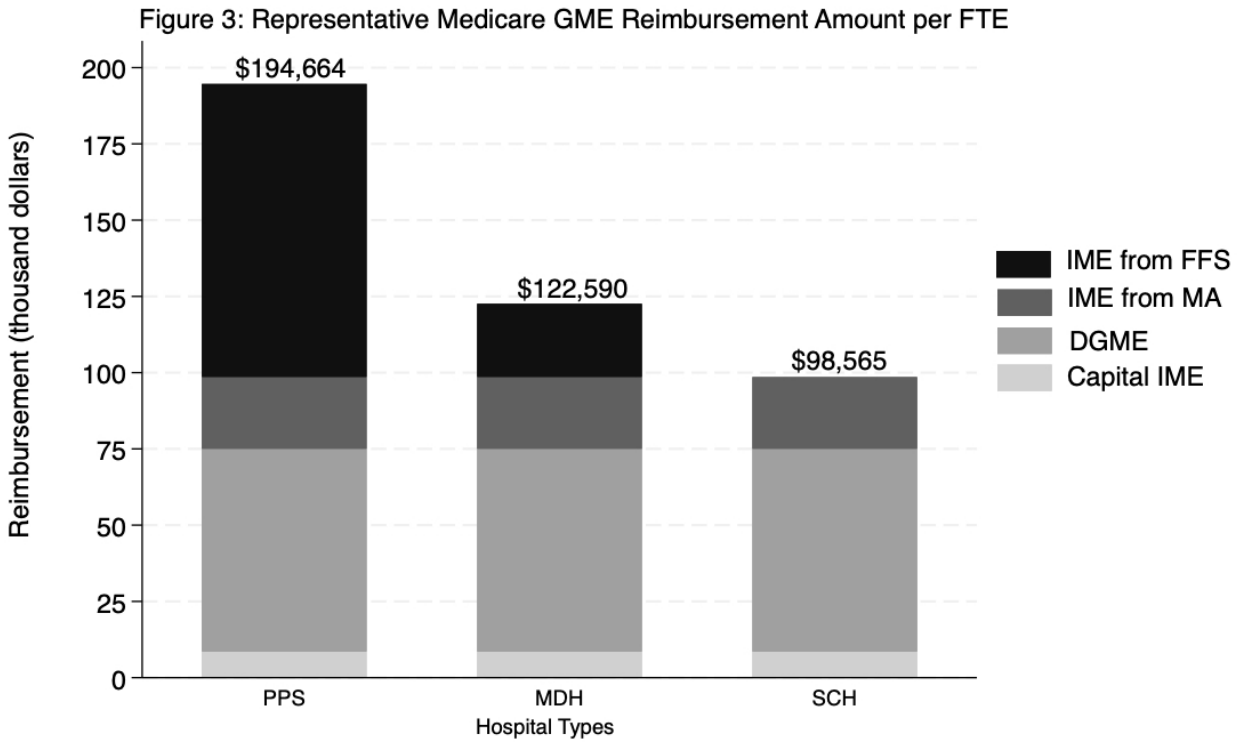
-https://www.aamc.org/about-us/mission-areas/health-care/section-131
-JAMA. 2023 Sep 12;330(10):968-969.

# Additional Medicare payment reforms are needed to ensure rural and underserved GME can scale and endure to meet population health needs.

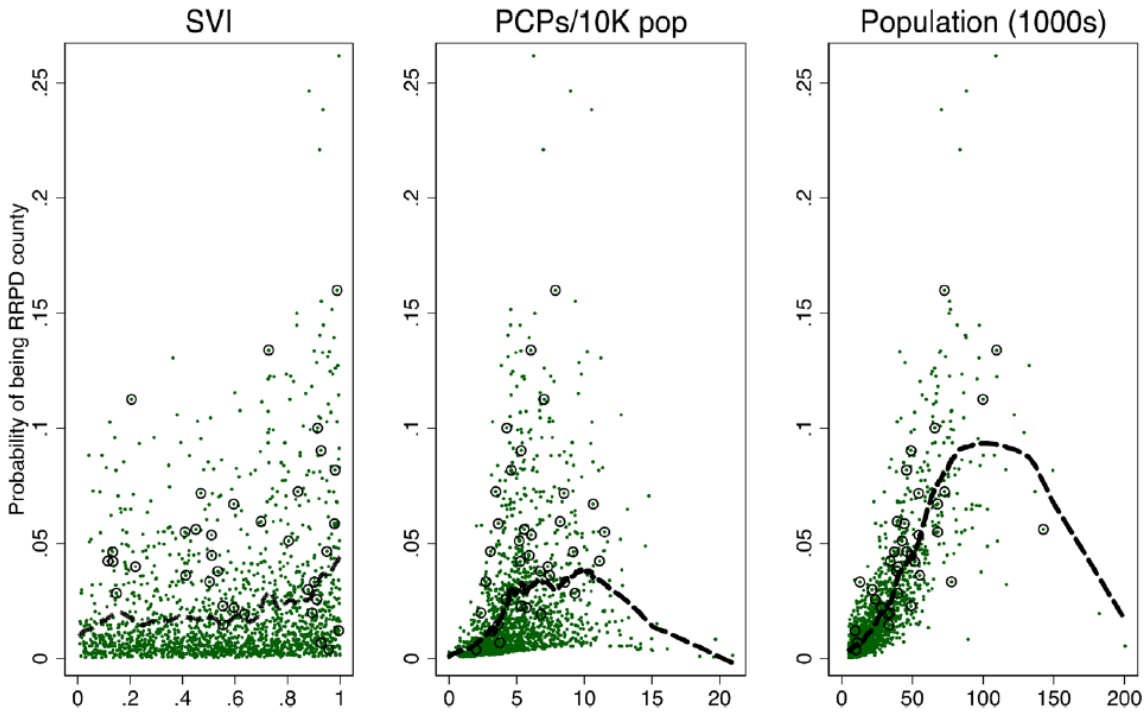





-Acad Med. 2025 Apr 1;100(4):490-496.
-JAMA Health Forum. 2025 Oct 3;6(10):e254742.

# There are more rural and underserved communities that want to engage in GME

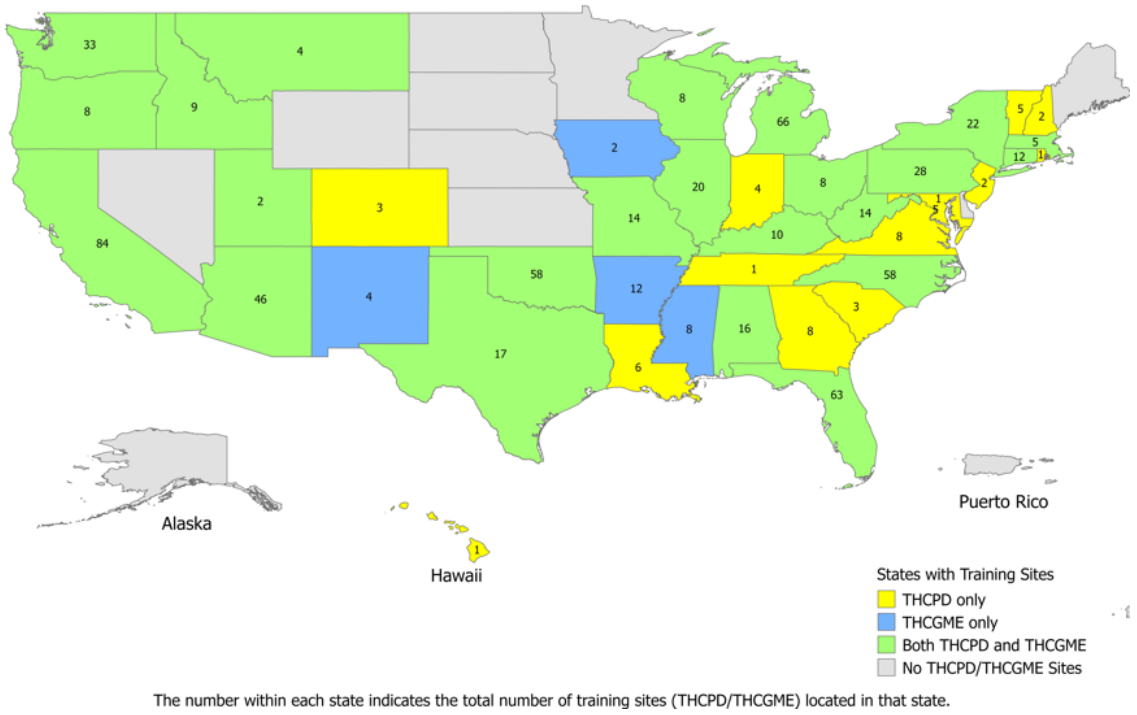



Financial Planning | Specialty: Not Specialty Specific | Type: Article Or White Paper

**PRIME Hospitals for GME Training**

Financial Planning | Specialty: Not Specialty Specific | Type: Resource Collection Or Website

**Never Claimer Hospital List**



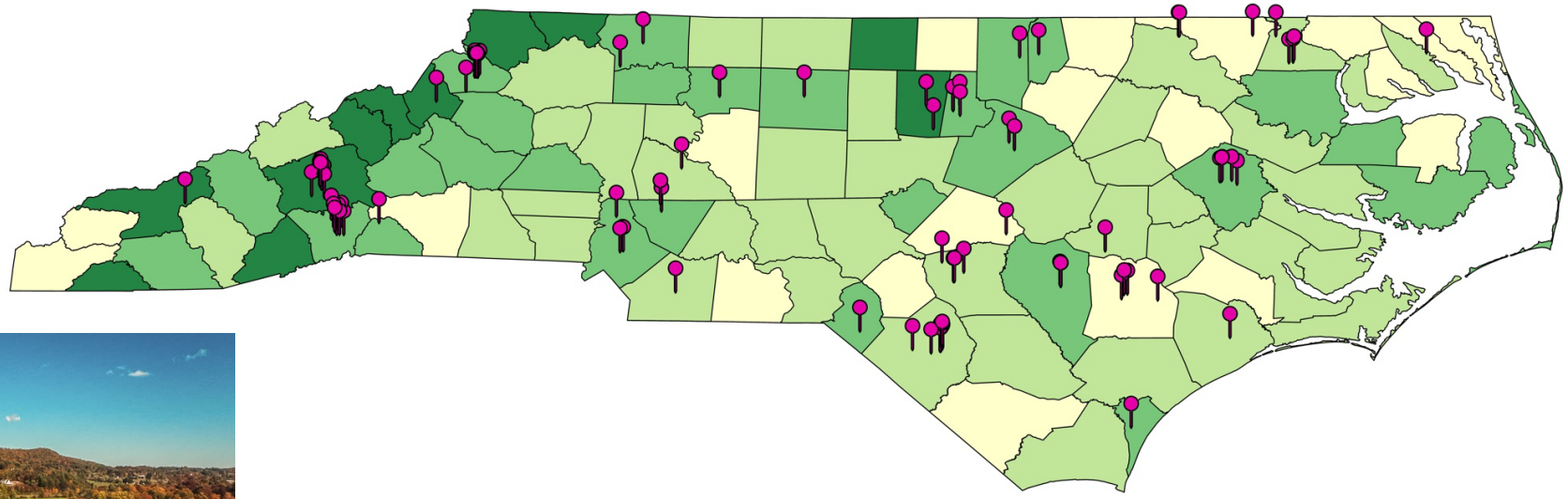

The number within each state indicates the total number of training sites (THCPD/THCGME) located in that state.

-J Rural Health. 2023 Jun;39(3):521-528.
-Acad Med. 2024 May 1;99(5):567-574.
-J Grad Med Educ. 2025 Jun;17(3):296-303

# Targeted investment in rural and underserved GME is making a difference.

SHEPS HEALTH WORKFORCE NC

NCGME.org



**Training Sites**

Family Medicine

**Family Medicine Physician per 10,000 Population**

- ≤1.5 (n = 20 counties)
- 1.6-2.7 (n = 41 counties)
- 2.8-4.7 (n = 28 counties)
- >4.7 (n = 11 counties)

**Figure. Family Medicine Physician Supply and Residency Training Sites in North Carolina Counties**

Note: Physicians with a primary area of practice of Family Medicine include the following: Family Medicine, Family Practice, General Practice, Osteopathic Manipulative Medicine. The bins were created using "natural breaks" method, which clusters the NC counties into groups based on the Family Medicine Physician rate per 10,000 population. Data Source: Sheps Health Workforce NC, 2023 and ACGME 2023-2024

# CONTACT

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RuralGME

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THCGME

*thcgme.org*

NCGME

*ncgme.org*

ROBERT GRAHAM CENTER

# Aligning GME With Workforce Needs: A Data-Driven Accountability Framework

Yalda Jabbarpour, MD

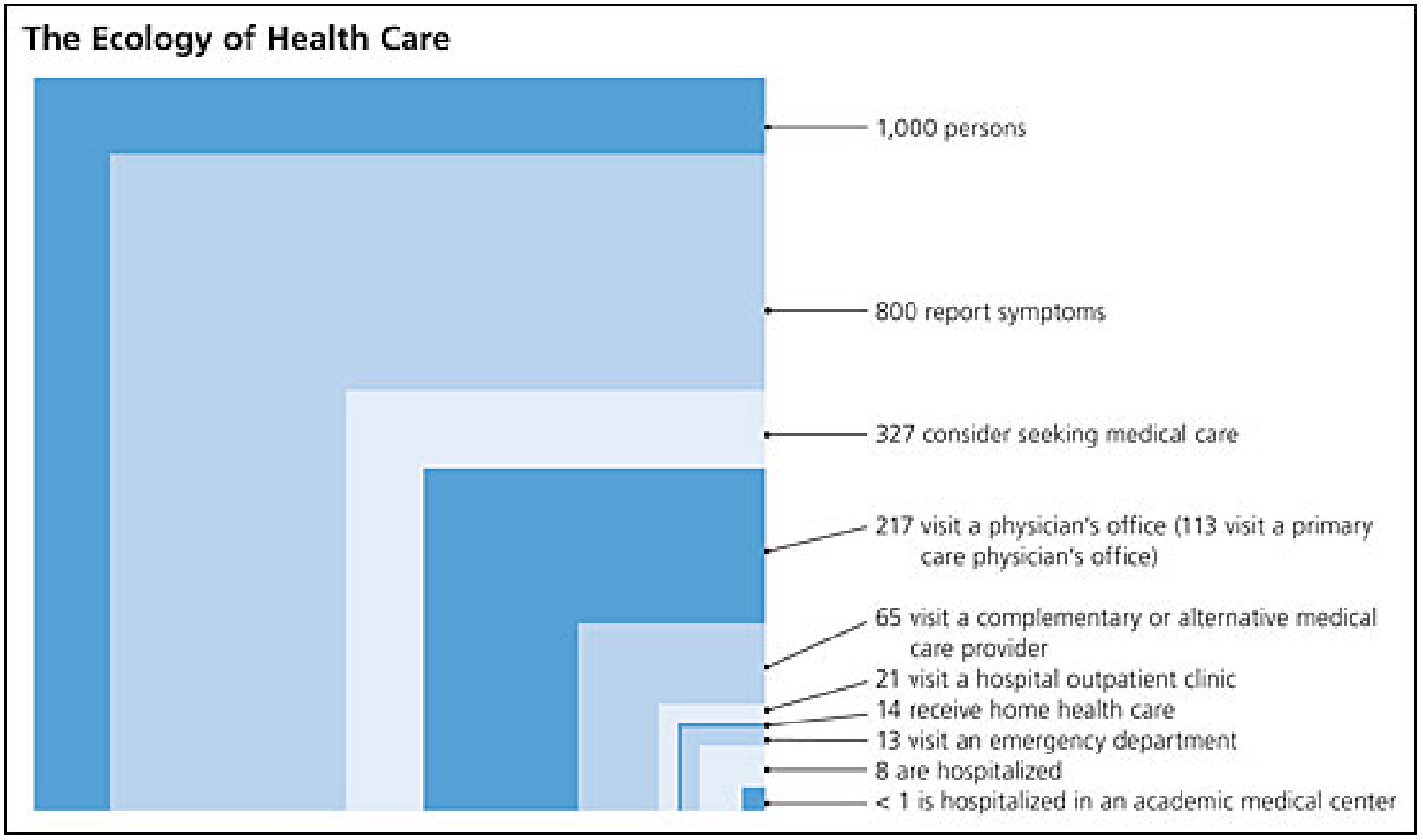
3-24-2026

# Acknowledgements:


- GME-IQ research funded by Arnold Ventures
- The Robert Graham Center and HealthLandscape teams

# Why GME Accountability is Needed: Supply does not support demand

# The Ecology of Health Care




- Most people receive their care from an outpatient facility—over half in primary care

The ecology of health care.

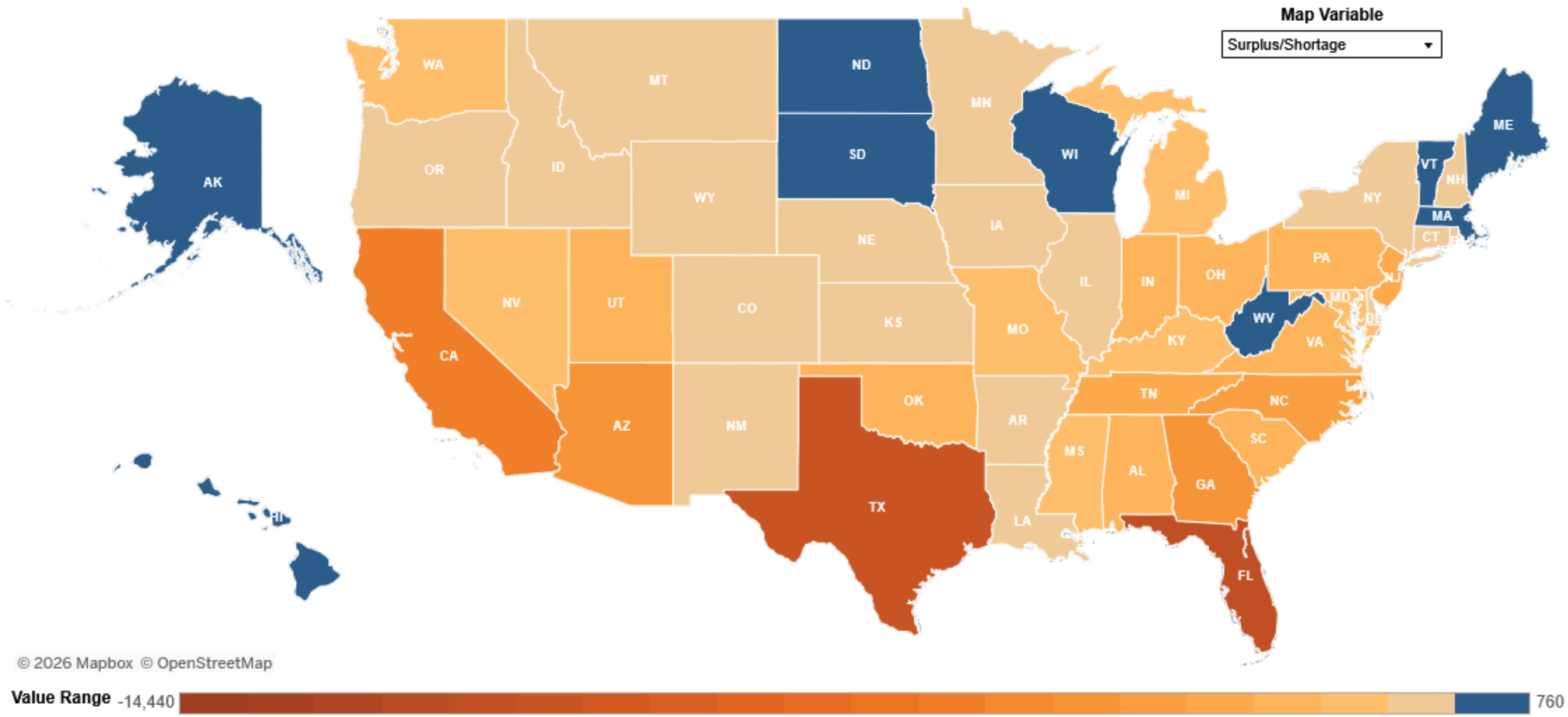
note:The group in each box is not necessarily a subset of the preceding box. Some persons may be counted in more than one box.

Reprinted with permission from Green LA, Fryer GE Jr, Yawn BP, Lanier D, Dovey SM. The ecology of medical care revisited. N Engl J Med 2

All Primary Care Physicians
**National Data**

| Surplus/Shortage 2038 | Percent Adequacy 2038 |
|---|---|
| -70,610 | 80% |

All Primary Care Physicians
**Surplus/Shortage By State, 2038**

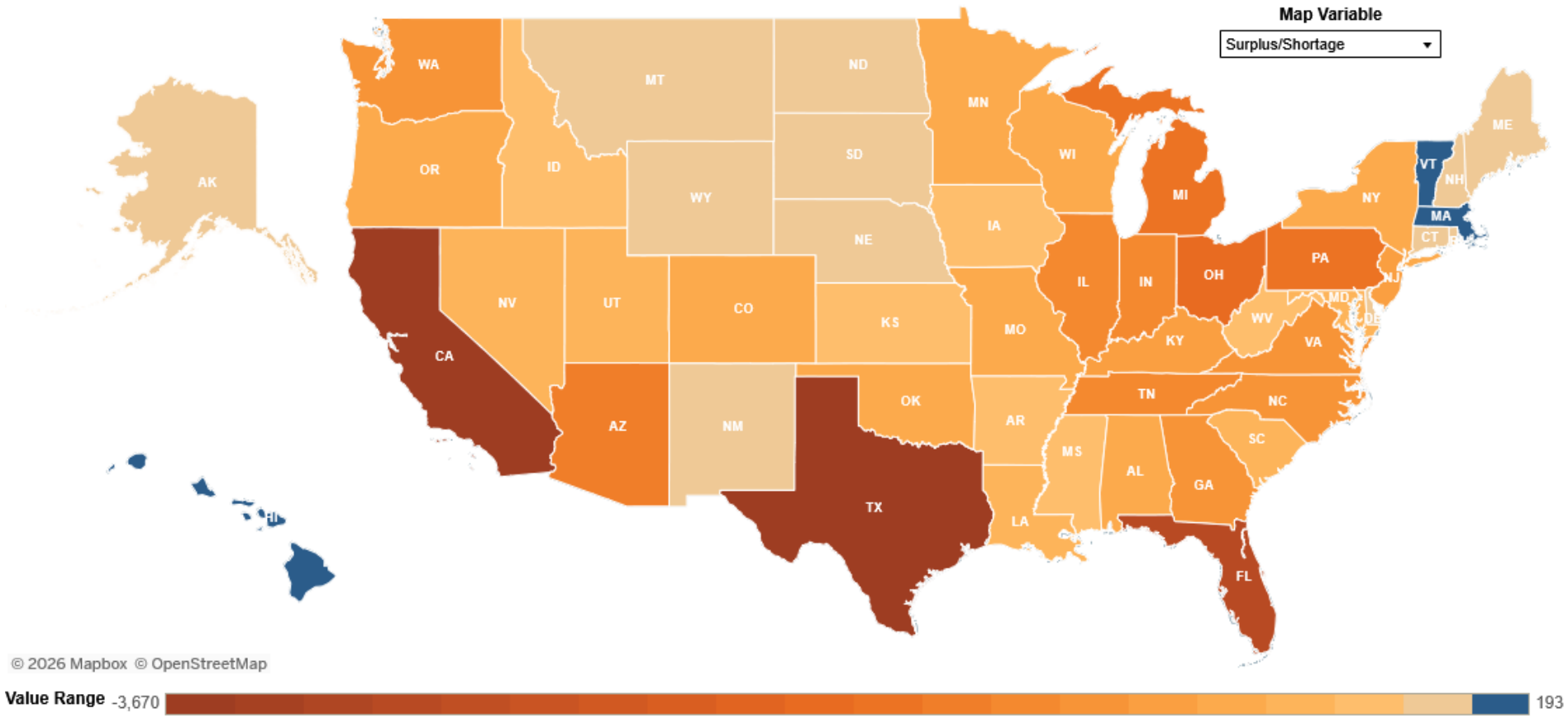



HRSA Data Warehouse Workforce Projections:
https://data.hrsa.gov/topics/health-workforce/nchwa/workforce-projections

Adult Psychiatry
National Data

| Surplus/Shortage 2038 | Percent Adequacy 2038 |
|---|---|
| -36,780 | 50% |

Adult Psychiatry
Surplus/Shortage By State, 2038

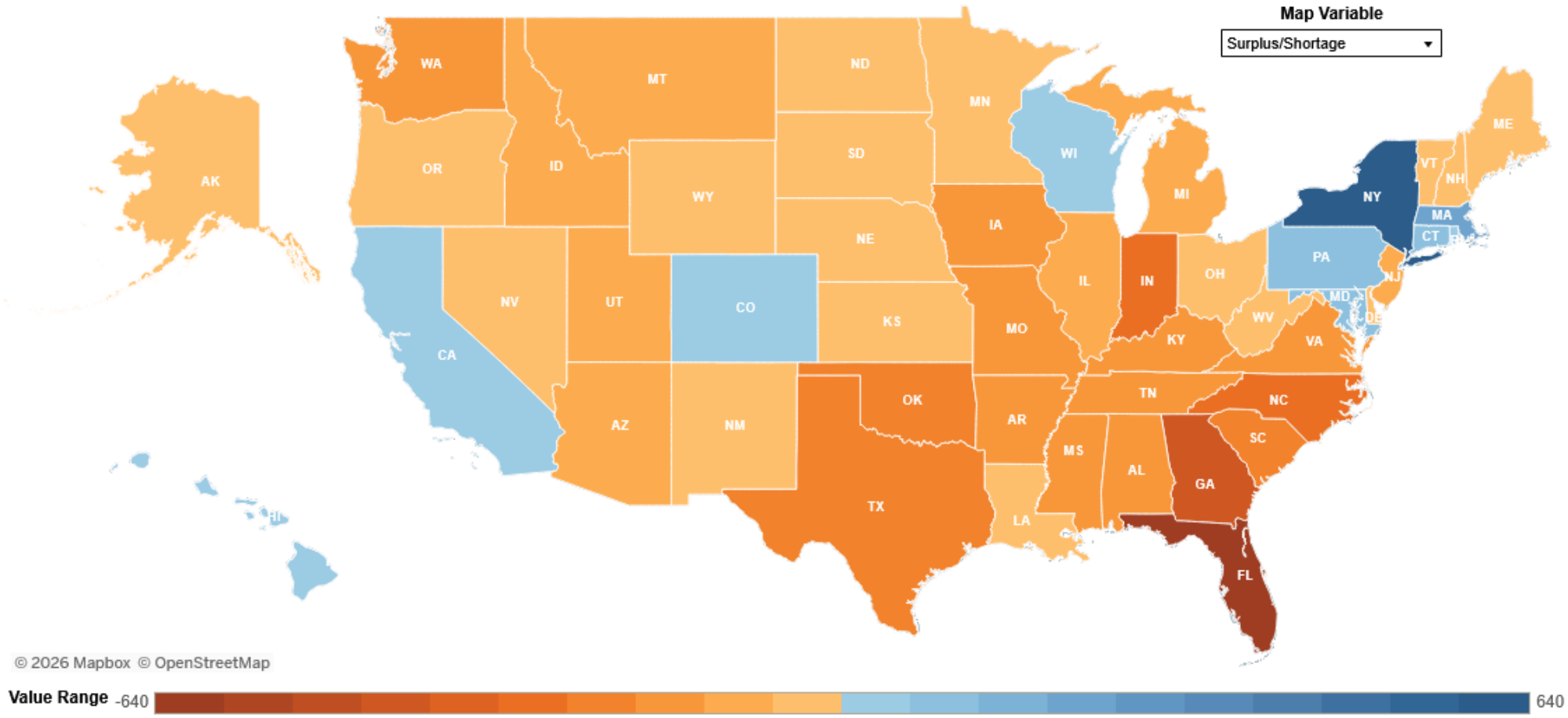



HRSA Data Warehouse Workforce Projections:
https://data.hrsa.gov/topics/health-workforce/nchwa/workforce-projections

General Surgery Physicians
**National Data**

| Surplus/Shortage 2038 | Percent Adequacy 2038 |
|---|---|
| -3,360 | 91% |

General Surgery Physicians
**Surplus/Shortage By State, 2038**

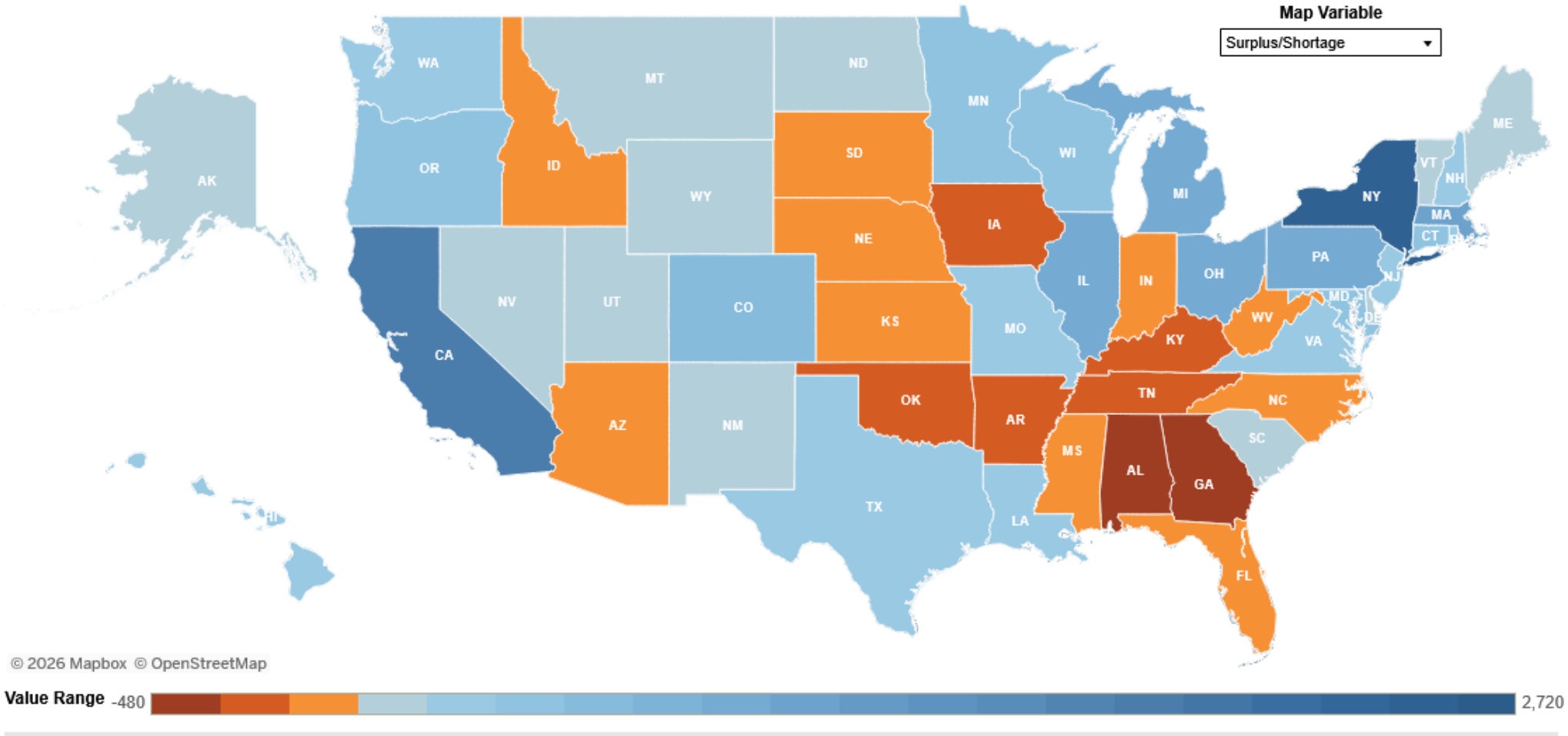



HRSA Data Warehouse Workforce Projections:
https://data.hrsa.gov/topics/health-workforce/nchwa/workforce-projections

Emergency Medicine Physicians
National Data

| Surplus/Shortage 2038 | Percent Adequacy 2038 |
|---|---|
| 11,320 | 116% |

Emergency Medicine Physicians
Surplus/Shortage By State, 2038



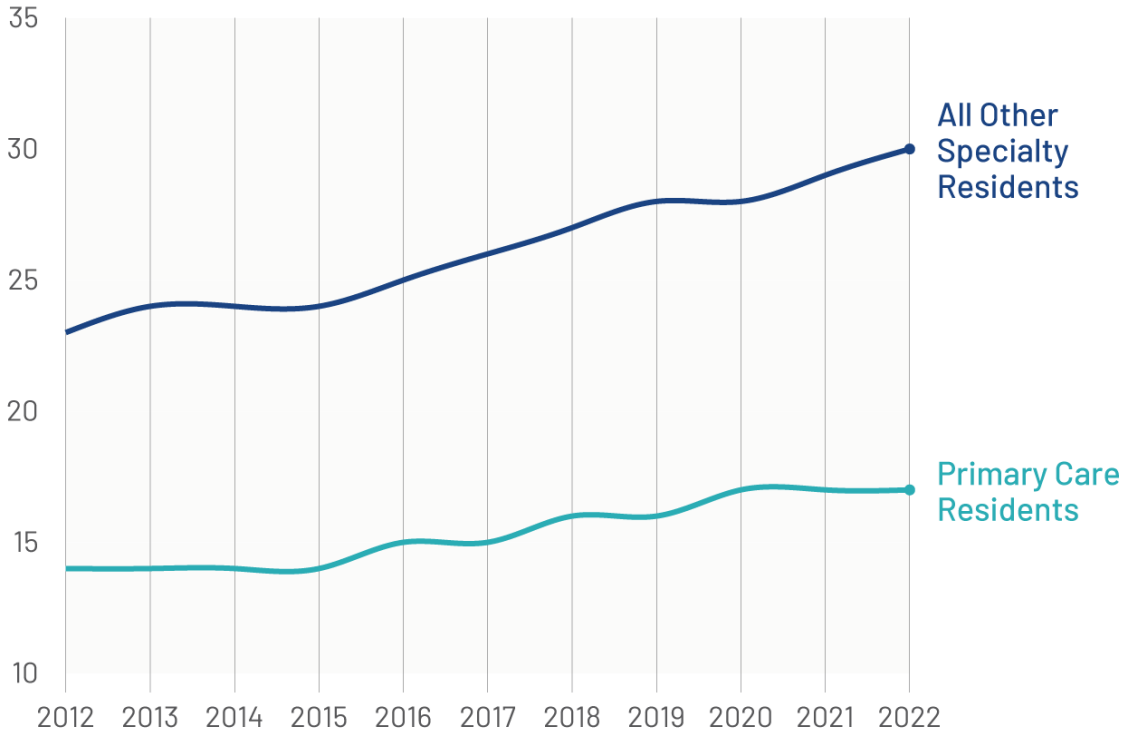

HRSA Data Warehouse Workforce Projections:
https://data.hrsa.gov/topics/health-workforce/nchwa/workforce-projections

# III. Training

## Disparity Widens in Residents Per Capita Growth Between Primary Care and All Other Specialties

**FIGURE 8.**

Primary Care vs. All Other Specialty Residents per 100,000 Population

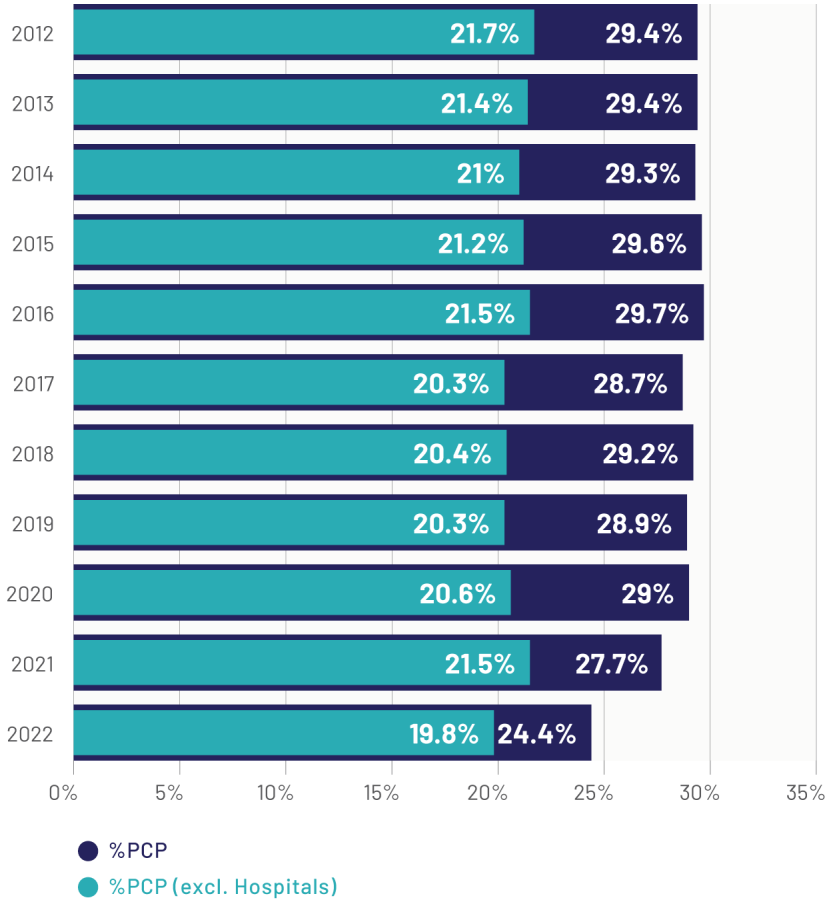



**Data Sources:** Analyses of Accredited Council of Graduate Medical Education program-level data to get counts for medical residents and Area Health Resource File for the population data, 2012-2022
**Notes:** Primary care specialties included family medicine, internal medicine, geriatrics, and pediatrics.

## Percentage of New Physicians Entering Primary Care Drops to Lowest Rate in a Decade

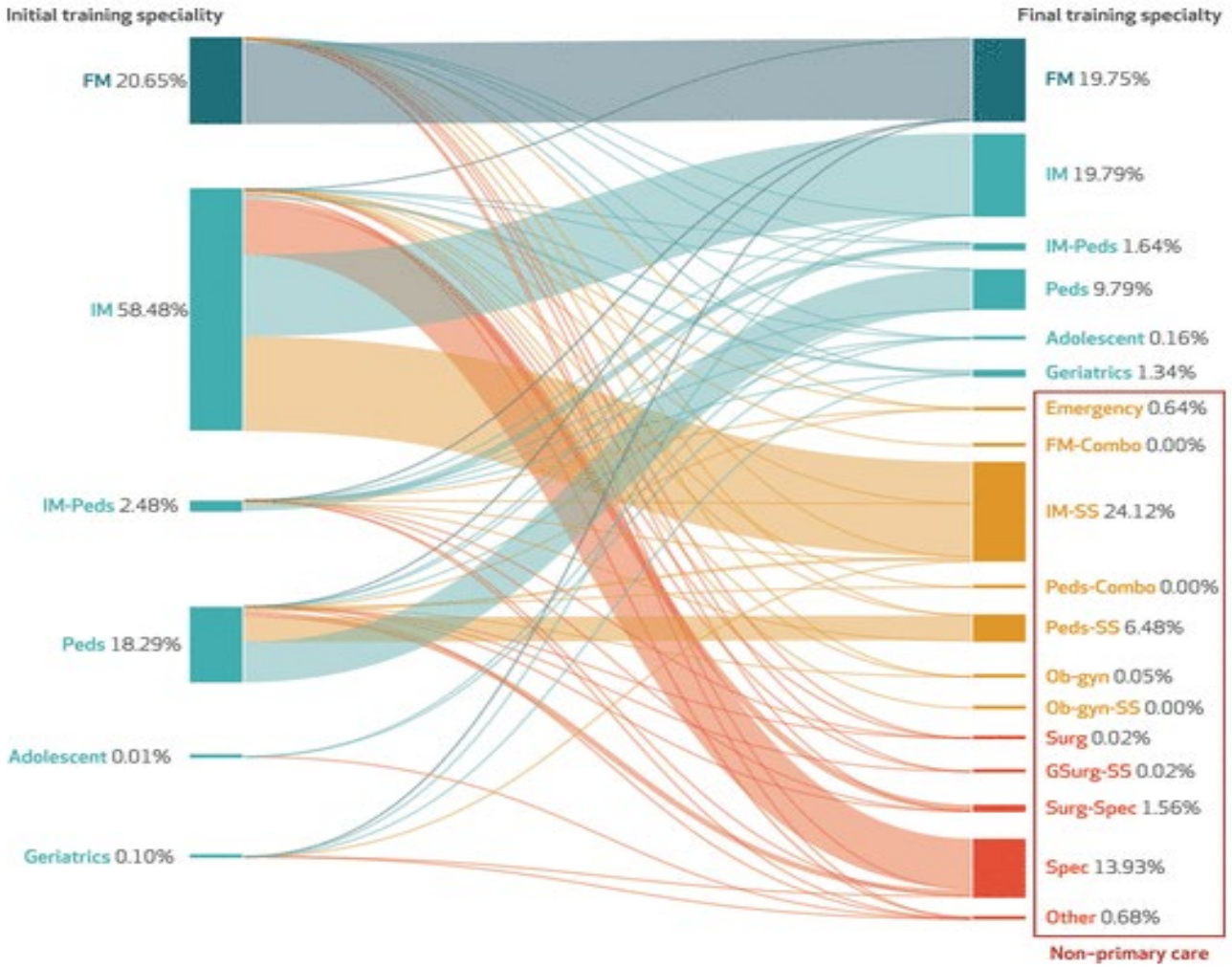
**FIGURE 9.**

Percentage of New Physicians Entering Primary Care, 2012-2022




**Data Sources:** Analyses of the 2024 American Medical Association Historical Residency File, the 2024 American Medical Association Masterfile, and the 2012-2022 Center for Medicare and Medicaid Services Physician and Other Practitioners data
**Notes:** Primary care specialties included family medicine, general practices, internal medicine, geriatrics, and pediatrics. Specialty for doctors of osteopathy (DOs) are not always included in the American Medical Association Masterfile, so these data may be an underestimation of the true workforce. (See limitations in Appendix for more details.)

**Exhibit 2** Pathways through postgraduate training for US physicians who graduated from medical school in 2001–15 and completed their initial training in a primary care specialty




Phillips WR, Park J, Topmiller M. Pathways To Primary Care: Charting Trajectories From Medical School Graduation Through Specialty Training. Health Aff (Millwood). 2025 May;44(5):580-588. doi: 10.1377/hlthaff.2024.00893. PMID: 40324138.

# From GME Spending to Workforce Impact: A New Framework for Accountability

# Top 10 Recipients of Medicare GME dollars (2023)

| |
|---|
| NEW YORK PRESBYTERIAN HOSPITAL |
| NYU LANGONE HOSPITALS |
| MONTEFIORE MEDICAL CENTER |
| MOUNT SINAI HOSPITAL |
| UPMC - PRESBYTERIAN SHADYSIDE |
| YALE NEW HAVEN HOSPITAL |
| MASSACHUSETTS GENERAL HOSPITAL |
| STANFORD HEALTH CARE |
| HOSPITAL OF THE UNIV OF PENNA |
| CLEVELAND CLINIC HOSPITAL |

# Primary Care Graduate Medical Education Impact Analysis (GME-IQ)

- Definition:

The GME Impact Quotient (GME-IQ) is an objective, reproducible score that takes into account the institutions that have high placement of Primary Care physician graduates into high need areas.

- What is it asking:

How well does an institution convert its public GME investment into the workforce a population needs?

# Calculating the GME-IQ

- GME-IQ
  - % of physicians completing a primary care residency who are now
    - (1) practicing in a primary care specialty

      AND
    - (2) practicing in a Health Professional Shortage Area (HPSA)

      OR
    - (3) practicing in a high social deprivation area (ZCTA-level)

      OR
    - (4) practicing in a rural county (RUCC >= 4)

# Data

- AMA Physician Masterfile data – July 2023
  - US medical graduates – MDs and DOs – who completed residency training in pediatrics (PEDS), family medicine (FM), or internal medicine (IM), 2018-2020
- CMS Medicare Physician & Other Practitioners by Provider & Service (2021-2023)
  - Physicians who had >90% inpatient billing for at least 2 of 3 years were defined as hospitalists and removed
- ACGME Sponsoring Institutions and Programs

**GME Primary Care Impact Analysis**. The RGC developed the **GME Impact Quotient (GME-IQ)** as an objective, reproducible score that takes into account the institutions that have high placement of physician graduates into high need areas, specifically **HPSAs**, **rural areas**, and **primary care,** to highlight programs that excel at fulfilling the social contract inherent in US medical education to provide quality care to meet the health needs of the underserved and disadvantaged populations. **Select a State to begin**.



## State

(ctrl-click for multiples)

Maryland

## Residency Specialty

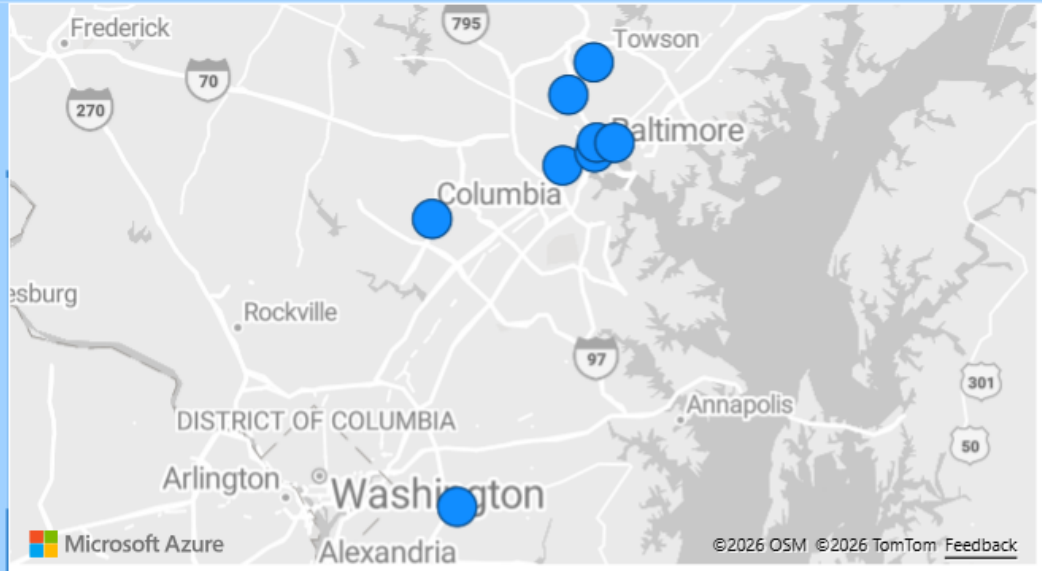
- Family Medicine
- Internal Medicine
- Pediatrics

## Select Institution

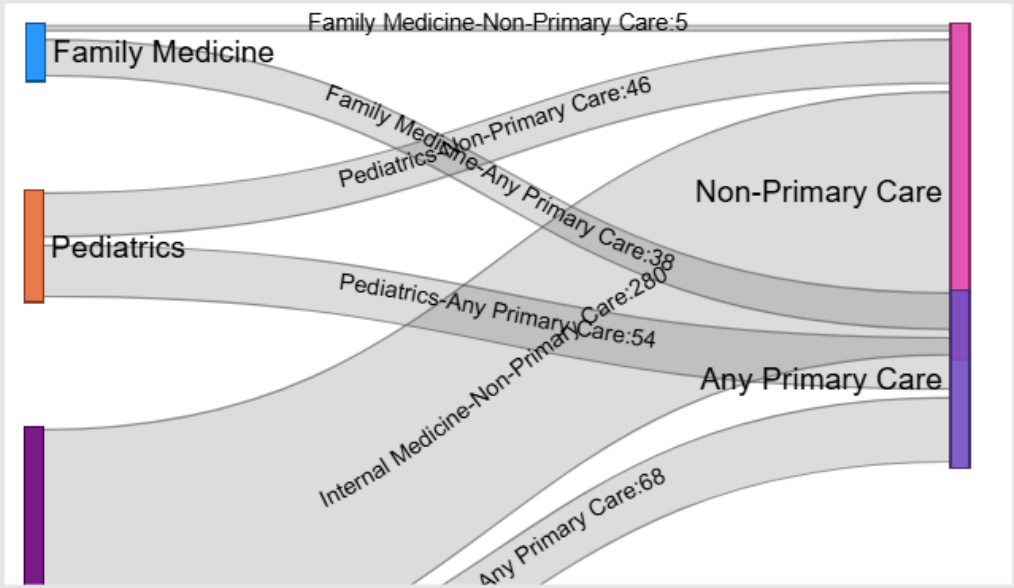
| # Phys ** | GME IQ | Sponsoring Institut |
|---|---|---|
| 16.0 | 25.0% | Greater Baltimore M |
| 108.0 | 25.0% | Johns Hopkins Univ |
| 158.0 | 28.5% | MedStar Health |
| 37.0 | 16.2% | Sinai Hospital of Ba |
| 10.0 | 30.0% | St Agnes HealthCar |
| 25.0 | 40.0% | University of Maryla |
| 7.0 | 57.1% | University of Maryla |
| **491.0** | **28.5%** | |

**: If fewer than 5 physicians, GME-IQ should be interpreted with caution.

Sponsoring Institutions: 8
Physicians: 491

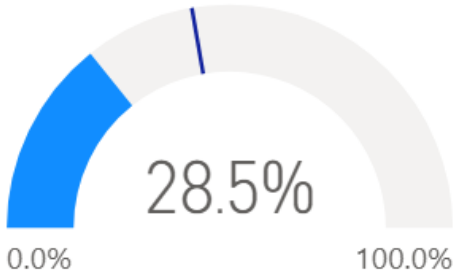



## Residency Specialty (left) to Practice Specialty (right)



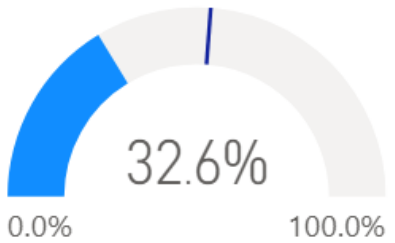

## *GME Impact Quotient Summary Measures*

### GME-IQ and National GME-IQ

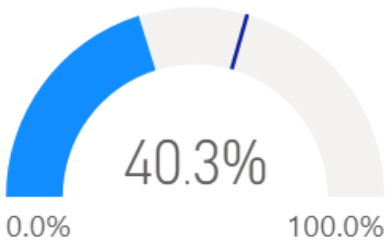



**What it means**: The percent of physicians completing a Primary Care residency in 2018, 2019, or 2020 who are now 1) practicing in a primary care specialty AND 2) are practicing in a HPSA or a high SDI area or in a rural county.

### % Retained in Primary Care and National




### % Retained in State and National




### % Retained in State, by Specialty Retention

| Specialty Retained? | No | Yes |
|---|---|---|
| Different Specialty | 63.5% | 36.5% |
| Same Specialty | 51.3% | 48.7% |
| **Total** | **59.7%** | **40.3%** |

31.4%
% Retained in Specialty

GME IQ for primary care

| Name | State |
|---|---|
| **Providence Hospital** | AK |
| **Midwestern University GME Consortium** | AZ |
| **Valley Children's Healthcare** | CA |
| **Mercy Medical Center** | CA |
| **Dignity Health Northridge Hospital Medical Center** | CA |
| **Long Beach Memorial Medical Center** | CA |
| **Dignity Health Methodist Hospital of Sacramento** | CA |
| **Clinica Sierra Vista - Bakersfield** | CA |
| **St Francis Hospital** | DE |
| **Hawaii Health Systems Corporation - Hilo Medical Center*** | HI |
| **Ascension Illinois** | IL |
| **Maine-Dartmouth Family Medicine Residency*** | ME |
| **Oakland Physicians Medical Center** | MI |
| **St Elizabeth Boardman Hospital** | OH |
| **Texas A&M University School of Medicine** | TX |
| **Valley Baptist Medical Center** | TX |
| **Valley Health System** | VA |
| **PeaceHealth Southwest Medical Center** | WA |
| **Valley Medical Center** | WA |
| **Community Health Care** | WA |
| **Mercy Health System** | WI |

# GME- IQ for Surgery and Psychiatry: A Work in Progress

$$\frac{Number\ of\ Individuals\ Practicing\ in\ [general\ psych\ or\ general\ surgery]}{Number\ of\ Individuals\ trained\ in\ [general\ psych\ or\ general\ surgery]}$$

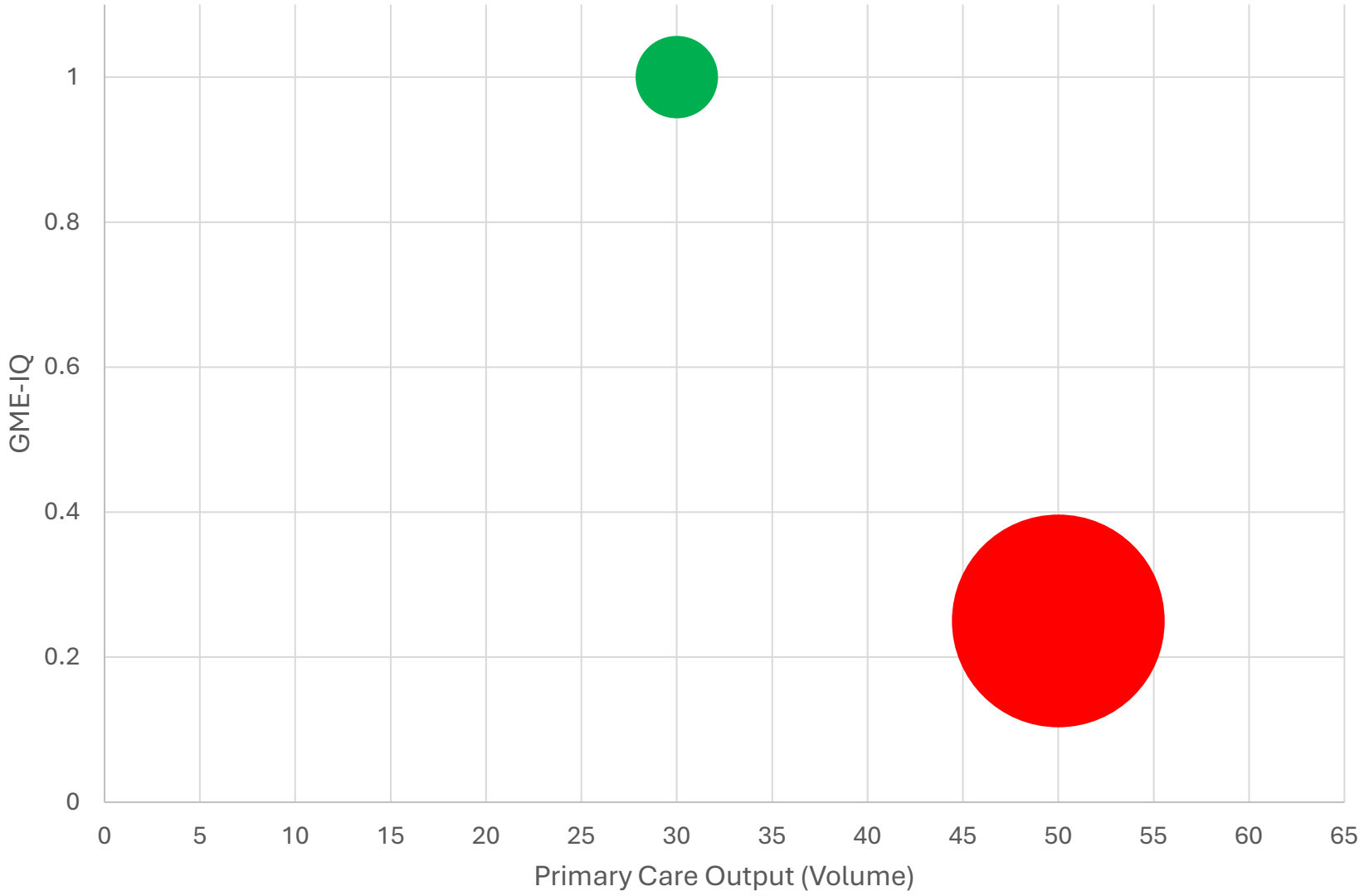
GME IQ
for surgery

| Name | State |
|---|---|
| **Gundersen Lutheran Medical Foundation** | Wisconsin |
| **Bassett Medical Center** | New York |
| **Santa Barbara Cottage Hospital** | California |
| **Saint Joseph Hospital, Inc** | Colorado |
| **Virginia Mason Franciscan Health** | Washington |
| **University of Kansas School of Medicine (Wichita)** | Kansas |
| **Univ of North Dakota School of Medicine and Health Sciences** | North Dakota |
| **HCA Florida JFK Hospital/University of Miami Miller School of Medicine GME Consortium** | Florida |
| **Trinity Health Oakland** | Michigan |
| **Banner-University Medical Center Phoenix** | Arizona |
| **Central Iowa Health System (Iowa Methodist/Iowa Lutheran)** | Iowa |

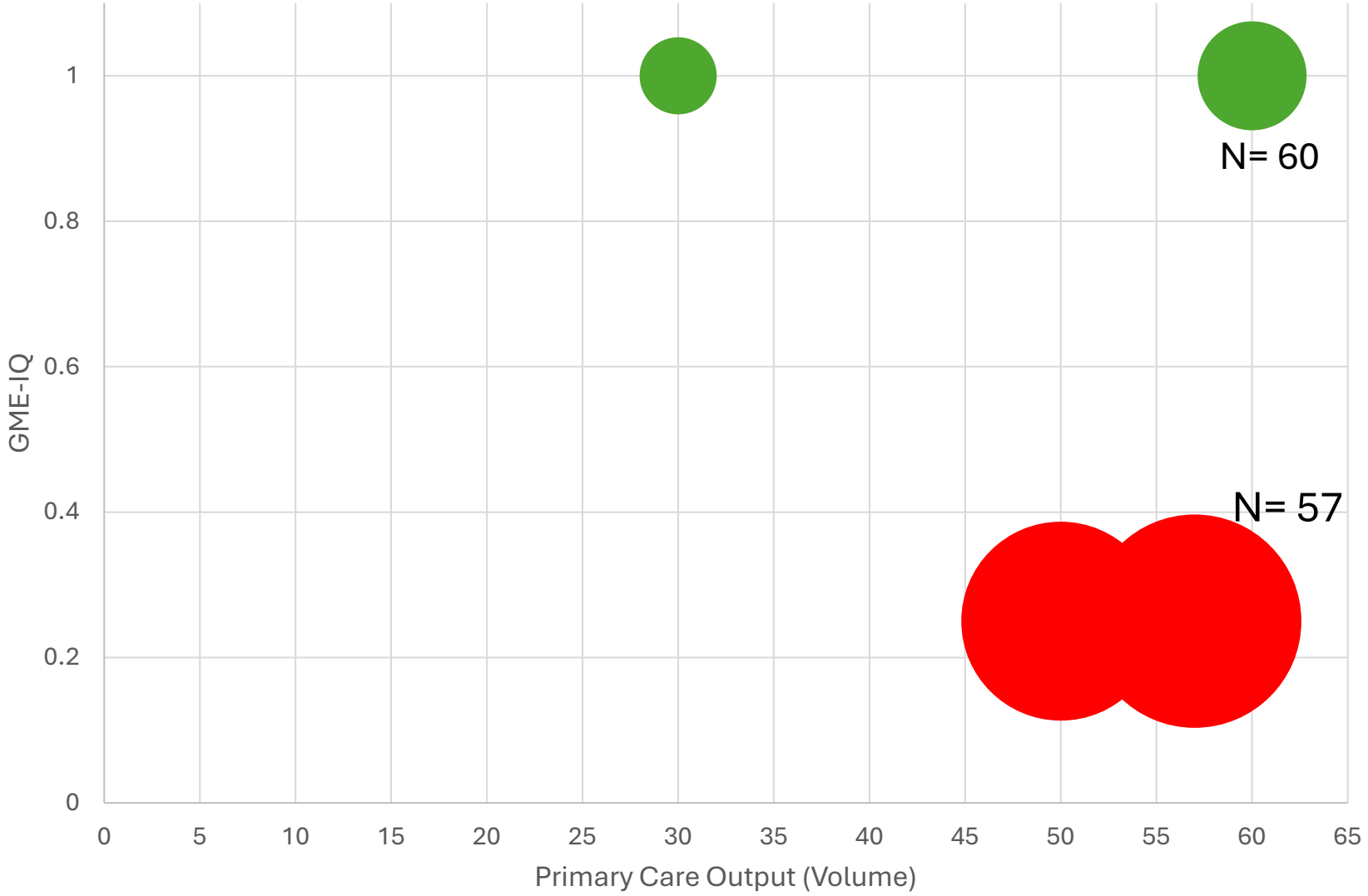
# GME IQ for psychiatry

| Name | State |
|---|---|
| Cedars-Sinai Medical Center | California |
| Kaiser Permanente Southern California | California |
| Kansas City University GME Consortium (KCU-GME Consortium) | Missouri |
| Samaritan Health Services - Corvallis | Oregon |
| Naval Medical Center (San Diego) | California |
| University of Vermont Medical Center | Vermont |
| Kirk Kerkorian School of Medicine at UNLV | Nevada |
| Northeast Ohio Medical University | Ohio |
| Clinical Center at the National Institutes of Health | Maryland |
| Griffin Memorial Hospital | Oklahoma |
| University of California (Irvine) | California |

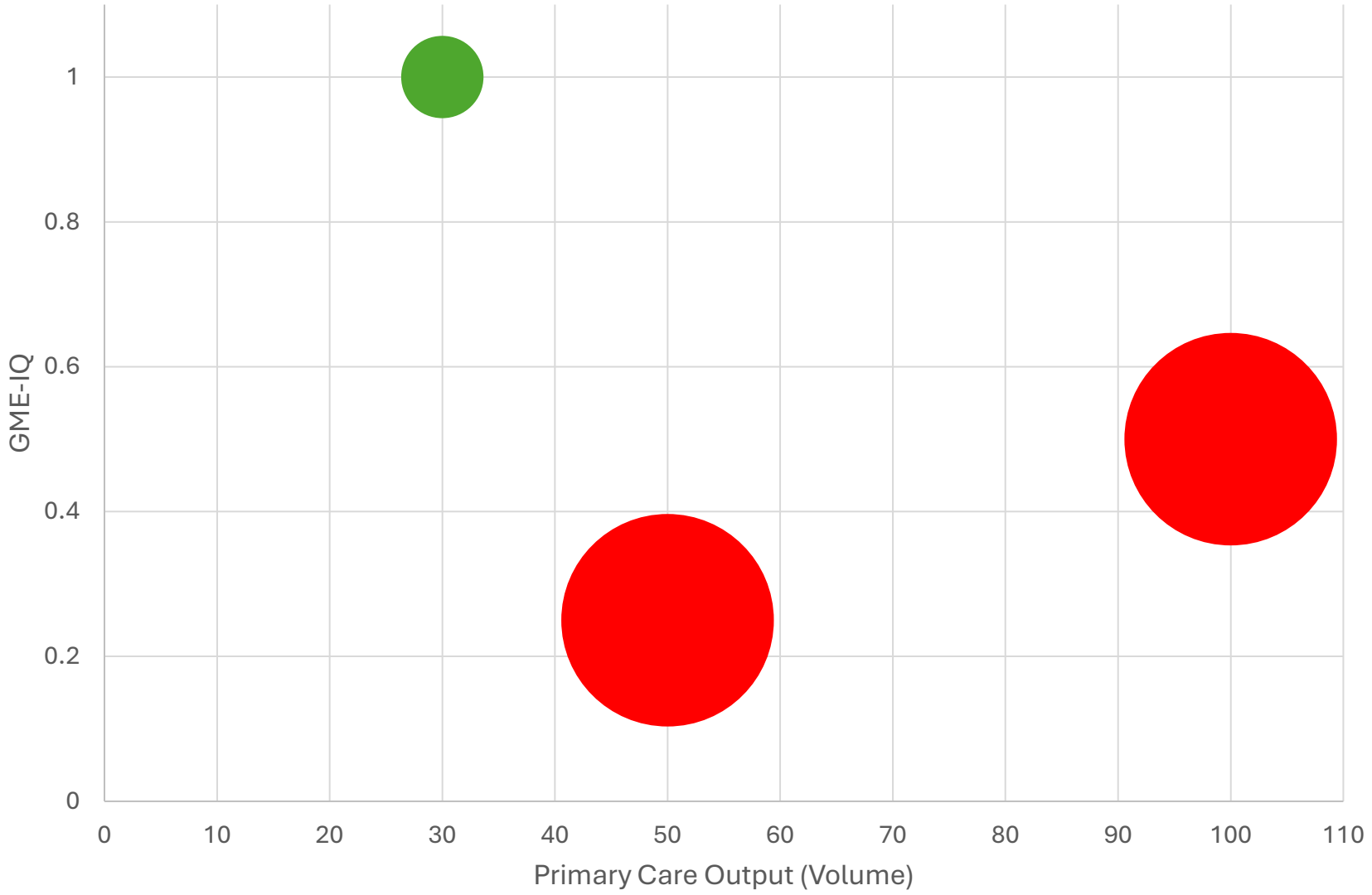
# GME-IQ (Yield) vs. Volume: Why both matter — and why yield is accountability



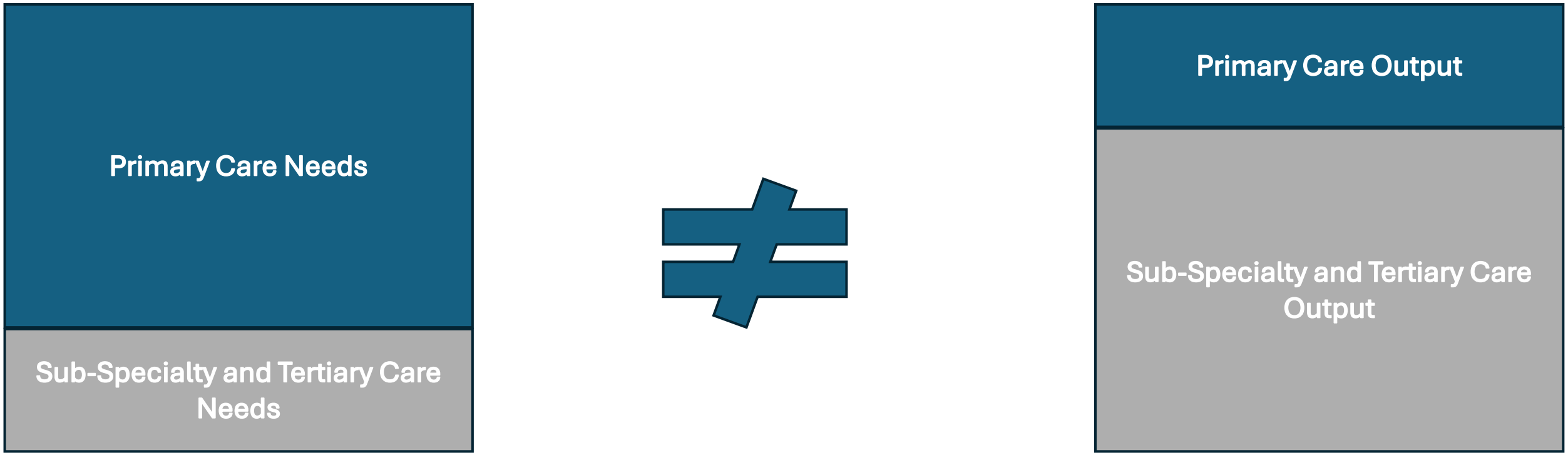
# GME-IQ (Yield) vs. Volume: Why both matter — and why yield is accountability



# GME-IQ (Yield) vs. Volume: Why both matter — and why yield is accountability



# GME Investment is Not Aligned With Population Need




**Without a reproducible measure of GME accountability, workforce planning cannot reliably align training investments with population needs.**

Robert Graham Center

GME Primary Care IQ