Toward a Sustainable and Diversified Rural Health Workforce

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Introduction

The US health care industry is one of the nation’s largest employers. Health services professionals are an educationally diverse group working in a variety of settings, including hospitals, clinics, skilled nursing facilities, pharmacies, home health, and many others. Broadly speaking, members of the health care workforce are comprised of four categories as defined by the Health Resources and Services Administration (HRSA): clinicians (e.g., physicians, nurse, pharmacists, etc.), clinicians and health administration (e.g., optometrists and health care administrators), technologists, technicians, aides, and assistants (e.g., medical assistants, clinical lab technicians), and behavioral and allied health (e.g., social workers, physical therapists).¹

Historic health care workforce shortages have been further exacerbated by the COVID-19 pandemic that first hit the US in March 2020. Provider-to-population ratios in rural areas are much lower than urban areas despite the disproportionate need for health services in rural areas due to older age and more chronic conditions. Workforce challenges associated with the COVID-19 pandemic have been disproportionately felt in rural areas. Throughout the pandemic, surges in hospitalizations have resulted in health worker deployment to areas of need. Workforce issues associated with the COVID-19 pandemic have disproportionately challenged rural areas due to limited staffing, lack of supplies, minimal specialty support and limited facility accommodations. High remuneration, bonuses, and recruitment incentives drew many workers to leave rural positions in favor of travel or locum tenens jobs. Rural health systems frequently did not have the resources to match the incentives provided elsewhere.²,³ Meanwhile, some rural hospitals resorted to furloughing workers while elective surgeries, and their revenues, were suspended.⁴ This early destabilization of the rural health workforce left rural hospitals in a precarious position for when the pandemic did, eventually, become active in their area. Since then, low vaccination rates, coupled with the high infection rates of the new Delta and Omicron variants, have led to a crisis: peak health care demand during a time of extreme workforce supply shortage. The Biden administration has recently pushed for a vaccination mandate in all facilities providing Medicare services.⁵ Resistance to the mandates and noncompliance with vaccination requirements has further reduced the number of health workers available to work.⁶ For example, one maternity ward in rural Lewis County, NY, paused its services due to staffing shortfalls related to non-compliance with COVID-19 vaccine requirements.⁷

In addressing these challenges, the COVID-19 pandemic has encouraged innovation and enhanced flexibility in how health services are provided. Centers for Medicare and Medicaid Services (CMS) granted emergency declaration blanket waivers for health care providers (“1135 waivers”) to enhance their response to the pandemic.⁸ Most of these waivers were implemented to relieve health care providers of regulatory and documentation burdens to allow them to serve patients differently, or to allow different types of providers to perform health care services. Notably, 1135 waivers loosened telehealth regulations and allowed for greater flexibility for practicing across state lines, which has led to a rapid uptake of virtual care across geographies and settings.
However, even before the pandemic, burnout and moral injury had been a major concern among rural health care professionals. This long-standing challenge has been brought to a flashpoint as wave upon wave of COVID-19 patients hit rural hospitals.\textsuperscript{xiv} Health care providers are exhausted, are seeing fewer positive outcomes, and are experiencing unprecedented hostility from patients.\textsuperscript{x,xi} To support our health workforce and prevent an exodus of qualified health workers, future health policies will need to consider the psychological needs of the workforce in tandem with their material needs.\textsuperscript{ix}

The already-fragile rural health workforce has been significantly destabilized by the ongoing pandemic and its downstream effects. Rebuilding from this crisis and fostering workforce resilience will require renewed efforts along three synergistic pathways: 1) increasing the numbers of health workers in rural areas, 2) fostering flexibility in the rural health workforce, and 3) sustaining and supporting rural health workers in practice.\textsuperscript{xii}

**Analysis of Rural Workforce Data**

Access to health care in rural areas may prevent disease and disability, detect and treat illnesses or other health conditions, increase quality of life, lower the risk of premature death, and increase life expectancy.\textsuperscript{xiii} Studies show that primary care physician density (i.e., the number of primary care providers per capita) is associated with reduced mortality for many causes of death. Notably, rural areas have experienced a greater decline in primary care density over time.\textsuperscript{xiv} Figure 1 depicts the distribution of primary care providers by urban influence category; rural–urban differences are even more pronounced for specialty care. Projections from HRSA suggest that rural areas will be far below adequacy for several specialty provider types at least until 2030.\textsuperscript{xv} These workforce challenges exist not only because of the lack of providers coming into rural areas, but also in the aging of the rural health care workforce.\textsuperscript{xvi,xvii,xviii} There are fewer health care providers per 10,000 population in rural areas compared to urban populations for many provider types, including physicians, registered nurses, nurse practitioners, physician assistants, nurse midwives, social workers and other allied health professionals.\textsuperscript{vxiii} For example, there are 5.3 primary care physicians per 10,000 residents in rural areas compared to 7.9 in urban areas. Similarly, there are 65.3 registered nurses per 10,000 residents in rural areas compared to 93.6 per 10,000 in urban areas.

![Figure 1: Primary Care Providers per 100,000 Population in U.S. Counties by Urban Influence Category (From Larson et al., 2020\textsuperscript{xx} used with permission)](image-url)
Although health workforce planning is often approached from a population-based workforce “supply” perspective (increasing the number of providers practicing in an area), some new trends are emerging that move further towards a needs-based planning model, embracing interprofessional practice models and emphasizing workforce flexibility in meeting the needs of a community.xx The health care needs of the rural population can, indeed, be met in a variety of ways. The concept of “plasticity” has been applied to physician workforce planning, showing how community needs can be met through arrangements of various types of physicians with overlapping scopes of practice. xxx, xxi This plasticity could be extended from within- and between-practice applications to also encompass interprofessional arrangements.xxii A new framework for reshaping the health workforce proposes a four-pronged approach targeting the production, distribution, potential, and resilience of the workforce.xxxiv

Analysis of National and State Policy Levers

Role of Federal Players

The HRSA Bureau of Health Workforce (BHW) is tasked with administering programs to increase and support the health workforce. BHW has several programs aimed at reducing the cost burden for future and current health providers while strengthening the workforce in underserved areas.xxv In compliance with the Coronavirus Aid, Relief, and Economic Security (CARES) Act, HRSA released a Health Workforce Strategic Planxxvi which catalogs a large number of health care workforce programs and activities supporting four key goals. Goal 2 strives to “improve the distribution of the health workforce to reduce shortages.” Objectives within this goal target rural and otherwise high-need communities.

HRSA uses two definitions to facilitate eligibility for a variety of loan repayment programs: Health Professional Shortage Areas (HPSA) and Medically Underserved Areas (MUA). To determine eligible locations for loan repayment programs, HPSA definitions are used.xxvii HPSAs designations are commonly driven by geography, but populations including migrant farmworkers and facilities including correctional facilities and federally qualified health centers may also be used. HPSAs have a shortage of either primary, dental, or mental health providers, generally defined as a population-to-provider ratio of 3,500 to 1. Nearly two-thirds (61.27 percent) of primary care HPSAs are in rural areas. Nearly four thousand more providers would need to practice in these areas for the designations to be removed.xxx Similar to this, MUA definitions use the aforementioned population-to-provider ratio, a high infant mortality rate, high poverty, or high elderly population to determine if a county, group of counties, or group of urban census tracts should be designated as an MUA.xxxii While MUAs are not used for loan repayment programs they are used to determine eligibility for the CMS Rural Health Clinic program, clinics that can provide important primary care services for rural areas, and for J-1 Visa Waivers, which can enable foreign medical professionals to practice in a rural area. The J-1 Visa Waiver allows foreign-trained physicians to waive the two years of foreign residency requirement in exchange for practicing for at least three years in an HPSA or MUA, or serving a medically underserved population.

To address the maldistribution of providers, individuals can directly apply for loan repayment opportunities. For example, the National Health Service Corps provides an opportunity for a wide range of health care providers, such as physicians, nurse practitioners, physician’s assistants, dentists, and social workers to have their loans repaid in exchange for a commitment to practicing in an eligible underserved area for two years.xxxiii These health providers stay longer through continuation services contracts, and some stay beyond such contracts or move to similarly underserved areas, ultimately helping to improve
the health care workforce in areas of need. Currently, there are 19,605 designated sites in which clinicians could practice as part of the National Health Service Corps. The Nurse Corps Loan Repayment program similarly provides an opportunity for loan repayment for registered nurses, advanced practice registered nurses, and nurse faculty in exchange for practicing two years in a critical shortage facility or serving as faculty in an eligible nursing school.

In addition to BHW programming to support providers practicing in underserved areas, HRSA maintains internal centers and data and funds external centers focused on the health workforce, or more broadly, on rural health with relevance to the health workforce. The BHW funds health workforce research centers that focus broadly on health workforce and education analysis. Relatedly, the Federal Office of Rural Health Policy funds rural health research centers, some of whose projects focus on rural-specific health workforce issues. There are more than 15 total health workforce and rural health research centers funded throughout the country.

Further, the BHW uses grants and other incentives to expand the health care and health support workforce to meet current and future needs and invest in health education and training to prepare the next generation of health care providers. Of note, HRSA funds Area Health Education Centers (AHECs) to enhance training and educational networks. There are more than 300 AHEC program offices throughout the country serving more than 85 percent of counties. This program was developed in 1971 to recruit, train, and retain the health workforce in rural areas. AHECs differ in their programming, reach, and non-federal funding sources, but they often provide educational opportunities for high schoolers through practicing clinicians as well as other important programming.

Role of State Players

States may have programs that mirror federal programs to help increase the health workforce in rural areas. For example, Conrad 30 Waivers allows each state health department to request J-1 Visa Waivers for as many as 30 foreign physicians annually. These physicians must practice in an HPSA or MUA. As many as 1,000 physicians are recruited to practice in underserved areas through this program alone. Many states have additional financial recruitment and retention mechanisms such as loan repayment programs (some of which are grant-funded by HRSA), scholarships, or state income tax credits that are designed to incentivize practice in rural or otherwise underserved areas.

State-level policies may also facilitate increases in the rural health workforce and/or mitigate shortages. For example, scope of practice laws can allow physician assistants and nurse practitioners to practice at the full scope of their license or can increase the distance at which a supervising physician must be located, which may allow more of these advanced practice providers to serve in rural areas. Further, as health care provider and facility licenses are administered and regulated at the state level, states may opt to expand the scope of practice of providers such as nurse practitioners, certified nurse midwives, and physician assistants to improve access to care for rural populations. Some states have reciprocity agreements in place that allow providers to practice in other states which is helpful for providers practicing near state borders and can facilitate telehealth provision.

Finally, state Medicaid programs provide an important source of health coverage in rural areas characterized by lower incomes and higher rates of poverty. Special payment policies may be applied for rural providers and facilities, supplementing reimbursement for provision of rural services.
Role of Medical and Other Health Professional Schools

Medical and other health professional schools play an important role in improving the rural health workforce through rural tracks in medical schools, rural residency programs, rural rotations, and interprofessional training. For example, the University of South Dakota has a Frontier and Rural Medicine program that allows medical students to do rotations in rural areas. Other health professional schools similarly include rural tracks or programming to increase the health workforce in rural areas. For example, the University of North Carolina at Chapel Hill has a rural pharmacy certificate program. Such programs can provide opportunities for students to gain rural-specific training that enables them to later practice in rural areas. Training programs are not limited to health professions education. For example, the Delta Region Rural Health Workforce Training Program offers opportunities for health administrative and information management functions.

The Council on Graduate Medical Education has recently published a three-part issue brief series on the topic of rural health professions training. These reports highlight a range of policy levers relevant to increasing the availability of rural health professions training opportunities.

Policy levers for building a sustainable workforce

Table 1 on the following page summarizes some key regulatory, financial, and educational policy levers that can support the workforce by increasing the number of providers in rural areas, the flexibility of the rural health workforce, or support for rural health workers in practice.

Analysis of current NRHA policy positions

NRHA has advocated on behalf of rural health systems on the topic of workforce policies throughout its history. A 13-part policy paper series on the Recruitment and Retention of a Quality Health Workforce in Rural Areas was published between 2005 and 2008. This series takes a broad view of the various types of health workers and professionals that comprise the health workforce and the issues that affect the sufficiency of the workforce within those categories of workers. More recent NRHA policy positions have focused on physicians, physician assistants, and the EMS workforce, recommending action targeting a variety of regulatory, financial, and educational policy levers (for a summary table, see Appendix A). For the most part, each of these roles is considered in a silo rather than as part of a flexible and integrated health workforce. Policy efforts to ensure the sufficiency of the health workforce in rural areas must be maintained. In doing so, an opportunity exists to shift analysis and advocacy away from a perspective that focuses primarily on the supply of health professionals within their occupational siloes, to instead take a more holistic and integrative view of the workforce. Many of the policy initiatives previously identified by NRHA merit continued advocacy.
### Table 1: Policy Levers for building a sustainable rural health workforce

<table>
<thead>
<tr>
<th>Regulatory Levers</th>
<th>Financial Levers</th>
<th>Educational Levers</th>
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<tbody>
<tr>
<td><strong>Increase the Number of Rural Providers</strong></td>
<td><strong>Increase the Flexibility of the Rural Health Workforce</strong></td>
<td><strong>Increase Supports to Keep Rural Providers in Practice</strong></td>
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<tr>
<td>• Shortage area designation definitions</td>
<td>• Payor reimbursements for services performed by rural APPs</td>
<td>• Career ladders</td>
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<td>• Immigration policies (e.g., J-1 Visa programs, Conrad 30 waivers, National</td>
<td>• Alternative payment models that incentivize interprofessional practice</td>
<td>• Mechanisms for lateral transfer between career ladders/professions (e.g., credit</td>
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<td>Interest Waivers tied to rural service)</td>
<td>• Non-volume-based payment models</td>
<td>for military medical training)</td>
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<tr>
<td>• Licensure and accreditation of IMGs</td>
<td>• Reimbursement for services rendered via telemedicine</td>
<td>• Education focused on interprofessional practice models</td>
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<tr>
<td>• Expanded scope of practice for multiple provider types</td>
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<td>• Competency-based education and training</td>
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<tr>
<td><strong>Increase the Flexibility of the Rural Health Workforce</strong></td>
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<tr>
<td>• Supervisory policies for APPs</td>
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<tr>
<td>• Interjurisdictional licensure, including cross-jurisdictional provisions for</td>
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<td>telehealth</td>
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<td>• Expanded and modernized scope of practice regulations (e.g., practice-level</td>
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<td>determination of APP scope of practice)</td>
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<tr>
<td>• Flexibility in how minimum staffing requirements is met in rural areas (e.g.,</td>
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<td>competency-based credentialing)</td>
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<tr>
<td><strong>Increase Supports to Keep Rural Providers in Practice</strong></td>
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<tr>
<td>• Reduction of reporting and/or documentation burden</td>
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<td>• Incentivizing participation in virtual Communities of Practice (e.g., Project</td>
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<td>ECHO)</td>
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<td>• Requirement for provision of paid leave (e.g., parental and sick leave)</td>
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<td>• Health Service Corps Programs</td>
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<tr>
<td>• Recruitment incentives for rural providers</td>
<td>• Medicare Bonus for Primary Care Services in HPSAs</td>
<td>• Distance/Virtual Continuing Education</td>
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<td>• Funding for health professions training programs (primary care, nursing, allied</td>
<td>• Retention incentives</td>
<td>• Increasing positive messaging about rural work, valorization of rural service</td>
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<td>health)</td>
<td>• Loan repayment programs for rural providers</td>
<td>• Virtual supportive topic training opportunities (e.g., Mental health first aid,</td>
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<td>• Funding for rural training tracks</td>
<td>• Subsidies for childcare and other dependent services</td>
<td>Professional Resilience and Compassion Satisfaction)</td>
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<tr>
<td>• Provider reimbursement policies (federal and state)</td>
<td>• Increased funding for Employee Assistance Programs to support health care</td>
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<td>care workers suffering mental health distress and post-traumatic stress</td>
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<td></td>
<td>• Funding for implementation of organizational trauma-informed care</td>
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Note: xxiv, xlvii, xlviii
Policy Recommendations

Policy advocacy should target all three strategies to address sustaining the rural health care workforce: increasing numbers, increasing flexibility, and supporting workers in practice. Increasing the number of rural providers without increasing the ability to retain and support them in practice will just result in high provider turnover. Furthermore, an emphasis on recruitment at the expense of developing local workers and leveraging existing regional talent wastes a valuable source of local knowledge and capacities. It is crucial to take a broad and inclusive view of the rural health workforce and the many factors that influence its sufficiency and its sustainability.

- **Support policies that aim to increase the number of providers practicing in rural areas.** These may include policies focused on rural training and recruitment, or on rural payment models.
  - Support [S.1893 Rural Physicians Workforce Production Act of 2021](https://www.congress.gov/bill/117th-congress/senate-bill/1893) to allow certain hospitals (e.g., critical access hospitals, disproportionate share hospitals) to receive additional payment under Medicare for full-time equivalent residents who receive training in rural areas.
  - Support [H.R. 2130 Rural America Health Corps Act](https://www.congress.gov/bill/117th-congress/house-bill/2130) student loan repayment demonstration program for eligible providers who agree to work for five years in a rural area with a shortage of primary, dental, or mental health care providers.

- **Support policies that promote flexibility of the rural workforce to meet the needs of its population in creative and innovative ways.** These may include policies related to team-based and interprofessional practice, alternative educational pathways (e.g., competency-based accreditation or licensure), or lateral transfer of health practice skills across professional pathways or between career ladders.

- **Support policies that strengthen and support GME training in rural areas and rural-specific tracks in other areas of health professional training.** These may include strengthening rural training experiences for medical students and granting greater flexibility in GME training site locations, reimbursement, and rotation regulations. Further, this may include providing federal funds for rural specific training tracks for non-physician health professions.

- **Support policies that support rural health workers in practice and value their the personal, professional, and family needs.** These policies may include maintaining and increasing existing retention initiatives, but also must include policies that attend to the psychological and social needs of rural health workers and their families.
  - Identify policy levers that incentivize health organizations to create and maintain trauma-informed workplaces and policies.
  - Support policies that enhance job opportunities and the quality of life and education in rural areas.

- **Support policies that improve equity, foster diversity, and encourage a workforce that is representative of the populations it serves.**
  - Provide increased federal support for pre-health professional and health professional training in Historically Black Colleges and Universities and other minority serving institutions.
Establish additional programs to train Indigenous health care providers akin to the recently launched osteopathic medical school collaboratively established by Oklahoma State University and the Cherokee Nation.

- Engage in the development and implementation of the HRSA Workforce Strategic Plan, identifying specific programs and policies that could be leveraged to benefit the rural workforce.
  - Advocate for a reduction in application burden for rural systems to participate.
  - Advocate for rural participants to receive a proportional allotment of opportunities and funding, including a rural carve-out for any workforce funding opportunities.

Areas for Future Analysis

Based upon the high-level discussion in this policy paper, additional areas for targeted analysis are needed in future policy briefs. Best practices throughout the country that exemplify these principles and identify the contextual factors that enable their success need to be identified and documented. These are situated in one of four areas as characterized by Beck and colleagues.xxiii

- Maximizing potential
  - Assess the impact of state-level licensure and regulation on the rural health workforce.
  - Evaluate the role of interprofessional teams and skills mix on the rural health workforce, especially in health care settings in which non-physician providers are critical including rural health clinics.
  - Assess the representativeness of the health workforce with respect to the populations it serves and identify policy levers to increase the diversity of medical providers throughout the country.

- Distribution
  - Evaluating trends in doctorally trained non-physician providers in rural compared to urban areas.

- Production
  - Identifying the impact of graduate medical education policies and practice on the rural health care workforce, including distribution of preceptor sites and availability of residency slots.

- Resilience
  - Identifying challenges faced by rural providers and policies that can alleviate reasons why providers leave rural practice.
  - Identifying policies to mitigate and prevent burnout, compassion fatigue, moral injury, and trauma in the rural health workforce.

Conclusion

Workforce challenges associated with the COVID-19 pandemic have been disproportionately felt in rural areas. Rebuilding from this crisis and fostering workforce resilience will require renewed efforts along three synergistic pathways: 1) increasing the number of health workers in rural areas, 2) fostering flexibility in the rural health workforce, and 3) sustaining and supporting rural health workers in practice.
## Appendix A: Recent NRHA Policy Papers

<table>
<thead>
<tr>
<th>Policy Paper</th>
<th>Regulatory Levers</th>
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| **Rural EMS Workforce**α | • Expansion of scope of practice for EMS  
• Guidance for the acceptance of military medical training for health professions licensure | • Alternative funding models that are not patient or service dependent  
• Allocate state funds through rural economic impact models to support the EMS workforce  
• Funding for EMS care that does not result in transport (“treat-and-discharge” and community paramedicine) - ACO incentives, community benefit grants, “incident to telehealth” billing.  
• CMMI Funding for demonstration projects | • Sustained funding for rural-friendly modes of education (asynchronous and distance) for rural EMS and continuing education  
• Guidance for academic institutions for awarding credit for military medical training toward health professions training programs |
| **Physician Assistants: Modernize Laws to Improve Rural Access**β | • Allow practice-level determination of individual PA scope of practice  
• Ensure that future regulatory changes do not adversely impact PA practice in rural communities  
• Remove regulatory barriers to intra/interprofessional team practice  
• Ensure that regulatory boards include PA representation | • Include PAs in all new models of care and payment systems  
• Include PAs in rural recruitment and retention programs and incentives, and in workforce development programs  
• Allow for direct PA payment from public and private payers  
• Allow for payment to PAs for mental health services | |
| **Designation of Frontier Health Professional Shortage Areas**γ | | • Adjust HPSA designation criteria for frontier areas (incorporate time and distance criteria, eliminate the use of Standardized Mortality Rates and establish a more appropriate population-to-provider ratio calculation and threshold, include APPs in P2P ratios)  
• Establish a waiver process for unique circumstances | |
| **FMG/ J1 Visa Waiver Physicians**δ | • Seek a return to regulations restricting Foreign Medical Graduates entering the US for graduate medical education to be classified as J1 nonimmigrant status (rather than H1B status) | | |
| **Graduate Medical Education for Rural Practice**ε | • ACGME requirement for reporting rurally relevant metrics to identify rural programs | • Removal of CMS caps on funding for new and existing qualified rural GME programs  
• Allow CMS reimbursement for rural CAHs, RHCs, and GQHCs for the costs of GME | • Establish minimum duration and content requirements for rural training  
• Promote recognition and inclusion of rurally located clinical faculty in the programs of the academic institutions |


VI. Muolo D. How many employees have hospitals lost to vaccine mandates? Here are the numbers so far. Fierce Healthcare. Published October 22, 2021. Accessed October 29, 2021. https://www.fiercehealthcare.com/hospitals/how-many-employees-have-hospitals-lost-to-vaccine-mandates-numbers-so-far


XXIII. Frohler E, Brandt B. Toward a system where workforce planning and interprofessional practice and education are designed around patients and populations not professions. J Interprof Care. 2019;33(4):389-397. doi:10/ggmpf