

■ Prescribing Remedies for Georgia's Medical Provider Shortage

By Tim Sweeney, Director of Health Policy

The good news is a growing number of Georgians are enjoying new health insurance coverage options thanks to the Affordable Care Act. More than 587,000 Georgians are enrolled in health coverage through the federal marketplace for 2016 and thousands more Georgians now carry health coverage through Medicaid, employer sponsored coverage or individual plans sold outside the federal marketplace.¹

Gaining health insurance coverage provides affordable access to a doctor and health care for many Georgians. Yet access to actual treatment can be elusive in many parts of the state. Ongoing efforts to close Georgia's health insurance coverage gap by expanding Medicaid income eligibility could make it even more important to fix that imbalance between the need for health care professionals and local supply. More than 300,000 uninsured Georgians fall into the coverage gap, with income too low to qualify for marketplace subsidies but too high to qualify for Medicaid under Georgia's strict eligibility rules.

Local access to health professionals varies widely across Georgia, from relative availability in populous Fulton County to the daunting challenge found in many rural communities. State trends mask the nuanced differences among Georgia's regions. Evidence indicates nearly two-thirds of Georgia's counties fall below the statewide average number for each professional category of nurses, physician assistants, total doctors and primary care doctors per 100,000 residents. Eighty-nine percent, or 141 of Georgia's 159 counties, are below the statewide average for doctors per 100,000 residents, while 129 of 159 offer fewer primary care physicians than the average.

This analysis shows:

- Where Georgia's health care provider shortages are and who is underserved
- How state investment to increase Medicaid eligibility as well as the rates paid to providers helps the state's health care system by working as both a lifeline to struggling rural hospitals and also a strong incentive for additional health care workers to become part of the system
- How to build on an existing student loan reimbursement program that provides recent medical school graduates with an incentive to practice for a while in underserved parts of Georgia.
- How other policy tools such as increasing the role of non-physician providers can bolster system capacity where physician shortages are the greatest

It is important to identify existing geographic shortfalls in Georgia's health care delivery system and solutions to improve the state's ability to provide health care in areas where the need for services is projected to rise. This analysis provides a road map to make progress toward solving Georgia's critical health care delivery challenge.

Georgia's Health Care System

Total health care spending in Georgia amounted to about \$54 billion in 2009, the most recent year available. That ranks it as the 12th largest state in the country,² yet Georgia's total health care spending ranked third from last on a per-capita basis.³ It also ranks nearly 20 percent below the national per-capita amount. The distribution of Georgia's health care spending among hospitals, physicians and clinics, nursing homes and other recipients is roughly consistent with national averages.⁴ Georgia's health care system employed more than 322,000 people as of May 2014, which also ranks as the 12th highest state.⁵ Still, large raw numbers alone can be misleading. Georgia's health care employment as a share of total employment is tied for the ninth lowest among states, accounting for just 8.1 percent of overall employment.⁶ National health care employment is 9 percent of the total.

Access to Hospitals and Health Centers

Georgia is home to 187 hospitals.⁷ Fifty-two facilities offer specialty services, such as long-term, psychiatric or rehabilitative care, or offer services targeted to either children or veterans.⁸ The 135 others are general hospitals that include 30 facilities designated as critical access hospitals. Georgia's 187 hospitals likely rank it among the top-10 of all states.⁹ Georgia is home to about one hospital for every 55,000 Georgia residents, but per-capita hospital capacity is best measured by the number of hospital beds in the state. Georgia's ratio of 2.4 hospital beds per 1,000 residents is roughly equal to the national average.¹⁰

Access to hospitals and beds varies widely across the state. About 50 of Georgia's 159 counties lack any hospital beds.¹¹ Another 18 counties are home to less than one hospital bed per 1,000 residents.¹² Two-thirds of all counties in Georgia fare worse than the statewide average for hospital beds per 1,000 residents when you include counties with none.¹³

More than 900,000 Georgians live in counties without a hospital. More than 2 million additional Georgians live in counties with one or fewer hospital beds per 1,000 residents. The 50 or so counties in Georgia with no hospital beds (the number is fluid) are mostly smaller, rural counties with an average population of slightly more than 18,000 residents. Many more populous counties also offer less than one hospital bed per 1,000 residents including Gwinnett, Cherokee, Forsyth, Douglas, and Paulding.¹⁴

People who live in larger urban and suburban counties with smaller bed-to-resident ratios may avoid some of the same negative effects experienced by rural counterparts because hospitals in neighboring counties are nearby, or due to better access to non-hospital medical facilities. Still, low-income or uninsured residents in these communities likely share access to care problems that plague some of Georgia's rural counties with no hospitals.

Georgia's trauma network consist of 24 facilities designated as Level I, II, III or IV, along with two pediatric trauma centers and two burn centers.¹⁵ The designations identify a facility's resources and capacity to treat injured patients, but all of them can evaluate and stabilize injured patients before transferring higher-need patients to facilities that better match required treatment.

Georgia's five Level I trauma centers are the most comprehensive facilities in the state and located in Atlanta, Augusta, Macon and Savannah. These centers provide 24-hour emergency treatment and surgery in a variety of specialties and act as a lifeline for lower-level facilities across the state. Georgia is also home to nine level II facilities, which provide an array of emergency services including specialty surgery. The five Level III facilities offer 24-hour emergency care but might not offer as many specialty services as their more comprehensive counterparts. Georgia's five level IV facilities serve smaller communities and offer fewer services but agreements with higher-level facilities allow the transfer of patients who need more intensive care.

Georgia is home to 33 federally qualified health centers that serve 109 counties across the state.¹⁶ These health centers must provide a comprehensive array of primary care services, serve all patients regardless of ability to pay and serve the homeless or other high need population, or high need geographic area. These health centers are open to all patients, so they are often a critical source of primary care services in the communities they serve.

Both urban and rural communities rely on these health centers to a similar extent to ensure access to health care. Federally qualified centers serve 74 of Georgia's 109 rural counties and four more are proposed. Thirty-five of Georgia's 50 non-rural counties are served by at least one of these centers.¹⁷

Health Care Practitioners Across Georgia

Georgia's health care workforce includes people working in wide variety of medical fields and positions. More than 21,000 doctors practice a variety of specialties in Georgia.¹⁸ The state is also home to nearly 7,000 Advanced Practice Registered Nurses (which includes more than 5,000 nurse practitioners and nearly 1,300 nurse anesthetists), 3,200 physician assistants, 4,900 dentists, 1,100 optometrists and 2,500 chiropractors.¹⁹ Georgia's health care professionals are spread unevenly statewide and many communities face severe provider shortages.

Georgia has about 211 total doctors per 100,000 residents. The uneven distribution leaves 141 of Georgia's 159 counties below the statewide average, while 65 counties have less than one-quarter of the statewide average, or less than 53 doctors per 100,000 residents. Those geographic trends hold true across provider types, including nurses, physician assistants and primary care physicians. For each category, at least three-quarters of Georgia's counties are below the statewide average of providers per 100,000 residents. Nearly two-thirds of the counties are below the statewide average in all four categories.²⁰

Recent national research projects demand for nurses in the coming decade will trail the country's supply from 2012 to 2025.²¹ The supply and demand equilibrium varies dramatically across states, however. In Georgia the research forecasts 7 percent more demand than supply. Georgia is one of 16 states where demand is expected to outpace supply during this time frame.

The gap in capacity among county health care systems often follows a predictable pattern. Eighty four of the 105 Georgia counties with provider ratios below the statewide average for each category are rural. Although 80 percent of counties with ratios below the statewide average for all four categories of health professional are rural, some of Georgia's fastest growing counties make this list as well. Those include the suburban Atlanta counties Forsyth, Barrow, Cherokee and Gwinnett. Just one of the 15 counties without one of these shortfalls is classified as rural (Toombs). Counties that house much of Georgia's medical education infrastructure enjoy the highest practitioner-to-resident ratios. Those counties include Floyd, Fulton, DeKalb, Richmond and Bibb.²²

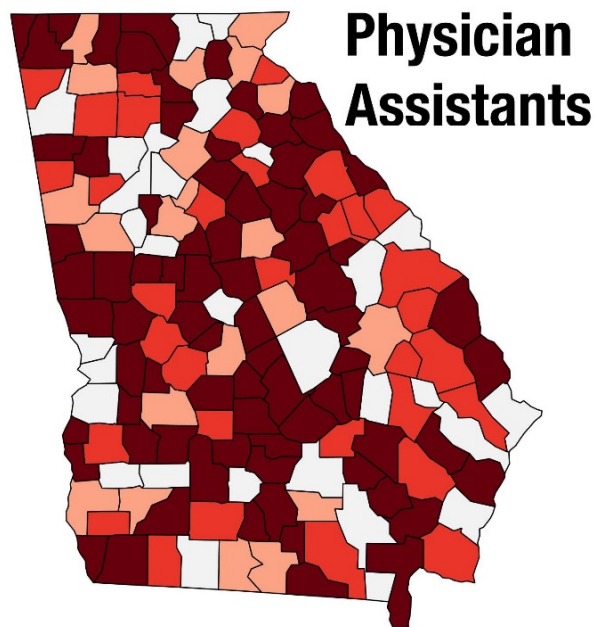
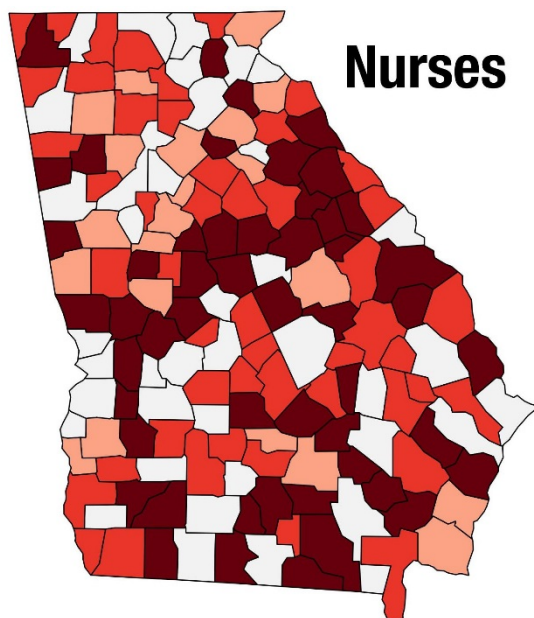
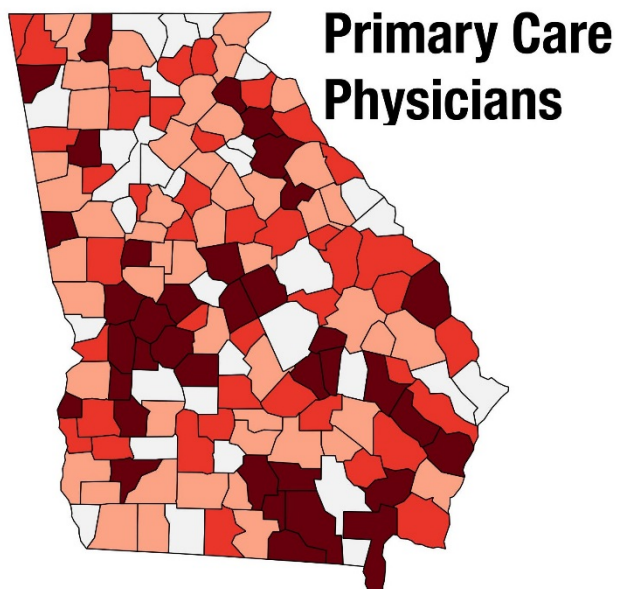
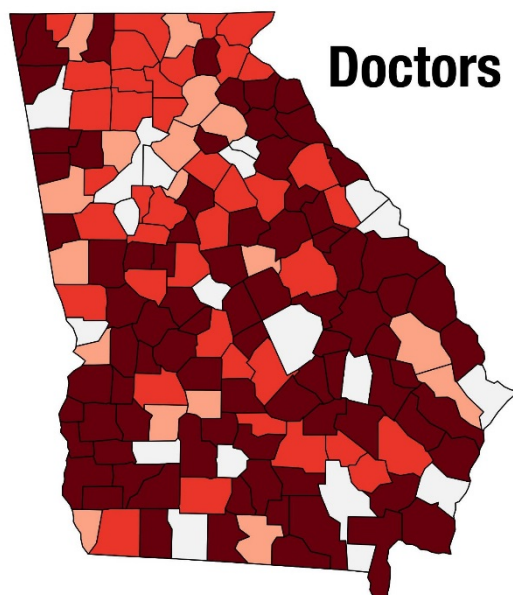
The maps below highlight practitioner gaps throughout the state and show how many additional nurses, physician assistants, total doctors, and primary care physicians counties will need to reach the statewide average in each health professional category.

Practitioner Gaps:

Number of Providers per Capita in Georgia Counties
Compared to Statewide Average

Compared to State Average

- 67-100% Below Average
- 34-66% Below Average
- 1-33% Below Average
- Average or Better



GBPI calculations using population data compiled from the Governor's Office of Planning and Budget and county-level provider counts from 2014-2015 Area Health Resources files of the U.S. Department of Health and Human Services, Bureau of Health Workforce.

Health Professional Shortage Areas and Medically Underserved Areas

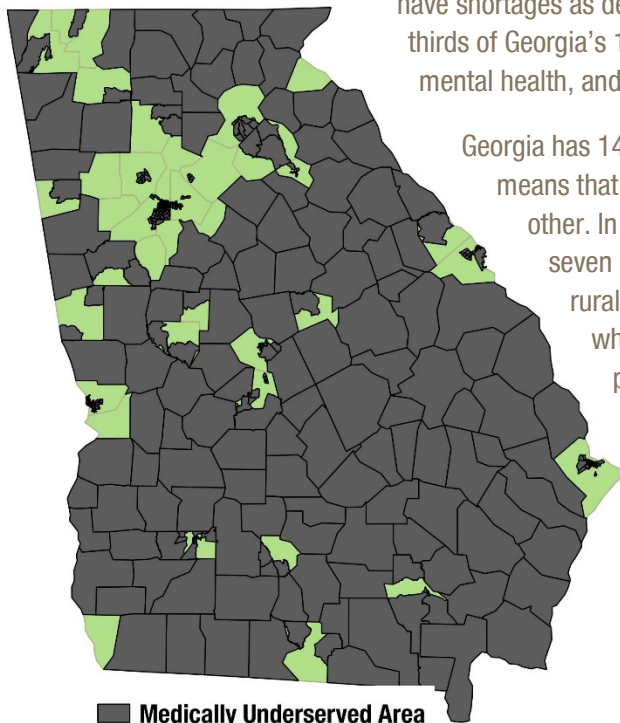
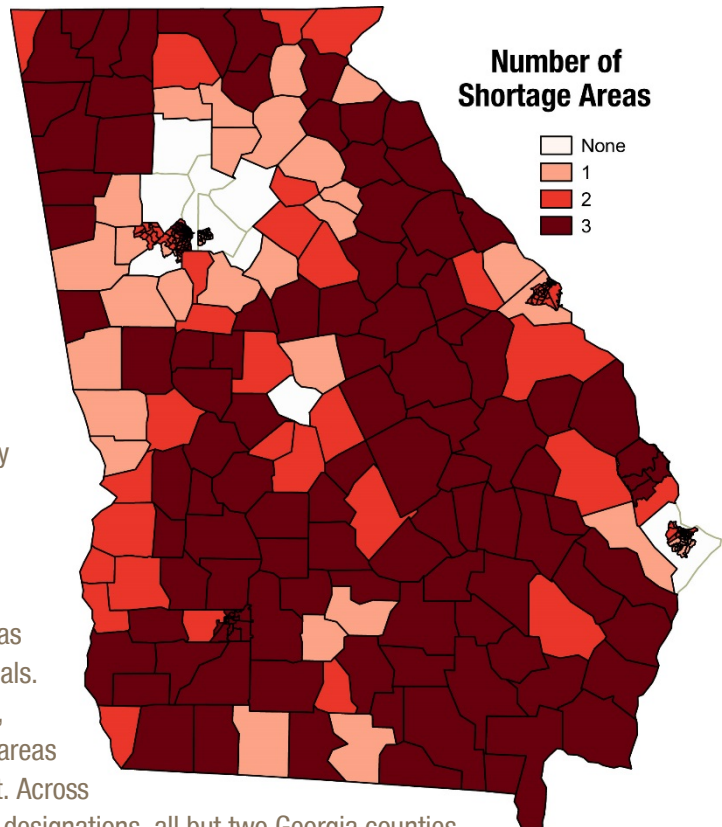
A federal agency designates communities, population groups and medical facilities with the greatest needs for more health care resources, including practitioners or health care services. Health Professional Shortage Areas (HPSAs) and Medically Underserved Areas or Populations are federal designations assigned by the U.S. Health Resources Services Administration to identify gaps in local health care system capacity. The agency maintains lists of professional shortage areas specifically related to primary care, dental and mental health services. The two categories of shortfalls identify counties, cities, census tracts or other civil divisions where community members may face a broad shortage of health care services or in which certain groups face “economic, cultural or linguistic barriers to health care.”²³

Many people assume rural communities are the areas medically underserved or short on health professionals. However, many of Georgia’s non-rural communities, including DeKalb and Fulton counties, are shortage areas despite offering the top rates of doctors per resident. Across the three provider types tracked by the professional designations, all but two Georgia counties

have shortages as defined by geographic area, population or facility. Nearly two-thirds of Georgia’s 159 counties are deemed shortage areas for dental care, mental health, and primary care.

Georgia has 148 medically underserved areas or populations, which means that only 11 of Georgia’s 159 counties do not have one or the other. In particular, 141 counties have underserved areas, while seven have underserved populations. Many of Georgia’s smaller or rural counties are entirely designated as medically underserved, while parts of others carry the designation. In some more populous counties, individual census tracts or cities could be designated as an underserved area. Fulton is Georgia’s most populated county and more than 200,000 people live in communities there designated as either an underserved area or as an underserved population.

Number of Shortage Designations per Area



Maps based on data from the Health Resources and Services Administration of the U.S. Department of Health and Human Services.

Georgia's Varied Population and Demographics Complicate Solutions

Research and recommendations are murky on ways to calculate the number of health care providers needed by people in a given community or states. No consensus exists for how many physicians or other medical providers are necessary on a broad level. The needs in a particular community should vary considerably based on the age of the community's residents, the relative health of a community and even geographical and logistical concerns. So development of a statewide practitioner-to-resident ratio to serve as a standard or goal for each county or geographic region seems inappropriate.

Scrutinizing the demographics of individual communities is a necessary first step to determine whether a local area's health care infrastructure can meet the needs of the population. Older residents on average require more practitioners per capita than younger residents. The mix of providers needed for areas with lots of children is very different from communities with more elderly Georgians.

One estimate of the number of practitioners needed per 100,000 residents was created by the U.S. Department of Human Services and examines the need for physicians among different age groups as shown below:²⁴

Estimated Requirements for Patient Care Physicians per 100,000 People by Patient Age, Physician Specialty

Age Group	Specialty				
	Primary Care	Medical Specialties	Surgery	Other Care	Total
0-17 years	95	10	16	29	149
18-24 years	43	15	54	48	159
25-44 years	59	23	52	62	196
45-64 years	89	41	59	81	270
65-74 years	175	97	125	145	543
75+ years	270	130	161	220	781
Total	95	33	55	70	253

"Primary Care" includes general and family practice, general internal medicine, and pediatrics. 2 – "Medical Specialties" includes cardiology and other internal medicine subspecialties. 3 – "Surgery" includes general surgery, obstetrics/gynecology, ophthalmology, orthopedic surgery, otolaryngology, urology and other surgical specialties. 4 – "Other Care" includes anesthesiology, emergency medicine, pathology, psychiatry, radiology, and other specialties.

The ratios in the chart above indicate Georgia needs nearly 9,400 primary care physicians and nearly 25,700 total patient care physicians. Georgia is home to a little more than 6,500 primary care physicians and 21,300 patient care physicians, according to one national data source with county-specific numbers. Only eight counties in Georgia meet the benchmarks laid out for both primary care *and* total physicians, while seven others meet the standard in at least one category.²⁵

A person's health insurance status and health insurance type influences their health care use patterns and relative demand for services. Past research assumes uninsured residents use fewer health care services and require fewer practitioners. However, coverage gains in recent years as a result of the federal Affordable Care Act could create demand for more practitioners. Changes to plan design or insurance type also could offset some of the projected increase related to the coverage gains, if new plans lower health care use by imposing higher co-pays or deductibles, for example.

Trends in the use of non-physician clinicians add yet another variable that clouds the use of historical physician counts as a way to determine present needs. If the state scope-of-practice laws are changed to allow non-physician providers to offer a broader range of services, for example, fewer physicians might be needed to meet the same level of services. Inter-state comparisons are complicated because variations are widespread.

Long term comparisons are tricky due to the emerging variety of health insurance products available from both a changing market and the creation of the federal health insurance marketplace. Changes in overall insurance coverage rates also limit comparisons over time. Still, comparing county ratios of practitioners per 100,000 residents to the statewide average provides a starting point to develop estimates of practitioners needed. Keep in mind Georgia's statewide practitioner-to-resident ratios for both primary care physicians and for physicians overall are below the ratios estimated in the table shown earlier.

The 144 counties that fall below the statewide average in at least one practitioner-per-resident ratio among the four professional areas previously examined will need nearly 10,000 practitioners to reach the current statewide average. This includes 1,550 more nurses, 980 physician assistants and nearly 6,500 physicians. The figure does not account for the nearly 1,300 new physicians who will need a primary care focus to improve county ratios to the current statewide average.

Adding these practitioners to current supply, as opposed to redistributing them among counties, requires nearly a 30 percent increase in these three professional categories.²⁶ A substantial effort is required to do that and the goal may not be realistic. New or existing practitioners would need to locate in these counties, but the numbers serve as context for the issues facing many Georgia communities.

Remedies to Address Health Care System Shortages

Public policy at the national and state level carries significant ramifications for state and local health care systems and whether communities offer the necessary health care infrastructure to meet the needs of their people. Health policy decisions made over decades help determine a community's current status, as well the tools local and state leaders can use to make improvements.

Medical Education

Medical school attendance grew to record levels in recent years and Georgia is part of that trend.²⁷ Still, the number of federally-funded residency slots available across the nation is largely unchanged since the late 1990s.²⁸ The geographic distribution of slots also remained static, which means that their location did not track changing population trends the past two decades. This lack of adjustment exacerbates the shortfall in fast-growing states like Georgia. Georgia now produces more medical school graduates than it has residency spots for them to continue their education.

Medicare-funded Graduate Medical Education payments account for the bulk of funding for the country's residency programs and are controlled by the U.S. Congress and the executive branch of the federal government. Still, other funding sources can offer states more flexibility. Georgia and other states are examining ways to use existing funding under their control to better align medical education resources with the state's needs. Georgia's model of providing funding to help with start-up costs for residency programs is one idea that states are pursuing to address the stagnant federal resources for residency programs. New Mexico's new efforts are changing the way the state uses Medicaid medical education funding to increase residency slots for primary care.²⁹ Georgia is investing to

increase residency program capacity and other models studied by other states can also provide guidance to Georgia's leaders.

Workforce Development, Provider Recruitment and Financial Assistance

A state-level focus is important but local-level data makes it clear that significant attention must be paid to boosting local level capacity of health care delivery systems. Policy-intervention could be required to help communities already underserved by the health care system likely to have a hard time catching up without the help of the state and federal government.

States can consider financial incentives to help influence people to practice in shortage areas. Georgia's Board for Physician Workforce operates programs designed to motivate physicians to practice in rural communities by helping pay medical education debt.

The physician loan repayment program is now available to about 30 rural physicians each year, with the potential for individual physicians to participate for four years. The physicians who are selected can receive up to \$25,000 a year, up to \$100,000 for four years.

This program targets primary care physicians in Georgia's 109 rural counties. Counties with greater needs rank as higher priorities. Priority is also weighted for a community's needs with the following primary care specialties: family medicine, pediatrics, internal medicine, general surgery, emergency medicine and obstetrician/gynecologist.

Today's program is a useful tool to influence practitioners to practice in rural areas. The impact of the program is limited by the resources invested in the program. The current \$750,000 investment provides just 30 awards each year, which delivers a relatively small impact each year based on the needs outlined in this report. The program is designed to boost primary care physicians just in rural counties. Added resources are needed to expand the program to non-rural communities with primary care shortages or to target a broader array of practitioners.

This program could provide a model for policymakers to consider when examining ways to bolster other practitioner types, such as nurses, physician assistants and others who could be critical to strengthening the capacity of the state's health care system. A similar program could be used to encourage more practitioners to locate in underserved areas in *non-rural* parts of the state.

Easing Scope of Practice Restrictions Could Increase Capacity

A recent report by Georgia Watch found that Georgia is one of 12 states with the most restrictive practice environments for nurse practitioners, as defined by how these nurses are regulated and the extent to which they must be supervised by physicians for duties such as writing prescriptions.³⁰ While determining the most proper scope of Advanced Practice Registered Nurse services are often a thorny issue between associations that represent nurses and doctors, finding new ways to expand the ability of Georgia's nurse practitioners to treat patients could help address capacity concerns in rural and other underserved communities. More than 20 counties are at or above the statewide average for nurses per resident while facing shortages in other provider categories.

Acknowledgement of the potential that expanding the ability of nurse practitioners and physician assistants to provide health care services to more Georgia patients could ease provider shortages was also included in 2015 recommendations of Gov. Nathan Deal's Rural Hospital Stabilization Committee.³¹ Among the legislative recommendations from the committee was one to expand the scope of practice guidelines for nurse practitioners

and for physician assistants. The report determined that, “with a growing physician shortage... these expansions could help bolster healthcare resources in rural communities.”

Despite these recommendations, no legislation has been enacted to address this concern, though several proposals have been put forth to expand the ability of sometimes called “mid-level providers” to write prescriptions and more with less oversight from physicians. Addressing this issue in a comprehensive manner will require additional focus from Georgia’s policymakers as well as thoughtful cooperation from the many key members of Georgia’s health care community, including physicians, nurses, physician assistants, patients and others. This could include examining current government oversight structure of health care providers to ensure scope of practice expansions include proper protections for patients and fair treatment of health care providers.

Increasing Insurance Coverage can help Expand System Capacity

Increasing the number of residents of a community that have health insurance coverage will inevitably increase financial resources flowing to the health care providers in that community. This occurs because newly-insured residents can now seek health care services with the promise that their provider will be reimbursed for their work. Similarly, failing to address this critical issue will compromise efforts to increase the number of providers in underserved communities, as the new providers will not likely materialize to serve an under-resourced market.

In 2014, more than 300,000 uninsured Georgians found themselves in a coverage gap with income too *low* to qualify for federal subsidies to buy private health insurance on the healthcare.gov marketplace, yet also too high to qualify under Georgia’s relatively strict eligibility rules for Medicaid.³² Under the Affordable Care Act, Georgia could extend Medicaid coverage to these Georgians and at the same time bring in more than \$3 billion annually in new federal money that would boost investment in local health care systems.

According to an economic impact analysis released in 2013, the new federal investment that would come to Georgia would have a significant economic impact on local communities and create new jobs within the health care industry. Specifically, the report found that new health care spending on behalf of newly-covered individuals would create more than 29,000 new health care jobs throughout the state, along with nearly 27,000 outside the health care system.³³ As a result, Georgia’s economy would also realize a \$6.5 billion boost every year.³⁴

In addition to increasing access to Medicaid, state leaders can also build upon recent efforts to boost investment in the health care system in the form of higher reimbursement rates paid to health care providers serving Medicaid patients. The Affordable Care Act included temporary increases to rates paid to many primary care providers, and in the 2016 and 2017 budgets state leaders have added state funds to maintain many of these increases. Still, rates paid to providers often fail to cover the full costs of delivering services to Medicaid patients and fail to motivate enough providers to serve Medicaid patients in many parts of the state.

Increasing state investment in Medicaid is an especially beneficial investment because every new \$1 in state spending brings more than \$2 in additional federal investment. Georgia’s per-enrollee investment in Medicaid ranked as the second lowest of any state in the nation in 2011, the most recent year data is available.³⁵ Boosting state investment in the form of payment rates to providers will add additional resources to Georgia’s health care system while also increasing access for the nearly 2 million Georgians who now rely on Medicaid.

Protect Current Hospitals and System Capacity

Recent rural hospital closures prompted the governor to create the Rural Hospital Stabilization Committee in 2014 to examine ways the state could stabilize Georgia’s rural health care infrastructure. Based on the

recommendations from the committee, the state created a \$4 million grant program in 2015 targeting four communities in Georgia, yet has so far stopped short of the major new investment needed to address the underlying issues facing many struggling hospitals.

The governor signed legislation in 2016 to create a \$180 million tax credit program over three years beginning in 2017 to encourage individuals and corporations to contribute to Georgia's rural and other critical access hospitals. The tax credit aims to spur investment in Georgia's struggling rural hospitals and to prevent continued closings in Georgia's rural communities. However, it is uncertain how these new dollars will be used, which hospitals and communities will benefit and whether the benefit will justify the \$180 million price in lost state revenue.

The tax credit allows taxpayers a credit worth 70 percent of their contribution to a qualifying hospital, which means that the \$180 million could spur up to \$257 million in contributions to hospitals. This figure is substantially larger than the state's investment in the loan repayment program referenced above. Still, the fact that this new investment comes in the form of charitable contributions makes it unlikely that hospitals will use the money to make permanent investments to increase capacity. This new investment pales in comparison to the new funding that flows to Georgia's rural communities if the state closes its coverage gap by expanding access to Medicaid.

Although initial versions of the tax credit included little to no guidelines or rules for participating hospitals, the version signed by the governor added a handful of important protections to guide the new funds. Specifically, the law requires hospitals wishing to benefit to submit a 5-year plan to the Department of Community Health outlining the hospitals financial stability. Hospitals are also required to use the donations to provide health care-related services to residents of the service area, as well as report how much was received and how it was spent. The law restricts specific contributions to no more than about 6.7 percent of the total allowed, which should help spread the money to a broader number of facilities around the state.

In the end, the investment the state is making through this tax credit will only succeed if accompanied with additional efforts to address the fundamental challenges facing rural communities, including health insurance coverage, low reimbursement rates paid to providers by Medicaid and the challenges for rural communities to recruit and retain providers. These challenges were again on full display as in June 2016 yet another rural Georgia hospital shuttered its doors, at least in part due to the financial pressures brought on by a high uninsured population in the surrounding community.

Conclusions

The 2010 passage of the Affordable Care Act is likely just the first step in a series of reforms to the U.S. health care system. One significant early achievement of the law is to increase access to health insurance coverage in a variety of ways. First, the law improves access to government-sponsored coverage by expanding eligibility for Medicaid and removing administrative barriers that often cost families coverage despite continued eligibility. Next, the law increased access to private health coverage through financial assistance to help people purchase insurance. It also eliminates barriers that used to prevent people with pre-existing health conditions from securing insurance. Since the bulk of the coverage-related provisions ramped-up in January 2014, the number of uninsured Americans fell by 6 percentage points, from 17 percent in the fourth quarter of 2013 to 11 percent in the first quarter of 2016.³⁶ This means nearly 15 million more Americans carry health insurance now in large part due to coverage-related provisions of the federal health care law.

The improvement in health coverage is undoubtedly a positive development. Expanded health insurance is also likely to boost the use of health care services among newly insured people. Health care systems nationally and in Georgia need to accommodate increased health coverage rates to ensure that both previously and newly insured people can efficiently access needed health care services. The argument that limitations in Georgia's health care system's capacity is a reason not to improve access to health coverage is shortsighted and will prevent Georgia from building necessary capacity to cover shortfalls.

Early evidence suggests that the opposite may be true, that expanded health coverage will help build health system capacity by providing hospitals and other providers with the financial resources needed to expand and hire more providers. In Arkansas, hospital officials credit the state's falling uninsured rate fueled by the Medicaid-funded private option with spurring job growth following a greater demand for health care services.³⁷ Kentucky is another leader in coverage gains over the last three years and the commonwealth's Medicaid expansion is also credited with increasing jobs in the health care and social assistance sector.³⁸ National experts agree more investment in health care will lead to faster growth in that sector than in others in coming years.³⁹

Little national consensus exists to determine how many doctors, nurses, hospitals, clinics, or other health care professionals are needed to adequately care for a given community, county, region or state. Extensive data and research does exist to help state health care leaders and officials begin to craft state and local level needs assessments. With those assessments in hand, leaders can establish policies that achieve long-term health system goals that ensure Georgians get convenient and affordable access to health care services.

¹ Marketplace enrollment data from the Addendum to the Health Insurance Marketplaces 2016 Open Enrollment Period: Final Enrollment Period, U.S. Department of Health & Human Services, March 11, 2016.

<https://aspe.hhs.gov/sites/default/files/pdf/188026/MarketPlaceAddendumFinal2016.pdf>

² Kaiser Family Foundation State Health Facts <http://kff.org/other/state-indicator/health-care-expenditures-by-state-of-residence-in-millions/>

³ State Health Facts <http://kff.org/other/state-indicator/health-spending-per-capita/>

⁴ State Health Facts <http://kff.org/other/state-indicator/distribution-of-health-care-expenditures-by-service-by-state-of-residence-in-millions/>

⁵ State Health Facts <http://kff.org/other/state-indicator/total-health-care-employment/>

⁶ Ranking excludes the District of Columbia and other territories such as Puerto Rico, via State Health Facts <http://kff.org/other/state-indicator/health-care-employment-as-total/>

⁷ "Hospitals 101" Resource Guide for Elected Officials, 6th Edition published by the Georgia Hospital Association <https://advocacy.gha.org/Portals/1/2016Hospitals101..pdf>

⁸ Includes state operated facilities

⁹ A precise ranking is difficult as aggregate rankings generally do not count some specialty facilities. One national comparison ranks Georgia as having the 9th most hospitals of any state, though not all of Georgia's hospitals are included in their total.

<http://kff.org/other/state-indicator/total-hospitals/>

¹⁰ State Health Facts <http://kff.org/other/state-indicator/beds-by-ownership/>

¹¹ GHA Hospitals 101

¹² GBPI calculations using data from the 2014-2015 Area Health Resources Files, Health Resources and Services Administration, U.S. Department of Health and Human Services, accessed March-June 2016.

¹³ Ibid

¹⁴ Ibid

¹⁵ GHA Hospitals 101

¹⁶ Tally and location from Georgia Primary Care Association.

http://www.gaphc.org/sites/default/files/GAPHC_Service_Area_Map_2015.pdf

¹⁷ Ibid, visit bit.ly/health_centers for state map of community health centers

¹⁸ Estimate based on state and county data from the 2014-2015 Area Health Resources Files, Health Resources and Services Administration, U.S. Department of Health and Human Services, accessed March-June 2016. Data reflects Medical Doctors and Doctors of Osteopathy defined as being in “patient care” settings as opposed to administration, research or teaching. Other sources yield broadly similar estimates.

¹⁹ GBPI calculations using 2014-5 AHRF data, provider classifications and categories based AHRF data and definitions.

²⁰ Ibid

²¹ U.S. Department of Health and Human Services, Health Resources and Services Administration, National Center for Health Workforce Analysis. The Future of the Nursing Workforce: National- and State-Level Projections, 2012-2025. Rockville, Maryland, 2014.

²² Ibid

²³ <http://www.hrsa.gov/shortage/>

²⁴ U.S. Department of Health and Human Services. Bureau of Health Professions, Health Resources and Services Administration. The Physician Workforce: Projections and Research into Current Issues Affecting Supply and Demand. Rockville, Maryland, 2008.

²⁵ GBPI calculations using 2014-15 AHRF data and definitions for which categories of physicians are included as primary care

²⁶ Ibid

²⁷ American Association of Medical Colleges. <https://www.aamc.org/newsroom/newsreleases/446400/applicant-and-enrollment-data.html>

²⁸ Medicare-funded residency slots were capped as part of 1997 federal balanced budget agreement

²⁹ <http://www.aafp.org/news/practice-professional-issues/20150901newmexicowaiver.html>

³⁰ Perspectives on Advanced Practice Registered Nursing in Georgia, by Beth Stephens, JD, Georgia Watch. January 2015. <http://www.georgiawatch.org/wp-content/uploads/2015/01/APRN01072015WEB.pdf>

³¹ <https://gov.georgia.gov/documents/rural-hospital-stabilization-committee-final-report>

³² The Coverage Gap: Uninsured Poor Adults in States that Do Not Expand Medicaid – An Update. By Rachel Garfield and Anthony Damico. The Kaiser Commission on Medicaid and the Uninsured January 2016. <http://kff.org/health-reform/issue-brief/the-coverage-gap-uninsured-poor-adults-in-states-that-do-not-expand-medicaid-an-update/>

³³ The Economic Impact of Medicaid Expansion in Georgia, William S. Custer, Ph.D. Institute of Health Administration, J. Mack Robinson College of Business, Georgia State University, Healthcare Georgia Foundation, Publication #74, February 2013. (See Appendix B) http://www.healthcaregeorgia.org/uploads/file/Georgia_Medicaid_Economic_Impact.pdf

³⁴ Ibid.

³⁵ KFF State Health Facts <http://kff.org/medicaid/state-indicator/medicaid-spending-per-enrollee/>

³⁶ Coverage rates from Gallup survey, calculation using rates reported by Gallup and US population data.

<http://www.gallup.com/poll/190484/uninsured-rate-lowest-eight-year-trend.aspx>

³⁷ <http://talkbusiness.net/2016/03/hospitals-at-the-frontline-of-healthcare-job-growth-accelerated-by-medicaid-expansion/>

³⁸ <http://kypolicy.org/with-medicaid-expansion-kentucky-healthcare-job-growth-picked-up-in-2015/>

³⁹ <http://www.forbes.com/sites/dandiamond/2015/06/05/hospitals-jobs-growth-is-suddenly-booming/#35336f2a3bce>