IS THERE A DOCTOR IN THE HOUSE?

A LOOK AT GEORGIA'S CURRENT AND FUTURE PHYSICIAN WORKFORCE NEEDS

THE GEORGIA BOARD FOR PHYSICIAN WORKFORCE
1718 PEACHTREE STREET, SUITE 683
ATLANTA, GEORGIA 30309
404-206-5420

DECEMBER 2004

IS THERE A DOCTOR IN THE HOUSE?
A LOOK AT GEORGIA'S CURRENT AND FUTURE WORKFORCE NEEDS

Table of Contents

Page(s)

Executive Summary **4**

Introduction **6**

Current Trends in the Physician Workforce **8**

Increasing Demand for Physician Services…… 8

Stagnation in Physician Supply ……..…..…… 9

Changing Productivity in the Physician Workforce……... 12

Mix and Distribution of Physicians. **14**

Physician Specialities...……. 14

Physician Distribution …….. 16

Distribution of Sub-Specialists ……. 20

Challenges to Building Physician Capacity **21**

Stagnation in Medical Education Capacity ……. 21

Medical Education Debt ……. 22

Issues in the Medical Marketplace……. 24

Enhancing Diversity of Georgia's Physician Workforce **29**

Georgia's Response to Physician Shortages **30**

References **35**

CONTRIBUTIONS

Benjamin Robinson, MPA, Executive Director of the Georgia Board for Physician Workforce and State Medical Education Board and Kelly McNamara, MBA, Operations Analysis Manager, served as principal authors of this report.

G.E. Alan Dever, Ph.D., M.T., M.D. (*Hon.*) and his staff in the Department of Community Medicine, Mercer University School of Medicine, provided major technical and direct support to this report. The contributions of Dr. Dever and his staff are acknowledged and appreciated.

BOARD STAFF

Janice Friend, Carla Graves, Barbara Miller, Mary Paape, Peggy Hensley Shull, and Cherri Tucker

---

GEORGIA BOARD FOR PHYSICIAN WORKFORCE
BOARD MEMBERS

Brue S. Chandler, III, MHA, Chairman

Ralph V. Austin, M.D., Vice Chairman

David A. Rearick, D.O., MBA, Secretary/Treasurer

Edward D. Conner, M.D.

Robert B. Copeland, M.D.

J. Daniel Hanks, Jr., M.D., F.A.C.R.

D. Wayne Martin, MBA

Jacinto del Mazo, M.D.

Vicki Williams Morgan, M.D.

Martin Moran, M.D.

Andrew P. Morley, Jr., M.D.

Reuben S. Roberts, Jr., M.D.

Joe Sam Robinson, Jr., M.D.

Robert “Bobby" H. Sasser, D.D.S.

EXECUTIVE SUMMARY

Access to healthcare services is vital to the health of all Georgians and the economic well being of the state. The increased healthcare costs that result from inadequate access for millions of Georgians demand immediate attention. Having an adequate number of physicians and appropriate distribution of specialists, prepared to deal with Georgia's diverse population, is critical to ensure this access. The state has long struggled to provide an optimal workforce and has implemented effective responses to past deficiencies in the physician workforce. However, data on the current status of the Georgia physician workforce suggest that some problems remain while new concerns are developing. The challenges confronting Georgia policy makers require the continued support of proven efforts that built the current primary care workforce and the creation of new initiatives in response to emerging problems. Without an effective response, Georgians will have difficulty in accessing health care, impacting the cost and quality of care, as the capacity of Georgia's physician workforce declines in coming years.

When Georgia became aware of problems in the physician workforce in the 1970s, concerns focused on a few principle issues: pending shortages in primary care specialties, most notably Family Practice; the poor distribution of physicians throughout the state, disproportionately impacting rural Georgia; and, the limited diversity in the physician workforce. In response, state leaders created the Georgia Board for Physician Workforce (GBPW). The GBPW monitors the physician workforce and supports the state's medical education system in building an adequate primary care workforce for Georgia. The GBPW has made important progress. With only one exception, primary care specialties saw substantial growth between 1992 and 2002, including 13 percent growth for Family Practice, 60 percent growth for Internal Medicine and 65 percent for Pediatrics. Family Physicians are now well disbursed throughout the state. Finally, the diversity of Georgia's primary care workforce has improved, with the percentage of African-American physicians rising from six percent to nearly 12 percent and the proportion of those reporting to be "other" ethnicities increasing more than four-fold since 1992. Georgia leaders should take pride in these accomplishments.

However, many challenges still exist in ensuring an adequate supply of primary care physicians: Family Practice numbers have begun to erode; maldistribution of other primary care specialties continue, and despite progress, the diversity of the workforce still does not reflect the population it serves. Additionally, new challenges now confront the state, requiring creative, new responses: overall shortages in physicians are anticipated; the need for certain sub-specialists is growing and requires expanded supports; and, declines in physician work-effort are anticipated that will reduce the effective supply of physicians in the future. The list of issues in the workforce includes:

- Georgia has never enjoyed a robust physician workforce and is still struggling to build it just to ensure an adequate presence of physicians.
- The state's population is growing rapidly, adding 1.7 million in the 1990s and an estimated 500,000 between April 2000 and July 2003.
- Growth of the physician workforce in recent years has stalled, and Georgia's rank of physicians to population has dropped to 38th in the nation (from 35th in 2000).
- Demographic changes in the physician workforce indicate a likely decline in the capacity of physicians to meet patient demand in the coming years.

- Shortages in certain specialties are now emerging and require expanded support of the systems that produce these physicians.
- Geographic distribution problems remain for certain primary care specialties, and now are emerging in certain subspecialties.

Georgia must respond. Because of continuing challenges with primary care physicians, the state must maintain its efforts to educate and support these physicians. In response to new challenges with subspecialties, the state must also expand its supports to educate subspecialties for which it has a critical need. In doing these things, Georgia must account for major impediments that limit its ability to build the workforce it needs. The capacity of the medical education system is limited and state supports have decreased in recent years. The debt that physicians carry from their medical education limits the attractiveness of a medical career. Marketplace forces, such as declining Medicaid reimbursements and increasing malpractice insurance premiums serve as a disincentive for physicians, and disproportionately impact critical specialties. The combination of these impediments requires action, which include the following:

- The financial supports for medical education must be expanded to maintain the gains made in primary care and to build sufficient capacity of specialists.
- The state must not lose its focus on primary care and Family Practice.
- Georgia must expand strategies that encourage physician practice in rural areas.
- Economic barriers confronting students undertaking medical education must be eliminated through financial aid, debt servicing and other means.
- The state must continue ongoing initiatives and implement new strategies to increase the diversity of the physician workforce.
- Ways must be found to address the rising pressures from Medicaid rate reductions
- Action must be taken to stop the rapid increases in malpractice insurance premiums.
- Strategies must be implemented to account for changes in average physician work-effort in future years.
- The capacity for Georgia to study this complex workforce must be expanded to ensure it can build effective responses in future years.
- Decision makers must consider the above issues in future policy discussions if the state is to build the workforce it needs.

The critical concerns affecting this workforce are discussed in the report that follows, as are some of the responses they require. Through concerted effort the state can create the physician workforce it will need. This effort will require important investments of Georgia's financial, intellectual, legal, and other resources, and there will be a cost. Yet the cost of not acting will greatly outweigh the costs of building an effective solution. Nearly nine million Georgians look to physicians to provide for their health care needs. Communities across the state depend on physicians to provide the health care infrastructure critical to the state's health, economy and quality of life. Shortages of physicians will substantially and negatively affect these communities and the citizens living in them. Consequently, there is no question which set of costs is greater. Georgia must do all in its power to ensure the physicians it needs are present when and where they are needed.

INTRODUCTION

In the 1970s, the entire nation became aware of potential shortages in the physician workforce. As the result of analysis of physician capacity at the state and national level, concerns arose that there were too few primary care physicians to meet needs and keep costs down. Further, the primary care physicians present were often poorly distributed, leaving many without effective access to health care. Finally, physicians came predominantly from one ethnic group of the population, posing a risk to the quality of and access to care that a diverse population needed. In response, Georgia leaders created the Joint Board of Family Practice.

Established in 1976, this board (now the Georgia Board for Physician Workforce) established an analytical framework to determine the underserved areas of the state (in terms of both geography and specialty), primed the medical education system to produce needed primary care physicians, with a focus on Family Practice and Pediatrics, and addressed issues of diversity in the physician workforce. Through the continued support and guidance provided by state leaders the GBPW has made considerable progress in these areas. The state now has an effective means to measure the number of physicians actively practicing in the state, by specialty. Primary, secondary and tertiary care service areas have been developed to allow the state to assess the geographic distribution of active physicians, by specialty. And through collaboration with entities in the medical education system, the GBPW has developed the programmatic means to produce the needed primary care physicians for Georgia.

The results have been impressive. Work with the medical education system has caused considerable growth of most primary care specialties in Georgia. Family Physicians, Internists, and Pediatricians have seen substantial increases in the rate of physicians to population, rising 13 percent, 60 percent and 65 percent respectively in the past decade. Family Physicians now appear to be effectively distributed in Georgia's primary care service areas (PCSAs), with only four of the 96 PCSAs showing a deficit of these physicians. The ability of Family Physicians to spread themselves evenly throughout the state, combined with their broad training and ability to deliver quality primary care, ensures that the basic health care needs of Georgians are now being met. Progress has also been noted in improving the diversity of the physician workforce. Today, 12 percent of physicians report being African American, eight percent report being Asian and three percent report being "other." This represents nearly one-quarter of the workforce and stands as an important improvement over 1992, when minority physicians represented less than 14 percent of the workforce. Through this growing diversity, physicians will be able to provide better care to those they serve, resulting in the improved health of all Georgians.

Leaders should take pride in these achievements. Georgia has clearly been served well by the investments made in this workforce. However, new challenges are emerging. In part, these challenges reflect unfinished business and the ongoing need to maintain supports for primary care physicians. Distribution problems persist for every primary care specialty other than Family Practice, despite significant growth in these specialties. Certain primary care specialties have also seen shrinking numbers in recent years, and one, General Surgery, has a smaller presence today than it did ten years ago. The increasingly diverse physician workforce still fails to reflect the diversity of Georgia's population. Other challenges facing the workforce are new, and touch different elements of this workforce. There is heightened demand for physician services, a growing shortage of physicians, anticipated declines in physician work-effort, and a growing need to develop critical subspecialties and ensure they are effectively distributed throughout the state to meet growing health care challenges in Georgia.

The following report outlines some of these concerns. Much of the data included in this analysis was developed by the GBPW and pertains explicitly to Georgia. Data from national sources are also provided, and show a consensus on many emerging issues at the national level. The analysis covers the conditions of the physician workforce in the state and its ability to meet anticipated demand in future years. Although not an exhaustive list, principle factors contributing to the identified challenges to this workforce are also discussed. In closing, possible steps to address these concerns are provided, to assist in developing an effective response to the observed challenges facing Georgia and its physician workforce.

CURRENT TRENDS IN THE PHYSICIAN WORKFORCE

In the past, the perception of the physician workforce held that it adequately supplied the needs of the nation. What concerns there were related to a potential oversupply of specialists and a lack of primary care physicians. This position was held by national organizations such as the Council on Graduate Medical Education (COGME), the Association of American Medical Colleges (AAMC), and the American Medical Association (AMA). Further, these organizations cautioned that the U.S. could experience a physician surplus. As a result, medical education systems across the nation capped enrollment, and adjusted the specialty mix of graduates and practicing physicians to provide for an increased number of primary care physicians.

However, a surplus never materialized and indicators reported from these groups now show developing shortages. On the national level, changes have occurred which require the systems that produce physicians to adjust their operations to increase the overall number of new physicians. Further, these changes have increased demand for specialists and require medical education systems to readjust the mix of physicians. Given the importance of primary care, a strong focus must remain on those physicians. However, these systems must also provide more specialists. Some examples of the new consensus about physician shortages include:

- The COGME reversed its long-standing position, recently calling for medical schools to increase enrollment by 15 percent over the next decade to help offset a future shortfall of physicians.

- The AAMC has established a new unit to study physician supply.

- The American Medical Association (AMA) has acknowledged a physician shortage in some areas of the country.

- Figures reported by the Bureau of Labor Statistics predict that 191,000 new physicians will be needed between 2002 and 2012, including 114,000 physicians to fill new positions created by job growth.

- A 2000 study by Richard Cooper predicts a shortage of 200,000 physicians in the U.S. by 2020. Shortages of specialists are also predicted to be a problem.

Georgia has a similar set of problems. Data show increasing need for physicians in the state, even as the growth of the physician workforce has stagnated. Concerns now concentrate on overall physician shortages, affecting both primary care physicians and specialists. The factors contributing to these concerns in Georgia are similar to those working at the national level, although they impact Georgia to a much greater extent. These factors include: population growth and aging; declining numbers of new physicians entering practice in Georgia; a reduction in the work-effort of physicians; and challenges in the specialty mix and distribution of physicians in the state.

Increasing Demand for Physician Services

A growing and aging population will increase the demand for doctors. Of these, the explosive growth in Georgia's population is most critical. According to Census figures, Georgia has the sixth fastest growing population in the nation. During the 1990s, the state's population grew by 1.7 million and it is estimated that the growth was nearly 500,000 between April 1, 2000 and

July 1, 2003. With this increase, Georgia now has a population just under 8.7 million. If this rate continues, the state will see an average annual increase of well over 100,000 new residents for the foreseeable future, each arriving with their own demands for health care and medical services. Because the data suggest this trend will continue, Georgia should anticipate a great increase in demand for physicians stemming from population growth alone.

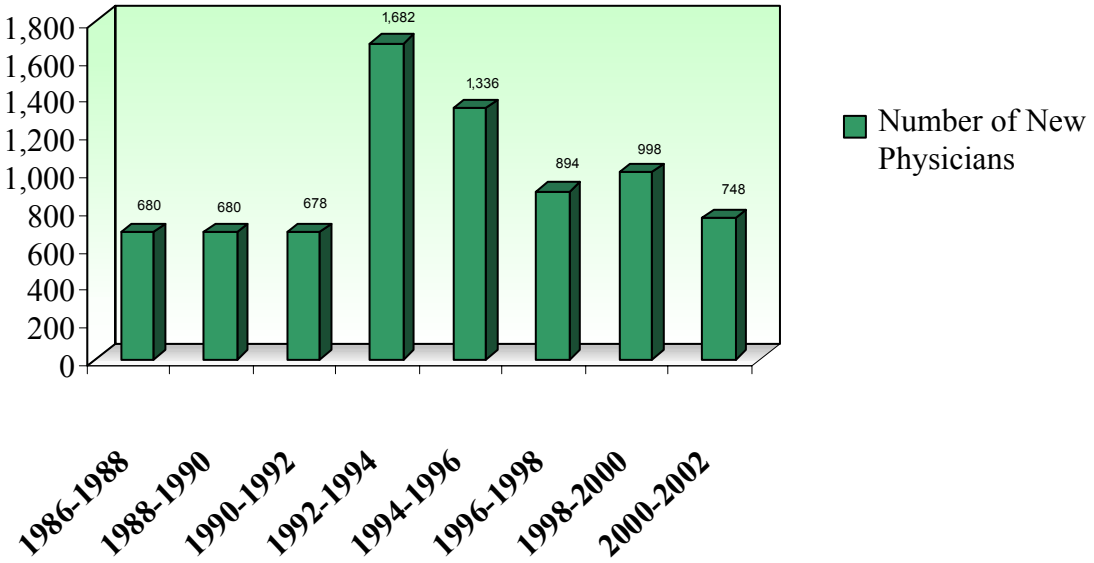
However, the aging of the population suggests that demand will increase at a rate above what could be expected solely from population growth. A dramatic increase in life expectancy has occurred over the last 100 years. Today, the average life expectancy is 77 years. Coupled with this is the size of the baby boom generation, which is aging and moving into retirement years. The combination of these factors has many predicting large increases in the size of the older population. According to the Census, the proportion of Georgia's older population (65 and older) is expected to increase from 10 percent in 1995 to 17 percent in 2025. As this population grows, the average demand for physician services will increase because the health care needs of the senior population are unique and seniors often have multiple chronic conditions. These conditions will require greater expenditure of effort and time by physicians, increasing the overall demand for physicians.

The potential for increased demand for physicians is shown in recent data from the Georgia Department of Labor (GDOL). Current GDOL projections for health care professions indicate remarkable growth in demand for most of these professionals, including physicians. The GDOL currently lists certain physician specialties as "hot jobs" because of the exceptional demand expected for these specialists in the next decade.

Stagnation in Physician Supply

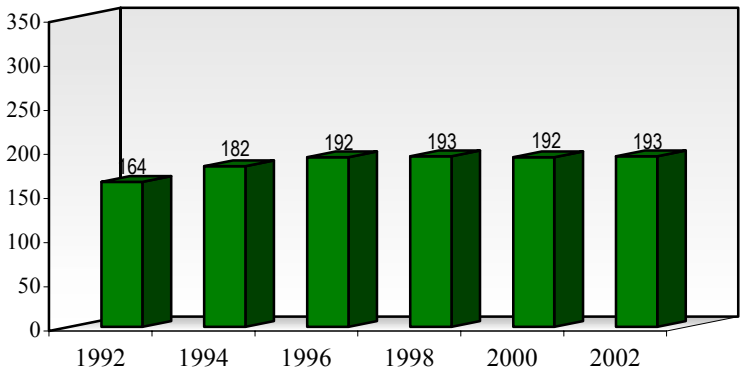
It is clear that Georgia needs to increase its number of physicians. But is Georgia meeting this need? Data on Georgia's physician workforce indicate it is not. As Exhibit 1 demonstrates, in the mid 1990s the number of physicians in the state grew rapidly. However, whatever forces were driving this growth spurt appear to have abated and the rate of new physicians entering practice in Georgia has dropped to its lowest point in eight years. Thus, even as demand for new physicians is growing, fewer new physicians are entering practice to meet this need. This fact presents two possible concerns. Georgia may be returning to the physician growth rate that can normally be supported by its medical education system. This poses problems for the state, as the rate of output from this system may be insufficient to meet state's needs and has helped place Georgia's physician workforce ranking in the mid to low 30s, when compared to other states. This drop may also represent an ongoing trend, meaning this steady drop in the number of new physicians may continue. With fewer physicians entering practice in future years, there would be further erosion the capacity of this workforce as demand for physicians grows.

Exhibit 1
Physician Growth, Georgia, 1986 - 2002



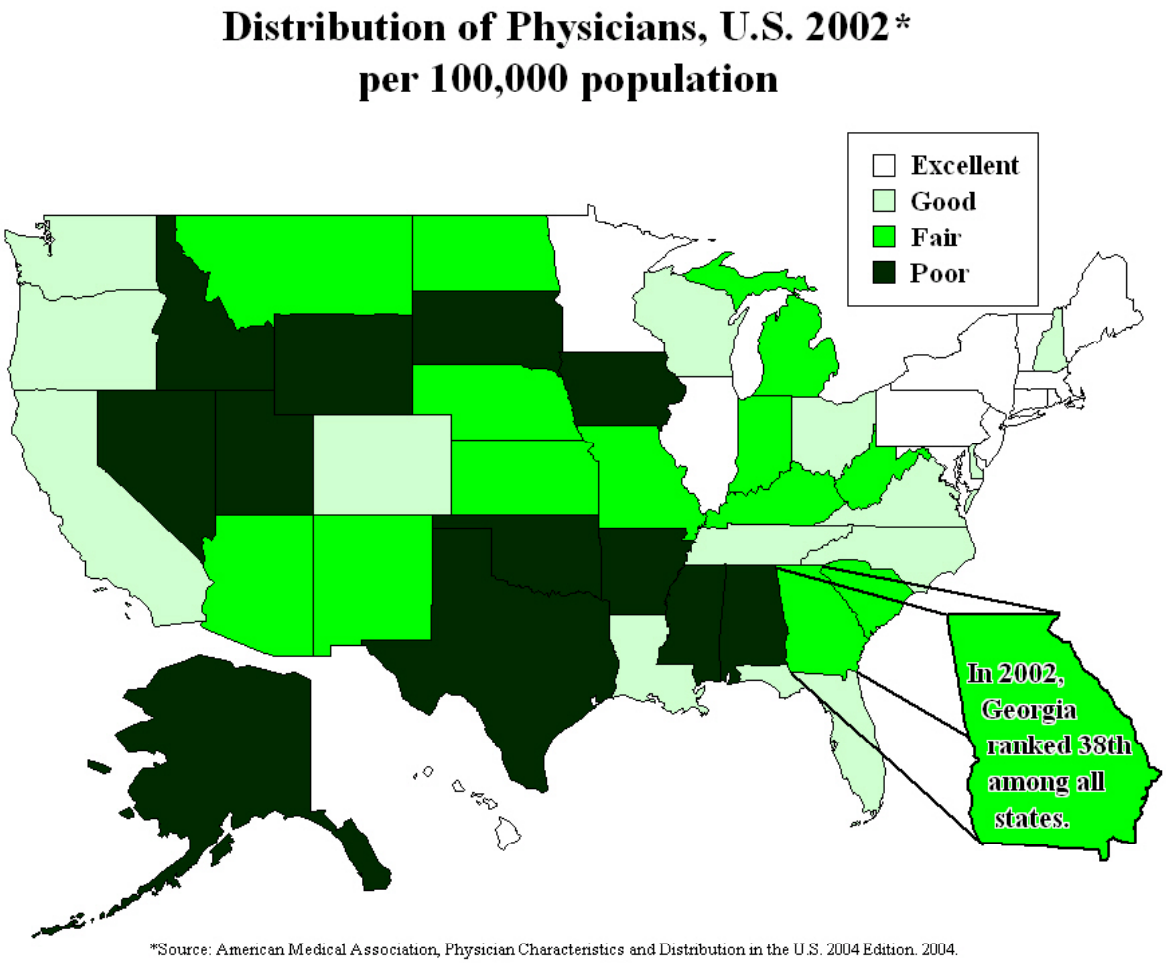
The concerns with this rate of increase are evident when compared to population growth. A common metric used to show the real capacity of a workforce is the ratio of a given profession to the population, often expressed in terms of rate per 100,000. Using this metric to understand the change in physician capacity, it becomes evident that Georgia is barely maintaining its ability to provide services at current levels. As seen in Exhibit 2, Georgia has not effectively added a physician to its ranks in close to a decade. While new physicians have entered practice, the rate is barely keeping up with the growth in population. And while there was substantial growth in the number of physicians in the early 1990s, which coincided with the large spurt in introduction of new physicians in the state, Georgia has had 192 – 193 physician per 100,000 residents since 1996. Should the rate of introduction of new physicians continue to drop in future years, as is suggested by the information in Exhibit 1, Georgia could well see fewer physicians, per 100,000, in the years ahead.

Exhibit 2
Physician Supply in Georgia 1992 - 2002
Rate Per 100,000



By themselves, the factors discussed here are not necessarily problematic. If the state had a sizeable physician workforce in 1996, then the limited growth since then would not present a problem. However, Georgia's physician to population ratio typically ranks poorly when compared to other states. Thus the state needs to substantially increase its numbers of physicians, even without regard to the rapid growth in population. Yet the rate of growth described above is clearly compounding this problem. As seen in recent AMA data, shown in Exhibit 3, the capacity of Georgia's physician workforce currently ranks 38th in physicians per 100,000. This represented a substantial drop since 2000, when Georgia was ranked 35th in the nation. Other sources, such as the Health Resources and Services Administration, rank Georgia's physician workforce 39th in the country. Clearly, as indicated by the data from national and state sources, the state must grow its physician workforce, but is failing to do so.

Exhibit 3
Georgia has dropped from 35th to 38th in the number of physicians per capita



*Source: American Medical Association, Physician Characteristics and Distribution in the U.S. 2004 Edition. 2004.
Rankings are quartiled.

Changing Productivity in the Physician Workforce

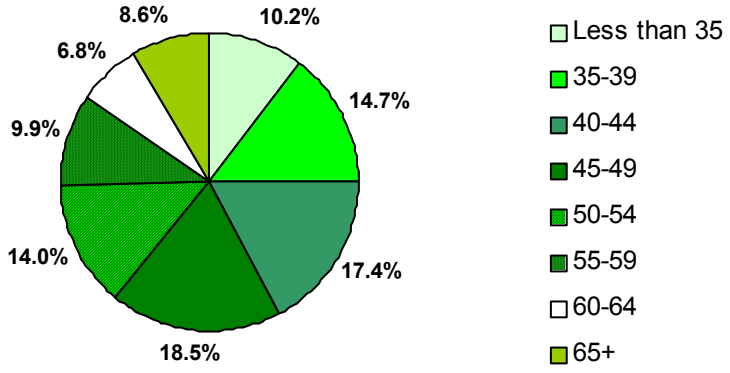
It is also critical to understand the overall work-effort of physicians in Georgia. When stagnant growth in the number of physicians is present, anticipated changes in the work typically provided by a physician become a concern. Should workforce numbers remain at current levels, declining work-effort would mean effective declines in the physician workforce and increasing difficulty in accessing care.

An effective measure of work-effort can be gained by looking at the full time equivalent (FTE) capacity of physicians practicing in Georgia. This concept measures the amount of time that professionals actually devote to providing services. Data collected on the Georgia workforce does not provide a good picture of FTE capacity. One physician is assumed to work full time and provide the same level of work as any other physician. However, some understanding of the relative level of work contributed by various groups within the physician workforce does exist. Looking at the work preferences of the various demographic groups suggests that the FTE of an average physician, and the work-effort of the physician workforce as a whole, will decrease in coming years. The forces driving this concern are the pending retirement of older physicians and the increasing presence of women in the workforce.

The Aging Workforce

The model for the typical physician's commitment to work is based on the track record established by older physicians, chiefly those from the baby boom generation. These physicians, ranging in age from early forties and up, established an understanding of the physician's work life and outputs. As seen in Exhibit 4, these physicians represent nearly 75 percent of the current workforce. For these physicians, 80-hour weeks were the norm and in many ways work demands took precedence over quality of life concerns. However, these physicians are beginning to exit practice. With a median age of 47, a large proportion of physicians are approaching retirement. Even those physicians with a number of years left in their career may opt to retire early because of concerns in the medical marketplace. As these physicians leave practice, the state will lose a large body of physicians who willingly work long hours and who provide for an amount of work in excess of their numbers.

Exhibit 4
Physician Workforce: 2002 Age Distribution



When the older physicians leave the workforce a group of physicians with a different work ethic will replace them. Research shows physicians entering practice today have different values and commitment to work than older physicians. Younger physicians strike a different balance between work life and family and many have spouses with careers outside the home. Subsequently, those now entering the workforce typically choose family needs and quality of life over work, which represents a contrast to what older physicians placed first. While young physicians will continue to work long hours, they are not expected to provide the same level of work as the current, dominant generation of physicians. Thus, as the older generation of physicians exits the workforce, the impacts of this different approach to work life will increasingly be felt. A drop in the average hours worked by physicians is expected. The importance of this fact cannot be overstated. If Georgia only maintains its current physician capacity, as it has over the past eight years, it will effectively mean that the state will have fewer physicians in future years.

Gender Practice Patterns

Another change within the physician workforce is the increasing presence of women. Similar to the aging of the baby boom generation, this change is anticipated to cause overall reductions in the work provided by physicians. Again, an effective reduction in the capacity of the workforce is seen, absent any increases in physician numbers.

As illustrated in the Exhibit 5, more women are becoming doctors, which means that the medical education system is succeeding in opening up medicine to an increasingly diverse group of Americans. However, changes will occur as more women come to practice medicine. Research is beginning to show that practice patterns of male and female physicians differ. Women still bear the majority of responsibility for family and home life, and correspondingly, female physicians tend to limit work hours or take time off to focus on family responsibilities.

Particular evidence of this fact is seen in the specialty of pediatrics, which is heavily female. In a study conducted by the American Academy of Pediatrics in 2000, 45 percent of the nation's Pediatricians were women and 15 percent of Pediatricians worked part time. This marked a substantial increase in part time work from 1993, when only 36 percent of Pediatricians were women and only 11 percent of Pediatricians worked part time. This trend has experts predicting major cultural changes on the horizon, a potential decline in the average hours worked by physicians and the need to possibly expand the physician workforce to ensure patients have adequate access to physicians as the number of female physicians continues to increase.

Exhibit 5
Physicians by Gender

Year	% Male	% Female
1992	84.6	15.4
1994	83.8	16.2
1996	81.6	18.4
1998	80.0	20.0
2000	79.0	21.0
2002	79.1	20.9

MIX AND DISTRIBUTION OF PHYSICIANS

Physician Specialties

When looking at the physician workforce and the shortages within it, it is also important to consider the availability of the various specialties. Each specialty is trained to deal with specific health concerns, ranging from primary care to cancer to AIDS, etc. Even when there are sufficient numbers of physicians, shortages of various specialties can create problems with access and quality of care. In the presence of overall shortages in the physician workforce, having too few of any physician specialty is especially troubling.

Many health conditions are best cared for by physicians specifically trained to treat them. Subsequently, a variety of specialties have been developed, each equipped with a focused set of skills. However, all physicians receive a similar base of knowledge that enables them to provide standard services and procedures, allowing physicians to provide some specialty care should it be needed. Thus, physicians gain the flexibility to account for shortages in a particular specialty. For instance, a family physician can provide obstetric services, should no obstetrician/ gynecologist (OB/GYN) be available. Yet, there is also a negative side. Just as physicians can work above the calling of their specialty, they can offer a smaller array of services than is typically provided within it. This fact may be particularly relevant for certain specialties, such as Radiology, General Surgery and OB/GYN. These specialties are reporting problems with recent rises in medical malpractice premiums and concerns exist that they may reduce the scope of services they provide in an attempt to reduce increases in these premiums. Information provided by the Georgia OB/GYN Society indicates that 98 OB/GYNs have already stopped or will cease delivering babies in the near future. This represents nearly 10 percent of the physicians in this specialty. In short, while the numbers of the various specialists represent an important indication of the overall knowledge base of the physician workforce, care should be taken in not over interpreting its meaning. Neither apparent shortages of specialists, nor improvements in specialist numbers may be as substantial as the numbers indicate.

Clearly, however, positive developments have occurred. Many specialists have seen important increases in numbers, relative to the total population, between 1992 and 2002. Data on these specialists are included in Exhibit 6. As can be seen in this table, many specialties have experienced substantial growth since 1992, including certain primary care specialists such as Internal Medicine, Pediatrics and OB/GYN. And although the rate of increase varies, some specialties have seen substantial increases, ranging between 65 percent (Pediatrics) to over 120 percent (Thoracic Surgery). Further, because these figures report growth in the rate of physicians to population, the changes seen here represent real improvements in physician capacity. Yet, as noted above, caution should be taken in viewing these figures. Despite important gains, there are still concerns with specialties like OB/GYN and Radiology. While these specialties currently show important improvements over the past decade, pressures coming from the medical marketplace may reduce the overall scope of the services that they provide and otherwise limit the availability of these specialists. This may already be occurring in OB/GYN, as indicated in the figures reported above, which greatly reduce, if not eliminate, the growth that has taken place in this specialty.

Family Practice also grew over the past decade, but it is now showing reason for concern. This specialty is vital to ensuring every Georgian has access to effective and timely primary care. Because of exceptional efforts, this specialty shows a greater number of physicians in 2002 than in 1992. However, trends also show a steady decline since 1998. While the drop between 1998 and 2002 is small, continuation of this trend could prove very troublesome, especially given the rapid growth of Georgia's population. Efforts to develop these physicians must continue if the state is to reverse this drop and ensure that there are sufficient numbers of doctors to meet the state's growing needs.

Exhibit 6
Physicians per 100,000 Population for Select Specialties
1992-2002

Specialty	1992	1994	1996	1998	2000	2002
Allergy & Immunology	1.02	1.05	0.98	0.83	0.87	1.24
Anesthesiology	9.06	10.48	10.22	9.84	9.56	8.93
Cardiovascular Diseases	4.94	5.54	5.45	4.83	4.73	4.28
Dermatology	2.65	2.77	2.98	2.94	2.98	2.88
Diagnostic Radiology	3.15	3.82	4.16	4.07	3.24	3.17
Emergency Medicine	6.31	7.74	7.84	8.41	8.94	8.81
Endocrinology	0.94	0.95	1.00	0.86	0.77	0.80
Family/General Practice	22.52	25.04	26.27	26.52	26.18	25.36
Gastroenterology	2.57	2.77	2.73	2.55	2.65	2.10
General Surgery	8.63	9.29	9.59	9.26	9.42	8.48
Infectious Disease	1.23	1.59	1.37	1.32	1.20	1.56
Internal Medicine	18.34	20.08	23.83	25.79	27.66	29.30
Nephrology	1.38	1.45	1.51	1.41	1.28	1.43
Neurological Surgery	1.59	1.58	1.54	1.53	1.34	1.39
Neurology	2.60	2.99	3.37	3.35	3.19	3.22
Obstetrics/ Gynecology	10.22	11.63	12.25	11.82	12.04	13.29
Oncology	1.44	1.74	1.69	1.57	1.58	1.75
Ophthalmology	4.82	5.00	5.17	4.92	4.75	4.64
Orthopedic Surgery	6.32	6.99	7.62	7.20	6.79	6.89
Otorhinolaryngology	2.42	2.73	2.86	3.02	3.11	2.88
Pathology	3.91	4.11	4.40	4.41	4.51	4.43
Pediatrics	10.61	11.77	13.37	16.75	17.13	17.46
Plastic Surgery	1.56	1.84	2.03	1.87	1.82	2.13
Psychiatry	8.49	10.21	11.42	11.04	11.14	10.45
Pulmonary Diseases	1.70	2.10	2.03	1.92	1.92	1.67
Radiology	4.61	4.85	5.13	4.89	5.86	5.15
Rheumatology	0.74	0.92	0.83	0.76	0.75	0.60
Thoracic Surgery	0.49	0.59	0.49	0.42	0.43	1.08
Urological Surgery	3.32	3.59	3.44	3.42	3.04	3.06
Total	164	182	192	193	192	193

Concern exists with other specialties because they show potential deficits in future years. As seen in Exhibit 7, six specialties are predicted to be in short supply by 2010. While all of these shortages will have a negative impact on the state, shortages in Diagnostic Radiology and Gastroenterology are particularly important because of their size. If current trends continue, by 2010, these specialties will face shortages in the hundreds, with Diagnostic Radiology predicted to have a shortage approaching 500 physicians. Clearly this is a concern for Georgia. While primary care physicians may play a role in addressing specific diseases, the need for specialists to treat various complicated diseases is critical. Shortages of these specialists will prevent access to the care that they are best trained to provide.

While these predicted deficits are important in their own right, they are alarming because of the role these specialties can play in Georgia's fight against cancer. Data from the Center for Disease Control and Prevention indicate that Georgia has a death rate from cancer above national averages. Because of this, state leaders created the Georgia Cancer Coalition (GCC), invested substantial funds in this agency, and implemented a response that covers treatment, prevention and research. Critical to the success of GCC initiative is the availability of physicians trained in the diagnosis and treatment of cancer. The Diagnostic Radiology and Oncology specialties represent such physicians. Unfortunately, analysis of trends in supply and demand for these specialists indicate that they may not be available to meet Georgia's needs. The access to specialized cancer treatment will be compromised, thus diminishing the quality of care received by Georgians seeking cancer treatment.

Exhibit 7
Predicted Specialty Shortages

Specialty	Supply 2002	Supply Projected 2010	Need 2010	Total Amount of Deficit by 2010
Diagnostic Radiology	272	320	758	-438
Gastroenterology	180	188	374	-186
Oncology	150	190	211-345	-21
Endocrinology	69	61	77-86	-16
Rheumatology	52	52	67-77	-15
Urological Surgery	262	294	297	-3

Physician Distribution

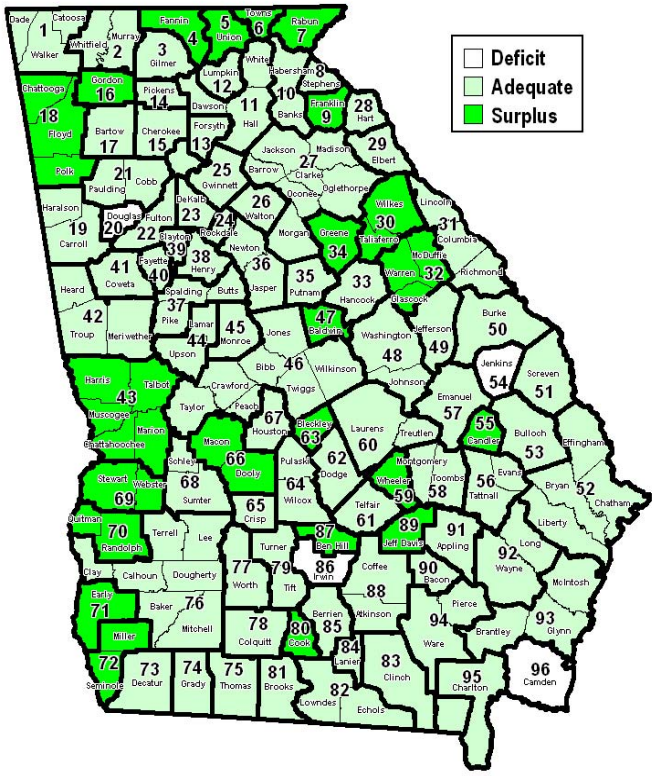
The geographic distribution of physicians is also constrained by the capacity of the physician workforce. This is an issue of critical importance as the distribution of physicians throughout the state helps determine the ability for Georgians to access health care. Areas that have sufficient numbers of physicians will face fewer challenges. Areas with too few physicians will experience problems in accessing care.

Certain concerns exist across many specialties. Some areas of the state, usually rural, appear to experience shortages with most primary care specialties. The primary care service areas composed of Jenkins, Burke and Screven counties serve as an example of the challenges facing rural Georgia. These areas face deficits in all but one of the five primary care specialties, which consist of Family Practice, Internal Medicine, Pediatrics, OB/GYN and General Surgery. This is in sharp contrast to the urban areas of the state, which have a healthy presence of most primary care specialties. Given that much of the state is rural this fact means that many Georgians will find challenges in accessing the care they need.

In other ways, important distinctions exist within each specialty. Those specialties designated as "primary care" were evaluated using primary care service areas. These 96 primary care service areas (PCSAs) were categorized as having a deficit, adequate supply, or a surplus of physicians based on +/- 1 standard deviation of the physician rate per 100,000 in 2002. Using these service areas shows that some important progress has been made regarding the distribution of physicians across the state. This includes family practice and internal medicine. However, this analysis also indicates poor distribution with other important primary care specialties.

Exhibit 8

FAMILY PRACTICE
Physician Distribution - 2002
Deficit, Adequate, and Surplus PCSAs*



*A PCSA (Primary Care Service Area) is categorized as deficit, adequate, or surplus based on the +/- 1 standard deviation of the physician rate per 100,000 in 2002.

Family Practice

The distribution of Family Physicians is particularly important to the delivery of health care. Family Physicians provide much of the primary and preventive medical care in Georgia, and Family Physicians can also cover for some shortages in other specialties to ensure that all citizens receive at least a modicum of medical care. This is particularly important because 12 PCSAs show deficits in all the other primary care specialties, leaving these areas critically dependent on Family Physicians to provide for their health care needs.

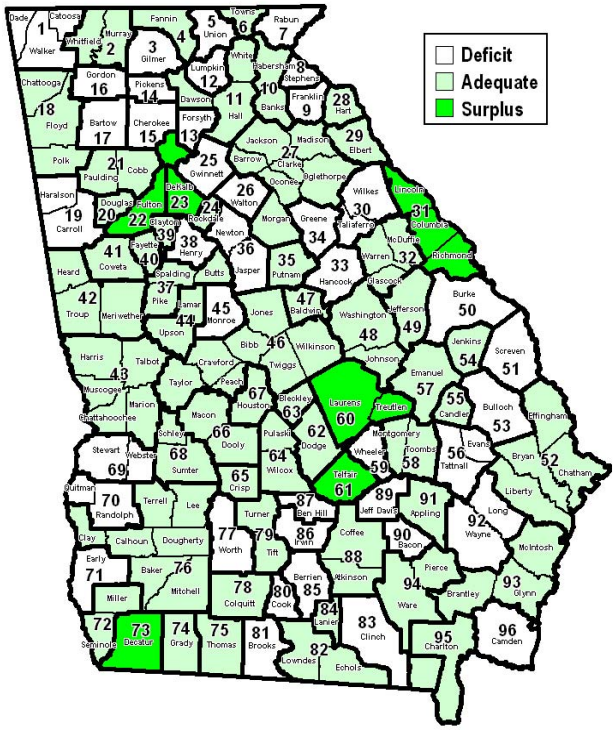
Fortunately, an examination of Georgia's supply and distribution of Family Physicians shows good coverage throughout the state. However, this success should not be construed to mean that no concerns remain with this specialty. Family Physicians have demonstrated the greatest ability to spread evenly throughout the state. Currently, only four PCSAs show a deficit of Family Physicians. However, this may change in coming years. The supports provided by the state to build this workforce have eroded in recent years and the number of Family Physicians per 100,000 has been dropping since 1998. Should these continue, Georgia will see increasing distribution problems with this workforce. Given that this primary care specialty is often the only one adequately represented in rural areas, this would pose important problems.

Internal Medicine

When considering issues relating to primary care services, it is important to consider Internal Medicine along with Family Practice. Combined, these two specialties comprise the principle providers of primary healthcare. The collective distribution of these two specialties shows adequate coverage throughout much of the state, with all but two PCSAs having at least adequate numbers of internists or family physicians. It is important to note, however, that as many as 40 primary care service areas (42 percent) are deficient in Internists. While the excellent distribution of family physicians will mitigate some deficiencies, the importance of these specialists to Georgia's health care system requires continued monitoring and appropriate intervention to ensure that they are spread well throughout the state.

Exhibit 10

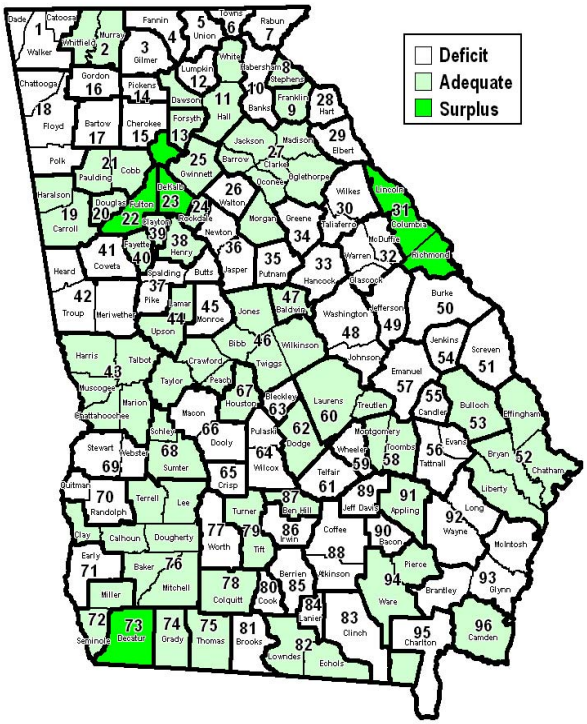
INTERNAL MEDICINE
Physician Distribution - 2002
Deficit, Adequate, and Surplus PCSAs*



*A PCSA (Primary Care Service Area) is categorized as deficit, adequate, or surplus based on the +/- 1 standard deviation of the physician rate per 100,000 in 2002.

Exhibit 11

PEDIATRICS
Physician Distribution - 2002
Deficit, Adequate, and Surplus PCSAs*



*A PCSA (Primary Care Service Area) is categorized as deficit, adequate, or surplus based on the +/- 1 standard deviation of the physician rate per 100,000 in 2002.

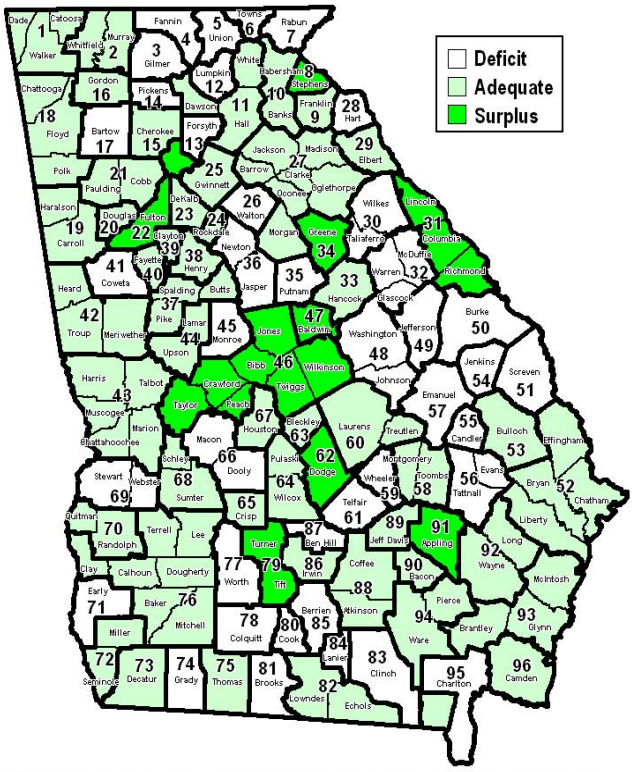
Pediatrics

Pediatricians provide primary care targeting a subset of the population that has a unique set of needs. Looking at the distribution of Pediatricians shows the majority of primary care service areas (57 out of 96) with deficits. This represents almost 60 percent of the state. Additionally, the eastern part of the state has many deficient areas. Fortunately, coverage for unmet need for Pediatricians may be met through services provided by Internists and Family Physicians. However, children have many unique needs, which Pediatricians are best equipped to handle. Shortages in these specialists may affect the quality of care delivered to children across the state.

As with Pediatricians, some of the services offered by OB/GYNs can be provided by generalists, yet the skills provided by OB/GYNs in meeting high risk and critical care needs are indispensable. With 40 out of 96 primary care service areas showing a deficit, over 40 percent of the primary care service areas in Georgia lack adequate coverage in this specialty. Additionally, the distribution of OB/GYNs shows deficits in certain regions of the state, many of which also have shortages in pediatric care. This raises concerns that ongoing needs, raised through high risk pregnancies and deliveries, will not be addressed.

Exhibit 11

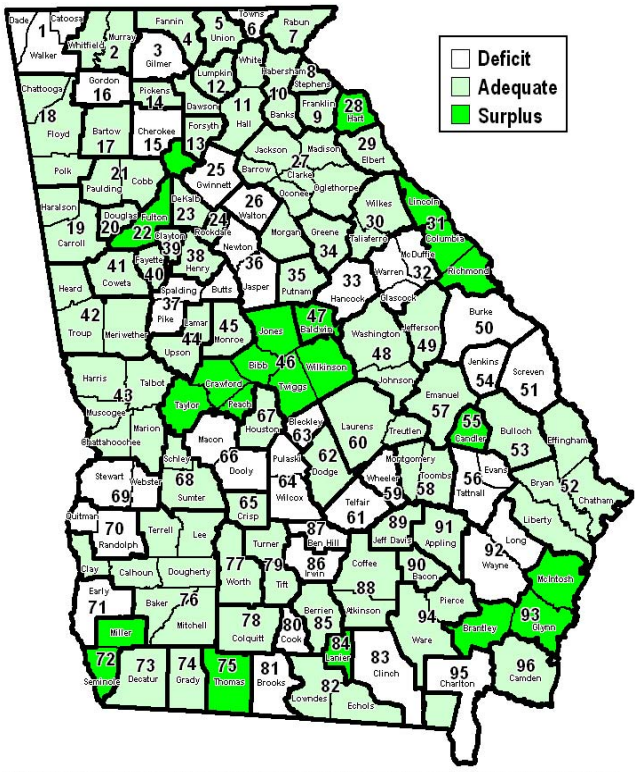
OBSTETRICS & GYNECOLOGY
Physician Distribution - 2002
Deficit, Adequate, and Surplus PCSAs*



*A PCSA (Primary Care Service Area) is categorized as deficit, adequate, or surplus based on the +/- 1 standard deviation of the physician rate per 100,000 in 2002.

Exhibit 12

GENERAL SURGERY
Physician Distribution - 2002
Deficit, Adequate, and Surplus PCSAs*



*A PCSA (Primary Care Service Area) is categorized as deficit, adequate, or surplus based on the +/- 1 standard deviation of the physician rate per 100,000 in 2002.

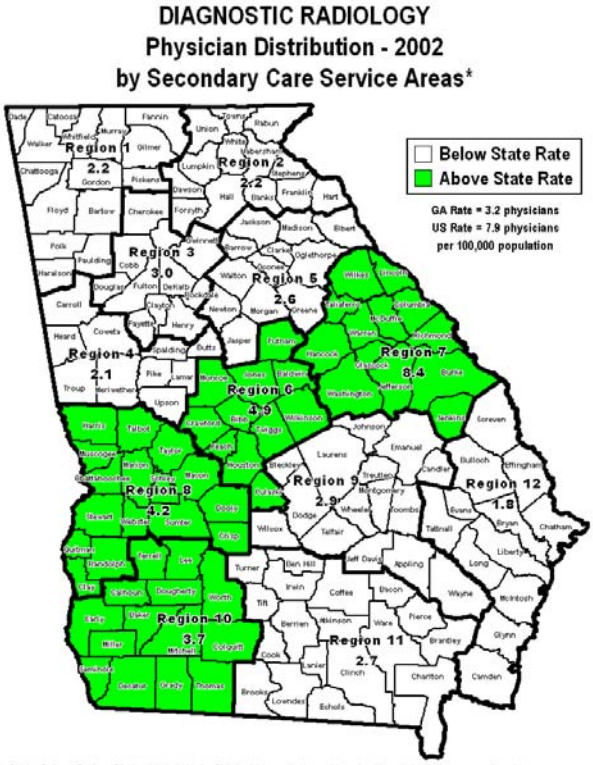
General Surgeons are also analyzed using the primary care service areas. As can be seen in Exhibit 12, substantial concerns exist with this specialty. Over 30% of primary care service areas are in need of General Surgeons, with 30 out of 96 regions having a deficit. Deficits may increase in coming years if current growth trends in the specialty persist. While General Surgery is considered to be adequately available in Georgia, its strength in relation to the population has been declining since 1996. Continued declines could further erode distribution patterns and result in growing areas of deficit across the state.

Distribution of Sub-Specialists

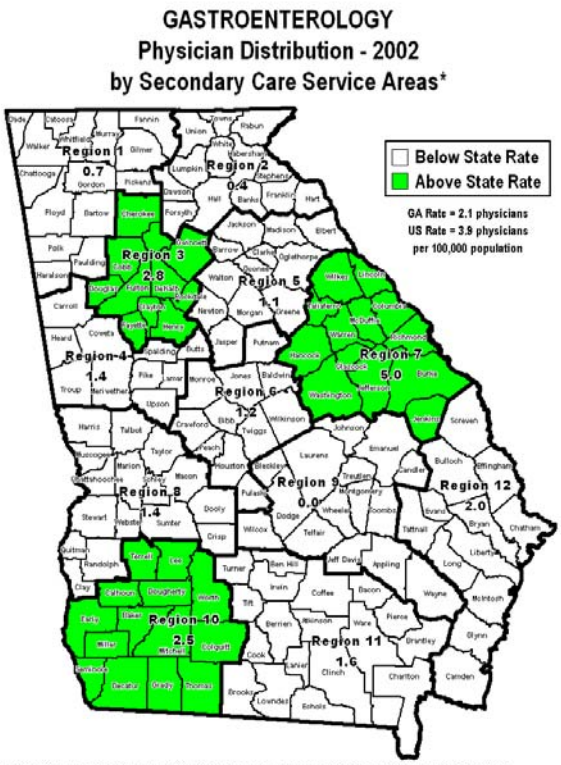
An important new facet now exists regarding distribution. Attention on the physician workforce has long focused on the primary care specialties. This attention is well warranted, given the distribution problems and ongoing erosion in many primary care specialties. Yet, concerns are now also focusing on sub-specialties. To this end, the distribution of critical sub-specialties was also evaluated. Given market dynamics, PCSAs were not used in analyzing their distribution. In their place the 12 state service delivery regions defined by the General Assembly during the 1998 legislative session were used.

While distribution patterns were analyzed for most major sub-specialties, those specialties that are predicted to be in a state of substantial shortage in 2010 warrant attention. These include Diagnostic Radiology and Gastroenterology. Given that they are predicted to be in short supply, it is not surprising that these specialties already suffer from substantial distribution problems. Georgia has only one region where the presence of Diagnostic Radiologists matches national average. The remaining 11 secondary care service areas have a rate of Diagnostic Radiologists that is roughly one-half to less than one-quarter of the national rate. Similarly, Gastro-enterologists have only one region of the state where their presence compares well to national rates. In other regards, however, maldistributions are particularly acute for Gastroenterology, as these specialists are effectively non-existent in certain regions of the state (Region 9). This presents particularly daunting challenges to residents in that region who need specialized care from a Gastroenterologist. As alarming as the poor patterns of distribution for these two specialties are, they are likely to worsen in approaching years as these specialties head into predicted shortages.

Exhibit 13



*State Service Delivery Regions; Effective July 1, 1998, the State Legislature voted to provide regional boundaries for the purpose of consistency in planning and service delivery from State Agencies.



*State Service Delivery Regions; Effective July 1, 1998, the State Legislature voted to provide regional boundaries for the purpose of consistency in planning and service delivery from State Agencies.

CHALLENGES TO BUILDING PHYSICIAN CAPACITY

As seen in this report, challenges confront Georgia's physician workforce: the number of physicians practicing in the state appears to be inadequate; the rate at which new physicians are entering practice appears to be dwindling; the work-effort of the future physician workforce is likely to drop; certain specialties are experiencing declines in their numbers and the distribution of critical primary care physicians and sub-specialists remains a problem.

Yet, Georgians must have enough of the right kind of doctors distributed in the right places. To do this, the state must produce adequate numbers of physicians, attract physicians from out of state, and retain physicians in the places where they are needed. This will require, at a minimum, that the state address concerns with the productivity of the medical education system and correct certain issues affecting the physician marketplace, including increases in medical malpractice premiums and reductions in Medicaid reimbursement rates.

Stagnation in Medical Education Capacity

Educating the appropriate number of physicians to practice in Georgia requires a medical education system of sufficient size and capacity, which the state appears to be lacking. Of the ten most populous states, all but one has at least three public medical schools. Georgia, the 9th most populous state in the country, has only one.

In part, the small scale of Georgia's public medical education system reflects the choice the state made to rely on its private schools to produce its physicians. In fact, Georgia's three private medical schools train 53 percent of its medical graduates. Without Emory, Mercer, and Morehouse, Georgia's ratio of medical graduates per capita would fall to .5 per 100,000 (70 percent below the national average, which would rank Georgia last in the nation). The public/private partnerships with Emory, Morehouse, and Mercer have been cost effective, using public funds to leverage private resources. While there are challenges in this approach, there is a positive return in terms of cost. The average cost of operating a medical school is over $90 million per year. With a combined state contribution of $30 million in fiscal year 2004, Georgia offset much of the cost of training medical students, and still provided for a solid medical education base.

However, even with this successful public/private partnership, current training capacity at the medical school and residency program level is still insufficient to meet Georgia's needs. For example:

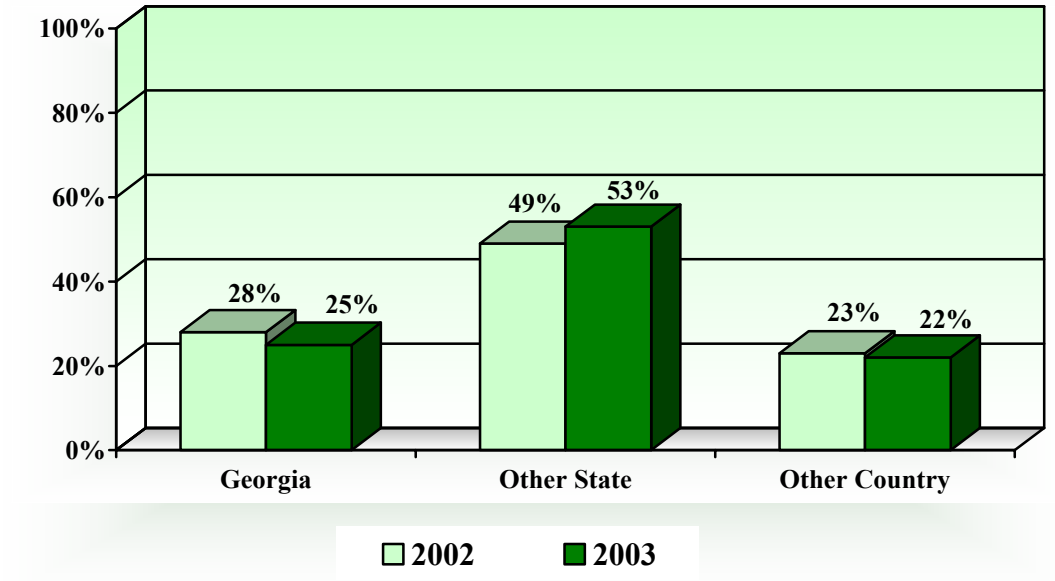
- Medical Students per Capita – Of the 46 states that have a medical school, Georgia ranks 34th in the number of medical students per 100,000 population. The state's medical student to population ratio of 18 per 100,000 is approximately one-third below the national average of 28 per 100,000.

- Resident Physicians per Capita - Georgia ranks 34th among the 50 states that have residency programs and its resident physician to population ratio of 22 per 100,000 is significantly below the national average of 35.9 per 100,000.

The limited capacity of the medical education system contributes greatly to the poor physician numbers. Proof of this is seen in Georgia's dependence on other states and countries to produce the physicians it needs. Figures from responses to a survey of residents leaving training indicate that only one in four were trained in a Georgia medical school (as seen in Exhibit 14). Further, of those residents with confirmed plans to practice in the state, only 40 percent were trained here. Reliance on other locations is an impractical solution to the problems facing our physician workforce. Increasing competition, visa restrictions, as well as other factors such as the medical liability climate, influence whether doctors elect to practice in Georgia and leave Georgia vulnerable to fluctuations it cannot control.

The good news is that many of the state's medical schools report recent increases in class size or have plans to increase their class sizes in the near future. Additionally, a new private medical school is scheduled to begin teaching its first class of 80 in August 2005. However, problems remain as recent cuts in state and federal support undermine these expansions or limit their impacts. This is particularly true of the state's residency programs, which have experienced exceptionally large cuts. These programs provide the state with the means to produce the specialists it needs and are critical if Georgia is to maintain its Family Practice workforce, work to better distribute other primary care specialties, and address new challenges with sub-specialties.

Exhibit 14
Where Graduates of Georgia's Residency Programs Attended Medical School



Medical Education Debt

This information suggests that Georgia should expand its medical education system. However, should Georgia's medical schools increase their capacity to support expanded enrollment, the lack of interest in medicine as a career may inhibit any increases in enrollment. Nationally, there has been a 26 percent decline in applicants to medical schools over the last five years. This trend has only recently been broken.

As shown in Exhibit 15, education debt may be a leading factor in this drop in interest. Data from a 2003 survey of graduates from Georgia's residency programs found that 42 percent of respondents had educational debt totaling $80,000 or more. One in three graduates had debt in excess of $100,000. While practicing physicians can expect to earn healthy salaries, this debt burden represents a substantial financial risk that physicians will face as they start their practices. Consequently, this risk may serve to discourage pursuit of a medical career. And given the increases in tuition that have occurred in medical education since the mid 1980s, this problem could worsen. During that period, tuition across the nation increased by 165 percent for private schools and 312 percent for public schools (50% and 133% in constant dollar terms, respectively). Continued steep tuition increases, and their contribution to the risk borne by potential physicians, could dissuade future students from pursuing a medical career.

Exhibit 15
Educational Debt of Graduating Residents
Number/Percentage of Respondents by Level

Amount of Debt	Number of Respondents	Percentage of Respondents
None	135	35.81%
Less than $20,000	7	1.86%
$20,000-$39,999	21	5.57%
$40,000-$59,999	25	6.63%
$60,000-$79,999	30	7.96%
$80,000-$99,999	32	8.49%
$100,000-$124,999	47	12.47%
$125,000-$149,999	14	3.71%
$150,000-$199,999	35	9.28%
Over $200,000	31	8.22%
TOTAL Respondents (n =)	377	

Issues in the Medical Marketplace

In addition, market forces may be decreasing Georgia's attractiveness as a place in which to practice medicine, and present concerns at the medical education and practice levels. Simply stated, the value of a career in medicine continues to erode as doctors contend with declining reimbursement rates and rising medical liability insurance rates. On their own, each of them warrants attention. Combined, they could serve to further erode Georgia's physician workforce.

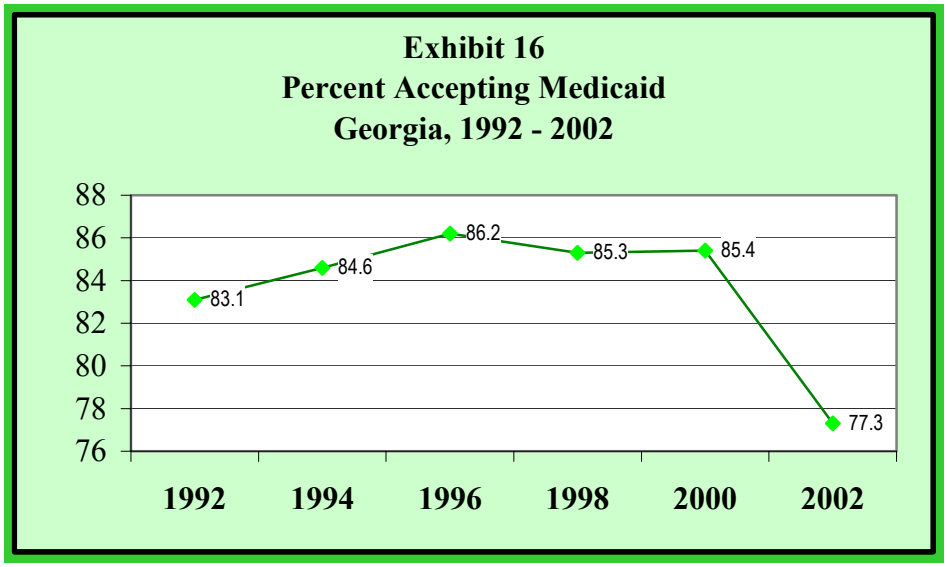
Decreasing Reimbursement for Physician Services

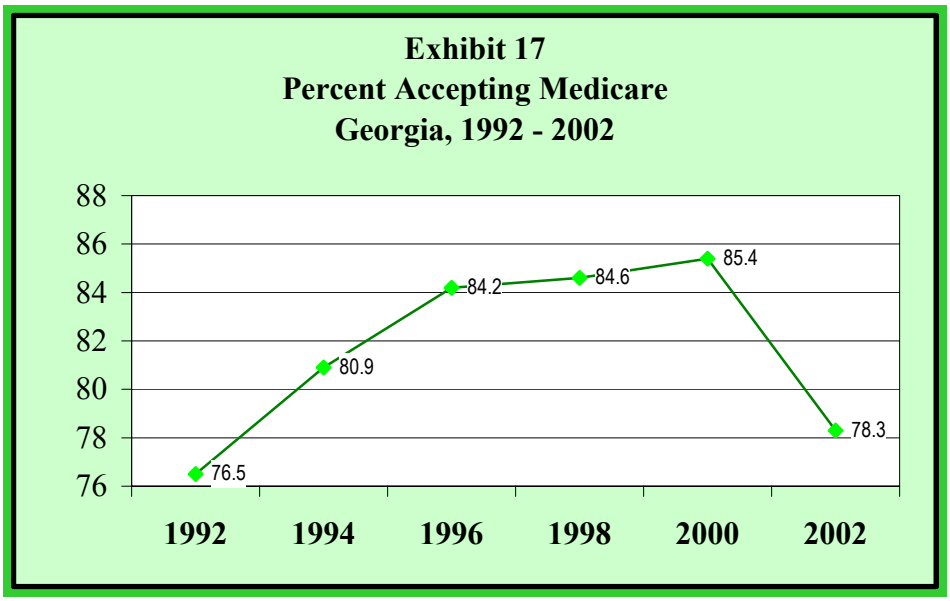
The importance of the public payer insurance systems, Medicaid and Medicare in particular, in the physician marketplace cannot be overstated. As of 2002, Medicaid covered nearly 1.4 million Georgians. This represents nearly 16 percent of the state's total population. Further, the level of effort and resources used to provide care to them likely exceeds what would normally be expected for that number of people. Many people covered through Medicaid suffer from complex, difficult and costly conditions. Medicare presents issues to doctors as well. It covers a very large portion of the population, including those 65 and older and people with permanent disabilities. Census data indicates that Georgia, as of July 1, 2003, had a minimum of 827,000 citizens eligible for Medicare. This figure, which includes only those 65 and older, represents roughly 10 percent of Georgia's population. The importance of Medicare is also expected to rise, given the aging of the baby boom generation and subsequent rise in the population that is eligible for Medicare support. These facts mean that Medicaid and Medicare patients, and the subsequent reimbursements for services given to them, can account for a large portion of a typical physician's patient base and income.

Current payment levels from these payer sources are inadequate. In the late 1990s, a series of changes to Medicaid and Medicare reimbursement for physician services took place. These changes included tying Medicaid reimbursement rates to the Medicare fee schedule, and instituting changes that resulted in a nationwide reduction in physician reimbursement through these two programs. The changes to the Medicare fee schedule have meant a decrease in payments of $62 million, in constant dollars, since 1996, the last year Georgia Medicaid paid 100 percent of the Medicare fee schedule. To complicate matters, in FY 2004, the Department of Community Health reduced the state's reimbursement rate for physicians, resulting in a net loss of $44 million in state and federal funds. While budget pressures have forced these cuts, their impact could be profound. Georgia has been very responsible with its allocation of Medicaid funding, and a recent study by the Lewin Group ranked Georgia in the middle of states (21 out of 51, including the District of Columbia) in terms of its reimbursement rates.

This last fact indicates that Georgia did not pay physicians excessively for Medicaid services even prior to these cuts. Thus, there is little "fat" to cut in physician reimbursement rates and that further cuts in Medicaid rates could damage the viability of physician practices. These concerns can be seen in light of the inability for public payer reimbursement to meet the costs associated with providing medical services. Recent studies have shown that Medicaid reimbursement rates do not cover physicians' costs and that it is becoming increasingly difficult for doctors to continue serving Medicaid patients by spreading the uncovered costs over their remaining patient base.

Two areas of concern emerge from the problems with reimbursement levels including a physician's willingness to practice and/or accept Medicaid and Medicare patients. Data reported through the physician license renewal process indicates an increasing number of physicians are limiting the number of Medicaid and Medicare patients in their practice. Exhibits 16 and 17 show the recent decline in acceptance of Medicaid and Medicare patients. After peaking in 1996, physicians now report the lowest percentage to be accepting Medicaid in a decade. Medicare is also approaching lows from the very early 1990s. Access to care and cost of care will be greatly affected.





It is also important to look at the continued interest of practicing physicians in maintaining an active practice. While no data currently exist, we know physicians will weigh the risks and rewards of the medical marketplace and respond as best meets their needs. As reimbursements decline and costs rise, physicians may choose to limit or cease practice. As physicians cease or

limit their work, new physicians will be needed to replace them. Unfortunately, fewer new physicians will fill the empty spaces, if concerns expressed earlier in this report go unchecked. Given the size of the impacts that Medicaid and Medicare reimbursements have on physician practice, this potential cannot be underestimated.

Medical Liability Costs and Availability

As revenues decline through cuts in public insurance programs, the costs of operating a practice are increasing. While numerous factors contribute to this problem, including increases in rent, payroll for support staff… a particularly important factor is the substantial rise in malpractice insurance premiums. The issues involved with medical malpractice, and recent increases in premiums are complex and varied. No consensus currently exists about the causes of these increases or the needed solutions. However, some facts are better understood, including the rate of fee increases, the perceived threat to the practices of certain specialties, and potential threats of access to certain high-risk services.

There has clearly been a rapid rise in malpractice insurance premiums. MAG Mutual, the largest medical malpractice insurance provider in Georgia, reports that its premiums for certain specialties have risen over the past few years by as much as 190 percent, as seen in Exhibit 18. The impact of these increases on physicians can be seen by data gathered by the GBPW. According to responses to an October 2003 survey, physicians reported premium increases of 25-50 percent on average. This was in addition to a 20 percent increase reported in 2002.

Exhibit 18
MAG Mutual Insurance Company
Georgia Medical Professional Liability Rates
$1 Million/$3 Million Limit of Liability

Specialty	2000	2001	2002	2003	Cumulative % Increase 2000-2003
Anesthesiology	17,842	16,269	19,523	24,775	39%
Emergency Medicine	14,083	16,054	19,265	27,541	96%
Family Practice	7,124	8,121	9,745	12,367	74%
Internal Medicine	7,124	8,121	9,745	12,367	74%
Neurosurgery	46,441	52,943	63,532	80,624	74%
Obstetrics/Gynecology	39,732	40,811	48,973	62,148	56%
Orthopedic Surgery	32,150	32,733	39,280	49,848	55%
Psychiatry	5,765	6,572	7,887	10,008	74%
Radiology	8,423	9,602	14,619	24,448	190%
General Surgery	24,223	27,615	33,138	42,053	74%

Source: MAG Mutual Insurance Company

Certain specialties are affected substantially by these increases. The 2003 rates for OB/GYN and Neurosurgery were $62,148 and $80,624 respectively. Clearly, these figures are large, even for well-paid professionals such as physicians. Data reported by residents leaving training in Georgia highlights how substantial these fees can be, relative to the starting salaries of these specialists. In 2003, OB/GYNs reported an average starting salary of $162,000 and neurosurgeons reported an average starting salary of $242,000. Thus, these premiums represent 38 percent and 33 percent of the starting salary for each specialty, respectively. While the entire cost of these premiums will not be deducted from these salaries, the amount will erode salaries as physician practices look to reduce overall expenses by cutting costs. The influence of these premiums on net income could lead physicians in training to move away from critical specialties like OB/GYN. This problem was recently highlighted in late 2003, at an AMA meeting, by an MCG student who indicated that she opted not to train as an OB/GYN due to concerns with the malpractice climate. This concern may also lead many potential medical students to choose careers outside of medicine.

The net salaries of experienced physicians also suffer from high insurance premiums and practicing physicians are reporting distress. Again, certain specialties are disproportionately and heavily challenged, including OB/GYN, general surgery, radiology, neurology and emergency medicine. These physicians are vital to both the delivery of critical specialty care and primary care. As these specialists feel the increases in premiums, access to the services they provide may be in jeopardy, with physicians retiring, leaving practice or discontinuing high-risk procedures. If the concerns expressed in a 2003 survey are realized, 25 percent of OB/GYNs and 28 percent of General Surgeons will stop providing high-risk procedures. This is in addition to declines that were reported in previous years. Further, 13 percent and 12 percent of OB/GYNs responding to the survey said they planned to leave practice or retire, with General Surgeons responding a similar 13 percent and seven percent, respectively.

While physicians may report discontinuing service, or a desire to do so, they may well continue practicing. Additionally, it is possible for the responses from a more dissatisfied group of physicians to influence these data. However, it is also important to understand the implications of this information. Current physicians in training may opt out of heavily affected specialties, many of which touch on important primary care concerns. Further, potential medical students may lose interest in medical careers as they assess the increasing costs of medicine resulting from these rising premiums. Thus, should physicians decide to discontinue their practice, the needed replacements from new physicians may not be there. The result would be increasing shortages of physicians, with a high concentration in critical specialties.

Georgia is not alone in problems with medical liability. Other data sources show the same problems exist in other parts of the country. A national survey of physicians aged 50 – 65 conducted in 2004 by Merritt Hawkins Associates stated malpractice worries had become the single greatest source of frustration for physicians in that age group. These frustrations had an impact on physician practice, as 74 percent of those physicians planning to make a change in their practice cited rising malpractice premiums as a factor. Another study by the Gallop firm indicated similar concerns. This survey, conducted on behalf of the National Medical Association determined that 73 percent of physicians responding to the survey were “not at all satisfied” with the cost of medical liability insurance. In addition, 27 percent said that securing

medical liability insurance was the "biggest" or a "major problem" for them in 2003. While only African-American physicians took this survey, there is no reason to suspect that the experiences of these physicians are not consistent with the overall experience of the profession. Finally, the American Medical Association has made the concerns with medical liability insurance one of its major issues and currently lists Georgia as one of 20 "crisis states."

Collective Concerns

While other concerns exist, including regulatory guidelines, managed care, and the dwindling time spent with patients, providing solutions to rising insurance premiums and declining reimbursement rates is critical to the well being of the physician workforce. The combination of the two warrants attention. After considerable economic distress, Georgia's budget revenues appear to be finally growing, but there is much ground to make up and an increasing demand for existing services that stems from the recent economic hard times. The issues regarding medical liability coverage are complex and no consensus currently exists to provide guidance in finding appropriate solutions. Yet, Georgia's leaders must work to find solutions to these issues to ensure that the state has the physician workforce it needs, and the types of physicians to address the concerns that affect all of us.

ENHANCING DIVERSITY OF GEORGIA'S PHYSICIAN WORKFORCE

The diversity of Georgia's physician workforce and an increasingly diverse population also deserves attention. This matter does not necessarily have a direct impact on access to care and the capacity of the physician workforce, but it does play an important role in determining the quality of care provided by physicians.

Cultural competency is important to the delivery of quality health care services. Differing values, lifestyles, communication styles, and other factors exhibited by certain ethnic communities affect the delivery of health care services. Not respecting these differences can be seen, in part, by the dissimilar health outcomes experienced by the various communities that call Georgia and the nation home. Because of these differences, and in an effort to reduce the consequences they have on health care, physicians must be capable of managing the variety of communication styles, values, etc, held by these various groups. While many efforts are underway through more effective training of students and physicians, the most likely solution to this problem is to create a workforce that reflects the population that it serves.

The concept at work here is simple. Individuals from similar cultures and communities find the greatest ease in working together, especially in matters as vital as health care. Thus, Georgia's doctors need to reflect the population they serve. Fortunately, as seen in Exhibit 19, Georgia is increasing the diversity of its physician workforce. Since 1992, the percentage of African American physicians in the workforce has nearly doubled, while those physicians who identify themselves as "other" have increased more than four times.

This fact reflects well on the efforts of the medical education system. However, if the goal is to create a workforce that truly reflects the population of Georgia, more work is needed. According to the 2000 census, nearly 30 percent of Georgians were African American, and non-Hispanic whites represented roughly 65 percent of the population. According to this information, the state's physician workforce is still not reflective of the population that it serves. Additionally, while the level of Hispanic representation in the physician workforce is not shown in Exhibit 19, Georgia has experienced rapid growth in the number of Hispanics in the state. Census data for 2000 show that Hispanics account for over five percent of the state's population. This marks a sharp increase over 1990, when Hispanics represented less than two percent of the population. This brings with it a clear need to assess the proportion of the workforce that is Hispanic, and expand it when and where needed. This will ensure that sufficient Spanish language competencies exist in the workforce to enable physicians to work effectively with this growing population.

Exhibit 19
Percentage of Physicians by Race*

Year	% White	% African American	% Asian	% Other
1992	86.5	6.5	6.3	0.7
1994	84.9	7.6	6.6	0.9
1996	84.1	8.1	6.9	0.9
1998	80.2	8.9	7.8	3.1
2000	79.0	10.3	8.1	2.6
2002	77.4	11.9	7.7	3.0

* Response Rate in 2002 was 96.0%

GEORGIA'S RESPONSE TO PHYSICIAN SHORTAGES

"Physician, Heal Thyself." It is a phrase lightly spoken and rarely regarded with care. Yet, judging from the current state of the physician workforce, and the ongoing response to the challenges facing it, the issues it speaks to weigh heavily on Georgia. These problems lead to questions of whether this workforce will be available in the near future.

One thing is clear: Georgia must respond. Stakeholders must now take the time to actively confront the issues affecting the physician workforce and medical education system. The problems must be recognized and addressed now to ensure that the state has the physicians it will need in the future. While a large number of responses are needed, a few core factors must be addressed, including:

Change Current Thinking

The old ways of thinking about the physician workforce will not solve the problems confronting Georgia today. Unlike in the past, a broad range of challenges now face the state:

- The population continues to grow rapidly, bringing with it an increased need for physicians.
- The overall number of physicians has never been strong compared to other states, and does not appear to be adequate to meet growing needs.
- The rate of introduction of new physicians into the workforce is slowing.
- Declines in physician work-effort are predicted.
- Recent declines in the numbers for certain primary care specialties, including Family Practice and General Surgery, pose grave challenges to access and require continued attention.
- Georgia's population is increasingly diverse, and the physician workforce must change to reflect this increasing diversity.
- Poor growth in many sub-specialties will further challenge the state's ability to grapple with critical health concerns, such as cancer.
- Distribution of physicians remains a problem in many areas, affecting access to and quality of care. Distribution problems are seen for both primary care physicians and specialists and disproportionately impact rural parts of the state.

Restore Funding Support for Medical Education

The supports provided to the medical education system must be restored. Since FY 2001, funds provided to the GBPW to support medical education have been reduced by nearly nine percent. One specific component of GBPW allocations, which funds the graduate medical education system responsible for producing much needed specialists (e.g. Family Physicians and Pediatricians), has experienced reductions approaching 12 percent. These reductions have occurred as the costs of medical education have risen.

These cuts affect the ability of medical schools and teaching hospitals to maintain faculty, support the physical space needs of the teaching institutions, overall operating costs and other important ancillary needs. They increase the challenges of maintaining the current level and quality of outputs from this system and increase the difficulty of expanding these programs. To address this, the state must renew its investment in medical education by:

Restoring Funding

- At a minimum, funding levels for medical schools and teaching hospitals in Georgia must be restored or maintained at current levels. The state cannot afford a reduction in the number of physicians being trained, or a loss of its training focus on the specialties it needs. Reduction of supports could impede efforts to expand the capacity of the medical education system in Georgia, lead to downsizing of medical education programs and result in a loss of focus on the training priorities of this system.

Selectively Increasing Support

- Over the longer term, funding for medical education in Georgia must be increased to support expanded capacity in Georgia's medical schools and continued diversification of our graduate medical education programs to ensure they train the various specialists the state needs. Increases will be needed to keep pace with the population and economic growth of Georgia, as well as to meet the lingering needs for certain primary care specialties and the growing demand for certain sub-specialists.

Maintain a Focus on Family Practice

The current successes identified with Family Physicians in Georgia are the result of considerable efforts made by state leaders over the years. Due to thoughtful intervention throughout the 70s, 80s and 90s, Georgia has seen important growth in this workforce and now has an effective distribution of these physicians throughout the state. Thus, states can witness positive change through thoughtful application of resources.

However, there have been recent drops in the ratio of Family Physicians to Georgia's population. Family Physicians represent the backbone of the physician workforce. They have demonstrated a great ability to spread evenly throughout the state and are critical to ensuring adequate physician coverage throughout the state. Therefore, Georgia must maintain its effort to support this component of the workforce in future years, through continued, careful intervention, including:

- Continuing to support the residency programs that produce Family Practice physicians.
- Fully covering any Family Practice programs that are currently operating without full support.
- Expanding support to cover any new programs that may develop in future years.

Ensure Practice in Underserved Areas

Four of the five primary care specialties continue to show problems with distribution, particularly Pediatrics and OB/GYN, which disproportionately affects rural Georgia. The GBPW and other agencies have actively encouraged practice in underserved and rural areas. However, resources provided for this purpose should be increased and other ways developed to encourage effective distribution. At a minimum, state leaders should:

- Maintain support for the education financing and debt service programs run by the state. These programs provide financing to physicians in return for service in rural Georgia.
- Expand support for these programs when possible.
- Continue tax credits that encourage practice in rural Georgia.
- Continue to build physician matching programs, such as the State Medical Fair and the GBPW physician matching service that assist physicians in finding placement in communities statewide.
- Support research to understand the factors that discourage rural practice and develop new programs that encourage greater numbers of physicians to practice in rural Georgia.

Increase Diversity of the Workforce

Georgia has achieved some success in diversifying its physician workforce. However, the diversity of the state's population continues to grow and the state continues to be challenged in this area. Ultimately, the workforce must reflect the diverse population that it serves. While this issue is challenging, there are important steps that should be taken to support increasing diversity in the workforce:

- Work with appropriate institutions and agencies to develop a comprehensive response to this issue.
- Explore ways to account for growing linguistic barriers emerging in Georgia, starting with the growing need for Spanish in the physician workplace.
- Research the forces that impede the growth of diversity in this workforce, and develop responses that account for any identified barriers.

Address Marketplace Concerns

Attracting doctors to practice here is vital if Georgia is to overcome physician shortages. Dynamics currently at work in the medical marketplace and education system decrease the attractiveness of a medical career and practice in Georgia. Clearly the state must address the problems with medical malpractice insurance, reimbursement rates and the indebtedness of physicians exiting the medical education system. Therefore, at a minimum, state leaders should:

- Maintain support for the education financing and debt service programs run by the state. These programs provide financing to physicians in return for service in rural Georgia.

- Expand supports for these programs when possible.
- Implement a general debt-servicing program for physicians interested in practicing in the state.
- Limit the cuts for Medicaid reimbursements for physician services, and restore reimbursement rates when possible.
- Deliver effective relief from rising malpractice insurance premiums. Efforts to reform tort law in Georgia have been raised in recent years. Many of these efforts enjoy wide support and deserve implementation.
- Work with partners to reduce negative market pressures confronting physicians. Examples of this might include reducing paperwork burdens, increasing the control physicians have over the time they share with their patient and increasing economies of scale of small physician practices through new partnerships.

Promote Increased Physician Productivity

With drops in the average work-effort of future physicians anticipated, ways must be found to increase efficiency. Doing this will increase the impact new physicians have, even as the overall work-effort of the workforce declines. Done to a sufficient extent, increasing physician efficiency can counter these anticipated declines. Based on the relevant information included in this report, state leaders should strongly consider:

- Assessing technologies now coming to market that decrease the burden of the clerical aspects of medicine, including electronic medical records, telemedicine and other issues.
- Building partnerships to enable physician groups and other providers to capitalize on their strengths and account for their individual limitations.

Expand Research Capacity

Because of the vision of state leaders, Georgia enjoys a well established and effective system to assess its need for physicians and develop required responses. Through the GBPW, the state has an accurate picture of the capacity of its workforce and is empowered to make effective and thoughtful responses. Yet, the complexities of this workforce, and the growing need for the state to effectively manage it, require increased analytical capacity. The GBPW must expand its research capabilities to ensure that it has the skills required to address emerging research and analysis needs. At a minimum, the state should:

- Expand the resource base of the GBPW, through expanded support from state sources and new partnerships with the private sector.
- Through needs assessment and dialogue with all partners in the medical landscape, develop a long-term research strategy on the big issues in medical practice as well as the capacity needs of the GBPW.

It takes many years to train a doctor and a substantial investment in resources to ensure that doctors practice in Georgia in a location and specialty that best meets Georgia's needs. The total costs for educating and retaining a physician are substantial. Yet, the costs of not doing so, and of letting Georgia's physician workforce decline, far outweigh these considerations. True, money, energy, time, and other costs must be expended to do this, but clearly Georgia gets much in return from this support. Touching the lives of the nearly nine million who call Georgia home, the contributions made by physicians to life in Georgia are immense. This clearly makes Georgia's physician workforce a worthwhile investment. No reasonable effort that ensures physicians are there for all of citizens of the state, when and where they are needed, should be overlooked.

REFERENCES

Alliance for Aging Research. "Ageism: How Healthcare Fails the Elderly."

Alliance for Aging Research. "Medical Never-Never Land: Ten Reasons Why America is Not Ready for the Coming Age Boom." February 2002.

Association of American Medical Colleges. "Medical School Tuition and Young Physician Indebtedness." March 23, 2004.

American Medical Association. 1996 Physician Characteristics and Distribution in the U.S., 1995-1996. Chicago.

GME Newsletter. "Fear Factor: Malpractice Crisis Steering Students away from High-Risk Specialties, States." January 2004.

American Medical Association. 2004 Physician Characteristics and Distribution in the U.S., Dept. of Physician Practice and Communications Information, Division of Survey and Data Resources. 2003-2004.

American Osteopathic Association. 1993. 1994 Yearbook and Directory of Osteopathic Physicians. Chicago.

AMNews Editorial. "Physician Supply: Evaluating the Need for More Doctors." www.amednews.com. January 19, 2004.

Baicker, Katherine and Chandra, Amitabh. "Medicare Spending, The Physician Workforce, and Beneficiaries' Quality of Care." Health Affairs. April 7, 2004.

Blumenthal, David, M.D., M.P.P. "New Steam from an Old Cauldron – The Physician Supply Debate." The New England Journal of Medicine. Health Policy Report, Vol. 350:1780-1787, No. 17, April 22, 2004.

Carroll, L. Natalie, M.D. and Allison-Ottey, Sharon, M.D. "The Joy is Gone – Results of the NMA/Gallup Survey of African-American Physicians." Journal of the National Medical Association. Vol. 96, No. 4, April 2004.

Center for Health Workforce Studies, School of Public Health, University at Albany. "Health Care Employment Projections: An Analysis of Bureau of Labor Statistics Occupational Projections, 2000-2010." January 2002.

Center for Health Workforce Studies, School of Public Health, University at Albany. "Health Care Employment Projections: An Analysis of Bureau of Labor Statistics Occupational Projections, 2002-2012." March 2004.

Chaker, Anne Marie. "Many Sectors Are Adding Jobs: Where to Find Them." The Wall Street Journal Online. March 18, 2004.

Cooper, Richard A. M.D., *et al*. "Perceptions of Medical School Deans and State Medical Society Executives About Physician Supply." JAMA. Vol. 290, No. 22, December 10, 2003.

Cooper, Richard A., *et al.* "Economic and Demographic Trends Signal an Impending Physician Shortage." Health Affairs. Vol. 21, No. 1.

The Council on Graduate Medical Education. "Physician Workforce Policy Guidelines for the U.S. 2000-2020." November, 2003 – Draft Copy.

Council of State Governments Health Policy Forum. "Medical Innovation & the Aging of America." October 18-20, 2001.

Croasdale, Myrle. "Aging Population Creating Higher Demand for Surgery." www.amednews.com. August 25, 2003.

Croasdale, Myrle. "Family Medicine Sees Better Match." www.amednews.com. April 5, 2004.

Croasdale, Myrle. "Federal Advisory Group Predicts Physician Shortage Looming." www.amednews.com. November 3, 2003.

Croasdale, Myrle. "Pediatrician Supply Could Outstrip Demand." www.amednews.com. April 5, 2004.

Croasdale, Myrle. "Practices Must Cope as More Physicians Work Part-Time Hours." www.amednews.com. October 21, 2002.

Elliott, Victoria Stagg. "Physician Shortage Predicted to Spread." www.amednews.com. January 5, 2004.

Finklestein, Joel. "Low Pay Hurts Medicaid Access to Specialists." www.amednews.com. July 26, 2004.

Fuchs, Victor and Sox, Harold C. "Physicians' View of the Relative Importance of Thirty Medical Innovations." Health Affairs. Volume 20. Number 5.

Georgia Board for Physician Workforce. "Physician Supply and Demand Indicators in Georgia – A Survey of Georgia's GME Graduates Completing Training in June 2003." April 2004.

Georgia Board for Physician Workforce. "Physician Workforce 2000." August 2001.

Georgia Department of Community Health. "State Fiscal Year 2002 Annual Report."

Georgia Department of Labor. "Georgia Occupational Trends in Brief – Projections to 2010."

Graduate Medical Education National Advisory Committee Summary Report. 1981. Pub. No. (HRA) 81-651. Washington: Government Printing Office.

Gray, Beverly. "Mercer Doctors Working to Fulfill Mission in Georgia's Underserved Areas." The Macon Telegraph. September 30, 2002.

Greene, Jan. "Ire over Medicare, Medicaid." Hospitals and Health Networks. April 2002, Vol. 76, Issue 4.

Greene, Jay. "New Doctors Prefer to Practice in Cities." www.amednews.com. August 20, 2001.

Grumbach, Kevin. "Fighting Hand to Hand Over Physician Workforce Policy." Health Affairs (www.healthaffairs.org/freecontent/v21n5/s6.htm) September/October 2002.

Hart, L., E. Wagner, J. Parzada, A. Nelson, and R. Rosenblah. "1997 Physician Staffing Ratios in Staff- Model HMO's: A Cautionary Tale." Health Affairs 16, no. 1:55-70.

Hawryluk, Markian. "Panel Predicts Medicare Pay Cuts as Crunch Looms for 2006." AMNews staff. April 12, 2004.

Hawryluk, Markian. "Lawmakers Ask for CMS Help in Raising Medicare Doctor Pay." AMNews staff. May 3, 2004.

Health Resources and Services Administration, Bureau of the Health Professions. "The Georgia Workforce: Highlights from the Health Workforce Profile." Published 2004.

Henderson, Tim M., "Medicaid Direct and Indirect Graduate Medical Education Payments: A 50-State Survey." Association of American Medical Colleges. December 2003.

Jolly, Paul, Ph.D. "Medical School Tuition and Young Physician Indebtedness." Association of American Medical Colleges. March 23, 2004.

Kronick, R., D.C. Goodman, J. Wennberg, and E. Wagner. 1993. "The Marketplace in Health Care Reform: The Demographic Limitations of Managed Competition." New England Journal of Medicine. 328:148-152. See also, related NAPS Document 04998 Vansdow, N.A. The Physician Workforce: Issues for Academic Medical Centers. Forum on the Future of Academic Medicine. December 2, 1996.

Landers, Susan J. "Advances Rated by Value to Patients." AMNews staff. September 24, 2001.

Landers, Susan. J. "Cancer Detection Revolution." AMNews staff. July 12, 2004.

The Lewin Group. "Comparing Physician and Dentist Fees Among Medicaid Programs." June 2001.

MAG Mutual. "Georgia Tort Reform: Facts and Data." March 1, 2004.

McClendon, B., R. Polizer, E. Christain, and E. Fernandez. 1197. "Downsizing the Physician Workforce." Public Health Reports. May/June 112:231-239.

Medical Association of Georgia, Public Payer Advocacy Office. "Every Patient Deserves a Doctor: Improving Access to Care for Medicaid Patients in Georgia, An Argument for Improving Physician Medicaid Payments." January 3, 2004.

Merritt, Hawkins & Associates. "2004 Survey of Physicians 50-65 Years Old – Summary Report Based on 2003 Data." www.merritthawkins.com. Spring 2004.

Merritt, Hawkins & Associates. "2003 Survey of Final-Year Medical Residents – Summary Report." www.merritthawkins.com. Spring 2003.

Merritt, Hawkins & Associates. "2003 Review of Physician Recruitment Incentives." www.merritthawkins.com. Summer 2003.

National Center for Health Statistics. "2003 Fact Sheet - Deaths, Age-adjusted Death Rates, and Comparisons by State for Selected Leading Causes of Death." www.cdc.gov/nchs/pressroom/03facts/mortalitytables.htm . September 25, 2003.

National Rural Health Association. "Physician Recruitment and Retention." www.nrharural.org/dc/issuepapers/ipaper13.html. November 1998.

Newbourne, Ellen. "Looking for Job Leverage? Ten Careers With an Edge." The Wall Street Journal Online. March 29, 2004.

Norbut, Mike. "Procedural Shift: Cardiac Care Refocuses on Less Invasive Process." AMNews staff. December 1, 2003.

Page, Leigh. "A Century of Great Progress in Medicine." AMNews staff. January 3, 2000.

Reinhardt, Uwe E. "Dreaming the American Dream: Once More Around On Physician Workforce Policy." Health Affairs. (www.healthaffairs.org/freecontent/v21n5/s7.htm). September/October 2002.

Salsberg, Edward. "Making Sense of the System: How States Can Use Health Workforce Policies to Increase Access and Improve Quality of Care." A co-publication of the Millbank Memorial Fund and the Reforming States Group www.millbank.org. September 2003.

Sherman, Frederick, M.D. "Baby Boomer Senators Must Face Their Own Dismal Future." Geriatrics. September 2003. Volume 58, Number 9.

Steinwachs, D., J.P. Weiner, S. Shapiro, et al. 1986. "A Comparison of the Requirements for Primary Care Physicians in with Projections Made by the Graduate Medical National Advisory Committee." New England Journal of Medicine. 314:217-222.

Tripp Unbach Healthcare Consulting. "The Economic Impact of Medical College and Teaching Hospital Members of the Association of American Medical Colleges (2002)." Association of American Medical Colleges. November 2003.

U.S. Department of Commerce, Bureau of the Census, Population Estimates Division. "Annual Estimates of the Population for Counties of Georgia: April 1, 2000 to July 1, 2003 (CO-EST2003-01-13)." Release Date: April 9, 2004.

U.S. Department of Commerce, Bureau of the Census, Population Estimates Division. "United States, Regions, States, and Puerto Rico Population Estimates and Population Change." Release Date: December 18, 2004.

U.S. Department of Commerce, Bureau of the Census, Population Estimates Division. "Annual Estimates of the Population by Sex and Age for Georgia: April 1, 2000 to July 1, 2003 (SC-EST2003-02-13)." Release Date: September 30, 2004.

U.S. Department of Commerce, Bureau of the Census, Population Estimates Division. "Profile of General Demographic Characteristics: 2000." Last Revised: July 9, 2004.

Weiner, J.P. 1994 "Forecasting the Effects of Health Reform on U.S. Physician Workforce Requirement." JAMA. 272, no. 3:222-230.