

Georgia's Physician Workforce*

Primary Care/Core Specialties.

*Based on the 2010 Licensure Data



Georgia Board for Physician Workforce
State of Georgia
June 2014

Executive Summary

The 2010 Physician Workforce Profile marks the 24th year the Georgia Board for Physician Workforce (GBPWF) has examined the supply and distribution of Georgia's physicians using data from license renewals. The physician data is analyzed by the GBPWF and the resulting information is then reported on a biennial basis. This information is important in determining trends in workforce patterns (i.e. demographics, specialty, and geographical location) and to better assess the healthcare needs of Georgia's citizens

Between 2008 and 2010, Georgia's physician workforce experienced a gain in number of both primary care/core specialties (family medicine, internal medicine, pediatrics, OB/GYN, and general surgery), and specialists. In 2010, there was a larger percentage of the workforce in specialized categories.

- Between 2000 and 2010, the population in Georgia increased 18.3%
- The overall rate of physician increase was 26.0% between 2000 and 2010 (slightly higher than the population increase). The rate of increase for physicians in the five primary care/core specialties was 21.6%. The rate of increase of specialist physicians was 35.9% during the ten year period
- All primary care/core specialty physicians gained in number between 2008 and 2010, although the rate per 100,000 population decreased for pediatrics, OB/GYN, and general surgery. The rate of family medicine and internal medicine increased slightly
- The percentage of specialty physicians was at its highest in 2010
- In 2010, the rates of physicians in Metropolitan Statistical Areas (MSAs) were higher than in Non-Metropolitan Statistical Areas (Non-MSAs) in all of the primary care/core specialties except for family medicine
- Over half (52.3%) of all Georgia's physicians are located in five Primary Care Service Areas (PCSAs). These five PCSAs represent 37.0% of the state's population

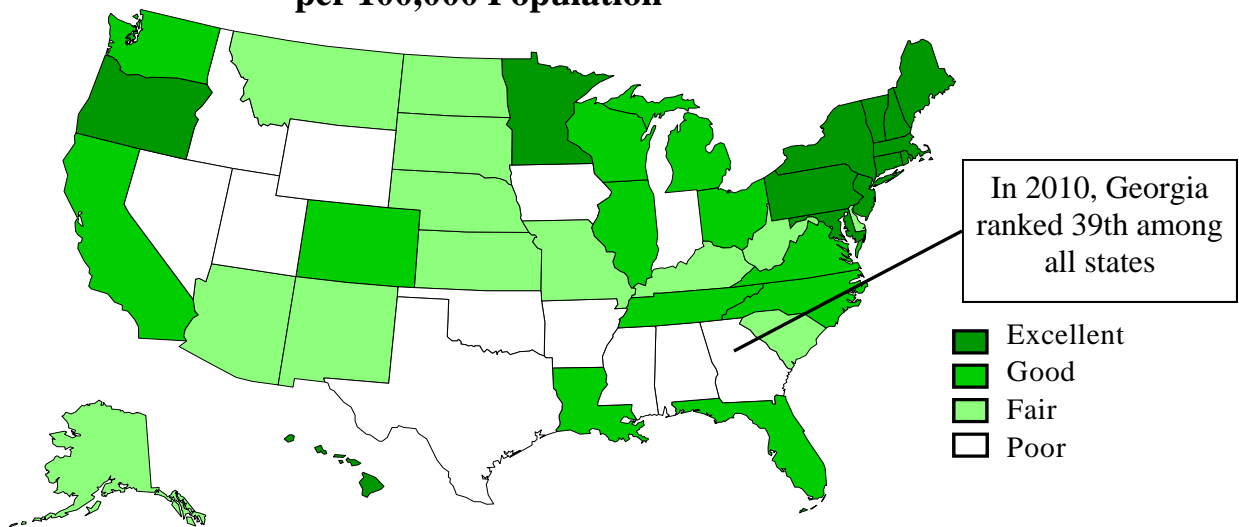
Physician workforce demographics are important to note as research has concluded that demographics play an important role in geographic distribution and hours worked per week.

- Pediatrics had the highest percentage of female physicians. This is the only specialty where females constitute >50% of the workforce. Surgical specialties have the lowest percentage of females in the workforce. Females comprise 8.0% of the general surgery workforce
- The percentage of white physicians has decreased steadily from 1998 to 2010. The percentage of Asian physicians rose in 2010 for the first time since 2006
- The physician workforce is aging. In 2010, 52.7% of the physician workforce was 50 and over. In comparison, 33.8% of the workforce was 50 and over in 2000
- Of the five primary care/core specialties, general surgery had the largest percentage (42.6%) of physicians age 55 and over. Family medicine had the second highest percentage of physicians 55 and over with 38.4%
- Pediatrics had the youngest cohort of physicians with 7.0% being less than 35 years old.
- There was an increase in the percentage of physicians accepting Medicaid and Medicare between 2008 and 2010. Also, there was an increase in the percentage of physicians accepting new Medicaid and new Medicare patients. More than one-third, 32.7%, of the workforce are not accepting new Medicaid patients

PHYSICIAN PROFILE

2010

**Distribution of Physicians, U.S. 2010
per 100,000 Population***

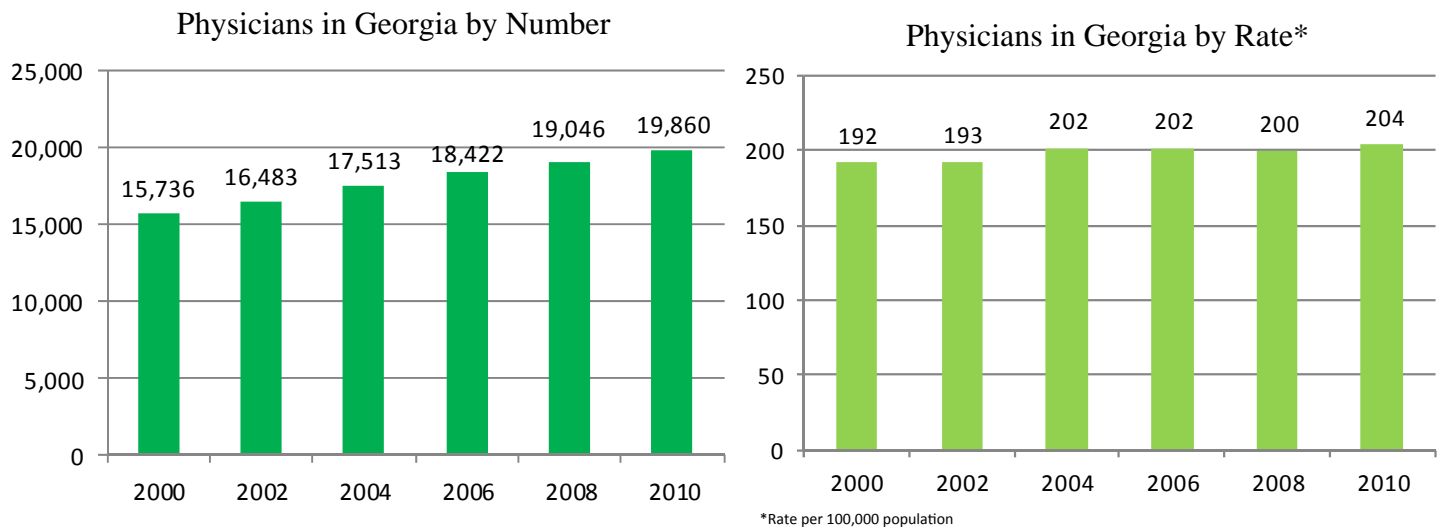


Monitoring the supply and distribution of physicians by specialty and geographic location provides beneficial information to: (1) determine funding for graduate medical education, (2) identify areas of need, and (3) plan for health services. This latest workforce analysis indicates continued problems with physician distribution. For example, some areas of the state have an adequate or surplus supply of certain primary care physicians while other areas have a deficit.

There have been major changes in the growth of the population and of the physician workforce. Between 2000 and 2010, Georgia's population increased by 18.3%. The rate of physician increase during the same years was 26.0% (slightly higher than the population increase). To illustrate how Georgia compares to the nation, Georgia's physician rate per 100,000 population was 204 for 2010 and the national rate was 314 physicians per 100,000 population.*

*Source: American Medical Association, *Physician Characteristics and Distribution in the U.S. 2012 Edition, 2010*. Rankings are quartiled. Does not include District of Columbia

Physician Supply in Georgia 2000-2010



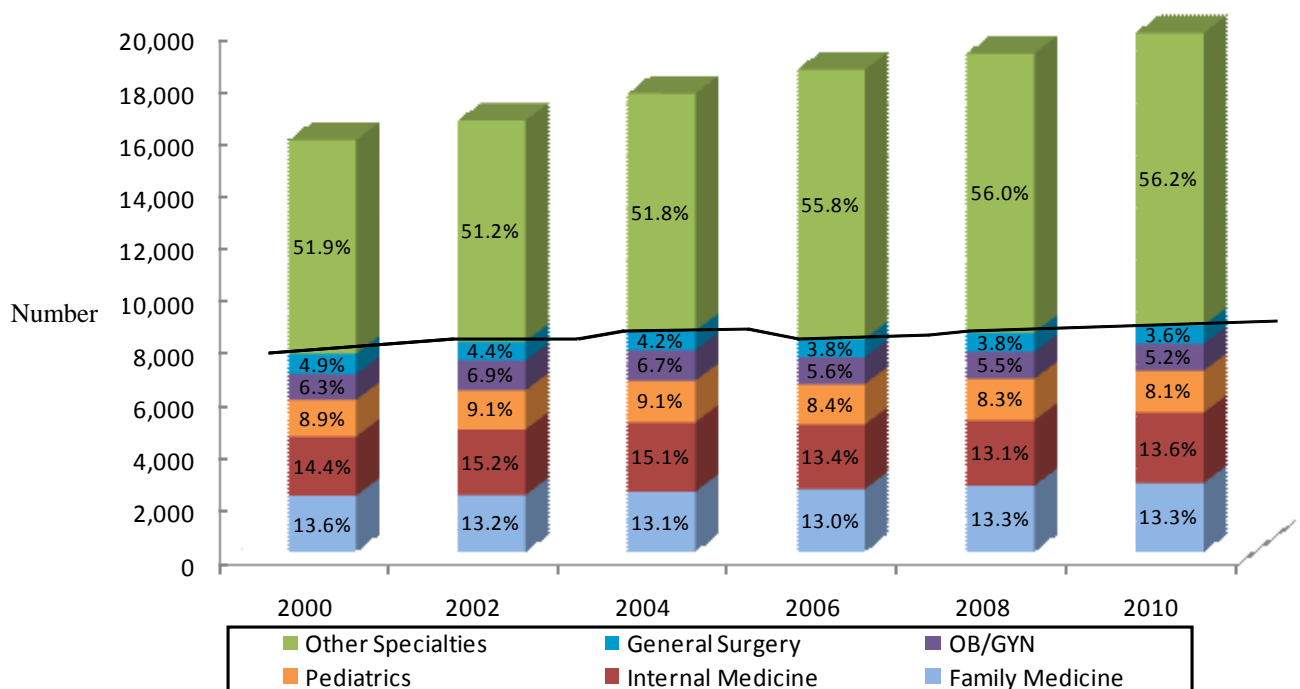
PHYSICIAN SPECIALITIES IN GEORGIA

Georgia Board for Physician Workforce 2008-2010
Selected Specialties by MSA/Non MSA Designation

Specialty	2008				2010			
	MSA		Non-MSA		MSA		Non-MSA	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Family Medicine	1,960	25.3	564	31.6	2,056	26.2	573	31.1
Internal Medicine	2,149	27.7	351	19.7	2,350	29.9	343	18.6
Pediatrics	1,424	18.4	159	8.9	1,449	18.5	129	8.1
OB/GYN	907	11.7	134	7.5	900	11.5	149	7.0
General Surgery	606	7.8	124	7.0	594	7.6	121	6.6

Generalists vs. Specialists:

- Other specialties achieved its highest percentage during the duration of studying Georgia's workforce, at 56.0%, in 2010
- Rates per 100,000 population for family medicine and internal medicine increased in 2010. The rates for pediatrics, OB/GYN, and general surgery all decreased between 2008 and 2010
- The percentage of "other specialties" decreased slightly from 2000 to 2002. There was a 5.0% increase between 2002 and 2010
- The percentage of generalists continued to decrease. It decreased from 48.1% in 2000 to 43.8% in 2010



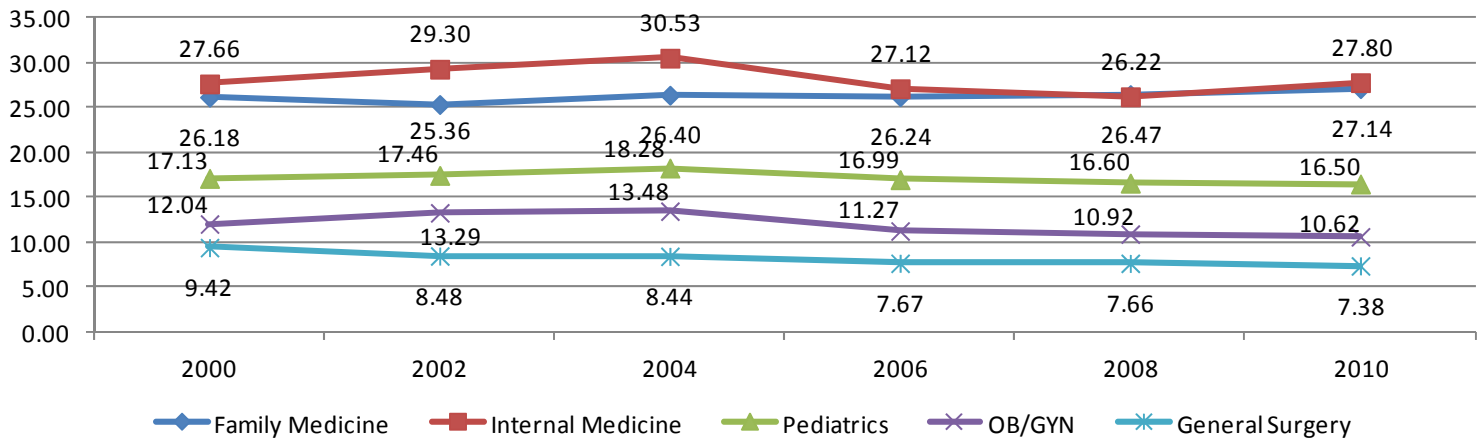
**Georgia Physician Workforce:
Total Physicians by Specialty and Rate*, 1998-2010**

Specialty	1998	2000	2002	2004	2006	2008	2010
Allergy & Immunology	0.83	0.87	1.24	1.31	0.98	1.04	1.04
Anesthesiology	9.84	9.56	8.93	9.52	9.06	8.95	9.47
Cardiovascular Diseases	4.83	4.73	4.28	4.75	6.74	6.79	6.96
Cardiovascular Surgery	0.89	0.57	0.67	0.72	0.96	1.02	1.73
Dermatology	2.94	2.98	2.88	3.16	3.01	2.94	3.02
Emergency Medicine	8.41	8.94	8.81	9.62	9.61	9.66	9.98
Endocrinology	0.86	0.77	0.80	0.89	1.44	1.30	1.32
Family/General Practice	26.52	26.18	25.36	26.40	26.24	26.47	27.14
Gastroenterology	2.55	2.65	2.10	2.38	3.60	3.68	3.87
General Surgery	9.26	9.42	8.48	8.44	7.67	7.66	7.38
Gynecology	2.66	2.23	1.41	1.26	2.89	2.94	2.86
Infectious Disease	1.32	1.20	1.56	1.71	2.26	2.21	2.24
Internal Medicine	25.79	27.66	29.30	30.53	27.12	26.22	27.80
Neonatal-Perinatal Medicine	0.23	0.31	0.71	0.86	1.25	1.36	1.43
Nephrology	1.41	1.28	1.43	1.70	2.62	2.63	2.74
Neurological Surgery	1.53	1.34	1.39	1.48	1.50	1.37	1.45
Neurology	3.35	3.19	3.22	3.48	3.31	3.42	3.39
Obstetrics/ Gynecology	11.82	12.04	13.29	13.48	11.27	10.92	10.62
Oncology	1.57	1.58	1.75	2.08	2.57	2.57	2.64
Ophthalmology	4.92	4.75	4.64	4.67	4.70	4.68	4.70
Orthopedic Surgery	7.20	6.79	6.89	7.04	7.47	7.22	7.30
Otorhinolaryngology	3.02	3.11	2.88	3.12	3.07	3.07	3.06
Pain Medicine	Not Listed	0.17	0.79	0.79	1.24	1.32	1.37
Pathology (all Pathologists combined for 2006, 2008, 2010)	4.41	4.51	4.43	4.55	3.80	3.79	4.61
Pediatrics	16.75	17.13	17.46	18.28	16.99	16.60	16.50
Physical Medicine & Rehabilitation	1.45	1.45	Not Listed	0.28	1.40	1.32	1.40
Plastic Surgery	1.87	1.82	2.13	2.31	2.29	2.37	2.18
Psychiatry	11.04	11.14	10.45	10.53	11.15	11.07	10.95
Public Health	1.52	1.16	0.80	0.86	1.25	1.24	0.54
Pulmonary Diseases	1.92	1.92	1.67	1.89	2.92	2.86	2.95
Radiology (Diagnostic Radiology & Radiology combined)	8.97	9.10	8.32	8.50	8.60	8.63	9.03
Rheumatology	0.76	0.75	0.60	0.72	0.96	0.87	1.05
Therapeutic Radiology	0.86	0.67	1.06	1.09	1.40	1.34	1.23
Thoracic Surgery	0.42	0.43	1.08	1.08	0.74	0.72	0.45
Urological Surgery	3.42	3.04	3.06	2.97	3.04	3.05	2.76
State Total**	193	192	193	202	202	200	204

*Rate per 100,000 population

** All Physicians

Physician Rates by Primary Care/Core Specialties: 2000-2010



DEMOGRAPHICS:

Figure 13: Georgia Physicians Accepting Medicaid Patients and New Medicaid Patients, 2010

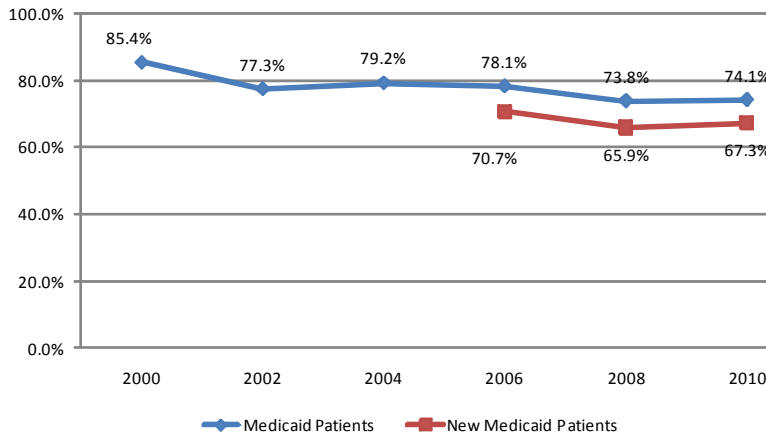
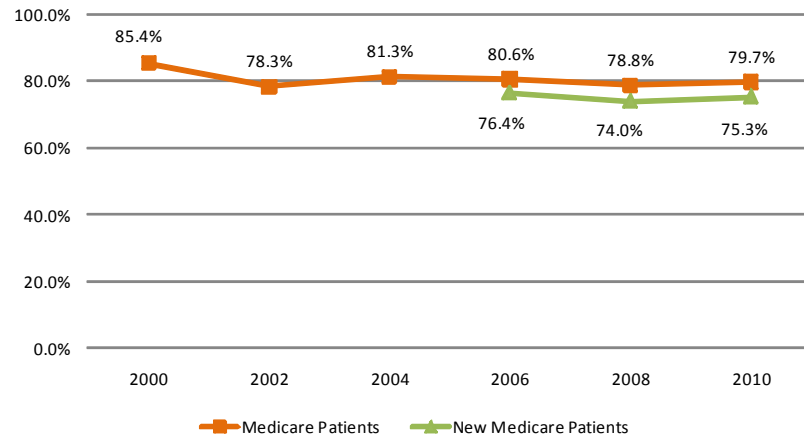
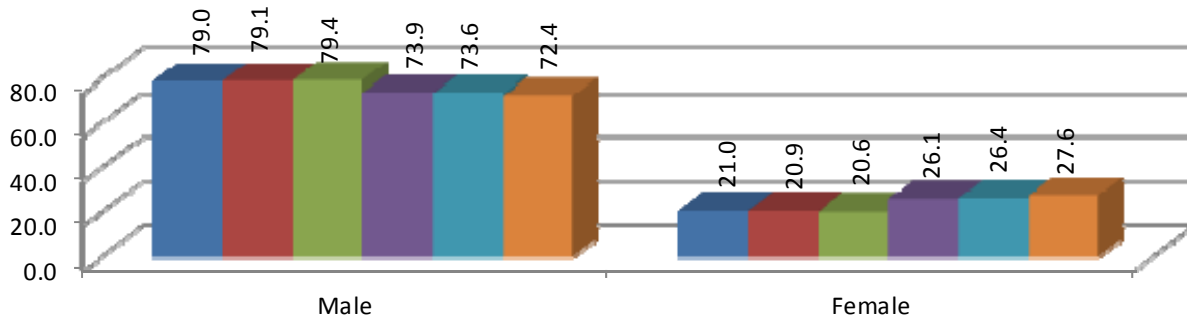


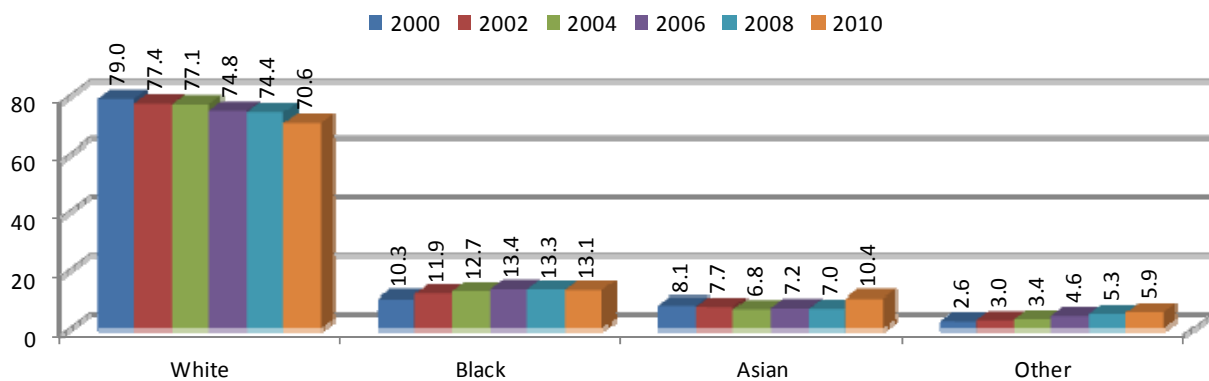
Figure 14: Georgia Physicians Accepting Medicare Patients and New Medicare Patients, 2010



Gender:



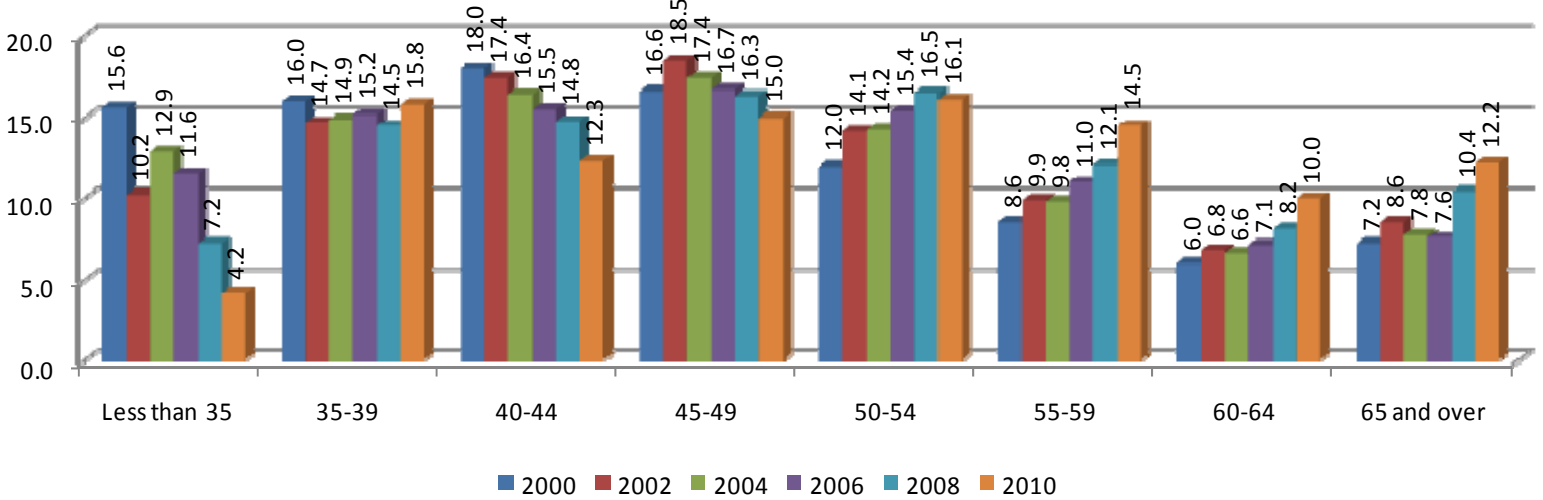
Race:



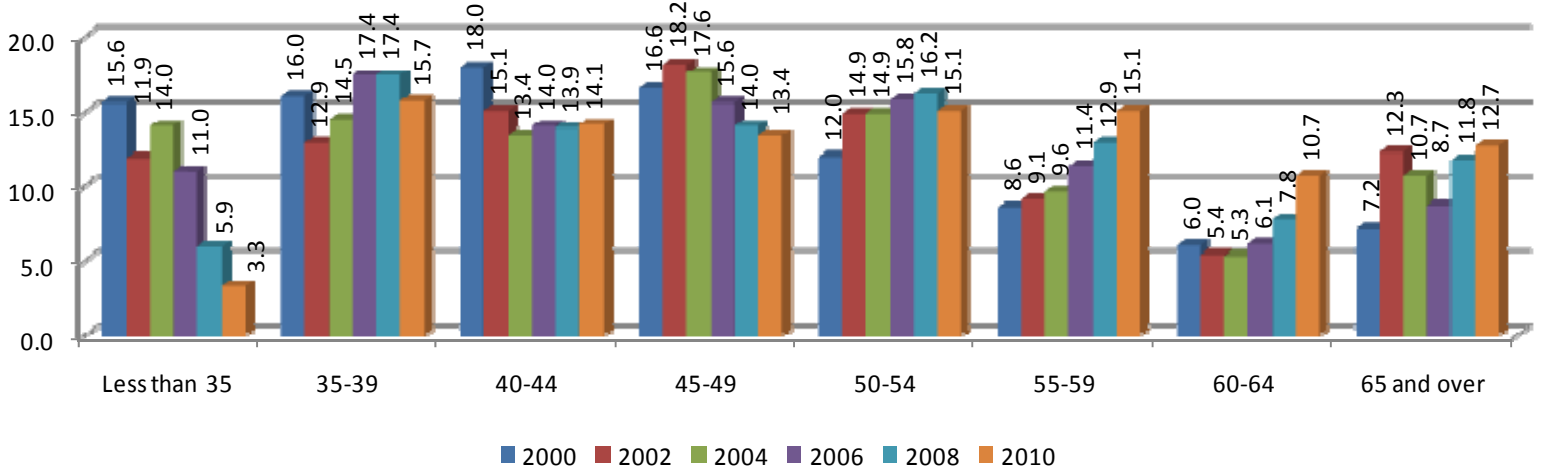
DEMOGRAPHICS

Distribution by Age and Specialty

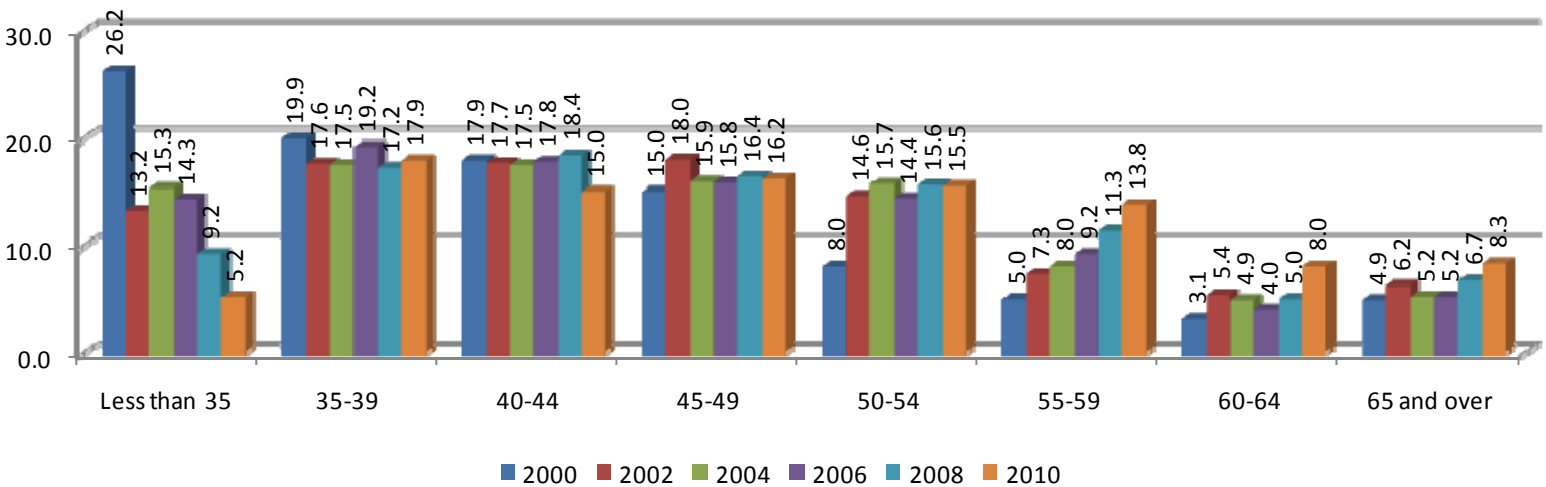
TOTAL PHYSICIANS



FAMILY MEDICINE



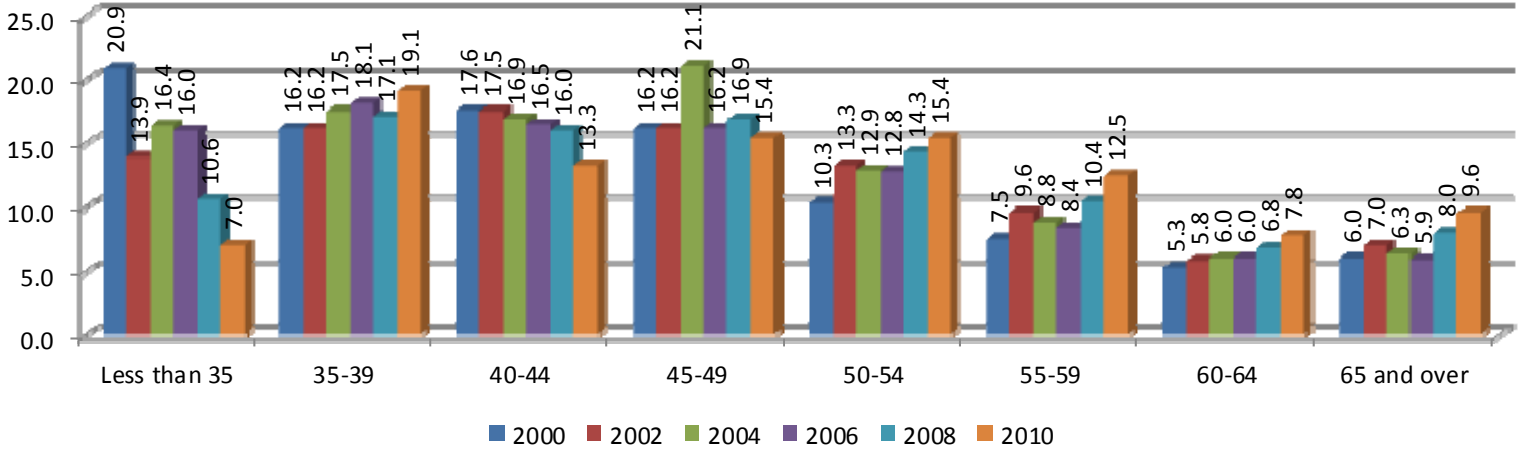
INTERNAL MEDICINE



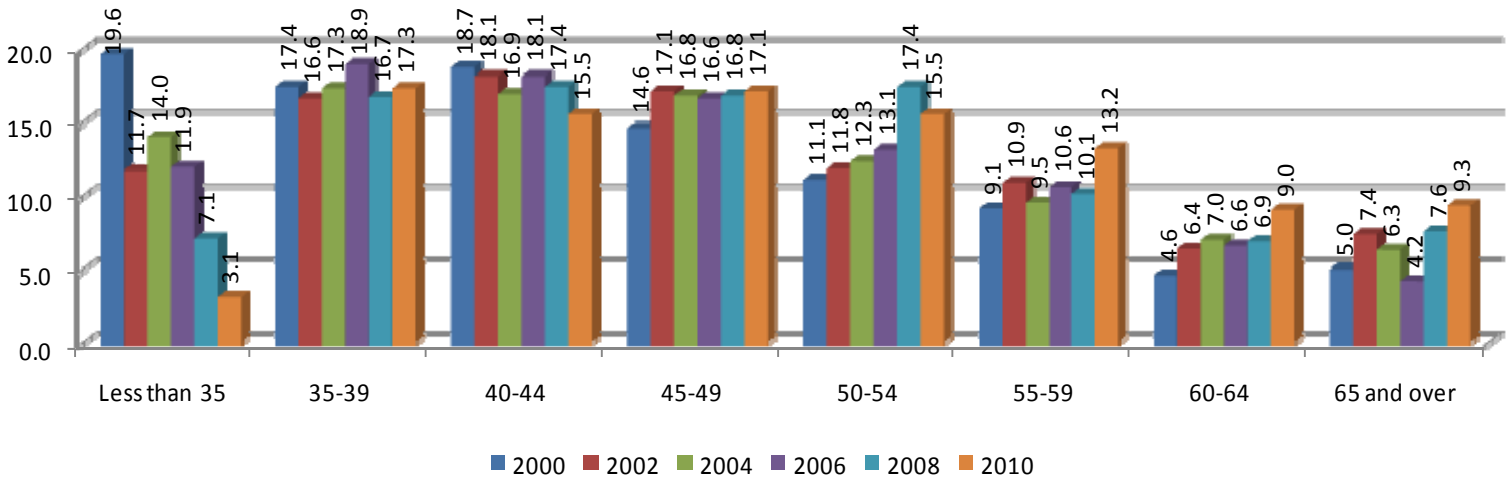
DEMOGRAPHICS

Distribution by Age and Specialty

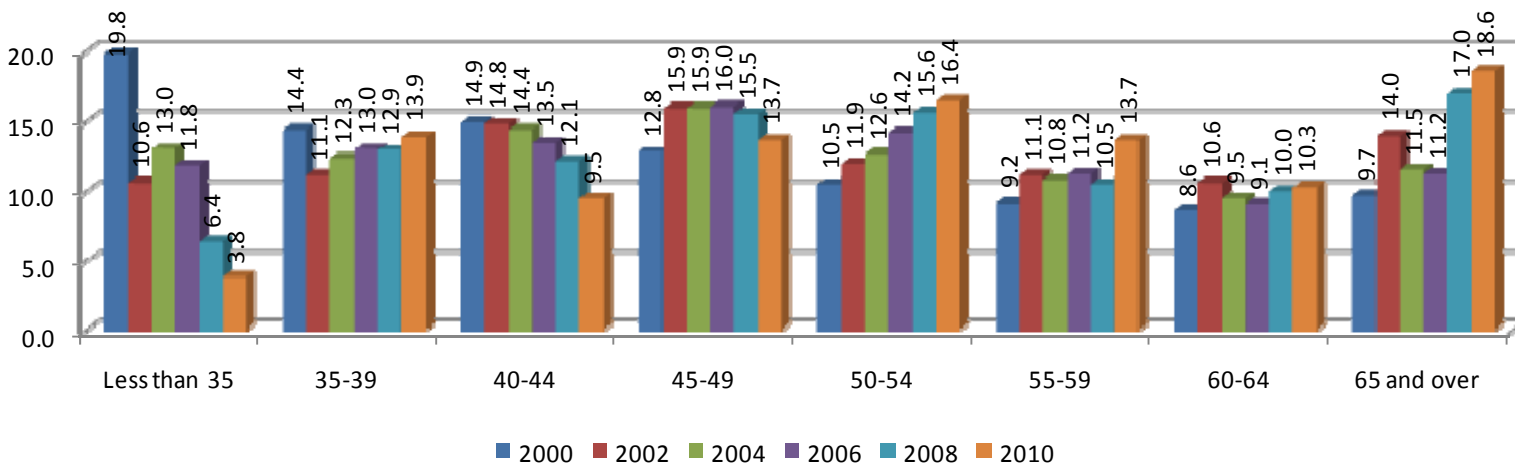
PEDIATRICIANS



OB/GYN



GENERAL SURGERY



FAMILY MEDICINE PROFILE-2010

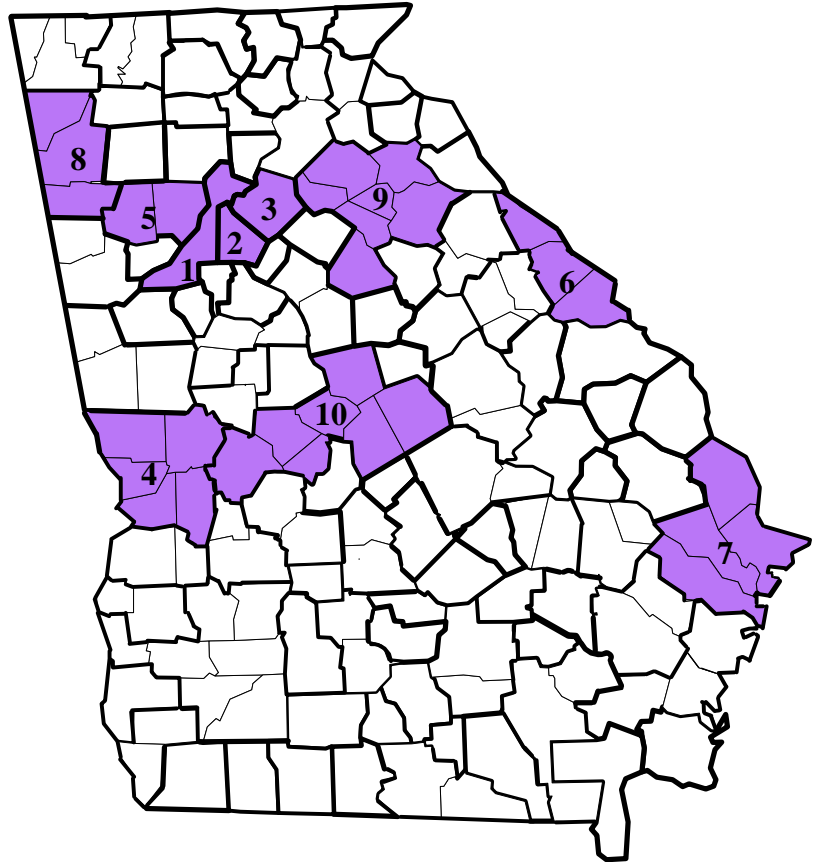
TOP 10 PRIMARY CARE SERVICE AREAS (PCSAs) BY NUMBER OF FAMILY MEDICINE PHYSICIANS

RANK*

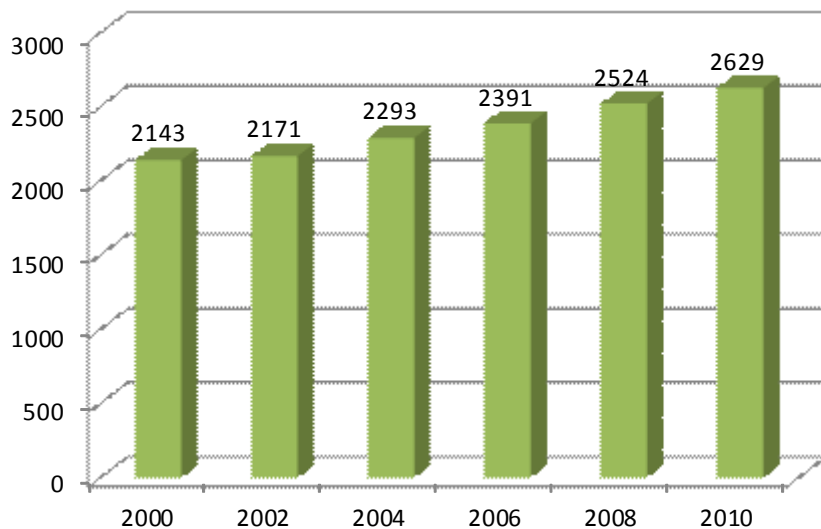
1. Area 22: Fulton (256)
2. Area 23: DeKalb (195)
3. Area 25: Gwinnett (166)
4. Area 43: Chattahoochee, Harris, Marion, Muscogee, Talbot (156)
5. Area 21: Cobb, Paulding (150)
6. Area 31: Columbia, Lincoln, Richmond (147)
7. Area 52: Bryan, Chatham, Effingham, Liberty (118)
8. Area 18: Chattooga, Floyd, Polk (90)
9. Area 27: Barrow, Clarke, Jackson, Madison, Morgan, Oconee, Oglethorpe (87)
10. Area 46: Bibb, Crawford, Jones, Peach, Taylor, Twiggs, Wilkinson (86)

*Numbers correspond to rank

**Numbers in parenthesis represent the number of physicians



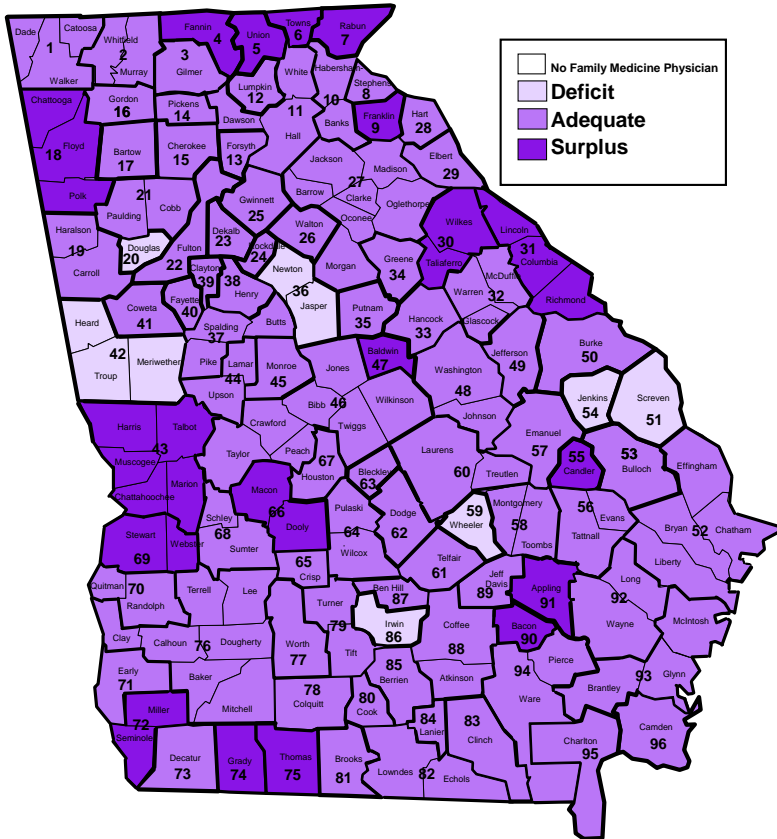
Family Medicine Physician Supply



- Between 2000 and 2010, the number of family medicine physicians in Georgia increased 22.7%
- In 2010, there was at least one family medicine physician in each PCSA
- The number of family medicine physicians has increased steadily since 2000
- The top 10 PCSAs for number of practicing family medicine physicians have all or most of the area located in a Metropolitan Statistical Area.

FAMILY MEDICINE

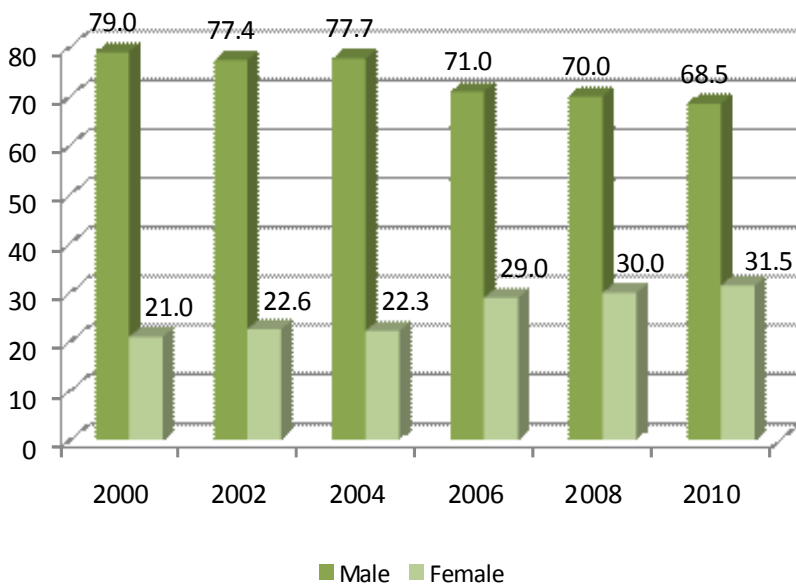
Family Medicine Physician Distribution - 2010 Deficit, Adequate, and Surplus PCSAs*



A PCSA (Primary Care Service Area) is categorized as deficit, adequate, or surplus based on the +/- 1 standard deviation of the Family Medicine Physician rate per 100,000 population in 2010

- In 2010, there were the same number of PCSAs with a physician deficit as in 2006 and 2008 (7)
- The top three areas of surplus were:
 - Area 5: Union
 - Area 6: Towns
 - Area 43: Chattahoochee, Harris, Marion, Muscogee, Talbot
- The bottom three areas of deficit were:
 - Area 36: Jasper, Newton
 - Area 86: Irwin
 - Area 20: Douglas
- The adequate range for family medicine physicians in PCSAs in 2010 (based on a +/- 1.0 standard deviation) is 14.3-39.9
- There are 71 PCSAs that have an adequate number of family medicine physicians, but geographic distribution continues to be a problem
- In 2010, there was a slight increase in the rate of family medicine physicians per 100,000

Family Medicine Physicians by Gender



Family Medicine Physicians by Gender, MSA/Non-MSA and Year (percent)

	Gender	2008	2010
MSA	Male	67.7	65.6
	Female	32.3	34.4
Non-MSA	Male	78.2	78.3
	Female	21.8	21.7

INTERNAL MEDICINE PROFILE-2010

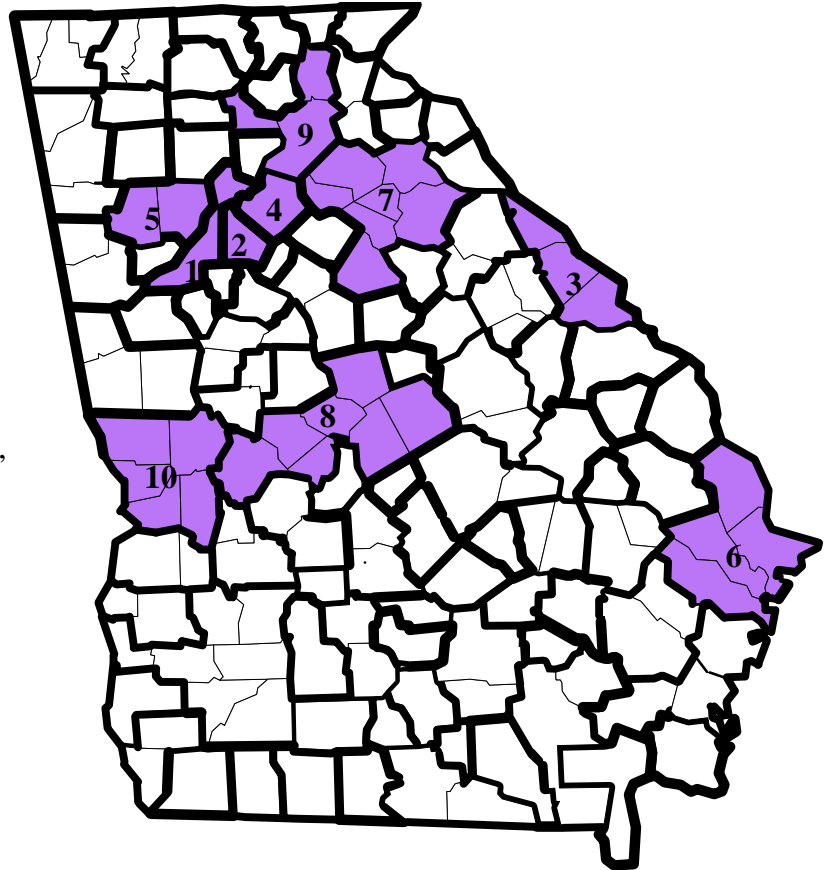
TOP 10 PRIMARY CARE SERVICE AREAS (PCSAs) BY NUMBER OF INTERNAL MEDICINE PHYSICIANS

RANK*

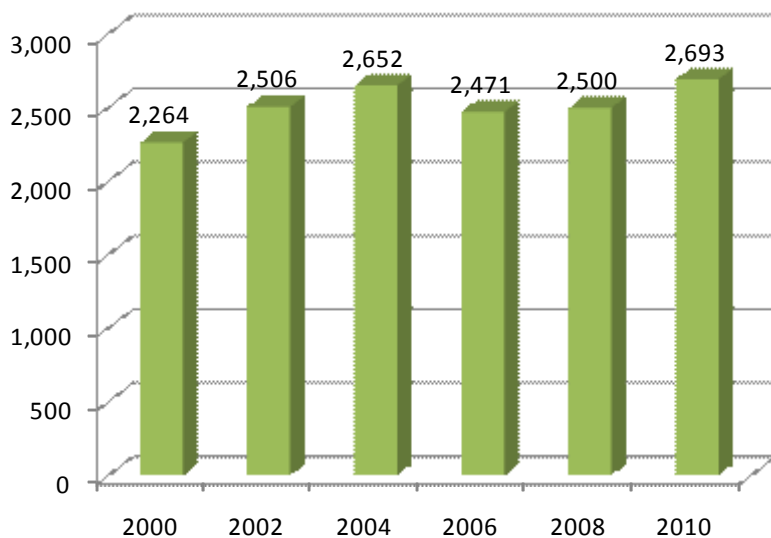
1. Area 22: Fulton (598)
2. Area 23: DeKalb (297)
3. Area 31: Columbia, Lincoln, Richmond (162)
4. Area 25: Gwinnett (160)
5. Area 21: Cobb, Paulding (156)
6. Area 52: Bryan, Chatham, Effingham, Liberty (104)
7. Area 27: Barrow, Clarke, Jackson, Madison, Morgan, Oconee, Oglethorpe (82)
8. Area 46: Bibb, Crawford, Jones, Peach, Taylor, Twiggs, Wilkinson (81)
9. Area 11: Dawson, Hall, White (71)
10. Area 43: Chattahoochee, Harris, Marion, Muscogee, Talbot (56)

*Numbers correspond to rank

**Numbers in parenthesis represent the number of physicians



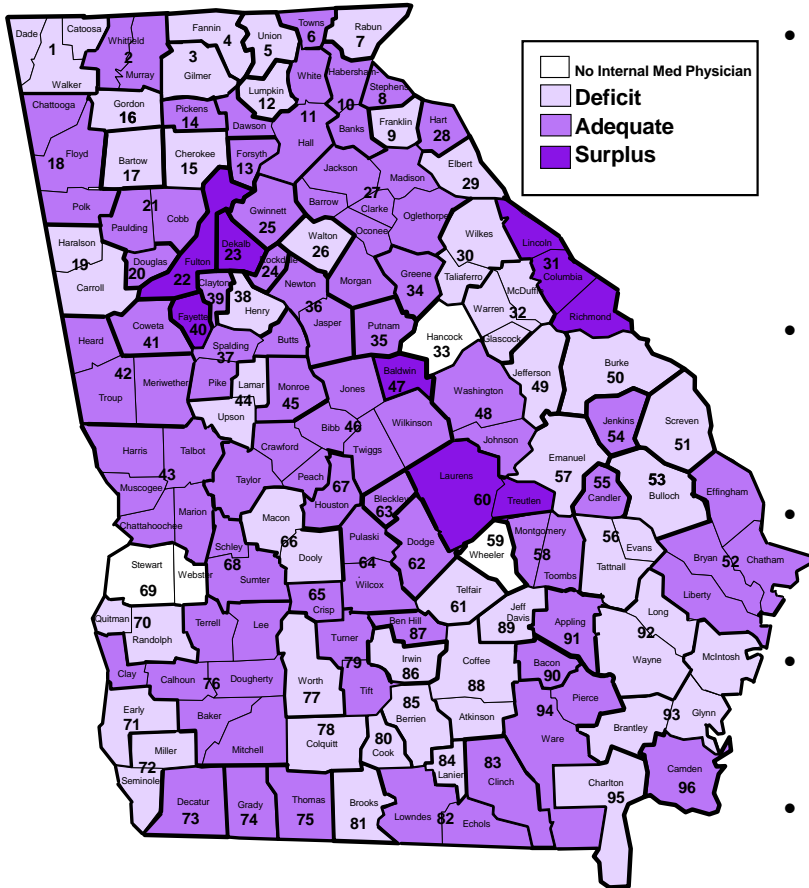
Internal Medicine Physician Supply



- Between 2000 and 2010, the number of internal medicine physicians in Georgia increased 18.9%
- In 2010, there were three PCSAs that had no internal medicine physicians in their region
- Internal medicine experienced an increase in the rate per 100,000 population in 2008 and 2010
- The top ten PCSAs for number of practicing internal medicine physicians have all or most of the area located in a Metropolitan Statistical Areas

INTERNAL MEDICINE

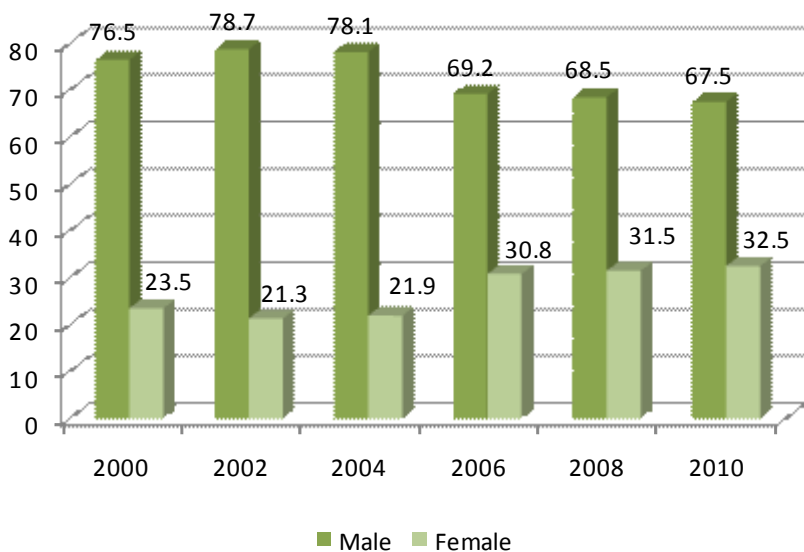
Internal Medicine Physician Distribution - 2010 Deficit, Adequate, and Surplus PCSAs*



- In 2010, 43 (44.8%) of Georgia's PCSAs were in the deficit category for internal medicine physicians.
 - Of those, three had no internal medicine physician. Those include the following counties: Hancock, Stewart, Webster, Wheeler
- The top three areas of surplus were:
 - Area 22: Fulton
 - Area 60: Laurens, Treutlen
 - Area 31: Columbia, Lincoln, Richmond
- The adequate range for internal medicine physicians in PCSAs in 2010 (based on +/- 1.0 standard deviation) was 17.2-38.4
- There were 47 PCSAs that had an adequate number of internal medicine physicians, compared to 55 in 2008.
- There were only 6 PCSAs that had a surplus number of internal medicine physicians in 2010, compared to 8 in 2008

A PCSA (Primary Care Service Area) is categorized as deficit, adequate, or surplus based on the +/- 1 standard deviation of the Family Medicine Physician rate per 100,000 population in 2010

Internal Medicine Physicians by Gender



Internal Medicine Physicians by Gender, MSA/Non-MSA and Year (percent)

	Gender	2008	2010
MSA	Male	66.8	66.0
	Female	33.2	34.0
Non-MSA	Male	78.7	77.5
	Female	21.3	22.5

PEDIATRICS PROFILE-2010

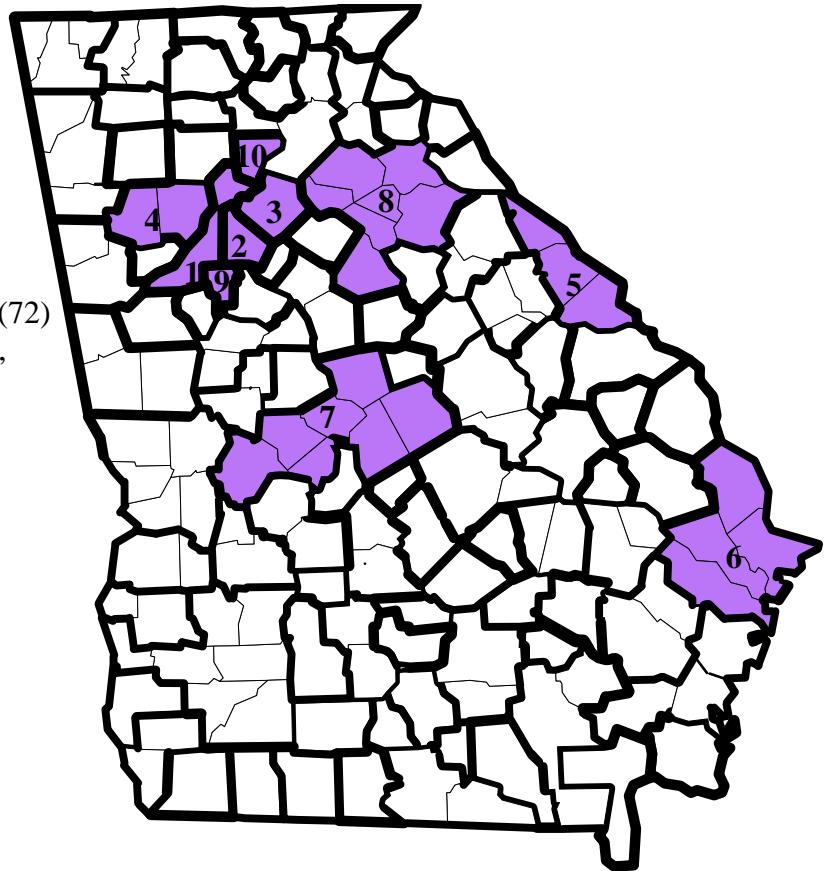
TOP 10 PRIMARY CARE SERVICE AREAS (PCSAs) BY NUMBER OF PEDIATRIC PHYSICIANS

RANK*

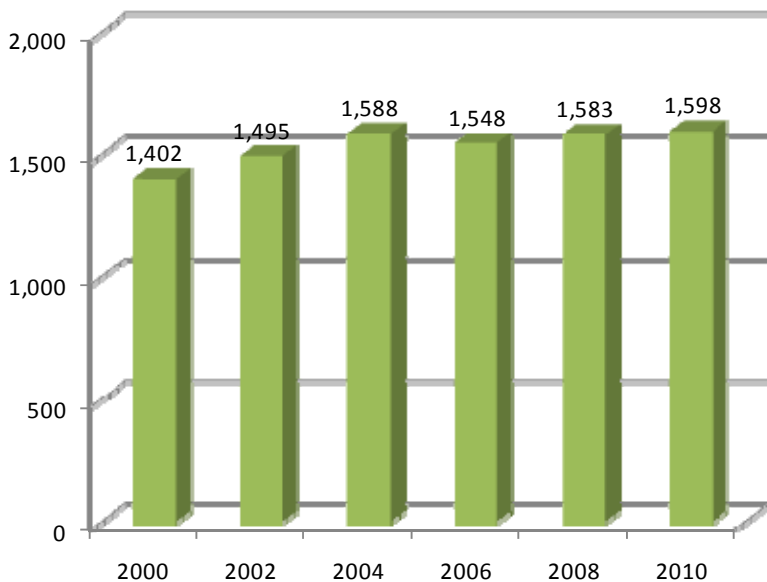
1. Area 22: Fulton (327)
2. Area 23: DeKalb (212)
3. Area 25: Gwinnett (146)
4. Area 21: Cobb, Paulding (127)
5. Area 31: Columbia, Lincoln, Richmond (101)
6. Area 52: Bryan, Chatham, Effingham, Liberty (72)
7. Area 46: Bibb, Crawford, Jones, Peach, Taylor, Twiggs, Wilkinson (41)
8. Area 27: Barrow, Clarke, Jackson, Madison, Morgan, Oconee, Oglethorpe (37)
9. Area 39: Clayton (32)
10. Area 13: Forsyth (30)

*Numbers correspond to rank

**Numbers in parenthesis represent the number of physicians



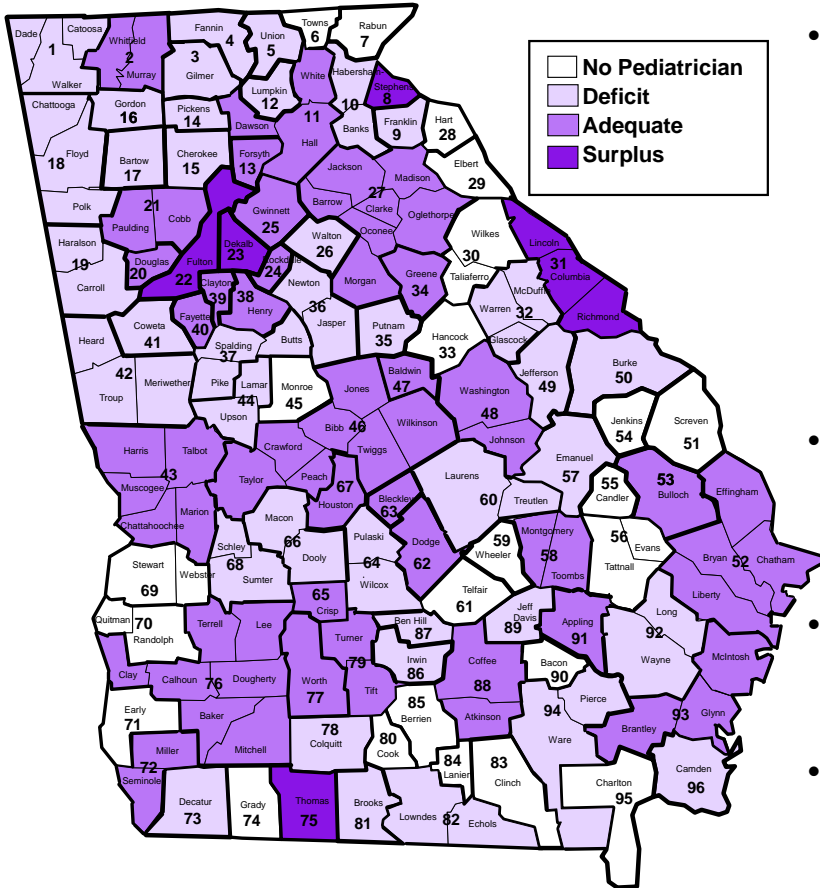
Pediatric Physician Supply



- Between 2000 and 2010, the number of pediatricians in Georgia increased 24.8%
- In 2010, there were 23 (24.0%) PCSAs without a pediatrician. 3.6% of Georgia's population lived in these regions
- The number of pediatricians increased slightly between 2008 and 2010; however, the rate per 100,000 population decreased between 2008 and 2010
- The top four PCSAs for number of practicing pediatricians are in the Atlanta Metropolitan Statistical Area

PEDIATRICS

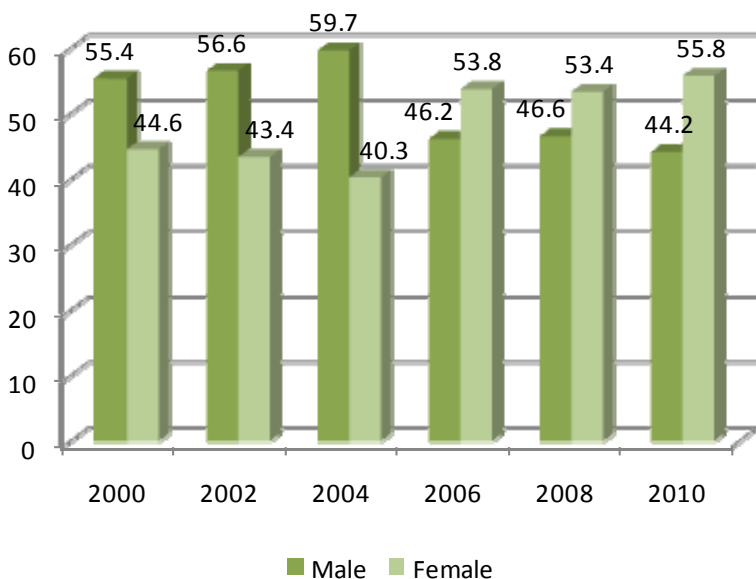
Pediatric Physician Distribution - 2010 Deficit, Adequate, and Surplus PCSAs*



- In 2010, there were 61 PCSAs in deficit. This is an increase from 58 in 2009.
 - Of those 61, 23 had no pediatrician. Those include the following counties: Bacon, Berrien, Candler, Charlton, Clinch, Cook, Early, Elbert, Evans, Grady, Hancock, Hart, Jenkins, Lanier, Monroe, Quitman, Rabun, Randolph, Screven, Stewart, Taliaferro, Tattnall, Telfair, Towns, Webster, Wheeler, Wilkes
- The top three areas of surplus were:
 - Area 22: Fulton
 - Area 23: DeKalb
 - Area 31: Columbia, Lincoln, Richmond
- The adequate range for pediatric physicians in PCSAs in 2010 (based on a +/- 1.0 standard deviation) was 10.9-22.1
- The number of PCSAs with a surplus decreased to 5, compared to 6 in 2006 and 2008. PCSA 62 (Dodge County) was a surplus area in 2008, but is now in the adequate range

A PCSA (Primary Care Service Area) is categorized as deficit, adequate, or surplus based on the +/- 1 standard deviation of the Family Medicine Physician rate per 100,000 population in 2010

Pediatricians by Gender



Pediatricians by Gender, MSA/Non-MSA and Year (Percent)

	Gender	2008	2010
MSA	Male	45.5	42.9
	Female	54.5	57.1
Non-MSA	Male	56.3	56.3
	Female	43.8*	43.8*

*Total may not add up to 100% due to rounding

OBGYN PROFILE-2010

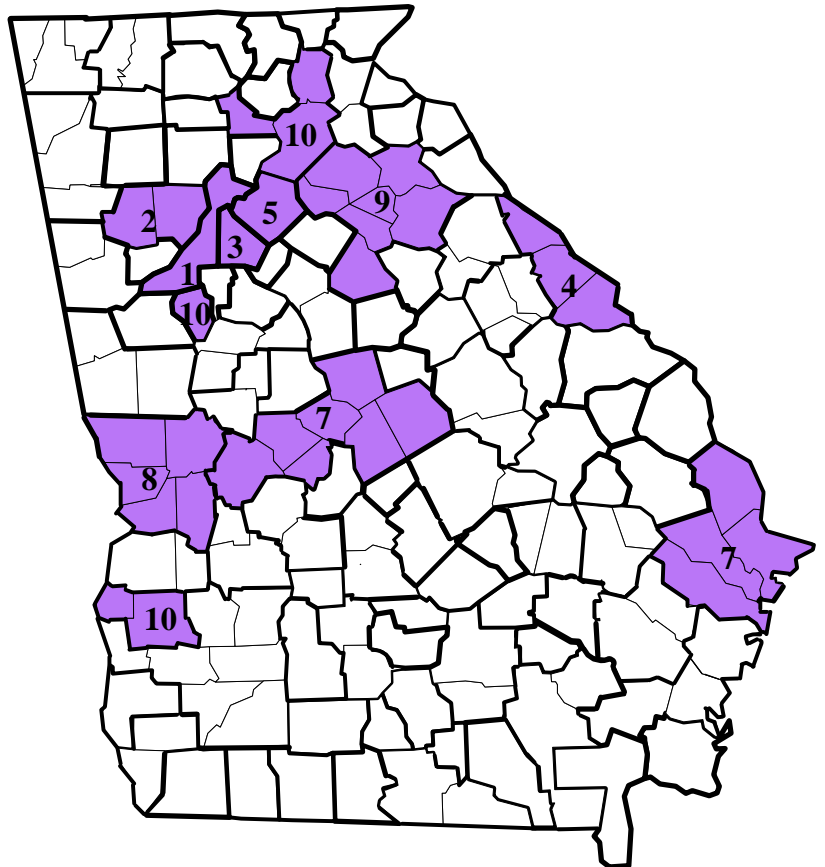
TOP 10 PRIMARY CARE SERVICE AREAS (PCSAs) BY NUMBER OF OBGYN PHYSICIANS

RANK*

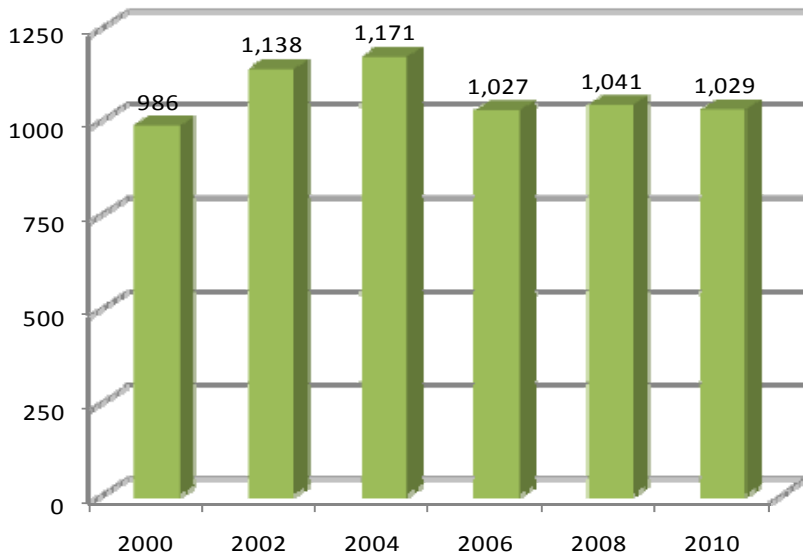
1. Area 22: Fulton (243)
2. Area 21: Cobb, Paulding (74)
3. Area 23: DeKalb (69)
4. Area 31: Columbia, Lincoln, Richmond (67)
5. Area 25: Gwinnett (60)
6. Area 52: Bryan, Chatham, Effingham, Liberty (47)
7. Area 46: Bibb, Crawford, Jones, Peach, Taylor, Twiggs, Wilkinson (33)
8. Area 43: Chattahoochee, Harris, Marion, Muscogee, Talbot (32)
9. Area 27: Barrow, Clarke, Jackson, Madison, Morgan, Oconee, Oglethorpe (31)
10. Area 11: Dawson, Hall, White (22)
Area 40: Fayette (22)
Area 76: Quitman, Randolph (22)

*Numbers correspond to rank

**Numbers in parenthesis represent the number of physicians



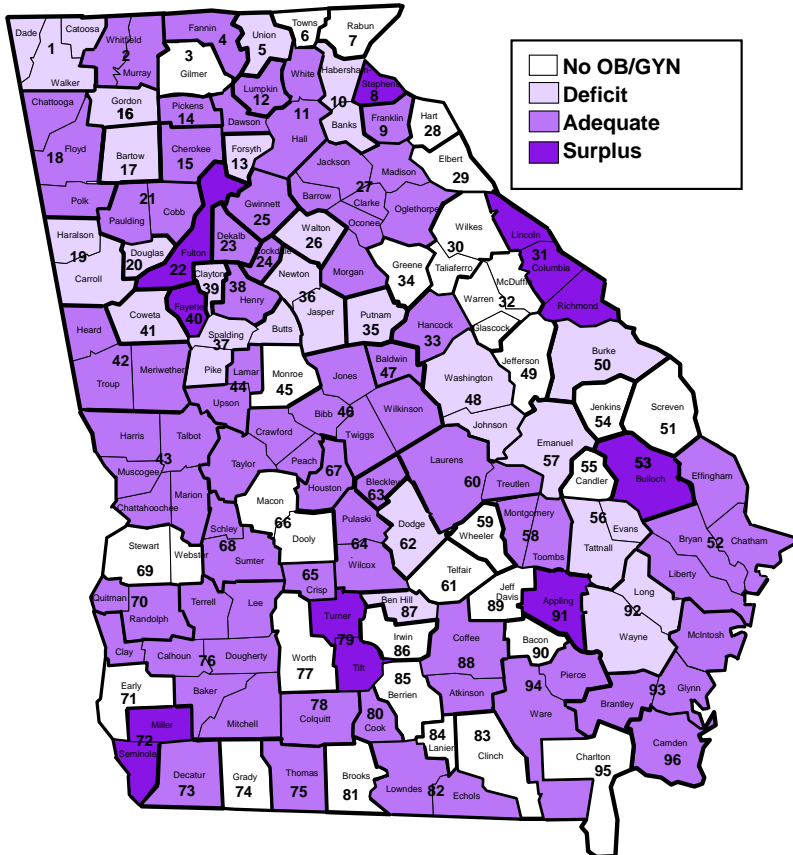
OBGYN Physician Supply



- Between 2000 and 2010, the number of OB/GYN physicians in Georgia increased by 4.4%. During that same time, Georgia's population increased 18.0% and Georgia's female population age 15 and over increased 18.9%. Source: Georgia Division of Public Health. <http://oasis.state.ga.us>
- In 2010, there were 28 PCSAs that had no OB/GYN in their region. This is 29.2% of the state's PCSAs and 4.7% of the state's population
- The rate of OB/GYN physicians has decreased every year since 2004
- In 2008 and 2010, 87.2% of Georgia's OB/GYN physicians indicated that they delivered babies. This was a decrease from 1996, where 93.1% of OB/GYN's indicated that they delivered babies

OB/GYN

OB/GYN Physician Distribution - 2010 Deficit, Adequate, and Surplus PCSAs*



- In 2010, there were 49 (51.0%) of Georgia's PCSAs with an OB/GYN deficit. This is an increase from 2008 where 40 (41.7%) were in deficit
 - Of those 49, 28 PCSAs had no OB/GYN physician. Those include 33 counties: Bacon, Berrien, Brooks, Candler, Chatham, Clinch, Dooly, Early, Elbert, Gilmer, Glascock, Grady, Greene, Hart, Irwin, Jeff Davis, Jefferson, Jenkins, Lanier, Macon, McDuffie, Monroe, Rabun, Screven, Stewart, Taliaferro, Telfair, Towns, Warren, Webster, Wheeler, Wilkes, Worth
- The top 3 areas of surplus were:
 - Area 22: Fulton
 - Area 40: Fayette
 - Area 72: Miller, Seminole
- The adequate range for OB/GYN Physicians in 2010 (based on a +/-1.0 standard deviation) was 6.6-14.6
- In 2010, there were the same number of PCSAs in surplus as in 2008 (8)

A PCSA (Primary Care Service Area) is categorized as deficit, adequate, or surplus based on the +/- 1 standard deviation of the Family Medicine Physician rate per 100,000 population in 2010

OB/GYN Physicians by Gender



OB/GYN Physicians by Gender, MSA/Non-MSA and Year (percent)

	Gender	2008	2010
MSA	Male	59.6	57.4
	Female	40.4	42.6
Non-MSA	Male	70.7	70.7
	Female	29.3	29.3

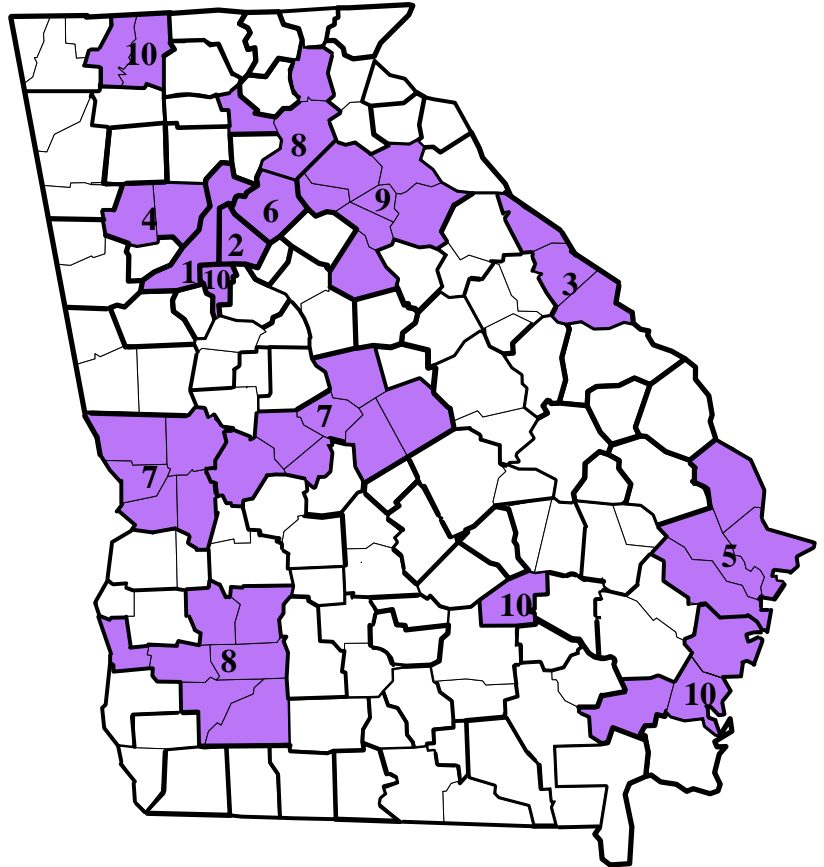
GENERAL SURGERY

PROFILE-2010

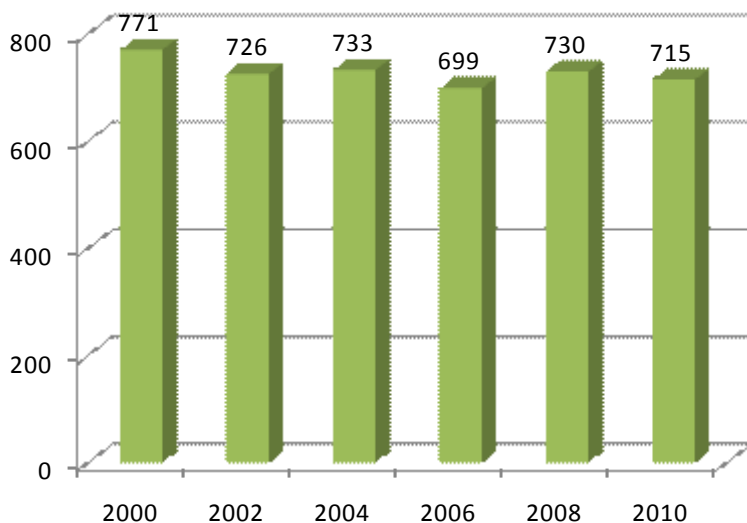
TOP 10 PRIMARY CARE SERVICE AREAS (PCSAs) BY NUMBER OF GENERAL SURGEONS

RANK*

1. Area 22: Fulton (138)
2. Area 23: DeKalb (65)
3. Area 31: Columbia, Lincoln, Richmond (49)
4. Area 21: Cobb, Paulding (38)
5. Area 52: Bryan, Chatham, Effingham, Liberty (37)
6. Area 25: Gwinnett (25)
7. Area 46: Bibb, Crawford, Jones, Peach, Taylor, Twiggs, Wilkinson (24)
Area 43: Chattahoochee, Harris, Marion, Muscogee, Talbot (24)
8. Area 76: Baker, Calhoun, Clay, Dougherty, Lee, Mitchell, Terrell (17)
Area 11: Dawson, Hall, White (17)
9. Area 27: Barrow, Clarke, Jackson, Madison, Morgan, Oconee, Oglethorpe (13)
10. Area 2: Murray, Whitfield (12)
Area 39: Clayton
Area 82: Jeff Davis
Area 93: Brantley, Glynn, McIntosh



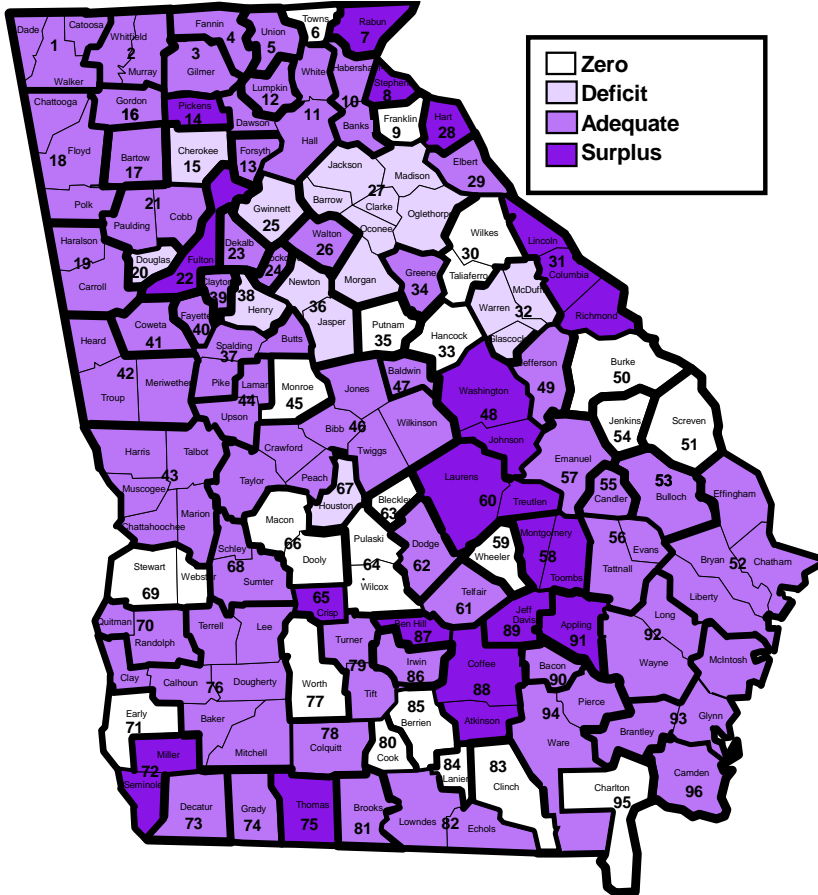
General Surgeon Supply



- Between 2000 and 2010, the number of general surgery physicians decreased 7.3%. This translates into 56 fewer general surgeons. This is the only decrease seen in the core specialties examined in this document
- In 2010, there were 21 PCSAs with no general surgeon in their region. This is 21.9% of the state's PCSAs and 3.8% of the state's population. In 2006, there were 20 PCSAs with no general surgery physician
- The rate of general surgery physicians has decreased since 2000. The number of general surgery physicians also decreased between 2008 and 2010.

GENERAL SURGERY

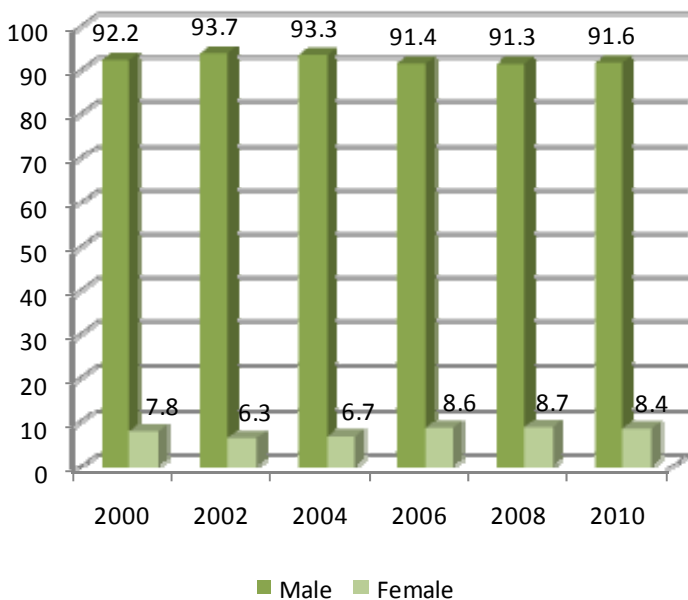
General Surgeon Distribution - 2010 Deficit, Adequate, and Surplus PCSAs*



- In 2010, 29 (30.2%) of PCSAs had a deficit of General Surgeons, up from 25 (26.0%) in 2008
- Of those 29 PCSAs, 21 had no General Surgeon. This included 25 counties: Berrien, Bleckley, Burke, Charlton, Clinch, Cook, Dooly, Early, Franklin, Hancock, Jenkins, Lanier, Macon, Monroe, Pulaski, Putnam, Screven, Stewart, Taliaferro, Towns, Webster, Wheeler, Wilcox, Wilkes, Worth
- The top 3 areas of surplus were:
 - Area 72: Miller, Seminole
 - Area 87: Ben Hill
 - Area 14: Pickens
- The adequate range for general surgeons in 2010 (based on a +/-1.0 standard deviation) was 3.9-10.9
- There were the same number of PCSAs with a surplus of General surgeons in 2010 as 2008 (16)

A PCSA (Primary Care Service Area) is categorized as deficit, adequate, or surplus based on the +/- 1 standard deviation of the Family Medicine Physician rate per 100,000 population in 2010

General Surgeons by Gender



General Surgeons by Gender, MSA/Non-MSA and Year (Percent)

	Gender	2008	2010
MSA	Male	89.7	90.1
	Female	10.3	9.9
Non-MSA	Male	99.2	99.0
	Female	0.8	1.0