



Georgia Board for Physician Workforce

Fact Sheet on Georgia's Trauma Physicians

September 2006

This Fact Sheet highlights the current supply and distribution of physicians who play a critical role in Georgia's trauma network. These specialties include: General Surgery, Orthopedic Surgery, Neurology, and Neurological Surgery. It is relevant to note that other physicians, in addition to those mentioned in this Fact Sheet, play an important part in stabilizing and treating trauma patients.

Most Frequent Causes of Traumatic Injuries

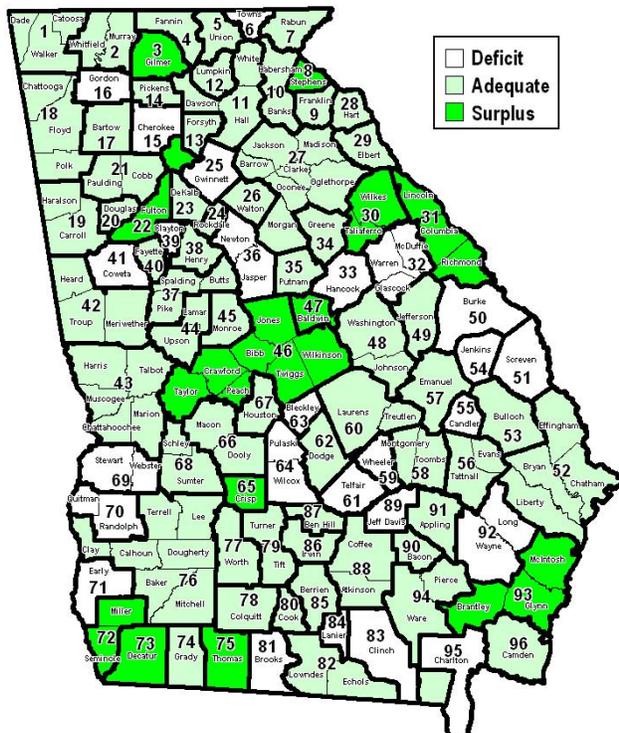
Nationwide, Motor Vehicle Accidents account for the greatest number of patients treated in trauma centers (Division of Advocacy and Health Policy, 2006). In Georgia, hospital discharges, as a result of Motor Vehicle Accidents, have risen from a rate of 86.3 in 1999 to a rate of 91.8 in 2004. (Source: Georgia Dept. of Human Resources; Division of Public Health; Online Analytical Statistical Information System. 2004)

The second largest cause of traumatic injuries at the national level is from Falls (mostly among the elderly population). This rate for Georgia has also increased since 1999 (from 49.0 to 55.0 in 2004).

The Core Specialty of General Surgery

The core specialty of General Surgery is particularly important when considering access to trauma services. A General Surgeon manages a broad spectrum of surgical conditions affecting almost any area of the body. The surgeon establishes the diagnosis and provides the preoperative, operative, and postoperative care to surgical patients and is usually responsible for the comprehensive management of the trauma victim and the critically ill surgical patient. (Source: Association of American Medical Colleges)

GENERAL SURGERY
Physician Distribution - 2004
Deficit, Adequate, and Surplus PCSAs*



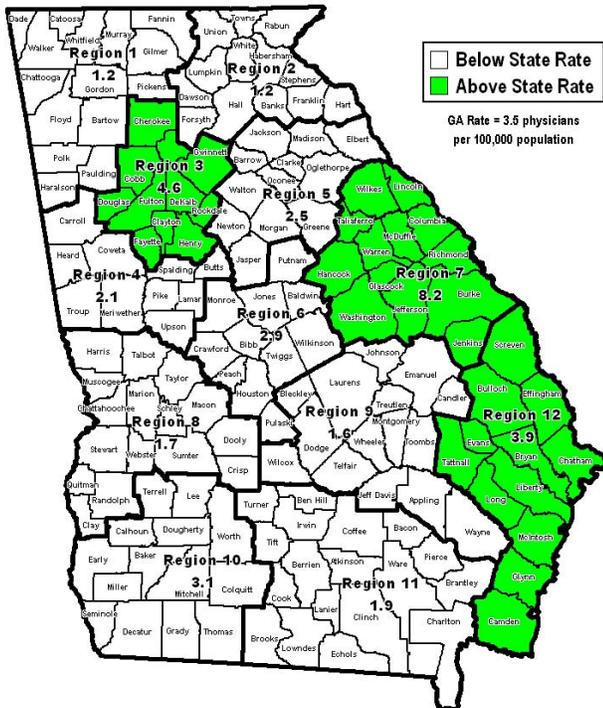
- Overall, since 1992, the number of practicing General Surgeons in Georgia has increased by 26.4%. However, since 2000, it has decreased by 4.9%.
- In addition, the growth in General Surgery is much lower than the growth of other specialties for the same years (1992- 2004). To illustrate:
 - Pediatrics: increased 122.7%
 - Internal Medicine: increased 115.1%
 - OB/GYN: increased 70.5%
 - Family Practice: increased 51.4%
- The growth in General Surgeons has not kept pace with the rapid growth in population. The rate of General Surgeons per 100,000 Population decreased from 8.6 in 1992 to 8.4 in 2004. The national rate in 2004 was 12.8 General Surgeons per 100,000 Population.
- General Surgery shows a deficit in 25 of the 96 Primary Care Service Areas of Georgia (2004).
- In 2004, 43.2% of the General Surgeons were aged 50+, and 31% were over 55.

*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 2004.

Neurology and Neurological Surgery

A Neurologist specializes in the diagnosis and treatment of all types of disease or impaired function of the brain, spinal cord, peripheral nerves, muscles, and autonomic nervous system, as well as the blood vessels that relate to these structures. A Neurological Surgeon provides the operative and non-operative management of disorders of the central, peripheral and autonomic nervous systems including the brain, spinal cord, peripheral nerves, and muscles, as well as the blood vessels that relate to these structures. (Source: Association of American Medical Colleges)

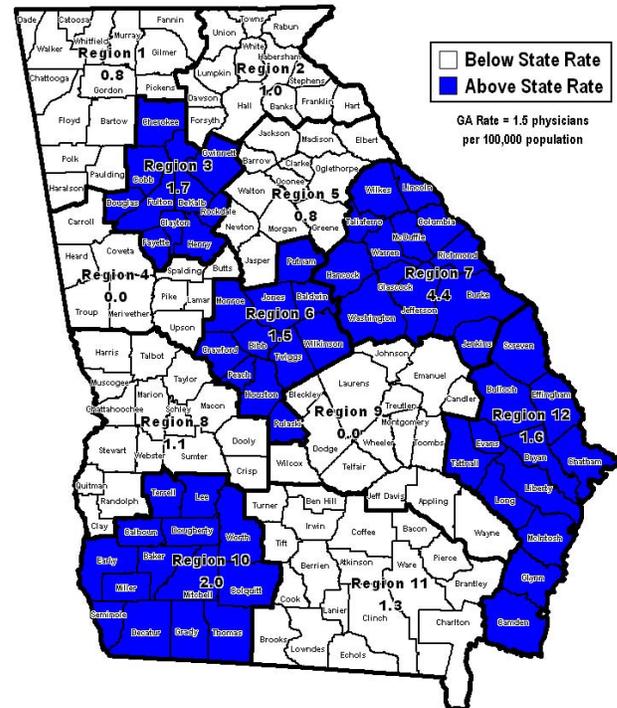
NEUROLOGY
Physician Distribution - 2004
by Secondary Care Service Areas*



*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.

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NEUROLOGICAL SURGERY
Physician Distribution - 2004
by Secondary Care Service Areas*



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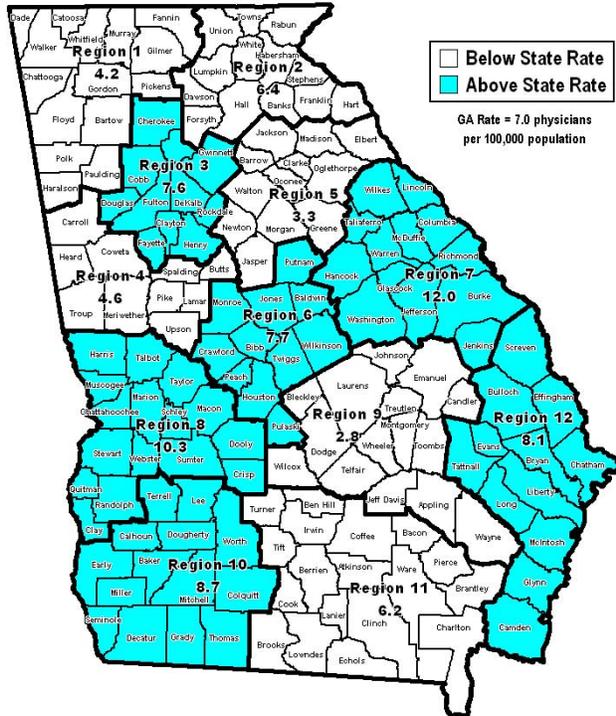
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- Between 1992 and 2004, the number of practicing Neurologists increased by 73.1%.
- For the same years, the number of practicing Neurological Surgeons only increased by 20.6%.
- The rate of Neurological Surgeons per 100,000 Population decreased during the period 1992 to 2004 (from 1.6 to 1.5). In comparison, the national rate was 1.8 Neurological Surgeons per 100,000 Population in 2004.
- For Neurology, the rate increased from 2.6 in 1992 to 3.5 per 100,000 Population in 2004. The national rate was 4.7 Neurologists per 100,000 Population in 2004.
- Nine of the 12 Secondary Care Service Areas in 2004 were below the state rate of 3.5 Neurologists per 100,000 Population.
- Seven of the 12 Secondary Care Service Areas were below the state rate of 1.5 Neurological Surgeons per 100,000 Population in 2004.
- In 2004, 32.6% of the Neurological Surgeons were age 50+ and 19.4% were 55 and older.

Orthopedic Surgery

Orthopedic Surgeons are medical doctors who specialize in bone, muscle, and joint surgery. These physicians perform corrective procedures, such as removing torn cartilage or replacing a joint. Some Orthopedic Surgeons specialize in specific areas such as shoulder surgery, hand surgery, or joint replacement. (Source: WebMD.com)

ORTHOPEDIC SURGERY Physician Distribution - 2004 by Secondary Care Service Areas*



- Between 1992 and 1994, the number of practicing Orthopedic Surgeons increased by 44.0%.
- The rate of Orthopedic Surgeons per 100,000 Population increased from 6.3 in 1992 to 7.0 between in 2004.
- In comparison to Georgia's rate of 7.0, the national rate was 8.1 Orthopedic Surgeons per 100,000 Population in 2004.
- Six of the 12 Secondary Care Service Areas were below the state rate of 7.0 Orthopedic Surgeons per 100,000 in 2004.

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Comparison of Trauma Specialties by Year: 1992-2004

Total Physicians by Specialty and Rate*, 1992-2004							
Specialty	1992	1994	1996	1998	2000	2002	2004
							OPB 2003+
General Surgery	8.6	9.3	9.6	9.3	9.4	8.5	8.4
Neurology	2.6	3.0	3.4	3.4	3.2	3.2	3.5
Neurological Surgery	1.6	1.6	1.5	1.5	1.3	1.4	1.5
Orthopedic Surgery	6.3	7.0	7.6	7.2	6.8	6.9	7.0

* Rate per 100,000 Population: Population for 1992-2002 came from the Governor's Office of Planning and Budget.
 + Governor's Office of Planning and Budget: July 1, 2003 (<http://www.opb.state.ga.us>)

- As shown in the previous table, the overall rate of General Surgeons and Neurological Surgeons per 100,000 Population was lower in 2004 than in 1992.
- The increase in Georgia's rate of Neurologists and the decline in the rate of Neurological Surgeons may potentially indicate a shift in physicians not doing surgery due to on call schedules and liability issues.

MSA / Non-MSA Distribution of Trauma Specialists: 2004

Percentage of Total Physicians by Specialty Practicing in Metropolitan (MSA) and Non-Metropolitan (Non-MSA) Statistical Areas – 2004*		
Specialty	% Practicing in MSA	% Practicing in Non-MSA
General Surgery	79.0	21.0
Neurology	85.1	14.9
Neurological Surgery	91.5	8.5
Orthopedic Surgery	81.0	19.0

* Source: 2004 physician license renewal data.

- As shown in the table above, the majority of trauma physicians were practicing in MSA's in 2004.
- In terms of Georgia's 2004 population, 72.7% of Georgians resided in MSA's and 27.3% lived in Non-MSA's.
- Most large trauma centers/hospitals are located in MSA's, which explains the concentration of these physicians in urban areas. However, much of the state of Georgia is considered rural and hospitals in Non-MSA's are finding it increasingly difficult to ensure trauma physicians are available to serve Georgians in these respective geographic areas.