		2	008 Actual		2015 Projecte
Physician Specialty		Population	Physicians	/100k	Population
Allergy & Immunology		183,123	2	1.1	214,144
National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Status	3	Physician Need
AMA	1.4	3	Deficit:	-1	3
Two Mature HMO	1.5	3	Deficit:	-1	3
Adjusted FTE	1.4	3	Deficit:	-1	3
GMENAC	0.8	1	Surplus:	1	2
Kaiser Portland	1.7	3	Deficit:	-1	4
7 Kaiser Plans	1.2	2	Adequate	0	3
GHC Seattle	1.1	2	Adequate	0	2
Three HMOs					
Goodman	1.3	2	Adequate	0	3
Hicks & Glenn					
Solucient	1.7	3	Deficit:	-1	4
Average Requiremer	nt 1.3	2	Adequate	0	3

			2	008 Actual		2015 Projected
Physic	cian Specialty		Population	Physicians	/100k	Population
Anest	thesiology		183,123	4		214,144
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Statu	s	Physician Need
	AMA	14.0	26	Deficit:	-22	30
	Two Mature HMO	9.7	18	Deficit:	-14	21
	Adjusted FTE	9.1	17	Deficit:	-13	19
	GMENAC	8.9	16	Deficit:	-12	19
	Kaiser Portland	5.9	11	Deficit:	-7	13
	7 Kaiser Plans	3.9	7	Deficit:	-3	8
	GHC Seattle	9.0	16	Deficit:	-12	19
	Three HMOs					
	Goodman	7.0	13	Deficit:	-9	15
	Hicks & Glenn					
	Solucient					
	Average Requirement	7.6	14	Deficit:	-10	16

		2	008 Actual		2015 Projecte
Physician Specialty		Population	Physicians	/100k	Population
Cardiovascular Diseases		183,123	5	2.7	214,144
National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Status	3	Physician Need
AMA	7.5	14	Deficit:	-9	16
Two Mature HMO	5.4	10	Deficit:	-5	12
Adjusted FTE	5.0	9	Deficit:	-4	11
GMENAC	3.1	6	Deficit:	-1	7
Kaiser Portland	3.0	5	Adequate	0	6
7 Kaiser Plans	1.8	3	Surplus:	2	4
GHC Seattle	2.9	5	Adequate	0	6
Three HMOs					
Goodman	3.6	7	Deficit:	-2	8
Hicks & Glenn	2.6	5	Adequate	0	6
Solucient	4.2	8	Deficit:	-3	9
Average Requiremen	ıt 3.5	6	Deficit:	-1	7

			2	008 Actual		2015 Projected
Physic	ian Specialty		Population	Physicians	/100k	Population
Derma	atology		183,123	2	1.1	214,144
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Statu	s	Physician Need
	AMA	3.7	7	Deficit:	-5	8
	Two Mature HMO	2.8	5	Deficit:	-3	6
	Adjusted FTE	2.6	5	Deficit:	-3	6
	GMENAC	2.8	5	Deficit:	-3	6
	Kaiser Portland	2.5	5	Deficit:	-3	5
	7 Kaiser Plans	2.4	4	Deficit:	-2	5
	GHC Seattle	2.6	5	Deficit:	-3	6
	Three HMOs	1.6	3	Deficit:	-1	3
	Goodman	1.4	3	Deficit:	-1	3
	Hicks & Glenn	2.1	4	Deficit:	-2	4
	Solucient	3.1	6	Deficit:	-4	7
	Average Requirement	2.4	4	Deficit:	-2	5

		2	008 Actual		2015 Projecte
Physician Specialty		Population	Physicians	/100k	Population
Emergency Medicine		183,123	6	3.3	214,144
National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Status	3	Physician Need
AMA	10.5	19	Deficit:	-13	22
Two Mature HMO	5.5	10	Deficit:	-4	12
Adjusted FTE	5.2	10	Deficit:	-4	11
GMENAC	5.4	10	Deficit:	-4	12
Kaiser Portland	6.7	12	Deficit:	-6	14
7 Kaiser Plans	5.3	10	Deficit:	-4	11
GHC Seattle					
Three HMOs					
Goodman	2.7	5	Surplus:	1	6
Hicks & Glenn					
Solucient	12.4	23	Deficit:	-17	27
Average Requirement	6.2	11	Deficit:	-5	13

			2	008 Actual		2015 Projected
Physic	Physician Specialty		Population	Physicians	/100k	Population
Endo	crinology, Diabetes & Me	etabolism	183,123	1	0.5	214,144
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Statu	S	Physician Need
	AMA	1.8	3	Deficit:	-2	4
	Two Mature HMO	1.1	2	Deficit:	-1	2
	Adjusted FTE	1.0	2	Deficit:	-1	2
	GMENAC	0.8	1	Adequate	0	2
	Kaiser Portland	0.9	2	Deficit:	-1	2
	7 Kaiser Plans	1.1	2	Deficit:	-1	2
	GHC Seattle					
	Three HMOs	0.6	1	Adequate	0	1
	Goodman					
	Hicks & Glenn					
	Solucient					
	Average Requirement	0.9	2	Deficit:	-1	2

			20	008 Actual		2015 Projected
Physician Specialty			Population	Physicians	/100k	Population
Family Practice			183,123	39	21.3	214,144
National P Standards		Standard Phys/100,000 Pop.	Physician Need	Status	3	Physician Need
AMA		31.5	58	Deficit:	-19	67
Two Matur	е НМО	45.6	84	Deficit:	-45	98
Adjusted F	TE	42.6	78	Deficit:	-39	91
GMENAC		25.2	46	Deficit:	-7	54
Kaiser Por	tland	16.7	31	Surplus:	8	36
7 Kaiser P	lans	11.0	20	Surplus:	19	24
GHC Seat	tle					
Three HM	Os	9.2	17	Surplus:	22	20
Goodman						
Hicks & G	enn	16.2	30	Surplus:	9	35
Solucient		22.5	41	Deficit:	-2	48
Average F	equirement	23.6	43	Deficit:	-4	51

			20	008 Actual		2015 Projected
Physic	cian Specialty		Population	Physicians	/100k	Population
Gastr	oenterology		183,123	2	1.1	214,144
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Statu	S	Physician Need
	AMA	4.2	8	Deficit:	-6	9
	Two Mature HMO	3.1	6	Deficit:	-4	7
	Adjusted FTE					
	GMENAC	3.2	6	Deficit:	-4	7
	Kaiser Portland	1.7	3	Deficit:	-1	4
	7 Kaiser Plans	1.7	3	Deficit:	-1	4
	GHC Seattle					
	Three HMOs					
	Goodman	1.3	2	Adequate	0	3
	Hicks & Glenn					
	Solucient	3.5	6	Deficit:	-4	7
	Average Requirement	2.4	4	Deficit:	-2	5

		2	008 Actual		2015 Projected
Physician Specialty		Population	Physicians	/100k 0.5	Population
Infectious Disease		183,123	1		214,144
National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Status	3	Physician Need
AMA	2.2	4	Deficit:	-3	5
Two Mature HMO	0.7	1	Adequate	0	1
Adjusted FTE	0.6	1	Adequate	0	1
GMENAC	0.9	2	Deficit:	-1	2
Kaiser Portland	1.2	2	Deficit:	-1	3
7 Kaiser Plans	0.7	1	Adequate	0	1
GHC Seattle	0.6	1	Adequate	0	1
Three HMOs					
Goodman					
Hicks & Glenn					
Solucient					
Average Requiremen	t 0.8	1	Adequate	0	2

			2	008 Actual		2015 Projected
Physic	cian Specialty		Population	Physicians	/100k	Population
Intern	nal Medicine		183,123	28		214,144
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Statu	S	Physician Need
	AMA	53.1	97	Deficit:	-69	114
	Two Mature HMO	21.4	39	Deficit:	-11	46
	Adjusted FTE	20.0	37	Deficit:	-9	43
	GMENAC	28.8	53	Deficit:	-25	62
	Kaiser Portland	28.1	51	Deficit:	-23	60
	7 Kaiser Plans	30.3	55	Deficit:	-27	65
	GHC Seattle					
	Three HMOs	16.7	31	Deficit:	-3	36
	Goodman					
	Hicks & Glenn	11.3	21	Surplus:	7	24
	Solucient	19.0	35	Deficit:	-7	41
	Average Requirement	22.0	40	Deficit:	-12	47

		2	008 Actual		2015 Projecte
Physician Specialty		Population	Physicians	/100k	Population
Nephrology		183,123	1	0.5	214,144
National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Status	3	Physician Need
AMA	2.6	5	Deficit:	-4	6
Two Mature HMO	1.4	3	Deficit:	-2	3
Adjusted FTE	1.3	2	Deficit:	-1	3
GMENAC	1.1	2	Deficit:	-1	2
Kaiser Portland	0.8	1	Adequate	0	2
7 Kaiser Plans	0.7	1	Adequate	0	1
GHC Seattle	0.9	2	Deficit:	-1	2
Three HMOs					
Goodman					
Hicks & Glenn					
Solucient	0.7	1	Adequate	0	2
Average Requiremer	nt 1.0	2	Deficit:	-1	2

			2	008 Actual		2015 Projected
Physici	an Specialty		Population	Physicians	/100k	Population
Neurol	ogy		183,123	3	1.6	214,144
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Statu	S	Physician Need
	AMA	5.0	9	Deficit:	-6	11
	Two Mature HMO	2.4	4	Deficit:	-1	5
	Adjusted FTE	2.3	4	Deficit:	-1	5
	GMENAC	3.3	6	Deficit:	-3	7
	Kaiser Portland	1.3	2	Surplus:	1	3
	7 Kaiser Plans	1.7	3	Adequate	0	4
	GHC Seattle	1.2	2	Surplus:	1	3
	Three HMOs					
	Goodman	2.1	4	Deficit:	-1	4
	Hicks & Glenn	1.4	3	Adequate	0	3
	Solucient	1.8	3	Adequate	0	4
	Average Requirement	1.9	3	Adequate	0	4

			20	008 Actual		2015 Projected
Physician	Physician Specialty		Population	Physicians	/100k	Population
OB/GYN			183,123	11	6.0	214,144
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Status	3	Physician Need
•	AMA	14.1	26	Deficit:	-15	30
-	Two Mature HMO	12.1	22	Deficit:	-11	26
-	Adjusted FTE	11.3	21	Deficit:	-10	24
=	GMENAC	9.9	18	Deficit:	-7	21
-	Kaiser Portland	11.6	21	Deficit:	-10	25
-	7 Kaiser Plans	11.5	21	Deficit:	-10	25
=	GHC Seattle	10.0	18	Deficit:	-7	21
-	Three HMOs	8.8	16	Deficit:	-5	19
-	Goodman	8.4	15	Deficit:	-4	18
-	Hicks & Glenn	8.0	15	Deficit:	-4	17
-	Solucient	10.2	19	Deficit:	-8	22
-	Average Requirement	10.2	19	Deficit:	-8	22

			2	008 Actual		2015 Projected
Physic	cian Specialty		Population	Physicians	/100k	Population
Optha	Opthalmology		183,123	5	2.7	214,144
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Status	S	Physician Need
	AMA	6.0	11	Deficit:	-6	13
	Two Mature HMO	5.9	11	Deficit:	-6	13
	Adjusted FTE	5.5	10	Deficit:	-5	12
	GMENAC	4.6	8	Deficit:	-3	10
	Kaiser Portland	2.4	4	Surplus:	1	5
	7 Kaiser Plans	3.1	6	Deficit:	-1	7
	GHC Seattle	5.0	9	Deficit:	-4	11
	Three HMOs					
	Goodman	3.5	6	Deficit:	-1	7
	Hicks & Glenn	3.2	6	Deficit:	-1	7
	Solucient	4.7	9	Deficit:	-4	10
	Average Requirement	4.2	8	Deficit:	-3	9

		2	008 Actual		2015 Projected
Physician Specialty		Population	Physicians	/100k	Population
Orthopedic Surgery	Orthopedic Surgery		8	4.4	214,144
National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Status	;	Physician Need
AMA	8.3	15	Deficit:	-7	18
Two Mature HMO	6.8	12	Deficit:	-4	15
Adjusted FTE	6.4	12	Deficit:	-4	14
GMENAC	6.0	11	Deficit:	-3	13
Kaiser Portland	5.9	11	Deficit:	-3	13
7 Kaiser Plans	4.2	8	Adequate	0	9
GHC Seattle	6.7	12	Deficit:	-4	14
Three HMOs	3.0	5	Surplus:	3	6
Goodman	5.9	11	Deficit:	-3	13
Hicks & Glenn	4.2	8	Adequate	0	9
Solucient	6.1	11	Deficit:	-3	13
Average Requirement	nt 5.5	10	Deficit:	-2	12

		2	008 Actual		2015 Projected
Physician Specialty	Physician Specialty Otolaryngology		Physicians	/100k	Population
Otolaryngology			4	2.2	214,144
National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Status	6	Physician Need
AMA	3.4	6	Deficit:	-2	7
Two Mature HMO	3.2	6	Deficit:	-2	7
Adjusted FTE					
GMENAC	3.2	6	Deficit:	-2	7
Kaiser Portland	3.4	6	Deficit:	-2	7
7 Kaiser Plans	2.4	4	Adequate	0	5
GHC Seattle	3.0	5	Deficit:	-1	6
Three HMOs					
Goodman					
Hicks & Glenn					
Solucient					
Average Requireme	nt 3.0	5	Deficit:	-1	6

		20	008 Actual		2015 Projected
Physician Specialty		Population	Physicians	/100k	Population
Pediatrics		183,123	22	12.0	214,144
National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Status	3	Physician Need
AMA	24.9	46	Deficit:	-24	53
Two Mature HMO	16.6	30	Deficit:	-8	36
Adjusted FTE	15.5	28	Deficit:	-6	33
GMENAC	12.4	23	Deficit:	-1	27
Kaiser Portland	11.9	22	Adequate	0	25
7 Kaiser Plans	16.0	29	Deficit:	-7	34
GHC Seattle					
Three HMOs	9.8	18	Surplus:	4	21
Goodman					
Hicks & Glenn	7.6	14	Surplus:	8	16
Solucient	13.9	25	Deficit:	-3	30
Average Requirement	13.0	24	Deficit:	-2	28

			2	008 Actual		2015 Projected
Physic	cian Specialty		Population	Physicians	/100k	Population
Plasti	Plastic Surgery		183,123	2	1.1	214,144
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Statu	s	Physician Need
	AMA	2.4	4	Deficit:	-2	5
	Two Mature HMO					
	Adjusted FTE					
	GMENAC	1.1	2	Adequate	0	2
	Kaiser Portland	0.3	1	Surplus:	1	1
	7 Kaiser Plans					
	GHC Seattle	0.4	1	Surplus:	1	1
	Three HMOs					
	Goodman	1.1	2	Adequate	0	2
	Hicks & Glenn	2.3	4	Deficit:	-2	5
	Solucient	2.2	4	Deficit:	-2	5
	Average Requirement	1.2	2	Adequate	0	3

		2	008 Actual		2015 Projected
Physician Specialty		Population	Physicians	/100k	Population
Psychiatry	Psychiatry		7	3.8	214,144
National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Status	6	Physician Need
AMA	13.6	25	Deficit:	-18	29
Two Mature HMO	7.7	14	Deficit:	-7	16
Adjusted FTE	7.2	13	Deficit:	-6	15
GMENAC	15.4	28	Deficit:	-21	33
Kaiser Portland	5.2	10	Deficit:	-3	11
7 Kaiser Plans	4.1	8	Deficit:	-1	9
GHC Seattle					
Three HMOs					
Goodman	7.2	13	Deficit:	-6	15
Hicks & Glenn	3.9	7	Adequate	0	8
Solucient	5.7	10	Deficit:	-3	12
Average Requirement	7.1	13	Deficit:	-6	15

			2	008 Actual		2015 Projected
Physi	Physician Specialty		Population	Physicians	/100k	Population
Pulm	Pulmonary Diseases		183,123	3	1.6	214,144
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Statu	S	Physician Need
	AMA	3.5	6	Deficit:	-3	7
	Two Mature HMO	2.0	4	Deficit:	-1	4
	Adjusted FTE	1.9	3	Adequate	0	4
	GMENAC	1.4	3	Adequate	0	3
	Kaiser Portland	1.4	3	Adequate	0	3
	7 Kaiser Plans	1.0	2	Surplus:	1	2
	GHC Seattle	1.4	3	Adequate	0	3
	Three HMOs					
	Goodman	1.4	3	Adequate	0	3
	Hicks & Glenn					
	Solucient	1.3	2	Surplus:	1	3
	Average Requirement	1.5	3	Adequate	0	3

		2008 Actual			2015 Projected
Physician Specialty	Population	Physicians	/100k	Population	
Radiology		183,123	5	2.7	214,144
National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Status	3	Physician Need
AMA	11.4	21	Deficit:	-16	24
Two Mature HMO	13.6	25	Deficit:	-20	29
Adjusted FTE	13.7	25	Deficit:	-20	29
GMENAC	7.7	14	Deficit:	-9	16
Kaiser Portland	8.5	16	Deficit:	-11	18
7 Kaiser Plans	4.7	9	Deficit:	-4	10
GHC Seattle	7.7	14	Deficit:	-9	16
Three HMOs					
Goodman	8.0	15	Deficit:	-10	17
Hicks & Glenn					
Solucient					
Average Requirement	9.1	17	Deficit:	-12	19

			20	008 Actual		2015 Projected
Physi	cian Specialty		Population	Physicians	/100k	Population
Gene	Seneral Surgery		183,123	4	2.2	214,144
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Status	S	Physician Need
	AMA	12.5	23	Deficit:	-19	27
	Two Mature HMO	9.4	17	Deficit:	-13	20
	Adjusted FTE	8.8	16	Deficit:	-12	19
	GMENAC	9.7	18	Deficit:	-14	21
	Kaiser Portland	7.0	13	Deficit:	-9	15
	7 Kaiser Plans	6.2	11	Deficit:	-7	13
	GHC Seattle	5.9	11	Deficit:	-7	13
	Three HMOs	4.2	8	Deficit:	-4	9
	Goodman	9.7	18	Deficit:	-14	21
	Hicks & Glenn	4.1	8	Deficit:	-4	9
	Solucient	6.0	11	Deficit:	-7	13
	Average Requirement	7.1	13	Deficit:	-9	15

Included Counties: Cherokee

			2	008 Actual		2015 Projected
Physician	Physician Specialty			Physicians	/100k	Population
Urology			183,123	1	0.5	214,144
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Status	3	Physician Need
•	AMA	3.5	6	Deficit:	-5	7
•	Two Mature HMO	3.5	6	Deficit:	-5	7
•	Adjusted FTE	3.3	6	Deficit:	-5	7
	GMENAC	3.1	6	Deficit:	-5	7
,	Kaiser Portland	3.3	6	Deficit:	-5	7
,	7 Kaiser Plans	2.3	4	Deficit:	-3	5
	GHC Seattle	2.9	5	Deficit:	-4	6
,	Three HMOs					
,	Goodman	2.6	5	Deficit:	-4	6
	Hicks & Glenn	1.9	3	Deficit:	-2	4
	Solucient	2.9	5	Deficit:	-4	6
	Average Requirement	2.9	5	Deficit:	-4	6

Report created by Georgia Board for Physician Workforce, State of Georgia

- (1) McClendon, B., R.Polizer, E. Christain, and E. Fernandez. 1997. Downsizing the Physician Workforce. Public Health Reports. May/June 112:231-239.
- (2) Graduate Medical Education National Advisory Committee Summary Report. 1981. Pub. No. (HRA) 81-651. Washington: Government Printing Office.
- (3) American Medical Association, 1996, Physician Characteristics and Distribution in the US: 1995/1996, Chicago.
- (4) American Osteopathic Association. 1993. 1994 Yearbook and Directory of Osteopathic Physicians. Chicago.
- (5) 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.
- (6) Weiner, J.P. 1994 Forecasting the Effects of Health Reform on U.S. Physician Workforce Requirement. JAMA 272, no. 3:222-230.
- (7) 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.
- (8) 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 328:1480152. See also, related NAPS Document 04998.
- (9) Vansdow, N.A. The Physician Workforce: Issues for Academic Medical Centers. Forum on the Future of Academic Medicine. December 2, 1996.
- (10) Forte, G.J., Dionne, M., Beaulieu, M., and Salsberg, E. Profile of New York State Physicians. Rensselaer, NY: Center for Health Workforce Studies, School of Public Health, SUNY Albany. April 2001.
- (11) A Review of Physician-to-Population Ratios. Merritt Hawkins & Associates. GMENAC, Goodman (Dec. 11, 1996 JAMA), Hicks & Glenn (1989 Journal of Health Care Management), Solucient (2003).
- (12) American Medical Association. Physician Characteristics and Distribution in the US, 2010 Edition; 2010.

^{*}Standards are presented as rates per 100,000 population