			2	008 Actual		2015 Projected
Physic	cian Specialty		Population	Physicians	/100k	Population
Anest	hesiology		66,412	4	6.0	78,958
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
	AMA	14.0	9	Deficit:	-5	11
	Two Mature HMO	9.7	6	Deficit:	-2	8
	Adjusted FTE	9.1	6	Deficit:	-2	7
	GMENAC	8.9	6	Deficit:	-2	7
	Kaiser Portland	5.9	4	Adequate	0	3
	7 Kaiser Plans	3.9	3	Surplus:	1	3
	GHC Seattle	9.0	6	Deficit:	-2	7
	Three HMOs					
	Goodman	7.0	5	Deficit:	-1	6
	Hicks & Glenn					
	Solucient					
	Average Requirement	7.6	5	Deficit:	-1	6

		2	008 Actual		2015 Projected
Physician Specialty		Population	Physicians	/100k	Population
Cardiovascular Diseases		66,412	2	3.0	78,958
National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
AMA	7.5	5	Deficit:	-3	6
Two Mature HMO	5.4	4	Deficit:	-2	4
Adjusted FTE	5.0	3	Deficit:	-1	4
GMENAC	3.1	2	Adequate	0	2
Kaiser Portland	3.0	2	Adequate	0	1
7 Kaiser Plans	1.8	1	Surplus:	1	1
GHC Seattle	2.9	2	Adequate	0	2
Three HMOs					
Goodman	3.6	2	Adequate	0	3
Hicks & Glenn	2.6	2	Adequate	0	2
Solucient	4.2	3	Deficit:	-1	3
Average Requirement	3.5	2	Adequate	0	3

			2	008 Actual		2015 Projected
Physicia	an Specialty		Population	Physicians	/100k	Population
Dermat	ology		66,412	1	1.5	78,958
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
	AMA	3.7	2	Deficit:	-1	3
	Two Mature HMO	2.8	2	Deficit:	-1	2
	Adjusted FTE	2.6	2	Deficit:	-1	2
	GMENAC	2.8	2	Deficit:	-1	2
	Kaiser Portland	2.5	2	Deficit:	-1	2
	7 Kaiser Plans	2.4	2	Deficit:	-1	2
	GHC Seattle	2.6	2	Deficit:	-1	2
	Three HMOs	1.6	1	Adequate	0	1
	Goodman	1.4	1	Adequate	0	1
	Hicks & Glenn	2.1	1	Adequate	0	2
	Solucient	3.1	2	Deficit:	-1	2
	Average Requirement	2.4	2	Deficit:	-1	2

			2	008 Actual		2015 Projected
Physician Spe	cialty		Population	Physicians	/100k	Population
Emergency M	edicine		66,412	3	4.5	78,958
Na Sta	tional Physician Indards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
AN	Α	10.5	7	Deficit:	-4	8
Tw	o Mature HMO	5.5	4	Deficit:	-1	4
Adj	usted FTE	5.2	3	Adequate	0	4
GM	IENAC	5.4	4	Deficit:	-1	4
Ka	ser Portland	6.7	4	Deficit:	-1	4
7 K	aiser Plans	5.3	4	Deficit:	-1	4
GH	C Seattle					
Th	ee HMOs					
Go	odman	2.7	2	Surplus:	1	2
Hic	ks & Glenn					
So	ucient	12.4	8	Deficit:	-5	10
Ave	erage Requirement	6.2	4	Deficit:	-1	5

		2	008 Actual		2015 Projected
Physician Specialty		Population	Physicians	/100k	Population
Family Practice		66,412	14	21.1	78,958
National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Stat	tus	Physician Need
AMA	31.5	21	Deficit:	-7	25
Two Mature HMO	45.6	30	Deficit:	-16	36
Adjusted FTE	42.6	28	Deficit:	-14	34
GMENAC	25.2	17	Deficit:	-3	20
Kaiser Portland	16.7	11	Surplus:	3	9
7 Kaiser Plans	11.0	7	Surplus:	7	9
GHC Seattle					
Three HMOs	9.2	6	Surplus:	8	7
Goodman					
Hicks & Glenn	16.2	11	Surplus:	3	13
Solucient	22.5	15	Deficit:	-1	18
Average Requirement	23.6	16	Deficit:	-2	19

		2	008 Actual		2015 Projected
Physician Specialty		Population	Physicians	/100k	Population
Gastroenterology		66,412	2	3.0	78,958
National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
AMA	4.2	3	Deficit:	-1	3
Two Mature HMO	3.1	2	Adequate	0	2
Adjusted FTE					
GMENAC	3.2	2	Adequate	0	3
Kaiser Portland	1.7	1	Surplus:	1	1
7 Kaiser Plans	1.7	1	Surplus:	1	1
GHC Seattle					
Three HMOs					
Goodman	1.3	1	Surplus:	1	1
Hicks & Glenn					
Solucient	3.5	2	Adequate	0	3
Average Requirement	2.4	2	Adequate	0	2

		2	008 Actual		2015 Projected
Physician Specialty		Population	Physicians	/100k	Population
Internal Medicine		66,412	12	18.1	78,958
National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
AMA	53.1	35	Deficit:	-23	42
Two Mature HMO	21.4	14	Deficit:	-2	17
Adjusted FTE	20.0	13	Deficit:	-1	16
GMENAC	28.8	19	Deficit:	-7	23
Kaiser Portland	28.1	19	Deficit:	-7	24
7 Kaiser Plans	30.3	20	Deficit:	-8	24
GHC Seattle					
Three HMOs	16.7	11	Surplus:	1	13
Goodman					
Hicks & Glenn	11.3	8	Surplus:	4	9
Solucient	19.0	13	Deficit:	-1	15
Average Requiremer	nt 22.0	15	Deficit:	-3	17

			2	008 Actual		2015 Projected
Physician Sp	pecialty		Population	Physicians	/100k	Population
Nephrology			66,412	2	3.0	78,958
N S	Vational Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
Ā	MA	2.6	2	Adequate	0	2
1	wo Mature HMO	1.4	1	Surplus:	1	1
Ā	Adjusted FTE	1.3	1	Surplus:	1	1
	GMENAC	1.1	1	Surplus:	1	1
ŀ	aiser Portland	0.8	1	Surplus:	1	1
7	' Kaiser Plans	0.7	0	Surplus:	2	1
(GHC Seattle	0.9	1	Surplus:	1	1
1	Three HMOs					
(Goodman					
	licks & Glenn					
5	Solucient	0.7	0	Surplus:	2	1
<i>A</i>	Average Requirement	1.0	1	Surplus:	1	1

			2	008 Actual		2015 Projected
Physi	cian Specialty		Population	Physicians	/100k	Population
Neuro	ological Surgery		66,412	1	1.5	78,958
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
	AMA	1.9	1	Adequate	0	2
	Two Mature HMO	1.1	1	Adequate	0	1
	Adjusted FTE	1.0	1	Adequate	0	1
	GMENAC	1.1	1	Adequate	0	1
	Kaiser Portland	1.4	1	Adequate	0	
	7 Kaiser Plans					
	GHC Seattle	0.4	0	Surplus:	1	0
	Three HMOs					
	Goodman	0.7	0	Surplus:	1	1
	Hicks & Glenn					
	Solucient					
	Average Requirement	1.0	1	Adequate	0	1

			2	008 Actual		2015 Projected
Physic	cian Specialty		Population	Physicians	/100k	Population
Neuro	logy		66,412	1	1.5	78,958
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
	AMA	5.0	3	Deficit:	-2	4
	Two Mature HMO	2.4	2	Deficit:	-1	2
	Adjusted FTE	2.3	2	Deficit:	-1	2
	GMENAC	3.3	2	Deficit:	-1	3
	Kaiser Portland	1.3	1	Adequate	0	1
	7 Kaiser Plans	1.7	1	Adequate	0	1
	GHC Seattle	1.2	1	Adequate	0	1
	Three HMOs					
	Goodman	2.1	1	Adequate	0	2
	Hicks & Glenn	1.4	1	Adequate	0	1
	Solucient	1.8	1	Adequate	0	1
	Average Requirement	1.9	1	Adequate	0	2

			2	008 Actual		2015 Projected
Physician	Specialty		Population	Physicians	/100k	Population
OB/GYN			66,412	9	13.6	78,958
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Stat	tus	Physician Need
-	AMA	14.1	9	Adequate	0	11
-	Two Mature HMO	12.1	8	Surplus:	1	10
-	Adjusted FTE	11.3	8	Surplus:	1	9
-	GMENAC	9.9	7	Surplus:	2	8
-	Kaiser Portland	11.6	8	Surplus:	1	9
-	7 Kaiser Plans	11.5	8	Surplus:	1	9
-	GHC Seattle	10.0	7	Surplus:	2	8
-	Three HMOs	8.8	6	Surplus:	3	7
-	Goodman	8.4	6	Surplus:	3	7
-	Hicks & Glenn	8.0	5	Surplus:	4	6
-	Solucient	10.2	7	Surplus:	2	8
-	Average Requirement	10.2	7	Surplus:	2	8

			2	008 Actual		2015 Projecte
Physic	ian Specialty		Population	Physicians	/100k	Population
Optha	Imology		66,412	5	7.5	78,958
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
	AMA	6.0	4	Surplus:	1	5
	Two Mature HMO	5.9	4	Surplus:	1	5
	Adjusted FTE	5.5	4	Surplus:	1	4
	GMENAC	4.6	3	Surplus:	2	4
	Kaiser Portland	2.4	2	Surplus:	3	2
	7 Kaiser Plans	3.1	2	Surplus:	3	2
	GHC Seattle	5.0	3	Surplus:	2	4
	Three HMOs					
	Goodman	3.5	2	Surplus:	3	3
	Hicks & Glenn	3.2	2	Surplus:	3	3
	Solucient	4.7	3	Surplus:	2	4
	Average Requirement	4.2	3	Surplus:	2	3

		2	008 Actual		2015 Projected
Physician Specialty		Population	Physicians	/100k	Population
Orthopedic Surgery		66,412	3	4.5	78,958
National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
AMA	8.3	6	Deficit:	-3	7
Two Mature HMO	6.8	5	Deficit:	-2	5
Adjusted FTE	6.4	4	Deficit:	-1	5
GMENAC	6.0	4	Deficit:	-1	5
Kaiser Portland	5.9	4	Deficit:	-1	3
7 Kaiser Plans	4.2	3	Adequate	0	3
GHC Seattle	6.7	4	Deficit:	-1	5
Three HMOs	3.0	2	Surplus:	1	2
Goodman	5.9	4	Deficit:	-1	5
Hicks & Glenn	4.2	3	Adequate	0	3
Solucient	6.1	4	Deficit:	-1	5
Average Requireme	ent 5.5	4	Deficit:	-1	4

			2	008 Actual		2015 Projected
Physician Specialty		Population	Physicians	/100k	Population	
Otolar	yngology		66,412	2	3.0	78,958
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
	AMA	3.4	2	Adequate	0	3
	Two Mature HMO	3.2	2	Adequate	0	3
	Adjusted FTE					
	GMENAC	3.2	2	Adequate	0	3
	Kaiser Portland	3.4	2	Adequate	0	2
	7 Kaiser Plans	2.4	2	Adequate	0	2
	GHC Seattle	3.0	2	Adequate	0	2
	Three HMOs					
	Goodman					
	Hicks & Glenn					
	Solucient					
	Average Requirement	3.0	2	Adequate	0	2

			2	008 Actual		2015 Projected
Physician Specialty		Population	Physicians	/100k	Population	
Patholog	У		66,412	1	1.5	78,958
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
	AMA	6.3	4	Deficit:	-3	5
	Two Mature HMO	1.9	1	Adequate	0	2
	Adjusted FTE	1.8	1	Adequate	0	1
	GMENAC	6.4	4	Deficit:	-3	5
	Kaiser Portland	3.3	2	Deficit:	-1	1
	7 Kaiser Plans	1.8	1	Adequate	0	1
	GHC Seattle					
	Three HMOs					
	Goodman	4.1	3	Deficit:	-2	3
	Hicks & Glenn					
	Solucient					
	Average Requirement	3.2	2	Deficit:	-1	3

		2	008 Actual		2015 Projected
Physician Specialty	Population	Physicians	/100k	Population	
Pediatrics		66,412	9	13.6	78,958
National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
AMA	24.9	17	Deficit:	-8	20
Two Mature HMO	16.6	11	Deficit:	-2	13
Adjusted FTE	15.5	10	Deficit:	-1	12
GMENAC	12.4	8	Surplus:	1	10
Kaiser Portland	11.9	8	Surplus:	1	13
7 Kaiser Plans	16.0	11	Deficit:	-2	13
GHC Seattle					
Three HMOs	9.8	7	Surplus:	2	8
Goodman					
Hicks & Glenn	7.6	5	Surplus:	4	6
Solucient	13.9	9	Adequate	0	11
Average Requirement	13.0	9	Adequate	0	10

			2	008 Actual		2015 Projected
Physician Specialty		Population	Physicians	/100k	Population	
Psychiatry			66,412	3	4.5	78,958
	onal Physician dards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
AMA		13.6	9	Deficit:	-6	11
Two	Mature HMO	7.7	5	Deficit:	-2	6
Adju	sted FTE	7.2	5	Deficit:	-2	6
GME	NAC	15.4	10	Deficit:	-7	12
Kaise	er Portland	5.2	3	Adequate	0	3
7 Ka	iser Plans	4.1	3	Adequate	0	3
GHC	Seattle					
Thre	e HMOs					
Good	dman	7.2	5	Deficit:	-2	6
Hicks	s & Glenn	3.9	3	Adequate	0	3
Solu	cient	5.7	4	Deficit:	-1	5
Aver	age Requirement	7.1	5	Deficit:	-2	6

		2	008 Actual		2015 Projected
Physician Specialty		Population	Physicians	/100k	Population
Pulmonary Diseases		66,412	2	3.0	78,958
National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
AMA	3.5	2	Adequate	0	3
Two Mature HMO	2.0	1	Surplus:	1	2
Adjusted FTE	1.9	1	Surplus:	1	2
GMENAC	1.4	1	Surplus:	1	1
Kaiser Portland	1.4	1	Surplus:	1	1
7 Kaiser Plans	1.0	1	Surplus:	1	1
GHC Seattle	1.4	1	Surplus:	1	1
Three HMOs					
Goodman	1.4	1	Surplus:	1	1
Hicks & Glenn					
Solucient	1.3	1	Surplus:	1	1
Average Requirement	1.5	1	Surplus:	1	1

			2	008 Actual		2015 Projected
Physician Specialty		Population	Physicians	/100k	Population	
Radiolog	У		66,412	4	6.0	78,958
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
	AMA	11.4	8	Deficit:	-4	9
	Two Mature HMO	13.6	9	Deficit:	-5	11
	Adjusted FTE	13.7	9	Deficit:	-5	11
	GMENAC	7.7	5	Deficit:	-1	6
	Kaiser Portland	8.5	6	Deficit:	-2	4
	7 Kaiser Plans	4.7	3	Surplus:	1	4
	GHC Seattle	7.7	5	Deficit:	-1	6
	Three HMOs					
	Goodman	8.0	5	Deficit:	-1	6
	Hicks & Glenn					
	Solucient					
	Average Requirement	9.1	6	Deficit:	-2	7

_			2	008 Actual		2015 Projecte
Physician Specialty		Population	Physicians	/100k	Population	
Gener	al Surgery		66,412	4	6.0	78,958
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
	AMA	12.5	8	Deficit:	-4	10
	Two Mature HMO	9.4	6	Deficit:	-2	7
	Adjusted FTE	8.8	6	Deficit:	-2	7
	GMENAC	9.7	6	Deficit:	-2	8
	Kaiser Portland	7.0	5	Deficit:	-1	5
	7 Kaiser Plans	6.2	4	Adequate	0	5
	GHC Seattle	5.9	4	Adequate	0	5
	Three HMOs	4.2	3	Surplus:	1	3
	Goodman	9.7	6	Deficit:	-2	8
	Hicks & Glenn	4.1	3	Surplus:	1	3
	Solucient	6.0	4	Adequate	0	5
	Average Requirement	7.1	5	Deficit:	-1	6

			2	008 Actual		2015 Projected
Physician Specialty		Population	Physicians	/100k	Population	
Urology			66,412	2	3.0	78,958
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
	AMA	3.5	2	Adequate	0	3
	Two Mature HMO	3.5	2	Adequate	0	3
	Adjusted FTE	3.3	2	Adequate	0	3
	GMENAC	3.1	2	Adequate	0	2
	Kaiser Portland	3.3	2	Adequate	0	2
	7 Kaiser Plans	2.3	2	Adequate	0	2
	GHC Seattle	2.9	2	Adequate	0	2
	Three HMOs					
	Goodman	2.6	2	Adequate	0	2
	Hicks & Glenn	1.9	1	Surplus:	1	2
	Solucient	2.9	2	Adequate	0	2
	Average Requirement	2.9	2	Adequate	0	2

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

*Standards are presented as rates per 100,000 population

- (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.