		2	008 Actual		2015 Projected
Physician Specialty		Population	Physicians	/100k	Population
Allergy & Immunology		95,117	1	1.1	102,613
National Physicia Standards*	n Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
AMA	1.4	1	Adequate	0	1
Two Mature HMC	1.5	1	Adequate	0	2
Adjusted FTE	1.4	1	Adequate	0	1
GMENAC	0.8	1	Adequate	0	1
Kaiser Portland	1.7	2	Deficit:	-1	1
7 Kaiser Plans	1.2	1	Adequate	0	1
GHC Seattle	1.1	1	Adequate	0	1
Three HMOs					
Goodman	1.3	1	Adequate	0	1
Hicks & Glenn					
Solucient	1.7	2	Deficit:	-1	2
Average Requirer	ment 1.3	1	Adequate	0	1

			2	008 Actual		2015 Projected
Physic	Physician Specialty			Physicians	/100k	Population
Anest	nesthesiology		95,117	15	15.8	102,613
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
	AMA	14.0	13	Surplus:	2	14
	Two Mature HMO	9.7	9	Surplus:	6	10
	Adjusted FTE	9.1	9	Surplus:	6	9
	GMENAC	8.9	8	Surplus:	7	9
	Kaiser Portland	5.9	6	Surplus:	9	4
	7 Kaiser Plans	3.9	4	Surplus:	11	4
	GHC Seattle	9.0	9	Surplus:	6	9
	Three HMOs					
	Goodman	7.0	7	Surplus:	8	7
	Hicks & Glenn					
	Solucient					
	Average Requirement	7.6	7	Surplus:	8	8

			2	008 Actual		2015 Projected
Physician Specialt	У		Population	Physicians	/100k	Population
Cardiovascular Di	seases		95,117	13	13.7	102,613
Nationa Standar	l Physician ds*	Standard Phys/100,000 Pop.	Physician Need	Stat	tus	Physician Need
AMA		7.5	7	Surplus:	6	8
Two Ma	ture HMO	5.4	5	Surplus:	8	6
Adjuste	d FTE	5.0	5	Surplus:	8	5
GMENA	AC	3.1	3	Surplus:	10	3
Kaiser I	Portland	3.0	3	Surplus:	10	2
7 Kaise	r Plans	1.8	2	Surplus:	11	2
GHC Se	eattle	2.9	3	Surplus:	10	3
Three H	IMOs					
Goodm	an	3.6	3	Surplus:	10	4
Hicks &	Glenn	2.6	2	Surplus:	11	3
Solucie	nt	4.2	4	Surplus:	9	4
Average	e Requirement	3.5	3	Surplus:	10	4

			2	008 Actual		2015 Projected
Physic	Physician Specialty		Population	Physicians	/100k	Population
Derm	atology		95,117	2	2.1	102,613
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
	AMA	3.7	4	Deficit:	-2	4
	Two Mature HMO	2.8	3	Deficit:	-1	3
	Adjusted FTE	2.6	2	Adequate	0	3
	GMENAC	2.8	3	Deficit:	-1	3
	Kaiser Portland	2.5	2	Adequate	0	2
	7 Kaiser Plans	2.4	2	Adequate	0	2
	GHC Seattle	2.6	2	Adequate	0	3
	Three HMOs	1.6	2	Adequate	0	2
	Goodman	1.4	1	Surplus:	1	1
	Hicks & Glenn	2.1	2	Adequate	0	2
	Solucient	3.1	3	Deficit:	-1	3
	Average Requirement	2.4	2	Adequate	0	2

		2	008 Actual		2015 Projected
Physician Specialty		Population	Physicians	/100k	Population
Emergency Medicine		95,117	6	6.3	102,613
National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
AMA	10.5	10	Deficit:	-4	11
Two Mature HMO	5.5	5	Surplus:	1	6
Adjusted FTE	5.2	5	Surplus:	1	5
GMENAC	5.4	5	Surplus:	1	6
Kaiser Portland	6.7	6	Adequate	0	5
7 Kaiser Plans	5.3	5	Surplus:	1	5
GHC Seattle					
Three HMOs					
Goodman	2.7	3	Surplus:	3	3
Hicks & Glenn					
Solucient	12.4	12	Deficit:	-6	13
Average Requirem	ent 6.2	6	Adequate	0	6

			2	008 Actual		2015 Projected
Physic	Physician Specialty		Population	Physicians	/100k	Population
Endoc	rinology, Diabetes & Me	etabolism	95,117	1	1.1	102,613
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
	AMA	1.8	2	Deficit:	-1	2
	Two Mature HMO	1.1	1	Adequate	0	1
	Adjusted FTE	1.0	1	Adequate	0	1
	GMENAC	0.8	1	Adequate	0	1
	Kaiser Portland	0.9	1	Adequate	0	1
	7 Kaiser Plans	1.1	1	Adequate	0	1
	GHC Seattle					
	Three HMOs	0.6	1	Adequate	0	1
	Goodman					
	Hicks & Glenn					
	Solucient					
	Average Requirement	0.9	1	Adequate	0	1

		2	008 Actual		2015 Projected
Physician Specialty		Population	Physicians	/100k	Population
Family Practice		95,117	62	65.2	102,613
National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
AMA	31.5	30	Surplus:	32	32
Two Mature HMO	45.6	43	Surplus:	19	47
Adjusted FTE	42.6	41	Surplus:	21	44
GMENAC	25.2	24	Surplus:	38	26
Kaiser Portland	16.7	16	Surplus:	46	11
7 Kaiser Plans	11.0	10	Surplus:	52	11
GHC Seattle					
Three HMOs	9.2	9	Surplus:	53	9
Goodman					
Hicks & Glenn	16.2	15	Surplus:	47	17
Solucient	22.5	21	Surplus:	41	23
Average Requirement	23.6	22	Surplus:	40	24

			2	008 Actual		2015 Projected
Physic	cian Specialty		Population	Physicians	/100k	Population
Gastr	oenterology		95,117	7	7.4	102,613
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
	AMA	4.2	4	Surplus:	3	4
	Two Mature HMO	3.1	3	Surplus:	4	3
	Adjusted FTE					
	GMENAC	3.2	3	Surplus:	4	3
	Kaiser Portland	1.7	2	Surplus:	5	2
	7 Kaiser Plans	1.7	2	Surplus:	5	2
	GHC Seattle					
	Three HMOs					
	Goodman	1.3	1	Surplus:	6	1
	Hicks & Glenn					
	Solucient	3.5	3	Surplus:	4	4
	Average Requirement	2.4	2	Surplus:	5	2

			2	008 Actual		2015 Projected
Phys	ician Specialty		Population	Physicians	/100k	Population
Infec	tious Disease		95,117	1	1.1	102,613
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
	AMA	2.2	2	Deficit:	-1	2
	Two Mature HMO	0.7	1	Adequate	0	1
	Adjusted FTE	0.6	1	Adequate	0	1
	GMENAC	0.9	1	Adequate	0	1
	Kaiser Portland	1.2	1	Adequate	0	1
	7 Kaiser Plans	0.7	1	Adequate	0	1
	GHC Seattle	0.6	1	Adequate	0	1
	Three HMOs					
	Goodman					
	Hicks & Glenn					
	Solucient					
	Average Requirement	0.8	1	Adequate	0	1

			2	008 Actual		2015 Projected
Physician	Physician Specialty		Population	Physicians	/100k	Population
Internal I	ternal Medicine		95,117	39	41.0	102,613
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
	AMA	53.1	51	Deficit:	-12	54
	Two Mature HMO	21.4	20	Surplus:	19	22
	Adjusted FTE	20.0	19	Surplus:	20	21
	GMENAC	28.8	27	Surplus:	12	30
	Kaiser Portland	28.1	27	Surplus:	12	31
	7 Kaiser Plans	30.3	29	Surplus:	10	31
	GHC Seattle					
	Three HMOs	16.7	16	Surplus:	23	17
	Goodman					
	Hicks & Glenn	11.3	11	Surplus:	28	12
	Solucient	19.0	18	Surplus:	21	20
	Average Requirement	22.0	21	Surplus:	18	23

			2	008 Actual		2015 Projected
Physician Specialty			Population	Physicians	/100k <b>5.3</b>	Population 102,613
Neph	rology	95,117	5			
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
	AMA	2.6	2	Surplus:	3	3
	Two Mature HMO	1.4	1	Surplus:	4	1
	Adjusted FTE	1.3	1	Surplus:	4	1
	GMENAC	1.1	1	Surplus:	4	1
	Kaiser Portland	0.8	1	Surplus:	4	1
	7 Kaiser Plans	0.7	1	Surplus:	4	1
	GHC Seattle	0.9	1	Surplus:	4	1
	Three HMOs					
	Goodman					
	Hicks & Glenn					
	Solucient	0.7	1	Surplus:	4	1
	Average Requirement	1.0	1	Surplus:	4	1

			2	008 Actual		2015 Projected
Physiciar	Physician Specialty			Physicians	/100k	Population
Neurolog	gical Surgery		95,117	3	3.2	102,613
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
	AMA	1.9	2	Surplus:	1	2
	Two Mature HMO	1.1	1	Surplus:	2	1
	Adjusted FTE	1.0	1	Surplus:	2	1
	GMENAC	1.1	1	Surplus:	2	1
	Kaiser Portland	1.4	1	Surplus:	2	
	7 Kaiser Plans					
	GHC Seattle	0.4	0	Surplus:	3	0
	Three HMOs					
	Goodman	0.7	1	Surplus:	2	1
	Hicks & Glenn					
	Solucient					
	Average Requirement	1.0	1	Surplus:	2	1

		2	008 Actual		2015 Projected
Physician Specialty		Population	Physicians	/100k	Population
Neurology		95,117	5	5.3	102,613
National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
AMA	5.0	5	Adequate	0	5
Two Mature HMO	2.4	2	Surplus:	3	2
Adjusted FTE	2.3	2	Surplus:	3	2
GMENAC	3.3	3	Surplus:	2	3
Kaiser Portland	1.3	1	Surplus:	4	2
7 Kaiser Plans	1.7	2	Surplus:	3	2
GHC Seattle	1.2	1	Surplus:	4	1
Three HMOs					
Goodman	2.1	2	Surplus:	3	2
Hicks & Glenn	1.4	1	Surplus:	4	1
Solucient	1.8	2	Surplus:	3	2
Average Requiremen	nt 1.9	2	Surplus:	3	2

			2	008 Actual		2015 Projected
Physician	Specialty		Population	Physicians	/100k	Population
OB/GYN			95,117	13	13.7	102,613
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
-	AMA	14.1	13	Adequate	0	14
-	Two Mature HMO	12.1	12	Surplus:	1	12
-	Adjusted FTE	11.3	11	Surplus:	2	12
-	GMENAC	9.9	9	Surplus:	4	10
_	Kaiser Portland	11.6	11	Surplus:	2	12
-	7 Kaiser Plans	11.5	11	Surplus:	2	12
_	GHC Seattle	10.0	10	Surplus:	3	10
_	Three HMOs	8.8	8	Surplus:	5	9
_	Goodman	8.4	8	Surplus:	5	9
-	Hicks & Glenn	8.0	8	Surplus:	5	8
_	Solucient	10.2	10	Surplus:	3	10
-	Average Requirement	10.2	10	Surplus:	3	10

			2	008 Actual		2015 Projected
Physician	n Specialty	_	Population	Physicians	/100k	Population
Opthalm	ology		95,117	4	4.2	102,613
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
	AMA	6.0	6	Deficit:	-2	6
	Two Mature HMO	5.9	6	Deficit:	-2	6
	Adjusted FTE	5.5	5	Deficit:	-1	6
	GMENAC	4.6	4	Adequate	0	5
	Kaiser Portland	2.4	2	Surplus:	2	3
	7 Kaiser Plans	3.1	3	Surplus:	1	3
	GHC Seattle	5.0	5	Deficit:	-1	5
	Three HMOs					
	Goodman	3.5	3	Surplus:	1	4
	Hicks & Glenn	3.2	3	Surplus:	1	3
	Solucient	4.7	4	Adequate	0	5
	Average Requirement	4.2	4	Adequate	0	4

			2	008 Actual		2015 Projected
Physic	cian Specialty		Population	Physicians	/100k	Population
Ortho	pedic Surgery		95,117	13	13.7	102,613
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
	AMA	8.3	8	Surplus:	5	9
	Two Mature HMO	6.8	6	Surplus:	7	7
	Adjusted FTE	6.4	6	Surplus:	7	7
	GMENAC	6.0	6	Surplus:	7	6
	Kaiser Portland	5.9	6	Surplus:	7	4
	7 Kaiser Plans	4.2	4	Surplus:	9	4
	GHC Seattle	6.7	6	Surplus:	7	7
	Three HMOs	3.0	3	Surplus:	10	3
	Goodman	5.9	6	Surplus:	7	6
	Hicks & Glenn	4.2	4	Surplus:	9	4
	Solucient	6.1	6	Surplus:	7	6
	Average Requirement	5.5	5	Surplus:	8	6

			2	008 Actual		2015 Projected
Physiciar	n Specialty		Population	Physicians	/100k	Population
Otolaryn	gology		95,117	6	6.3	102,613
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
	AMA	3.4	3	Surplus:	3	3
	Two Mature HMO	3.2	3	Surplus:	3	3
	Adjusted FTE					
	GMENAC	3.2	3	Surplus:	3	3
	Kaiser Portland	3.4	3	Surplus:	3	2
	7 Kaiser Plans	2.4	2	Surplus:	4	2
	GHC Seattle	3.0	3	Surplus:	3	3
	Three HMOs					
	Goodman					
	Hicks & Glenn					
	Solucient					
	Average Requirement	3.0	3	Surplus:	3	3

			2	008 Actual		2015 Projected
Physiciar	n Specialty		Population	Physicians	/100k	Population
Patholog	JY		95,117	5	5.3	102,613
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
	AMA	6.3	6	Deficit:	-1	6
	Two Mature HMO	1.9	2	Surplus:	3	2
	Adjusted FTE	1.8	2	Surplus:	3	2
	GMENAC	6.4	6	Deficit:	-1	7
	Kaiser Portland	3.3	3	Surplus:	2	2
	7 Kaiser Plans	1.8	2	Surplus:	3	2
	GHC Seattle					
	Three HMOs					
	Goodman	4.1	4	Surplus:	1	4
	Hicks & Glenn					
	Solucient					
	Average Requirement	3.2	3	Surplus:	2	3

		2	008 Actual		2015 Projected
Physician Specialty	_	Population	Physicians	/100k	Population
Pediatrics		95,117	14	14.7	102,613
National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
AMA	24.9	24	Deficit:	-10	26
Two Mature HMO	16.6	16	Deficit:	-2	17
Adjusted FTE	15.5	15	Deficit:	-1	16
GMENAC	12.4	12	Surplus:	2	13
Kaiser Portland	11.9	11	Surplus:	3	16
7 Kaiser Plans	16.0	15	Deficit:	-1	16
GHC Seattle					
Three HMOs	9.8	9	Surplus:	5	10
Goodman					
Hicks & Glenn	7.6	7	Surplus:	7	8
Solucient	13.9	13	Surplus:	1	14
Average Requirement	13.0	12	Surplus:	2	13

			2	008 Actual		2015 Projected
Physi	Physician Specialty		Population	Physicians	/100k	Population
Plasti	ic Surgery		95,117	5	5.3	102,613
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
	AMA	2.4	2	Surplus:	3	2
	Two Mature HMO					
	Adjusted FTE					
	GMENAC	1.1	1	Surplus:	4	1
	Kaiser Portland	0.3	0	Surplus:	5	
	7 Kaiser Plans					
	GHC Seattle	0.4	0	Surplus:	5	0
	Three HMOs					
	Goodman	1.1	1	Surplus:	4	1
	Hicks & Glenn	2.3	2	Surplus:	3	2
	Solucient	2.2	2	Surplus:	3	2
	Average Requirement	1.2	1	Surplus:	4	1

		2	008 Actual		2015 Projected
Physician Specialty		Population	Physicians	/100k	Population
Psychiatry		95,117	22	23.1	102,613
National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need Status		tus	Physician Need
AMA	13.6	13	Surplus:	9	14
Two Mature HMO	7.7	7	Surplus:	15	8
Adjusted FTE	7.2	7	Surplus:	15	7
GMENAC	15.4	15	Surplus:	7	16
Kaiser Portland	5.2	5	Surplus:	17	4
7 Kaiser Plans	4.1	4	Surplus:	18	4
GHC Seattle					
Three HMOs					
Goodman	7.2	7	Surplus:	15	7
Hicks & Glenn	3.9	4	Surplus:	18	4
Solucient	5.7	5	Surplus:	17	6
Average Requirement	7.1	7	Surplus:	15	7

			2	008 Actual		2015 Projected
Physic	cian Specialty		Population	Physicians	/100k	Population
Pulmo	onary Diseases		95,117	6	6.3	102,613
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
	AMA	3.5	3	Surplus:	3	4
	Two Mature HMO	2.0	2	Surplus:	4	2
	Adjusted FTE	1.9	2	Surplus:	4	2
	GMENAC	1.4	1	Surplus:	5	1
	Kaiser Portland	1.4	1	Surplus:	5	1
	7 Kaiser Plans	1.0	1	Surplus:	5	1
	GHC Seattle	1.4	1	Surplus:	5	1
	Three HMOs					
	Goodman	1.4	1	Surplus:	5	1
	Hicks & Glenn					
	Solucient	1.3	1	Surplus:	5	1
	Average Requirement	1.5	1	Surplus:	5	2

		2	008 Actual		2015 Projected
Physician Specialty		Population	Physicians	/100k	Population
Radiology		95,117	17	17.9	102,613
National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need Status		tus	Physician Need
AMA	11.4	11	Surplus:	6	12
Two Mature HMO	13.6	13	Surplus:	4	14
Adjusted FTE	13.7	13	Surplus:	4	14
GMENAC	7.7	7	Surplus:	10	8
Kaiser Portland	8.5	8	Surplus:	9	5
7 Kaiser Plans	4.7	4	Surplus:	13	5
GHC Seattle	7.7	7	Surplus:	10	8
Three HMOs					
Goodman	8.0	8	Surplus:	9	8
Hicks & Glenn					
Solucient					
Average Requiremen	nt 9.1	9	Surplus:	8	9

			2	008 Actual		2015 Projected
Physic	cian Specialty		Population	Physicians	/100k	Population
Rheur	natology		95,117	2	2.1	102,613
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
	AMA	1.5	1	Surplus:	1	2
	Two Mature HMO	1.1	1	Surplus:	1	1
	Adjusted FTE	1.0	1	Surplus:	1	1
	GMENAC	0.7	1	Surplus:	1	1
	Kaiser Portland	0.4	0	Surplus:	2	1
	7 Kaiser Plans	0.7	1	Surplus:	1	1
	GHC Seattle	0.7	1	Surplus:	1	1
	Three HMOs					
	Goodman	0.4	0	Surplus:	2	0
	Hicks & Glenn					
	Solucient	1.3	1	Surplus:	1	1
	Average Requirement	0.8	1	Surplus:	1	1

			2	008 Actual		2015 Projected
Physician Sp	Physician Specialty  General Surgery		Population 95,117	Physicians <b>7</b>	/100k <b>7.4</b>	Population 102,613
General Surg						
	lational Physician tandards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
A	MA	12.5	12	Deficit:	-5	13
T	wo Mature HMO	9.4	9	Deficit:	-2	10
A	djusted FTE	8.8	8	Deficit:	-1	9
G	MENAC	9.7	9	Deficit:	-2	10
K	aiser Portland	7.0	7	Adequate	0	6
7	Kaiser Plans	6.2	6	Surplus:	1	6
G	iHC Seattle	5.9	6	Surplus:	1	6
T	hree HMOs	4.2	4	Surplus:	3	4
G	ioodman	9.7	9	Deficit:	-2	10
H	licks & Glenn	4.1	4	Surplus:	3	4
S	olucient	6.0	6	Surplus:	1	6
A	verage Requirement	7.1	7	Adequate	0	7

			2	008 Actual		2015 Projected
Physician Specialty		Population	Physicians	/100k	Population	
Thora	Thoracic Surgery		95,117	3	3.2	102,613
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
	AMA	1.5	1	Surplus:	2	2
	Two Mature HMO					
	Adjusted FTE					
	GMENAC	0.8	1	Surplus:	2	1
	Kaiser Portland	0.1	0	Surplus:	3	
	7 Kaiser Plans					
	GHC Seattle					
	Three HMOs					
	Goodman					
	Hicks & Glenn					
	Solucient					
	Average Requirement	0.5	0	Surplus:	3	1

			2	008 Actual		2015 Projected
Physician Specialty		Population	Physicians	/100k	Population	
Urology			95,117	6	6.3	102,613
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
•	AMA	3.5	3	Surplus:	3	4
	Two Mature HMO	3.5	3	Surplus:	3	4
	Adjusted FTE	3.3	3	Surplus:	3	3
	GMENAC	3.1	3	Surplus:	3	3
	Kaiser Portland	3.3	3	Surplus:	3	2
	7 Kaiser Plans	2.3	2	Surplus:	4	2
	GHC Seattle	2.9	3	Surplus:	3	3
	Three HMOs					
	Goodman	2.6	2	Surplus:	4	3
	Hicks & Glenn	1.9	2	Surplus:	4	2
	Solucient	2.9	3	Surplus:	3	3
	Average Requirement	2.9	3	Surplus:	3	3

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.

<sup>\*</sup>Standards are presented as rates per 100,000 population