			2	008 Actual		2015 Projected
Physician Specia	lty		Population	Physicians	/100k	Population
Allergy & Immu	nology		74,753	1	1.3	85,890
Nation Stand	National Physician Standards*		Physician Need	Sta	tus	Physician Need
AMA		1.4	1	Adequate	0	1
Two N	Mature HMO	1.5	1	Adequate	0	1
Adjus	ted FTE	1.4	1	Adequate	0	1
GMEN	NAC	0.8	1	Adequate	0	1
Kaise	r Portland	1.7	1	Adequate	0	1
7 Kais	er Plans	1.2	1	Adequate	0	1
GHC	Seattle	1.1	1	Adequate	0	1
Three	HMOs					
Good	man	1.3	1	Adequate	0	1
Hicks	& Glenn					
Soluc	ient	1.7	1	Adequate	0	1
Avera	ge Requirement	1.3	1	Adequate	0	1

			2	008 Actual		2015 Projected
Physic	Physician Specialty Anesthesiology		Population	Physicians	/100k	Population
Anest			74,753	6	8.0	85,890
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
	AMA	14.0	10	Deficit:	-4	12
	Two Mature HMO	9.7	7	Deficit:	-1	8
	Adjusted FTE	9.1	7	Deficit:	-1	8
	GMENAC	8.9	7	Deficit:	-1	8
	Kaiser Portland	5.9	4	Surplus:	2	3
	7 Kaiser Plans	3.9	3	Surplus:	3	3
	GHC Seattle	9.0	7	Deficit:	-1	8
	Three HMOs					
	Goodman	7.0	5	Surplus:	1	6
	Hicks & Glenn					
	Solucient					
	Average Requirement	7.6	6	Adequate	0	7

			2	008 Actual		2015 Projected
Physicia	Physician Specialty Cardiovascular Diseases		Population	Physicians	/100k	Population
Cardiova			74,753	8	10.7	85,890
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
	AMA	7.5	6	Surplus:	2	6
	Two Mature HMO	5.4	4	Surplus:	4	5
	Adjusted FTE	5.0	4	Surplus:	4	4
	GMENAC	3.1	2	Surplus:	6	3
	Kaiser Portland	3.0	2	Surplus:	6	2
	7 Kaiser Plans	1.8	1	Surplus:	7	2
	GHC Seattle	2.9	2	Surplus:	6	2
	Three HMOs					
	Goodman	3.6	3	Surplus:	5	3
	Hicks & Glenn	2.6	2	Surplus:	6	2
	Solucient	4.2	3	Surplus:	5	4
	Average Requirement	3.5	3	Surplus:	5	3

			2	008 Actual		2015 Projected
Physic	Physician Specialty Dermatology		Population	Physicians	/100k	Population
Derma			74,753	4	5.4	85,890
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
	AMA	3.7	3	Surplus:	1	3
	Two Mature HMO	2.8	2	Surplus:	2	2
	Adjusted FTE	2.6	2	Surplus:	2	2
	GMENAC	2.8	2	Surplus:	2	2
	Kaiser Portland	2.5	2	Surplus:	2	2
	7 Kaiser Plans	2.4	2	Surplus:	2	2
	GHC Seattle	2.6	2	Surplus:	2	2
	Three HMOs	1.6	1	Surplus:	3	1
	Goodman	1.4	1	Surplus:	3	1
	Hicks & Glenn	2.1	2	Surplus:	2	2
	Solucient	3.1	2	Surplus:	2	3
	Average Requirement	2.4	2	Surplus:	2	2

			2	008 Actual		2015 Projected
Physician Specialty			Population	Physicians	/100k	Population
Emergency Medicine	Emergency Medicine		74,753	7	9.4	85,890
National Phy Standards*	sician Shys/100,	Standard 000 Pop.	Physician Need	Stat	tus	Physician Need
AMA		10.5	8	Deficit:	-1	9
Two Mature	НМО	5.5	4	Surplus:	3	5
Adjusted FTE		5.2	4	Surplus:	3	4
GMENAC		5.4	4	Surplus:	3	5
Kaiser Portla	nd	6.7	5	Surplus:	2	5
7 Kaiser Plar	าร	5.3	4	Surplus:	3	5
GHC Seattle						
Three HMOs	;					
Goodman		2.7	2	Surplus:	5	2
Hicks & Glen	in					
Solucient		12.4	9	Deficit:	-2	11
Average Rec	quirement	6.2	5	Surplus:	2	5

			2	008 Actual		2015 Projected
Physiciar	Physician Specialty Endocrinology, Diabetes & Metabolism		Population	Physicians	/100k	Population
Endocrin			74,753	1	1.3	85,890
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
	AMA	1.8	1	Adequate	0	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	0	Surplus:	1	1
	Goodman					
	Hicks & Glenn					
	Solucient					
	Average Requirement	0.9	1	Adequate	0	1

			2	008 Actual		2015 Projected
Physician Spec	Physician Specialty Family Practice		Population	Physicians	/100k 38.8	Population
Family Practic			74,753	29		85,890
	onal Physician ndards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
AMA	A	31.5	24	Surplus:	5	27
Two	Mature HMO	45.6	34	Deficit:	-5	39
Adju	sted FTE	42.6	32	Deficit:	-3	37
GMI	ENAC	25.2	19	Surplus:	10	22
Kais	er Portland	16.7	12	Surplus:	17	9
7 Ka	aiser Plans	11.0	8	Surplus:	21	9
GHO	C Seattle					
Thre	ee HMOs	9.2	7	Surplus:	22	8
Goo	dman					
Hick	s & Glenn	16.2	12	Surplus:	17	14
Solu	ıcient	22.5	17	Surplus:	12	19
Ave	rage Requirement	23.6	18	Surplus:	11	20

		2	008 Actual		2015 Projected
Physician Specialty	Physician Specialty		Physicians	/100k	Population
Gastroenterology		74,753	4	5.4	85,890
National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
AMA	4.2	3	Surplus:	1	4
Two Mature HMO	3.1	2	Surplus:	2	3
Adjusted FTE					
GMENAC	3.2	2	Surplus:	2	3
Kaiser Portland	1.7	1	Surplus:	3	1
7 Kaiser Plans	1.7	1	Surplus:	3	1
GHC Seattle					
Three HMOs					
Goodman	1.3	1	Surplus:	3	1
Hicks & Glenn					
Solucient	3.5	3	Surplus:	1	3
Average Requirement	2.4	2	Surplus:	2	2

		2	008 Actual		2015 Projected
Physician Specialty		Population	Physicians	/100k	Population
Hematology/Oncology		74,753	1	1.3	85,890
National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
AMA	3.5	3	Deficit:	-2	3
Two Mature HMO	2.5	2	Deficit:	-1	2
Adjusted FTE	2.4	2	Deficit:	-1	2
GMENAC	3.6	3	Deficit:	-2	3
Kaiser Portland	2.3	2	Deficit:	-1	2
7 Kaiser Plans	1.8	1	Adequate	0	2
GHC Seattle	1.6	1	Adequate	0	1
Three HMOs	2.6	2	Deficit:	-1	2
Goodman	1.2	1	Adequate	0	1
Hicks & Glenn					
Solucient	1.1	1	Adequate	0	1
Average Requirement	2.1	2	Deficit:	-1	2

			2	008 Actual		2015 Projected
Physic	Physician Specialty		Population	Physicians	/100k	Population
Infect	ious Disease		74,753	1	1.3	85,890
	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	0	Surplus:	1	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	0	Surplus:	1	1
	Three HMOs					
	Goodman					
	Hicks & Glenn					
	Solucient					
	Average Requirement	0.8	1	Adequate	0	1

			2	008 Actual		2015 Projected
Physicia	an Specialty		Population	Physicians	/100k	Population
Interna	l Medicine		74,753	14	18.7	85,890
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
	AMA	53.1	40	Deficit:	-26	46
	Two Mature HMO	21.4	16	Deficit:	-2	18
	Adjusted FTE	20.0	15	Deficit:	-1	17
	GMENAC	28.8	22	Deficit:	-8	25
	Kaiser Portland	28.1	21	Deficit:	-7	26
	7 Kaiser Plans	30.3	23	Deficit:	-9	26
	GHC Seattle					
	Three HMOs	16.7	12	Surplus:	2	14
	Goodman					
	Hicks & Glenn	11.3	8	Surplus:	6	10
	Solucient	19.0	14	Adequate	0	16
	Average Requirement	22.0	16	Deficit:	-2	19

			2	008 Actual		2015 Projected
Physic	Physician Specialty		Population	Physicians	/100k	Population
Nephr	ology		74,753	3	4.0	85,890
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
	AMA	2.6	2	Surplus:	1	2
	Two Mature HMO	1.4	1	Surplus:	2	1
	Adjusted FTE	1.3	1	Surplus:	2	1
	GMENAC	1.1	1	Surplus:	2	1
	Kaiser Portland	0.8	1	Surplus:	2	1
	7 Kaiser Plans	0.7	1	Surplus:	2	1
	GHC Seattle	0.9	1	Surplus:	2	1
	Three HMOs					
	Goodman					
	Hicks & Glenn					
	Solucient	0.7	1	Surplus:	2	1
	Average Requirement	1.0	1	Surplus:	2	1

			2	008 Actual		2015 Projected
Physician	Specialty	_	Population	Physicians	/100k	Population
Neurologi	cal Surgery		74,753	4	5.4	85,890
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
_	AMA	1.9	1	Surplus:	3	2
_	Two Mature HMO	1.1	1	Surplus:	3	1
_	Adjusted FTE	1.0	1	Surplus:	3	1
_	GMENAC	1.1	1	Surplus:	3	1
_	Kaiser Portland	1.4	1	Surplus:	3	
_	7 Kaiser Plans					
_	GHC Seattle	0.4	0	Surplus:	4	0
_	Three HMOs					
_	Goodman	0.7	1	Surplus:	3	1
_	Hicks & Glenn					
_	Solucient					
_	Average Requirement	1.0	1	Surplus:	3	1

			2	008 Actual		2015 Projected
Physician	Specialty		Population	Physicians	/100k	Population
Neurolog	у		74,753	3	4.0	85,890
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
-	AMA	5.0	4	Deficit:	-1	4
-	Two Mature HMO	2.4	2	Surplus:	1	2
-	Adjusted FTE	2.3	2	Surplus:	1	2
-	GMENAC	3.3	2	Surplus:	1	3
-	Kaiser Portland	1.3	1	Surplus:	2	1
-	7 Kaiser Plans	1.7	1	Surplus:	2	1
-	GHC Seattle	1.2	1	Surplus:	2	1
-	Three HMOs					
=	Goodman	2.1	2	Surplus:	1	2
-	Hicks & Glenn	1.4	1	Surplus:	2	1
-	Solucient	1.8	1	Surplus:	2	2
-	Average Requirement	1.9	1	Surplus:	2	2

			2	008 Actual		2015 Projecte
Physician	Specialty		Population	Physicians	/100k	Population
OB/GYN			74,753	14	18.7	85,890
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
_	AMA	14.1	11	Surplus:	3	12
_	Two Mature HMO	12.1	9	Surplus:	5	10
-	Adjusted FTE	11.3	8	Surplus:	6	10
_	GMENAC	9.9	7	Surplus:	7	9
=	Kaiser Portland	11.6	9	Surplus:	5	10
-	7 Kaiser Plans	11.5	9	Surplus:	5	10
_	GHC Seattle	10.0	7	Surplus:	7	9
=	Three HMOs	8.8	7	Surplus:	7	8
_	Goodman	8.4	6	Surplus:	8	7
_	Hicks & Glenn	8.0	6	Surplus:	8	7
=	Solucient	10.2	8	Surplus:	6	9
_	Average Requirement	10.2	8	Surplus:	6	9

			2	008 Actual		2015 Projected
Physic	Physician Specialty		Population	Physicians	/100k	Population
Optha	almology		74,753	7	9.4	85,890
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
	AMA	6.0	4	Surplus:	3	5
	Two Mature HMO	5.9	4	Surplus:	3	5
	Adjusted FTE	5.5	4	Surplus:	3	5
	GMENAC	4.6	3	Surplus:	4	4
	Kaiser Portland	2.4	2	Surplus:	5	3
	7 Kaiser Plans	3.1	2	Surplus:	5	3
	GHC Seattle	5.0	4	Surplus:	3	4
	Three HMOs					
	Goodman	3.5	3	Surplus:	4	3
	Hicks & Glenn	3.2	2	Surplus:	5	3
	Solucient	4.7	4	Surplus:	3	4
	Average Requirement	4.2	3	Surplus:	4	4

			2	008 Actual		2015 Projected
Physician	Physician Specialty		Population	Physicians	/100k	Population
Orthoped	dic Surgery		74,753	9	12.0	85,890
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
•	AMA	8.3	6	Surplus:	3	7
	Two Mature HMO	6.8	5	Surplus:	4	6
•	Adjusted FTE	6.4	5	Surplus:	4	5
•	GMENAC	6.0	4	Surplus:	5	5
•	Kaiser Portland	5.9	4	Surplus:	5	4
•	7 Kaiser Plans	4.2	3	Surplus:	6	4
•	GHC Seattle	6.7	5	Surplus:	4	6
	Three HMOs	3.0	2	Surplus:	7	3
	Goodman	5.9	4	Surplus:	5	5
•	Hicks & Glenn	4.2	3	Surplus:	6	4
	Solucient	6.1	5	Surplus:	4	5
•	Average Requirement	5.5	4	Surplus:	5	5

			2	008 Actual		2015 Projected
Physi	Physician Specialty Otolaryngology		Population	Physicians	/100k	Population 85,890
Otola			74,753	4	5.4	
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
	AMA	3.4	3	Surplus:	1	3
	Two Mature HMO	3.2	2	Surplus:	2	3
	Adjusted FTE					
	GMENAC	3.2	2	Surplus:	2	3
	Kaiser Portland	3.4	3	Surplus:	1	2
	7 Kaiser Plans	2.4	2	Surplus:	2	2
	GHC Seattle	3.0	2	Surplus:	2	3
	Three HMOs					
	Goodman					
	Hicks & Glenn					
	Solucient					
	Average Requirement	3.0	2	Surplus:	2	3

			2	008 Actual		2015 Projected
Physician	Specialty		Population	Physicians	/100k	Population
Patholog	У		74,753	5	6.7	85,890
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
	AMA	6.3	5	Adequate	0	5
	Two Mature HMO	1.9	1	Surplus:	4	2
	Adjusted FTE	1.8	1	Surplus:	4	2
	GMENAC	6.4	5	Adequate	0	5
	Kaiser Portland	3.3	2	Surplus:	3	2
	7 Kaiser Plans	1.8	1	Surplus:	4	2
	GHC Seattle					
	Three HMOs					
	Goodman	4.1	3	Surplus:	2	4
	Hicks & Glenn					
	Solucient					
	Average Requirement	3.2	2	Surplus:	3	3

			2	008 Actual		2015 Projected
Physician	Physician Specialty		Population	Physicians	/100k	Population
Pediatric	S		74,753	14	18.7	85,890
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
	AMA	24.9	19	Deficit:	-5	21
	Two Mature HMO	16.6	12	Surplus:	2	14
	Adjusted FTE	15.5	12	Surplus:	2	13
	GMENAC	12.4	9	Surplus:	5	11
	Kaiser Portland	11.9	9	Surplus:	5	14
	7 Kaiser Plans	16.0	12	Surplus:	2	14
	GHC Seattle					
	Three HMOs	9.8	7	Surplus:	7	8
	Goodman					
	Hicks & Glenn	7.6	6	Surplus:	8	7
	Solucient	13.9	10	Surplus:	4	12
	Average Requirement	13.0	10	Surplus:	4	11

			2	008 Actual		2015 Projected
Physician S	pecialty	_	Population	Physicians	/100k	Population
Plastic Surg	gery		74,753	6	8.0	85,890
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
	AMA	2.4	2	Surplus:	4	2
	Two Mature HMO					
	Adjusted FTE					
	GMENAC	1.1	1	Surplus:	5	1
	Kaiser Portland	0.3	0	Surplus:	6	
	7 Kaiser Plans					
	GHC Seattle	0.4	0	Surplus:	6	0
	Three HMOs					
	Goodman	1.1	1	Surplus:	5	1
I	Hicks & Glenn	2.3	2	Surplus:	4	2
	Solucient	2.2	2	Surplus:	4	2
	Average Requirement	1.2	1	Surplus:	5	1

			2	008 Actual		2015 Projected
Physic	cian Specialty		Population	Physicians	/100k	Population
Psych	iatry		74,753	23	30.8	85,890
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
	AMA	13.6	10	Surplus:	13	12
	Two Mature HMO	7.7	6	Surplus:	17	7
	Adjusted FTE	7.2	5	Surplus:	18	6
	GMENAC	15.4	12	Surplus:	11	13
	Kaiser Portland	5.2	4	Surplus:	19	4
	7 Kaiser Plans	4.1	3	Surplus:	20	4
	GHC Seattle					
	Three HMOs					
	Goodman	7.2	5	Surplus:	18	6
	Hicks & Glenn	3.9	3	Surplus:	20	3
	Solucient	5.7	4	Surplus:	19	5
	Average Requirement	7.1	5	Surplus:	18	6

			2	008 Actual		2015 Projecte
Physic	cian Specialty		Population	Physicians	/100k	Population
Pulmo	onary Diseases		74,753	4	5.4	85,890
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
	AMA	3.5	3	Surplus:	1	3
	Two Mature HMO	2.0	1	Surplus:	3	2
	Adjusted FTE	1.9	1	Surplus:	3	2
	GMENAC	1.4	1	Surplus:	3	1
	Kaiser Portland	1.4	1	Surplus:	3	1
	7 Kaiser Plans	1.0	1	Surplus:	3	1
	GHC Seattle	1.4	1	Surplus:	3	1
	Three HMOs					
	Goodman	1.4	1	Surplus:	3	1
	Hicks & Glenn					
	Solucient	1.3	1	Surplus:	3	1
	Average Requirement	1.5	1	Surplus:	3	1

			2	008 Actual		2015 Projected
Physician	Physician Specialty		Population	Physicians	/100k	Population
Radiology	′		74,753	5	6.7	85,890
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
-	AMA	11.4	9	Deficit:	-4	10
_	Two Mature HMO	13.6	10	Deficit:	-5	12
=	Adjusted FTE	13.7	10	Deficit:	-5	12
_	GMENAC	7.7	6	Deficit:	-1	7
_	Kaiser Portland	8.5	6	Deficit:	-1	4
_	7 Kaiser Plans	4.7	4	Surplus:	1	4
_	GHC Seattle	7.7	6	Deficit:	-1	7
_	Three HMOs					
_	Goodman	8.0	6	Deficit:	-1	7
-	Hicks & Glenn					
_	Solucient					
-	Average Requirement	9.1	7	Deficit:	-2	8

		2	008 Actual		2015 Projected
Physician Specialty Rheumatology		Population 74,753	Physicians 2	/100k 2.7	Population 85,890
AMA	1.5	1	Surplus:	1	1
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 Specialty		Population	Physicians	/100k	Population	
Gener	al Surgery		74,753	9	12.0	85,890
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
	AMA	12.5	9	Adequate	0	11
	Two Mature HMO	9.4	7	Surplus:	2	8
	Adjusted FTE	8.8	7	Surplus:	2	8
	GMENAC	9.7	7	Surplus:	2	8
	Kaiser Portland	7.0	5	Surplus:	4	5
	7 Kaiser Plans	6.2	5	Surplus:	4	5
	GHC Seattle	5.9	4	Surplus:	5	5
	Three HMOs	4.2	3	Surplus:	6	4
	Goodman	9.7	7	Surplus:	2	8
	Hicks & Glenn	4.1	3	Surplus:	6	4
	Solucient	6.0	4	Surplus:	5	5
	Average Requirement	7.1	5	Surplus:	4	6

			2	008 Actual		2015 Projected
Physician Specialty		Population	Physicians	/100k	Population	
Urology			74,753	5	6.7	85,890
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
•	AMA	3.5	3	Surplus:	2	3
-	Two Mature HMO	3.5	3	Surplus:	2	3
	Adjusted FTE	3.3	2	Surplus:	3	3
-	GMENAC	3.1	2	Surplus:	3	3
	Kaiser Portland	3.3	2	Surplus:	3	2
	7 Kaiser Plans	2.3	2	Surplus:	3	2
	GHC Seattle	2.9	2	Surplus:	3	2
	Three HMOs					
	Goodman	2.6	2	Surplus:	3	2
	Hicks & Glenn	1.9	1	Surplus:	4	2
-	Solucient	2.9	2	Surplus:	3	2
	Average Requirement	2.9	2	Surplus:	3	2

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