

Health Center Clinician Staffing Patterns and Services Provided

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Community Health Center

Community Health Centers (CHCs) are assuming an increasingly important role as safety net providers for the poor, immigrants, as well as the uninsured and underinsured. Yet CHCs are often unable to attract a sufficient number of physicians, jeopardizing the quality of medical care.



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The Importance of Teams

Partially in response to this problem, many CHCs have created health care teams that rely heavily on non-physician providers—nurse practitioners, nurse midwives and physician assistants.



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Access Transformed: National Workforce Projections

Table A. Current Staffing Patterns and Benchmark Rates for Workforce Projections

	2006 CHC Staffing Patterns			Benchmark Rates			
				Median Patient-to-Provider Ratio (1,092:1)		Patient-to-Physician Ratio (1,500:1)	
	Staff FTEs [‡]	Rate per 100,000	Staffing Ratio	Rate per 100,000	Patients/Staff	Rate per 100,000	Patients/Staff
Physicians	7,595	57.7	0.64	58.5	1,709.0	66.7	1,500.0
NPs/PAs/CNMs*	4,292	32.6	0.36	33.1	3,024.5	24.1	4,154.6
Total Health Providers**	11,887	90.4	1.00	91.6	1,092.0	104.3	958.4
Nurses	8,776	66.7	0.74	67.6	1,479.1	77.0	1,298.2
TOTAL STAFF	20,663	N/A	N/A	N/A	N/A	N/A	N/A

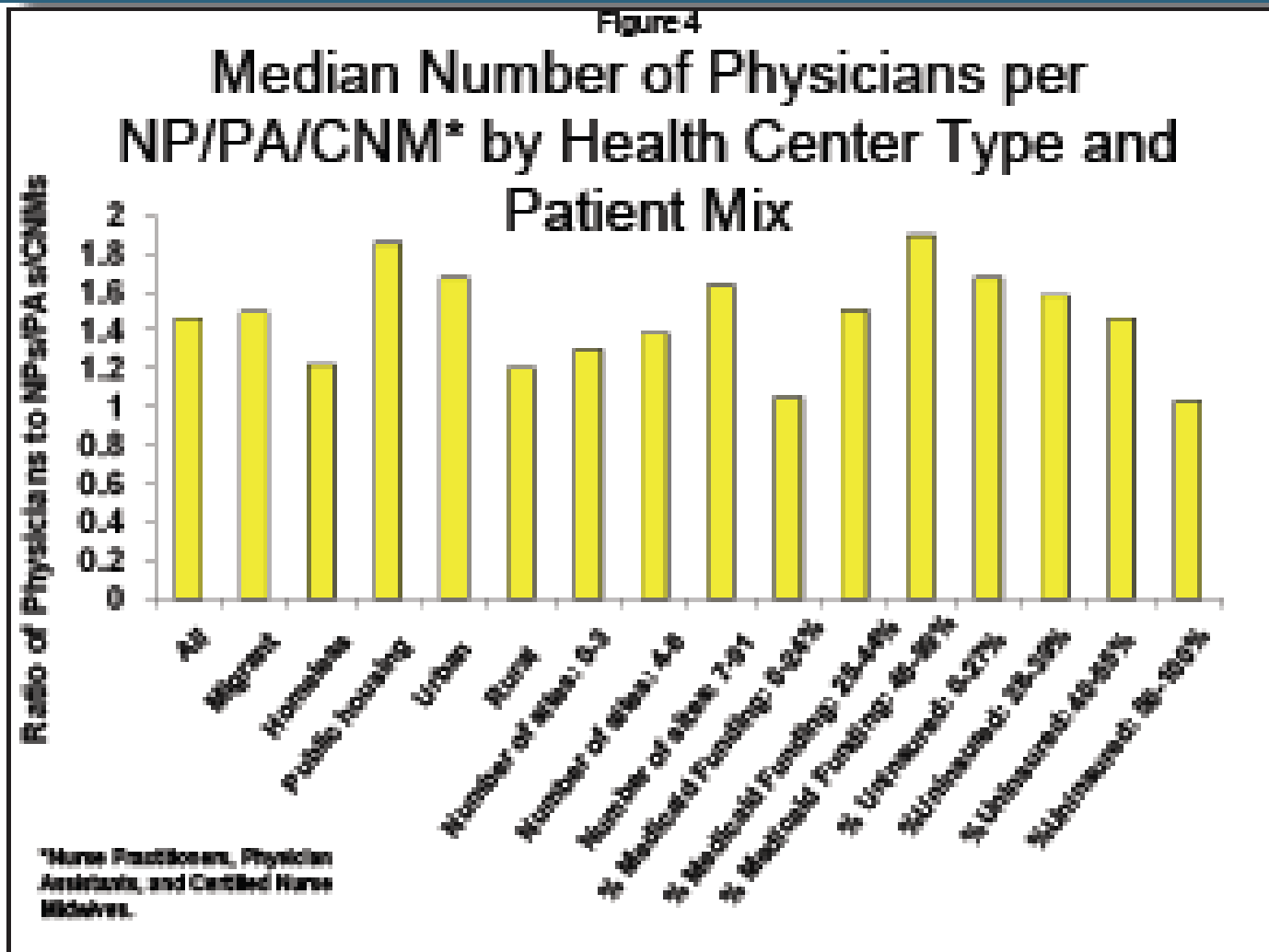
Source: 2006 Uniform Data System, Bureau of Primary Health Care, HRSA, DHHS.

[‡] Full-time equivalent.

* Nurse practitioners, physician assistants, certified nurse midwives.

** The rates for 2006 staffing patterns are based on 13,152,687 patients. For example, the "total" rate for providers is equal to 90.4 = (100,000) x (11,887/13,152,687). The patients-to-staff ratio are equal to the reciprocal of this rate times 100,000.

Variation in Staffing Patterns Across CHCs



Objective

- 1) To examine factors explaining variation in clinician staffing patterns across community health centers (CHCs)
 - State level variation in supply
 - Clinic and service area factors
- 2) To assess the impact of such variation on services provided in CHCs.



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Data

- 2006 Uniform Data Set (UDS); n=1002
- PCSA Data from Dartmouth Atlas Project
- National Provider Identification (NPI) data



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Main Staffing Pattern Measure

%Non-physician

$$=100 \times ((\text{CNM} + \text{PA} + \text{NP}) / (\text{CNM} + \text{PA} + \text{NP} + \text{PHY}))$$

- Note: One limitation of the UDS data is that it collected at the grantee level not at the site level



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Covariates

- PCSA-level
 - Rurality (Density)

- Clinic Level

Pct Patient Medicaid

- Age (0-5, >65)
- Race and Ethnicity
- Gender



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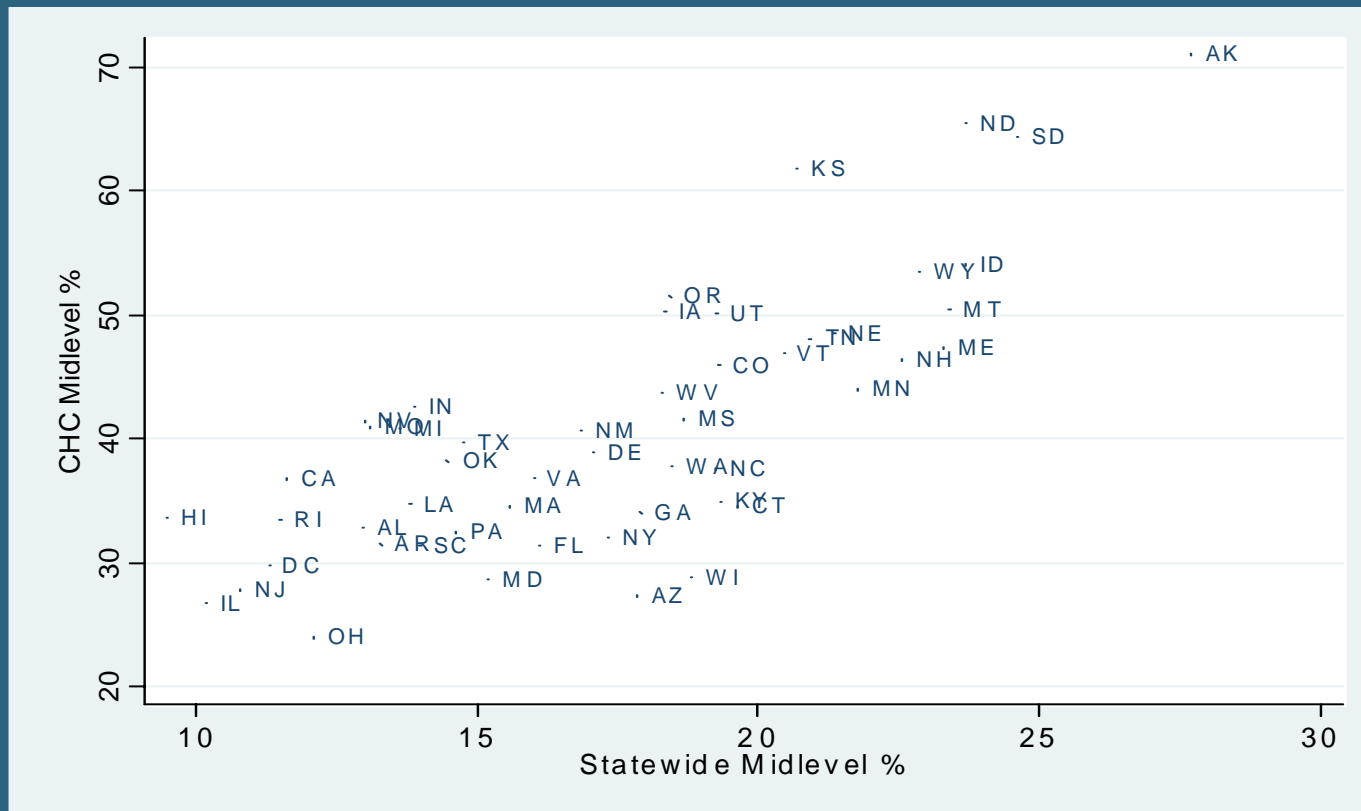
Methods

- Multivariate models are estimated to identify predictors of CHC staffing ratios.
- Logistic regression models, with controls for staffing ratio and financial resources are used to understand how the provision of different services are affected by structural factors.



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State Health Workforce and CHC Staffing Patterns



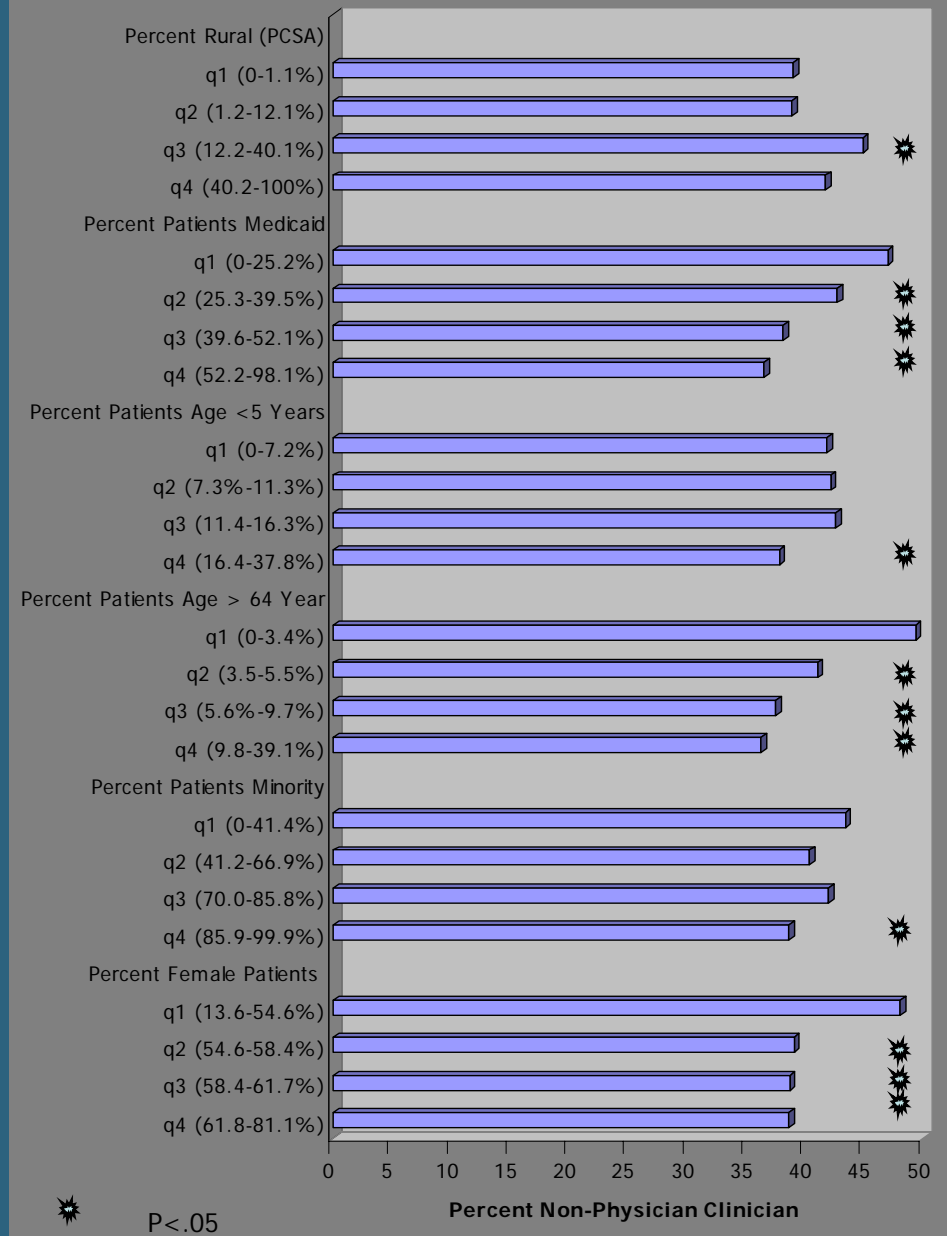
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Determinants of Staffing Patterns



Analysis of Count of Services

OLS Estimates for Count of Services Provided by CHCs		
	(I)	(II)
Midlevel Provider Rate		
Quartile 2 vs Quartile 1	-0.194	-0.205
Quartile 3 vs Quartile 1	0.902	1.303
Quartile 4 vs Quartile 1	-3.456 **	-2.241 **
Percent Medicaid Patients		
Quartile 2 vs Quartile 1	---	3.185 **
Quartile 3 vs Quartile 1	---	4.743 **
Quartile 4 vs Quartile 1	---	4.445 **
Constant	43.148	40.054
Source: 2006 UDS data (n=963)		
** p<.01		
Cut points for quartiles:		
Medicaid: q1 (0-1.1%), q2 (1.2-12.1%), q3 (12.2-40.1%), q4 (40.2-100%)		
Midlevel Provider: q1 (0-27.2%), q2 (27.3-40.1%), q3 (40.1-53.5%), q4 (53.6-100%)		



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Staffing and Provision of Services

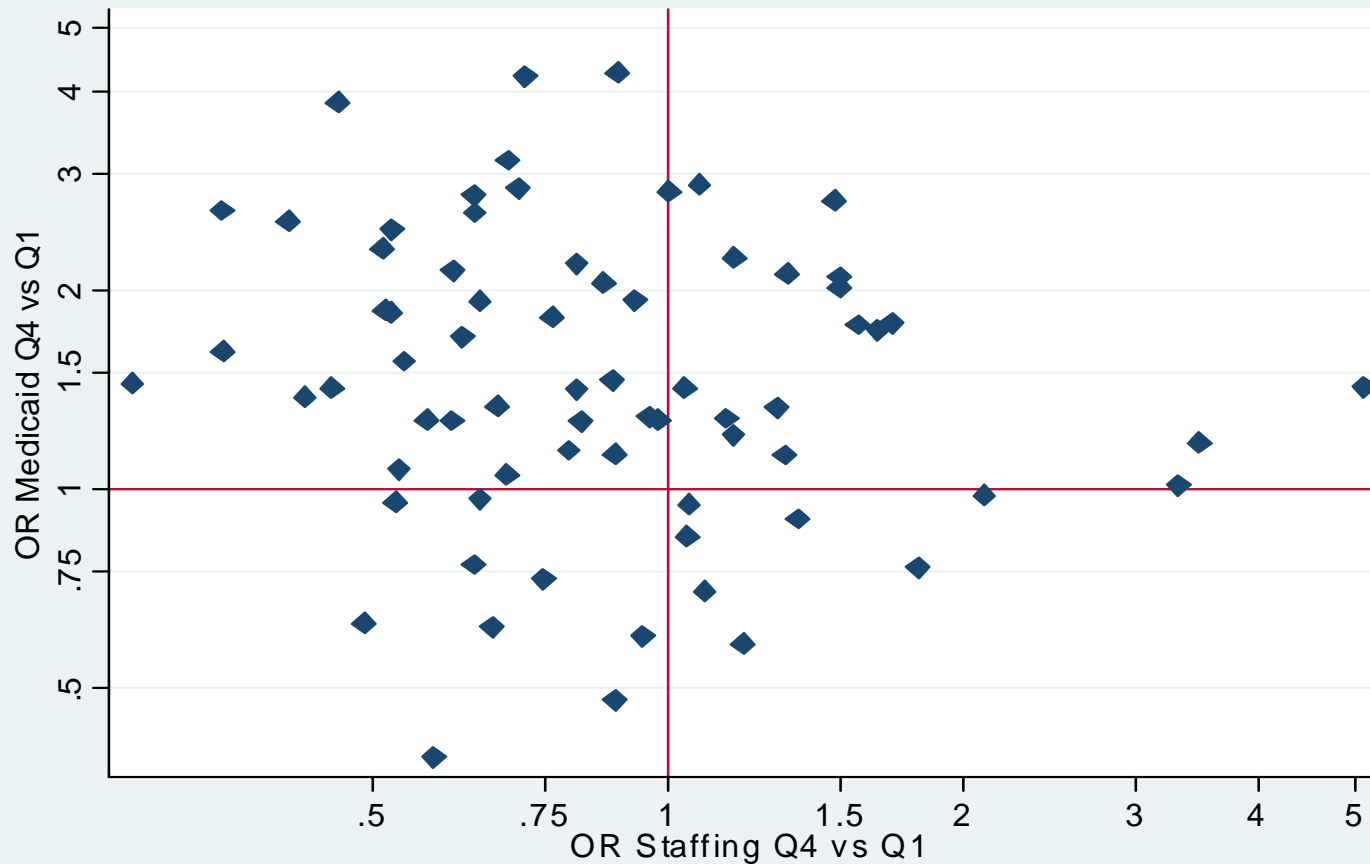
	Nonphysician Rate				Percent of Patients Medicaid		
	q1	q4	OR		q1	q4	OR
PRIMARY MEDICAL CARE SERVICES							
2. Diagnostic Laboratory (technical component)	83.0%	81.3%	0.890		19.4%	50.9%	4.291
3. Diagnostic X-Ray Procedures (technical component)	44.5%	29.3%	0.516		67.8%	79.7%	1.870
4. Diagnostic Tests/Screenings (professional component)	79.8%	75.8%	0.792		62.1%	65.3%	1.147
5. Emergency medical services	36.1%	37.8%	1.077		85.9%	94.6%	2.898
6. Urgent medical care	85.1%	88.0%	1.293		92.6%	94.4%	1.332
7. 24-hour coverage	90.4%	83.1%	0.522		83.2%	90.2%	1.855
8. Family Planning	97.4%	92.9%	0.353		95.4%	97.1%	1.618
9. HIV testing and counseling	93.9%	88.7%	0.512		87.9%	94.4%	2.315
10. Testing for Blood Lead Levels	79.5%	72.3%	0.671		72.9%	78.2%	1.338
11. Immunizations	N/A				N/A		
12. Following hospitalized patients	81.8%	67.1%	0.454		N/A		



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Staffing and Provision of Services



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Conclusions

- Variation across CHCs reflect exigencies of their state and local environment and funding sources.
- To provide a full “medical home” it is necessary to provide CHCs adequate funding.
- Given complex scope of practice laws at the state level, it is equally important to determine the extent to which difficulties in recruitment and retention of primary care physicians limits the range of services in CHCs.

