Promoting the Public's Health through Partnerships in Local Public Health Systems

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Council on Linkages Between Academia and Public Health Practice

- Define and quantify dimensions of public health systems including inter-organizational relationships and the role of the agency with the public health system
- Explore strategies and technologies to facilitate collaboration between different groups focused on health protection activities
- Determine the best methods of facilitating collaboration between academia and other groups and integrating efforts with public health practice

Project Objectives

- Describe characteristics of local public health systems that actively identify and engage broad constituents in education, mobilization, and assessment efforts

- Investigate the characteristics of local public health systems that are partnering with academic institutions for research purposes

National Public Health Performance Standards

- NPHPSP has devised, tested, and validated an instrument that measures the 10 essential public health services
- Measures performance of public health practices at a systems level, not agency level
- ~ 400 local public health systems have participated in the assessment
- Secondary data obtained from the NPHPS project

National Association of City and County Health Officials

- 2005 National Profile of Local Public Health Agencies
- Characterize local governmental public health infrastructure and practice
- Every local public health organization in the U.S.
- 80% response rate from LHPA, total 2,300 respondents
- Provides additional information on local demographics, employee/workforce preparation, funding, and facilities
- Subset of LPHA received and completed an in-depth survey on partnerships

Data Linkage

- NPHPS dataset had responses from 523 local public health systems
- 70 cases had no corresponding NACCHO data
- Removed 77 cases from local health systems that had completed the NPHPS questionnaire more than once
- A total of 376 cases (from 28 states) were merged in the NACCHO/NPHPS dataset

LHA/District Variables

Jurisdiction

Population

Total budget

Per capita expenditures

Tenure of head of LPHA

FTE per 10,000

Expenditures per FTE

Any PH training for head of agency

Increase in partnerships in the last three years

MAPP process

LPHA participated in a community health improvement process

EPHS Indicators

3.1

Collaboration for Health Education

3.2

Collaboration for Health Promotion

4.1

Constituency Development

4.2

Establish and Assess Community Partnerships

5.3

Identify, Analyze and Address Health Problems

10.2

Link with Institutions of Higher Education/Research

10.3

Initiate or Participate in Timely Research

Performance scores of partnership indicators of local public health systems (N=376)

Indicator Score	Mean	Standard Deviation
3.1 Collaboration for Health Education	65.5	21.26
3.2 Collaboration for Health Promotion	68.92	23.46
4.1 Constituency Development	60.46	23.36
4.2 Establish and Assess Community Partnerships	46.25	29.34
5.3 Identify, Analyze, and Address Health Problems	45.67	33.84
10.2 Link with Institutions of Higher Education/Research	58.28	33.66
10.3 Initiate or Participate in Timely Research	44.63	29.59

Relationship Between Agency Capacity Characteristics and Partnership Performance Indicators (Spearman's Correlation)

	N	3.1		3.2		4.1		4.2	
		p	P-value	p	P-value	p	P-value	p	P-value
Population	375	0.00	0.97	-0.09	0.09	0.11	0.03	0.00	0.91
Total budget of the agency	375	0.00	0.92	-0.07	0.19	0.02	0.70	-0.02	0.73
Per capita expenditures	372	0.00	0.99	0.05	0.33	-0.10	0.05	-0.02	0.73
FTE	375	0.02	0.64	0.00	0.90	-0.01	0.72	0.02	0.64
FTE per 10,000 population	374	0.03	0.55	0.12	0.02	-0.13	0.01	0.01	0.79
Expenditures per FTE	364	-0.10	0.05	-0.14	0.00	0.04	0.44	-0.1	0.06
Tenure of the head of the agency	329	0.05	0.33	0.03	0.63	0.04	0.48	0.00	0.90

Relationship Between Agency Capacity Characteristics and Partnership Performance Indicators

		5.3		10.2		10.3	
	N	p	P-value	p	P-value	p	P-value
Population	375	0.02	0.57	0.26	0.00	0.27	0.00
Total budget of the agency	375	0.07	0.16	0.24	0.00	0.17	0.00
Per capita expenditures	372	0.07	0.17	0.05	0.33	-0.09	0.08
FTE	375	0.10	0.05	0.34	0.00	0.25	0.00
FTE per 10,000 population	374	0.08	0.1	0.16	0.00	0.03	0.50
Expenditures per FTE	364	-0.08	0.11	-0.11	0.03	-0.15	0.00
Tenure of the head of the agency	329	0.00	0.89	0.00	0.93	-0.07	0.15

Independent Sample t-test Between Dichotomous Capacity Variables and Partnership Performance Indicator Scores

		3.1	3.2	4.1	4.2	5.3	10.2	10.3
Increase in partnerships in the last three years (n=370)	t-test	-3.29	-4.29	-3.76	-5.98	-4.25	-2.86	-2.08
	P-value	0.00	0.00	0.00	0.00	0.00	0.00	0.03
LPHA participated in a community health improvement process (n=370)	t-test	-2.11	-3.26	-0.47	0.63	-5.43	-2.29	-2.79
	P-value	0.04	0.00	-3.66	0.00	0.00	0.02	0.00

Continued

Independent Sample t-test Between Dichotomous Capacity Variables and Partnership Performance Indicator Scores

		3.1	3.2	4.1	4.2	5.3	10.2	10.3
Has LPHS involved in MAPP Process? (n=302)	t-test	2.78	3.71	1.54	1.48	-0.17	-0.69	1.41
	p-value	0.00	0.00	0.13	0.14	0.86	0.49	0.16
Any public health training of head of LPHS? (n=376)	t-test	-0.05	0.05	-0.09	0.82	-0.26	0.90	0.82
	p-value	0.96	0.96	0.93	0.41	0.80	0.37	0.42

Relationship between LPHA capacity characteristics & partnership performance indicators (Multiple linear regression)

Variables entered into regression	Response variables (standard coefficient)						
	3.1	3.2	4.1	4.2	5.3	10.2	10.3
FTE per 10,000 population		0.13	-0.15			0.18	
Increase in partnerships in the last three years	0.17	0.22	0.21	0.25	0.21	0.13	
LPHA participated in a community health improvement process	0.12	0.13		0.16	0.21		0.18
MAPP	-0.15	-0.25					
Any public health training of head of the agency				-0.12			
R^2	0.07	0.15	0.06	0.12	0.11	0.05	0.03
Standard error of estimate	20.75	21.86	22.31	27.48	31.44	31.65	28.39

One Way ANOVA Among Categories of Degree of Head of LPHS and Partnership Performance Indicator Scores

		3.1	3.2	4.1	4.2	5.3	10.2	10.3
Highest degree held by the head of LPHA (n =352); 1) Bachelor's	F	3.62	6.52	0.74	0.53	3.91	0.86	3.63
	P-value	0.01	0.01	0.53	0.66	0.00	0.47	0.01
2) Master's degree	Tukey	1,4	1,4			1,4		
3) Doctoral degree		2,4	2,4			2,4		1,3
4) Other*								

*Nurse without BS; unidentified training

Discussion

- Increased partners over the last three years and participating in CHIP is of great importance to partnership performance
- Most characteristics of the LPHA are not best predictors of system's overall partnership performance
- Limitations of independent variables measured at the agency level, while the dependent variables reflect system level performance

Ideas for Other Predictors

Organizational	Inter-Organizational	Community
Adoption of new policies that support partnerships	New/Expanding partnerships	Public policies
Enforcement of policies	More mature partnerships	Community norms/history
Development of new programs and services	Collaboration across diverse community sectors	Physical environment
Increased resources	Relationships with partners outside of the community	Civic engagement
		Strong local trust

Next Steps

- Determine whether/what type of health assessment and planning process improves partnership performance
- Investigate whether "depth" with partners, not only breadth, influences partnership performance
- Define and measure community capacity, not just LPHA capacity, to engage in and sustain partnerships

Recommendations

- Longitudinal data collection and analysis to assess the direction of significant relationships between CHIP, increased partnerships, and partnership performance

- Further identification and measurement of predictor variables that reflect broad community capacity, not just agency capacity