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# Factors driving local health departments' collaboration with other organizations in the provision of personal healthcare services

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# Background

- ❖ Factors that are promoting PH and medicine partnerships:
  - The Patient Protection and Affordable Care Act (ACA)
  - The voluntary national public health department accreditation program
  - The IOM 2012 report *“Primary Care and Public Health: Exploring Integration to Improve Population Health”*
- ❖ The status of partnerships between LHDs and other clinical care providers is not known.

# Objectives

- ❖ To provide an update on the partnerships / collaboration in clinical service provision between LHDs and others in the community.
- ❖ To assess community and organizational factors that are associated with LHD's collaboration with other providers in the community.

# Theoretical Framework

- ❖ Resource dependency theory
  - The main reason that organizations come together is to secure the resources critical to their survival and growth.
    - Concentration
    - Munificence
    - Interconnectedness
  - Managers are presumed to be motivated to reduce resource uncertainty and organizational capabilities may be important enabling factors in strategic choice.

# Hypotheses

- ❖ H1: In environments where resources are scarce--There are few alternative sources of supply (providers), the need for LHDs to enter into partnerships/collaboration is increased.
- ❖ H2: LHDs with greater internal resources, including financial and human resources may be more capable of accommodating environmental demands. Thus, they are more likely to enter into partnerships/collaboration.

# Methods

## ❖ Data and study sample

- Module 1 of the 2013 Profile Study, conducted by NACCHO.
- A total of 490 LHDs responded to Module 1.

## ❖ **“Which of the following best describes how your LHD worked in the past year with other organizations in the community to accomplish goals in the following programmatic areas?”** ( A list of 9 programs, including MCH, chronic disease, and infectious disease)

## ❖ Response options included:

- “No program in this area”, “Networking”, “Coordinating”, “Cooperating”, “Collaborating” or “Not involved”

# Outcome Variables

- ❖ This study classified partnerships/collaboration as a binary outcome—indicating any collaboration (networking, coordinating, cooperating, or collaborating) or no collaboration (not involved in collaboration/no programs in this area).
  - MCH Program (Yes/No)
  - Communicable/Infectious Disease Prevention Program (Yes/No)
  - Chronic Disease Control Program (Yes/No)



# Independent Variables

- ❖ Environmental variables: Number of primary care physicians per 10,000 people; MSA location (Non-MSA, Micro-MSA, and MSA); proportion <65 without health insurance (from the AHRF)
  - These variables were selected to represent the munificence of resources in the community
- ❖ LHD organizational variables: Jurisdiction population size (three categories: <50,000, 50,000–499,999, and ≥500,000), jurisdiction type (county, city/multicity, and city-county/multicounty), decentralized governance structure (Yes/No), having a local board of health (Yes/No), director's tenure of office (years) (log), full time director (Yes/No), having a public health physician on staff (Yes/No); community health assessment in the past 5 years (Yes/No) (from the 2013 Profile Study).
  - These LHD characteristics represent LHD capacities.

# Analyses

- ❖ Multiple logistic regression models to assess the association between environmental and LHD organizational characteristics and partnerships in each of the three programs.
- ❖ All analyses using SVY procedures in Stata 13.0 to account for survey design.

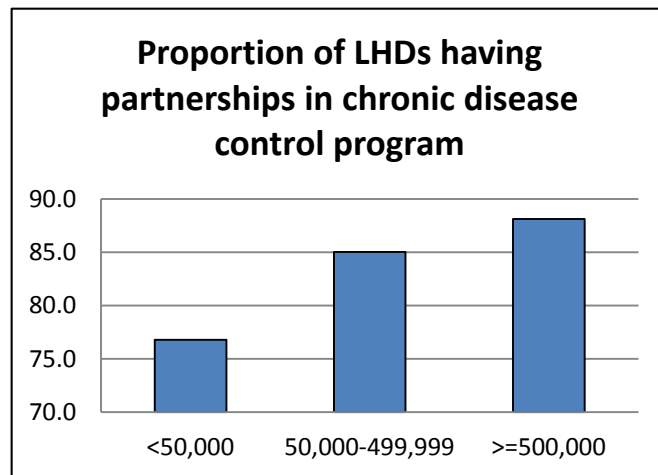
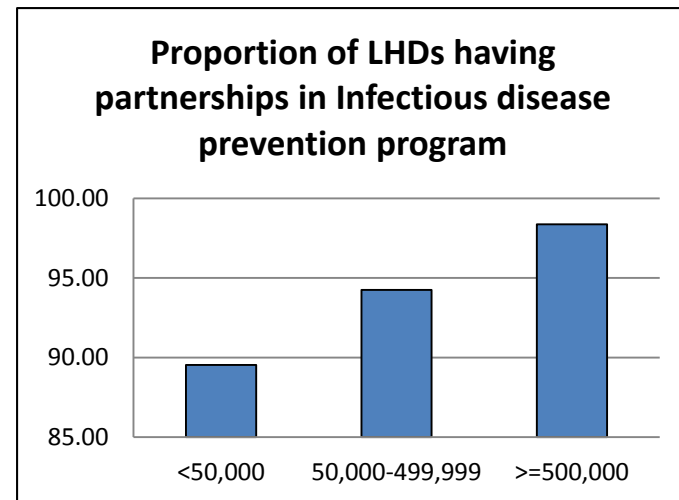
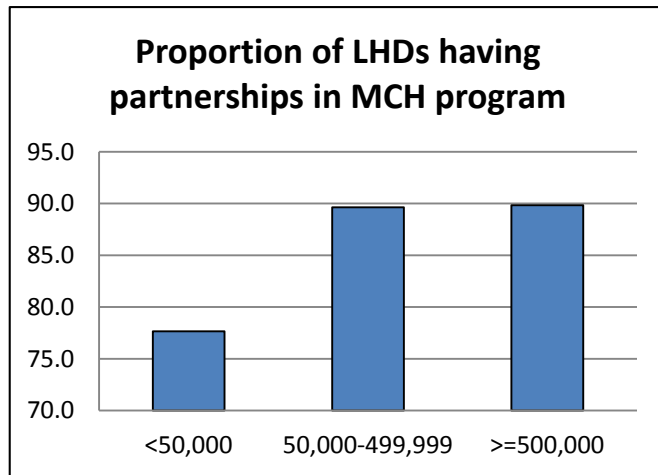
# Results

Table 1. Proportion of LHDs conducting different level of partnership

Level of partnership	MCH program			infectious disease			chronic disease		
	Percent +	95% CI		Percent +	95% CI		Percent +	95% CI	
Not involved/No program	16.52	12.10	22.36	7.51	4.75	11.87	18.94	14.26	24.98
Any partnerships	<b>83.48</b>	80.00	86.63	<b>92.49</b>	89.67	94.59	<b>81.06</b>	77.23	84.38
Networking	19.03	15.68	22.89	17.79	14.56	21.55	29.15	25.19	33.46
Coordinating	18.08	14.84	21.84	22.49	18.96	26.47	17.39	14.23	21.09
Cooperating	17.08	13.95	20.74	20.78	17.38	24.64	13.27	10.49	16.64
Collaborating	29.29	25.37	33.55	31.44	27.43	35.74	21.25	17.82	25.14
+ weighted percentage									

# Results, cont.

## Partnerships by Jurisdiction Size



# Results, cont.

Table. Multiple logistic regression results

Variables	Model I: DV: MCH program				Model II DV: Chronic disease program				Model III DV: Communicable/infectious disease program			
	AOR	95% CI		p	AOR	95% CI		p	AOR	95% CI		p
<b>Environmental variables</b>												
Number of primary care physicians per 10,000 people	1.09	0.83	1.42	0.53	1.31	1.07	1.61	<b>0.01</b>	1.26	0.84	1.88	0.27
MSA location (vs. non-MSA)												
Mirco-MSA	0.26	0.04	1.53	0.14	1.81	0.54	6.12	0.34	0.61	0.09	4.31	0.62
MSA	0.29	0.05	1.85	0.19	2.54	0.71	9.16	0.15	2.59	0.19	35.07	0.47
Proportion <65 without health insurance	0.94	0.86	1.03	0.16	0.96	0.89	1.04	0.28	1.05	0.93	1.19	0.45
<b>Organizational variables</b>												
Jurisdiction population size (vs. <50,000)												
50,000-499,999	2.68	0.93	7.72	0.07	0.85	0.33	2.17	0.73	0.47	0.08	2.90	0.41
>=500,000	2.22	0.48	10.17	0.31	0.80	0.18	3.62	0.77	0.57	0.03	9.77	0.70
Jurisdiction type (vs. county)												
City/multi-city	0.97	0.31	3.05	0.96	0.67	0.23	1.96	0.47	0.64	0.17	2.43	0.51
City-county/multi-county	1.84	0.28	12.32	0.53	2.41	0.65	8.98	0.19	2.86	0.16	51.40	0.48
Fulltime agency director	4.51	1.16	17.49	<b>0.03</b>	1.75	0.41	7.37	0.45	3.07	0.44	21.58	0.26
Director's tenure of office (years) (log)	1.21	0.87	1.70	0.26	1.09	0.81	1.46	0.56	1.51	1.01	2.26	0.05
Having a public health physician on staff (Yes/No)	2.31	0.97	5.50	0.06	2.33	1.03	5.25	<b>0.04</b>	2.01	0.68	5.89	0.21
Per capita public health expenditure (log)	2.43	1.22	4.86	<b>0.01</b>	1.76	1.09	2.86	<b>0.02</b>	1.47	0.63	3.43	0.37
Decentralized governance structure	1.01	0.26	3.88	0.99	0.98	0.34	2.78	0.97	4.26	1.04	17.52	<b>0.04</b>
Local borad of health	1.48	0.62	3.54	0.38	1.11	0.47	2.59	0.82	0.72	0.24	2.17	0.56
Community health assessment in the past 5 yrs	7.26	2.90	18.18	<b>0.00</b>	5.10	2.28	11.39	<b>0.00</b>	2.88	0.86	9.67	0.09

# Discussion

- ❖ This study is the first to provide empirical data on LHD's collaboration with other providers in the three clinical services.
- ❖ About 1 in 5 LHDs did not engage in partnerships in chronic disease control (1 in 4 LHDs with <50,000 population)
- ❖ H2 is partially supported:
  - Having a larger per capita expenditure was sig for partnerships in MCH and chronic disease control programs. It could also be true that partnerships in these clinical service programs contributed to LHD's revenues, resulting in higher per capita expenditure.
  - Having a public health physician was sig for partnerships in chronic disease control program. It might suggest that a high level professional, like public health could help collaboration with other providers
  - Having a full time agency director is another sig factor for collaboration in MCH program

# Discussion, cont.

- ❖ Completion of community health assessment (CHA) was sig for collaboration in both MCH and chronic disease programs, indicating that CHA is a good means for LHDs to engage with other providers. The ACA requirement for CHA for NFP hospitals could contribute to the collaboration
- ❖ Overall, H1 was not supported, except:
  - More physicians in the community was a sig factor for LHD's partnerships in chronic disease control.

# Implications & Future Research

- ❖ A policy requirement could facilitate the PH and medicine collaboration (e.g., ACA requirement for hospitals to do CHA, and PHAB requirement for CHA before LHD's accreditation).
- ❖ LHD's engagement in partnerships with others in chronic disease control need to be improved. LHDs could play an important role for complex chronic disease management. Necessary investments should be made to improve LHD's capacity in chronic disease control.
- ❖ Partnerships with other providers in clinical service provision might contribute to LHD's bottom line. LHDs should reconsider their role in clinical service provision.
- ❖ Future research is needed to determine the optimal level of collaboration; and best practices in conducting these partnerships for LHDs



# References

Pfeffer, J., & Salancik, G. (1978). *The external control of organizations: A resource dependence perspective*. Boston, MA: Pitman Press.

Institute of Medicine. *Primary care and public health: Exploring integration to improve population health*. Washington, DC: Institute of Medicine; 2012.

Public Health Accreditation Board. *Measures and Standards, Version 1*. [www.phaboard.org/wp-content/uploads/PHAB-Standards-and-Measures-Version-1.0.pdf](http://www.phaboard.org/wp-content/uploads/PHAB-Standards-and-Measures-Version-1.0.pdf). Accessed Mar 23, 2015.

Anderko L, Roffenbender JS, Goetzel RZ, et al. Promoting prevention through the affordable care act: workplace wellness. *Prev Chronic Dis*. 2012;9:E175.

Scutchfield FD, Michener JL, Thacker SB. Are we there yet? Seizing the moment to integrate medicine and public health. *Am J Public Health*. 2012;102(suppl 3):S312---S316.

Ackerman B, Van Ochten K. *The Patient Protection and Affordable Care Act: newly required community health needs assessments*. 2012. Available at: <http://ascendient.com/2011/06/the-patient-protectionand-affordable-care-act-newly-required-communityhealth-needs-assessments-2>. Accessed Mar 23, 2015.

# Questions?

