Local Public Health Systems as Regimes of Social Production:

An Interdisciplinary Approach to Public Health Systems & Services Research

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Two Hats

- Senior Analyst, NACCHO
  - Mobilizing for Action through Planning & Partnerships (MAPP)
  - National Public Health Performance Standards Program (NPHPSP)
- Government & Politics, UMD-College Park
  - How politics affects governmental public health capacity

Public Health System

"The network of organizations and professionals that participate in producing public health services for a defined population or community. This network includes governmental public health agencies as well as relevant health care and social service providers, community-based organizations, and private institutions with an interest in population health." (Novick and Mays 2001)

"The human, informational, financial, and organizational resources, including public, private, and voluntary organizations and individuals, that contribute to the public's health." (MAPP Web-based Tool)

Assumptions

- System partners help assure the conditions in which people can live healthy lives.
- System partners should be involved in efforts to improve public health.
- Collaboration among system partners can improve public health.

Unanswered Questions

- Why would entities identified as system partners engage in efforts to improve public health?
- In what ways do system partners contribute to public health improvements?
- Why would participation of system partners improve public health?
- Do system partner contributions and participation explain variability in public health?

Handler, Issel, and Turnock. 2001. AJPH 91(8):1235-1239

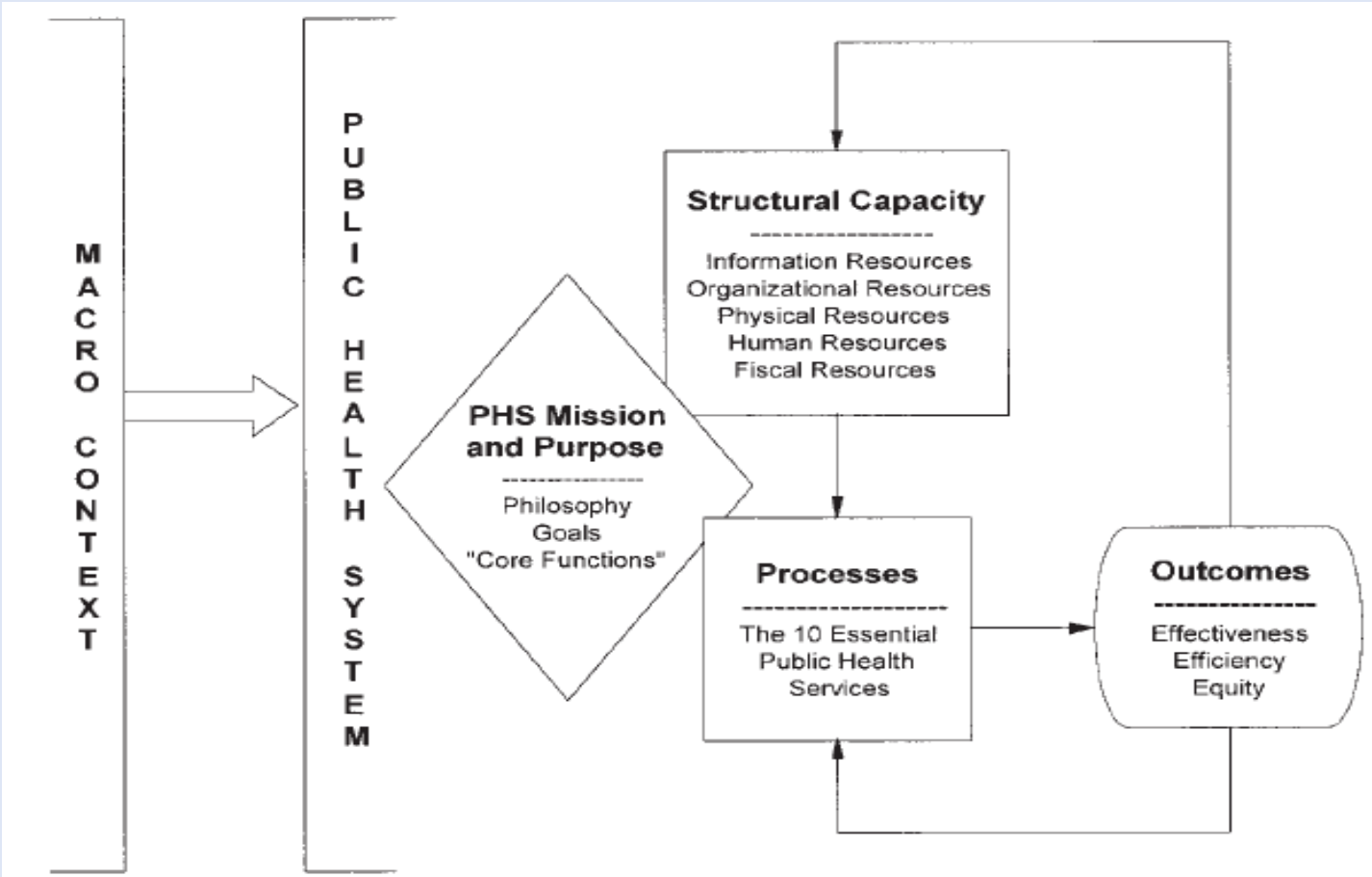
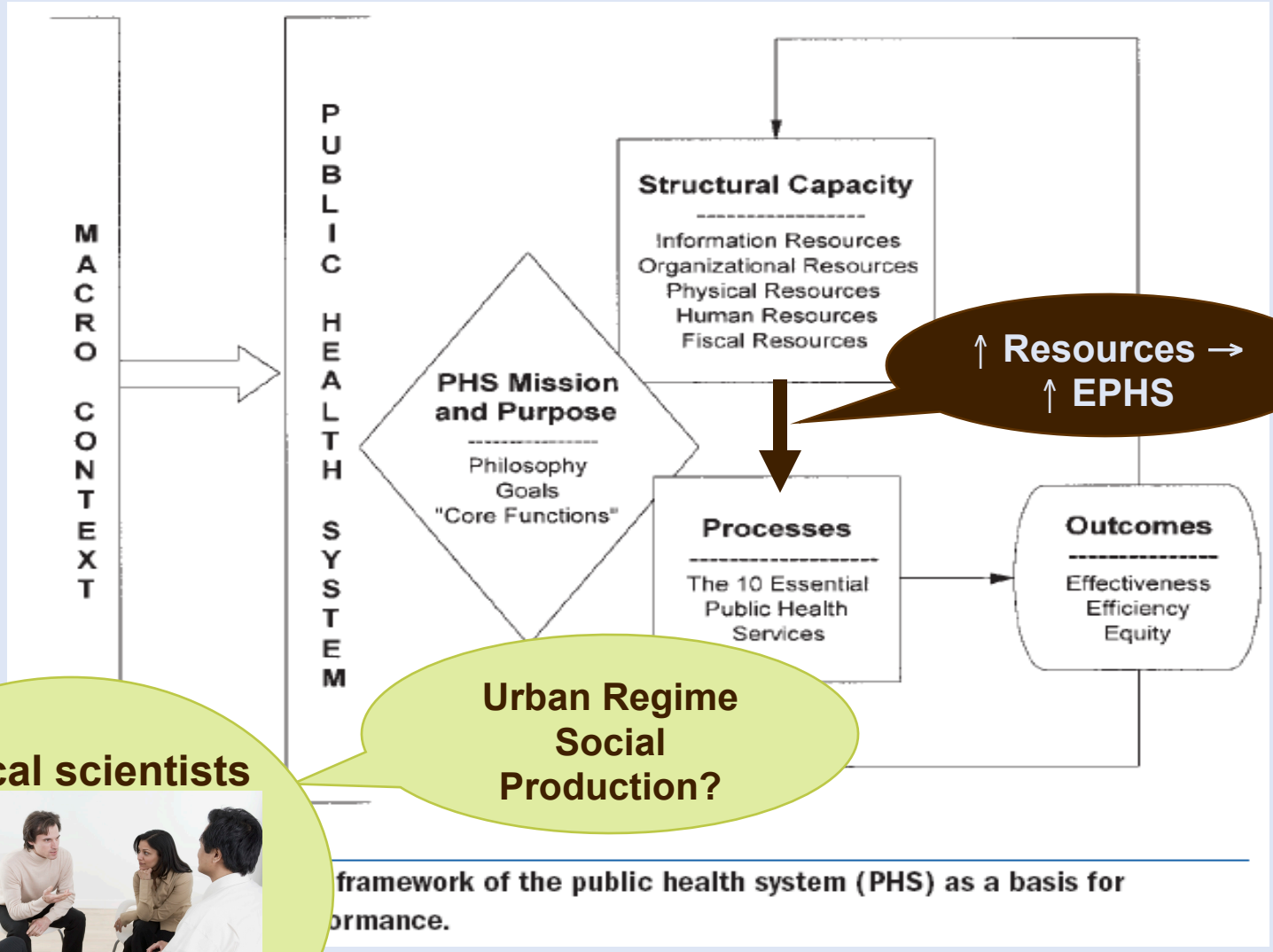


FIGURE 1—Conceptual framework of the public health system (PHS) as a basis for measuring system performance.

Handler, Issel, and Turnock. 2001. AJPH 91(8):1235-1239



political scientists

Urban Regime
Social
Production?

Urban Regimes Theory (URT)

Urban regimes: "informal arrangements through which public bodies and private interests function together to make and carry out government decisions."

Clarence Stone. (1989). *Regime Politics: Governing Atlanta, 1946-1988.*

URT, continued…

- Public & private entities pool resources to achieve collective benefits, i.e. “social production.”
- Government’s “power over” resources is not enough—need “power to” pool resources & achieve collective goals, which requires collaboration.
- Regimes are long-term arrangements, not temporary partnerships

URT, continued…

- Factors that shape policies in urban regimes:
  - Composition of coalition (who)
  - Nature of coalition members relationship (how)
  - Resources members bring to the coalition (what)

URT, continued…

- Variability in regime success is a function of:
  - Defined agenda
  - Adequate resources
  - Cooperation
  - External support of regime

URT, continued…

"The study of urban regimes is thus a study of who cooperates and how their cooperation is achieved across institutional sectors of community life. Further, it is an examination of how that cooperation is maintained when confronted with an ongoing process of social change, a continuing influx of new actors, and potential break-downs through conflict or indifference." (Stone 1989)

URT-Based PHSSR Questions

- Who cooperates within public health systems and how is cooperation sustained?
- Do system partners really support the overall goal of a public health system (social production) and contribute resources accordingly?

URT-Based PHSSR Questions

- How is the integrity of the system maintained given continual changes and threat of disengagement and conflict among system partners?
- Do public health governmental agencies reflect their commitment to collaborate in order to have the “power to” implement positive change, or do government agencies strive to maintain their “power over” the public health domain?

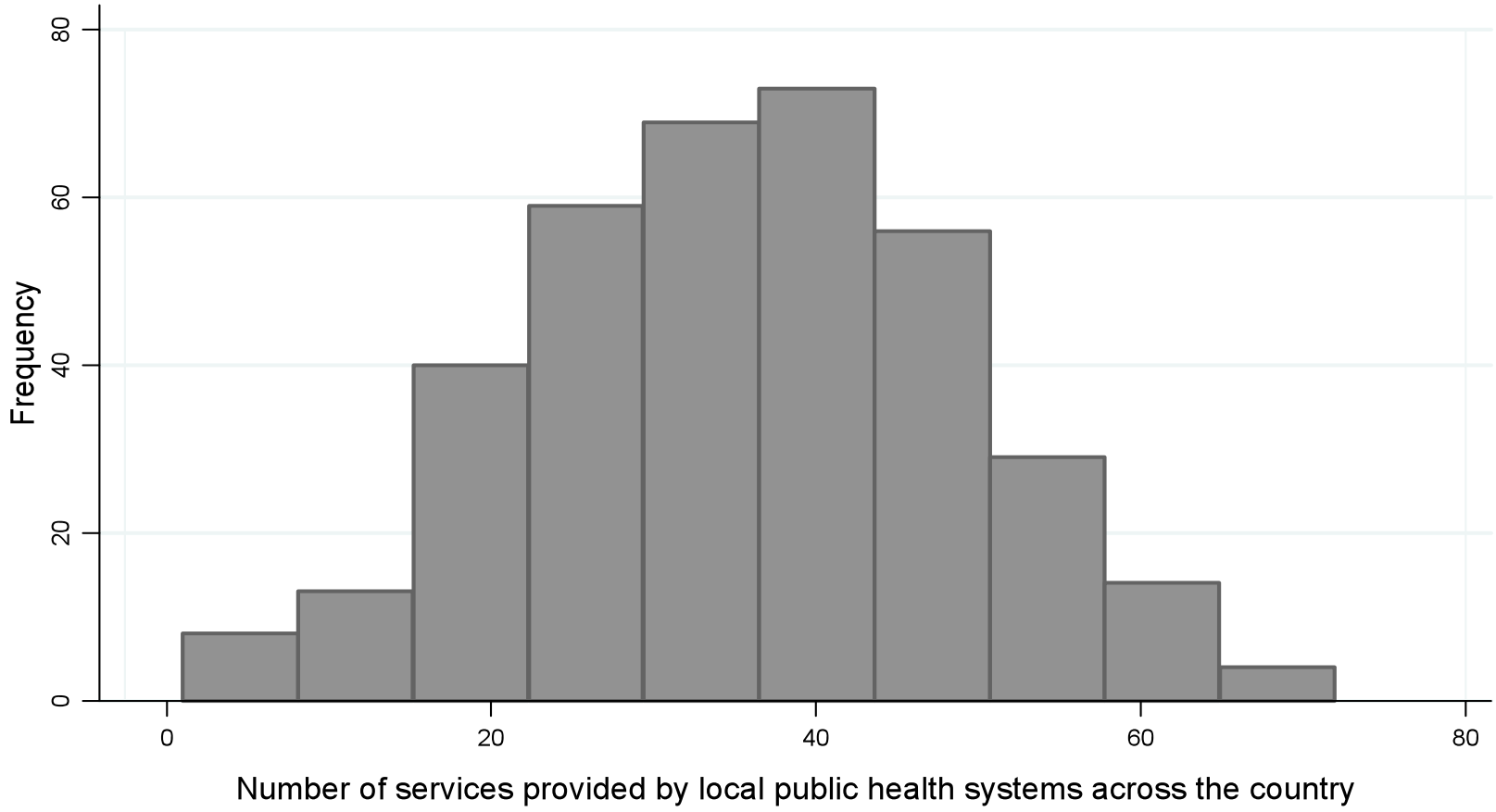
Preliminary Examination

- Is public health production a function of:
  - LPHS composition?
  - How coalition members relate?
  - Resources provided by LPHS partners?

DV: Public Health Social Production

- Social production is measured as the diversity of public health services provided by a local public health system.

Figure 1: Histogram of the number of services provided by local public health systems across the country



Data source: 2005 National Profile of Local Public Health Agencies

IVs: Regime/System Characteristics

- Number of different system partners who provide:
    - Work time
    - Financial support
    - Leadership

Table 1: Negative Binomial Regression Model Predicting the Number of Different Services Provided in Local Jurisdictions

	Coef. (S.E.)	%Δ*
Partners that work	0.017***	1.7
	(0.003)	
Partners that finance	0.016*	1.6
	(0.007)	
Partners that lead	0.002	
	(0.005)	
State agency	-0.014	
	(0.085)	
LHD per capita exp.	0.001	
	(0.001)	

	Coef. (S.E.)	%Δ*
Population (log)	0.036**	3.7
	(0.014)	
Local revenue	-0.0004	
	(0.001)	
State revenue	-0.001	
	(0.001)	
Fed. pass thru rev.	0.0003	
	(0.001)	
Direct fed. rev.	-0.002	
	(0.002)	

N=303
LR χ^2 (d.f.)=192.79
Pseudo R^2=0.0698
Log-likelihood=-1285.441
Prob>χ^2 =0.0000
Data Source: NACCHO 2005 Profile
*Percent change in expected count for a one unit increase in the independent variable.

Table 2: Negative Binomial Regression Model Predicting the Number of Different Services Provided in Local Jurisdictions

	Coef. (S.E.)	%Δ*
Partner resource factor score	0.100***	10.5
	(-0.016)	
State agency	-0.029	
	(-0.088)	
LHD per capita exp.	0.001	
	(0.001)	

	Coef. (S.E.)	%Δ*
Population (log)	0.042**	4.3
	(0.014)	
Local revenue	-0.0003	
	(0.001)	
State revenue	-0.0008	
	(0.001)	
Fed. pass thru rev.	0.0006	
	(0.001)	
Direct fed. rev.	-0.002	
	(0.002)	

N=303
LR χ^2 (d.f.)=181.27
Pseudo R^2=0.0656

Log-likelihood=-1291.202
Prob>χ^2 =0.0000
Data Source: NACCHO 2005 Profile

*Percent change in expected count for a one unit increase in the independent variable.

Table 3: Negative Binomial Regression Model Predicting the Number of Different Services Provided in Local Jurisdictions

	Coef. (S.E.)	%Δ*
Businesses that work	0.044***	4.5
	(0.009)	
Business that finance	0.040*	4.1
	(0.018)	
Businesses that lead	0.022*	2.2
	(0.013)	
State agency	-0.028	
	(0.087)	
LHD per capita exp.	0.001	
	(0.001)	

	Coef. (S.E.)	%Δ*
Population (log)	0.044**	4.6
	(0.014)	
Local revenue	0.0008	
	(0.001)	
State revenue	-0.001	
	(0.001)	
Fed. pass thru rev.	0.001	
	(0.001)	
Direct fed. rev.	-0.003	
	(0.002)	

N=307
LR χ^2 (d.f.)=182.88
Pseudo R^2=0.0653
Log-likelihood=-1309.195
Prob>χ^2 =0.0000
Data Source: NACCHO 2005 Profile
*Percent change in expected count for a one unit increase in the independent variable.

Table 4: Negative Binomial Regression Model Predicting the Number of Different Services Provided in Local Jurisdictions

	Coef. (S.E.)	%Δ*
Business resource factor score	0.094***	9.8
	(-0.016)	
State agency	-0.041	
	(-0.088)	
LHD per capita exp.	0.001	
	(0.001)	

	Coef. (S.E.)	%Δ*
Population (log)	0.050***	5.1
	(0.014)	
Local revenue	0.0002	
	(0.001)	
State revenue	-0.001	
	(0.001)	
Fed. pass thru rev.	0.001	
	(0.001)	
Direct fed. rev.	-0.003	
	(0.002)	

N=307
LR χ^2 (d.f.)=177.01
Pseudo R^2=0.0632
Log-likelihood=-1312.131
Prob>χ^2 =0.0000
Data Source: NACCHO 2005 Profile
*Percent change in expected count for a one unit increase in the independent variable.

Limitations

- Not all services are created equal
- Measures are rough approximations based on survey respondent perceptions
- Cross-sectional analysis—need longitudinal data
- Possible endogeneity—data limitations
- Small n for negative binomial regression

Future Research

- Interdisciplinary Research
  - Other disciplines can provide testable hypotheses and theories on why systems work the way they do.
- Mix Methods & Data
  - Need for large-scale, reliable, & valid data sources
  - Limitations of both quantitative and qualitative approaches

Contact Information

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