Factors Associated with Performance of Cross-Jurisdiction Shared Service Arrangements in Local Public Health

Susan Zahner, DrPH, RN
Theresa Watts, MPH, RN, PhD Student
Tracy Mrochek, MPA, RN
Kusuma Madamala, PhD, MPH
University of Wisconsin-Madison

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Background

Inter-local collaboration for providing public services is encouraged as a means to:

- Reduce and share costs
- Improve economies of scale
- Enhance effectiveness
- Maintain quality amid restrictive local budgets [1,2]

Cross-jurisdiction sharing is common in public health, yet information about the content of CJS agreements and factors associated with successful implementation and performance is limited.

Research Objectives

This study examined cross-jurisdiction sharing (CJS) agreements between local and tribal health departments (LTHD) to:

- Describe their characteristics and expected outcomes
- Measure performance relative to achieving expected outcomes
- Determine factors associated with better performance

Study Design

Cross-sectional, mixed methods:

- Local (n=88) and tribal (n=3) health departments in Wisconsin were invited to participate
- CJSSA definition: *"A written document that describes, defines, or governs sharing of resources across jurisdictions on an ongoing or as needed basis. Shared resources may include, but are not limited to, organizational functions, staffing, programs, services, capacity, data, information, and technical assistance"*
- Data were extracted from CJSSA using a structured data extraction tool
- LTHD directors (n=43) were interviewed by telephone using a semi-structured interview guide
- Analysis included mixed effects logistic regression models to determine the effects of CJSSA features on perceived extent of implementation and perceived performance in achieving all expected outcomes
- The unit of analysis was the dyad partner (n=256), nested by agreement (n=81)

Principal Findings

Table 1. Characteristics by CJSSA and partner dyad

	CJSSA (n=81) n (%)	Dyad (n=256) n (%)
Primary focus		
Environmental health	27 (33.3)	65 (25.4)
Public health emergency preparedness	16 (19.8)	103 (40.2)
Population-based chronic disease prevention	13 (16.1)	29 (11.3)
Maternal and child health	13 (16.1)	34 (13.3)
Communicable disease prevention or control	11 (13.6)	23 (9.0)
Administrative	1 (1.2)	2 (.8)
Primary nature of sharing		
Share service provision	57 (40.1)	125 (48.8)
Share staff	10 (12.4)	43 (16.8)
Share administrative services	12 (14.8)	84 (32.8)
Share technical assistance/training	2 (2.5)	4 (1.6)
Motivations		
Fiscal savings/revenue generation	53 (65.4)	82 (32.0)
Improve quality	79 (97.5)	157 (61.3)
Respond to mandate	39 (48.2)	62 (24.2)
Financial commitment		
Yes	63 (65.4)	82 (32.0)
No	18 (22.2)	60 (23.4)
Prior agreement		
Yes	51 (63.0)	174 (68.0)
No	26 (32.1)	73 (28.5)
Months in place*		
Mean (SD)	22.79 (22.86)	
Range	1-144	
Number of partner LHD in SSA*(control)		
Mean (SD)	6.01 (4.94)	
Range	2-15	
Legal completeness score (6 item)		
Mean (SD)	3.98 (1.39)	
Range	0-6	
Population served by the SSA		
Mean (SD)	263,328.1 (194,710.5)	
Median	156,949	
Range	6,600-1,341,888	

Table 2: Spectrum of Integration[3]

	CJSSA n (%)	Dyad n (%)
Informal and customary arrangements	4 (4.9)	16 (6.3)
Service related arrangements	57 (70.4)	133 (52.0)
Shared functions with joint oversight	20 (24.7)	107 (41.8)
Regionalization/merger/new entity	0 (0)	0 (0)

Implementation

71% of the CJSSA were perceived to be **fully implemented**
Mean implementation= 4.40 (SD=1.29; Min/max = 0 to 5)

Full implementation was more likely when:

- CJSSA have fewer partners (OR=0.77; LCL 0.70,UCL 0.84)
- A larger population is served by the CJSSA (OR=1.30; LCL 1.09, UCL 1.54)
- CJSSA is focused on emergency preparedness (OR=10.37; LCL 2.18, UCL 49.47)
- CJSSA nature of sharing is administrative (OR=4.19; LCL 1.75, UCL 10.04)
- There has been a CJSSA prior to this one (OR=6.53; LCL 2.91, UCL 14.62)

Full implementation is less likely when:

- CJSSA is focused on Maternal and child health (OR=0.35; LCL 0.15, UCL 0.85)
- CJSSA nature of sharing is shared staffing (OR=.21; LCL 0.10, UCL 0.47)

Motivations, financial commitment, and legal completeness score were not statistically significant predictors of implementation

Performance

44% of the CJSSA were perceived to have **achieved all expected outcomes**
Mean performance = 4.30 (SD=.98; Min/max = 0 to 5)

Higher performance was more likely when:

- CJSSA have fewer partners (OR=0.84; LCL 0.76, UCL 0.92)
- There has been a CJSSA prior to this one (OR=2.27; LCL 1.18, UCL 4.35)
- CJSSA includes a financial commitment (OR=2.52; LCL 1.25, UCL 5.06)
- CJSSA is perceived to be fully implemented (OR=13.17; LCL 4.92, UCL 35.26)

Higher performance was less likely when:

- CJSSA was focused on communicable disease (OR=0.35; LCL 0.14, UCL 0.90) or MCH (OR=0.35, LCL 0.15, UCL 0.81)
- CJSSA nature of sharing is shared staffing (OR=0.36; LCL 0.14, UCL 0.89)

Motivations, population, and legal completeness score were not statistically significant predictors of performance

Examples of Expected Outcomes

"Provide mutual assistance in the event of a communicable disease outbreak or epidemic"
[Communicable Disease]

*"Facilitate mutual assistance between parties…
in the event of bioterrorism, infectious disease outbreaks, and other public health threats"*
[Public Health Emergency Preparedness]

"Provide all services for the Wisconsin Well Woman Program"
[Maternal and Child Health]

"To conduct lead risk assessments and provide consultation"
[Environmental Health]

"Provide Wisconsin Tobacco Prevention and Control Program Service"
[Population-Based Disease Prevention]

Implications for Practice & Policy

- CJSSA are increasingly common in local public health; assuring they are implemented and achieving expectation is important
- Prior experience with CJSSA makes the next easier to implement with better outcomes.
- CJSSA may be useful in large and small LHD
- Fewer LTHD partners may make CJSSA easier to implement and more likely to achieve expected results.
- Success (implementation and performance) is possible regardless of motivations for CJSSA (finance, quality, or requirement)
- Detailing financial commitments in CJSSA may contribute to assuring better performance

Implications for Research

- More study is needed to understand factors contributing to differences in implementation and performance by focus area and nature of sharing
- More study is needed on measuring the construct of "legal completeness" in order to guide practice and policy on the ideal form of the written CJSSA required to attain maximum functionality (implementation and performance)

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