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Sharing Local Public Health Services Across Jurisdictions: Comparing Practice in 2012 and 2014

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Sharing Local Public Health Services Across Jurisdictions: Comparing Practice in 2012 and 2014

Abstract

Objective: Describe cross-jurisdiction service sharing (CJS) by local and tribal health departments (LHD) in Wisconsin in 2014 compared to 2012.

Design: An online survey of 91 LHD directors in Wisconsin was conducted. Results were compared to the results of a 2012 survey. Characteristics of CJS arrangements and differences in results by population size, geographic region, and governance type were described. Standardized proportion differences (h) were estimated using the arcsin transformation. Confidence intervals were estimated using unconditional exact confidence intervals for the difference of proportions.⁸ A forest plot of the estimates and confidence intervals was generated to visualize change in CJS for each population category.

Results: Seventy-eight percent of respondents in 2014 reported currently sharing services compared to 71% of respondents in 2012. Positive effect sizes indicate increased sharing in year 2014 relative to 2012. CJS was more frequent for LHD serving smaller jurisdictions, consistent with both 2012 survey results and national findings. All governance types continue to engage in sharing public health services.

Implications: Cross jurisdictional service sharing is widespread and increasing in Wisconsin, implying that it is a useful strategy for providing public health services under some circumstances. Educating public health practitioners and students about CJS strategies in public health is recommended.

Keywords

local and tribal health departments, public health administration, service sharing, interlocal agreement

Cover Page Footnote

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INTRODUCTION

Cross-jurisdictional sharing (CJS) is the exercise of public authority to enable collaboration across jurisdictional boundaries to deliver essential public health services and solve problems that cannot easily be solved by single organizations or jurisdictions.¹ Local governments collaborate to maintain service quality in the face of restrictive local budgets and political pressure for efficiency in public services.² National surveys revealed that 50% of local health departments (LHDs) reported CJS agreements with other LHDs in 2010, and 54% in 2013.^{3,4} The practice is more common in smaller LHDs.³ A 2012 study in Wisconsin found that 71% of LHDs (including tribal health departments) reported sharing services with one or more other LHDs.⁵ That study also found that CJS was: more prevalent in areas with smaller populations, most frequently focused on emergency preparedness and environmental health activities, and motivated by interests in making better use of resources, responding to program requirements, and providing better services. The higher prevalence of CJS in Wisconsin compared to national data may be explained in part by prior experience with regional emergency preparedness consortia, state statutes that allow for sharing of services, or the large number of LHDs that serve smaller populations.

Factors currently influencing LHD, such as accreditation, Affordable Care Act implementation, and financial constraints, may influence motivation to collaborate, CJS agreement structures, and service types. This study was conducted to document types and structural characteristics of CJS arrangements and to assess change in use of CJS by LHD in Wisconsin since 2012.

METHODS

An online survey of 88 local and three tribal health departments in Wisconsin was conducted in the fall of 2014. A Study Advisory Team (including five LHD practitioners and two advisors with state or national experience in CJS) reviewed and made small changes in the 2012 survey instrument for clarity. The survey addressed a spectrum of CJS arrangements including informal and customary sharing arrangements, service-related arrangements, and shared functions with joint oversight.¹ Information about the questionnaire was previously reported.⁵ The definition of CJS provided to participants was:

Sharing of resources (such as staffing or equipment or funds) on an ongoing basis. The resources could be shared to support programs (like a joint WIC or environmental health program) or organizational functions (such as human resources or information technology). The basis for resource sharing as defined here can be formal (a contract or other written agreement) or informal (a mutual understanding or “handshake” agreement).⁵

Participants were informed of the study through oral presentations at Wisconsin Association of Local Health Departments and Board regional meetings. Invitations to complete the survey were sent to LHD directors using lists obtained from the Wisconsin Division of Public Health (WDPH). Survey administration occurred between October 7, 2014, and January 23, 2015. Three email and one telephone reminders were conducted. Participants were thanked via email message and a random drawing for two handheld GPS units. The University of Wisconsin–Madison Institutional Review Board approved the study protocol.

Jurisdiction size was measured by total population as reported on the 2013 Wisconsin LHD Survey. Each LHD was coded for one of five geographic regions according to the WDPH designations and for one of three governance types (Table 1). Descriptive statistics were generated using SPSS version 23. Responses were used to describe current CJS practice and when possible, compared to 2012 responses from the same LHD to assess change in CJS. Change was examined using standardized proportion differences (h) estimated using the arcsin transformation,⁶ where $h = 2\arcsin(\sqrt{p1}) - 2\arcsin(\sqrt{p2})$. Confidence intervals were estimated using unconditional exact confidence intervals for the difference of proportions.⁷ A forest plot of the estimates and confidence intervals was generated for each population category. The vertical line representing no effect was plotted.

Table 1. Comparison of service-sharing characteristics in 2012 and 2014 among LTHDs in Wisconsin

	2012 N=91 (92% response) n (%)		2014 N=63 (69% response) n (%)	
Currently share services	65 (71)		49 (78)	
Currently share services by size of population served				
• <25,000	23 (76)		20 (80)	
• 25,000–49,999	15 (65)		13 (81)	
• 50,000–99,999	13 (68)		11 (79)	
• 100,000+	6 (54)		4 (57)	
Currently share services by WI region				
• Northern	16 (84)		10 (83)	
• Northeastern	16 (73)		11 (85)	
• Southern	9 (69)		7 (70)	
• Southeastern	12 (67)		8 (61)	
• Western	12 (63)		13 (87)	
Currently share services by governance type	N (total)	%	N (total)	%
• Free standing with a board of health	40 (55)	73	30 (38)	79
• Free standing with a health and human services board	5 (8)	63	4 (5)	80
• Consolidated health and human services department	12 (20)	60	14 (19)	79
Change in past 12 months among all respondents				
• Sharing to same extent	46 (51)		33 (52)	
• Sharing to greater extent	22 (24)		19 (30)	
• No change – were not and are not engaged in sharing service	19 (21)		8 (12)	
• Sharing to a lesser extent	4 (4)		3 (4)	

Note: There are a total of 99 local and tribal health departments in Wisconsin.

In 2012, all 99 local and tribal health departments were invited to participate.

In 2014, 91 health departments were invited to participate since IRB approval was not obtained for eight tribal health departments.

RESULTS

Sixty-three of 91 LHD (including one tribal health department) responded in 2014 yielding a response rate of 69%. In 2012, 91 of 99 LHD responded (92%). Table 1 displays results from both years by jurisdiction size, region, and governance type. In 2014, 78% ($n=49$) reported currently sharing services with another LHD compared to 71% ($n=65$) in 2012. Jurisdictions with smaller populations reported higher proportions of CJS and at least 60% reported sharing across all regions. Proportions of sharing increased for all three governance types. The proportion reporting sharing to the same or greater extent increased from 75% in 2012 to 82% in 2014.

Figure 1 displays a forest plot of effect size (Cohen d) for proportional difference in sharing by population size. The positive effect sizes indicate increased sharing in year 2014 relative to 2012, with significant differences in effect size seen for the overall sample and two size categories (25,000–49,999 and 50,000–99,999).

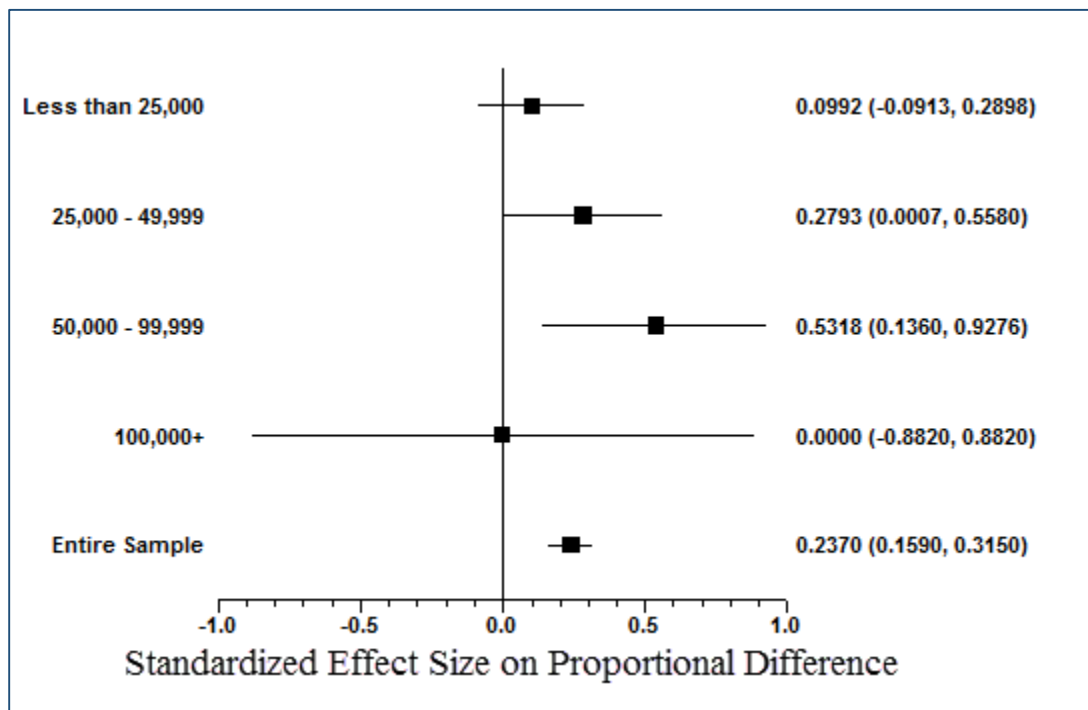


Figure 1. Forest plot for each population category

The analysis revealed that 40 LHDs who were sharing services in 2012 also reported doing so in 2014, while only three reported no longer doing so in 2014. Nine that did not report sharing services in 2012 reported currently sharing services in 2014. Thirty-one LHD that reported currently sharing services in 2012 did not respond in 2014. The three most frequently reported types of services were emergency preparedness ($n=21$), environmental health other than inspection and licensing ($n=18$), and inspection and licensing ($n=7$). Eleven (52%) of 21 emergency preparedness arrangements reported in 2014 were new since 2012, as were six of 18

(33%) environmental health (other than inspection or licensing) arrangements and 4 of 7 (57%) inspection and licensing arrangements.

When asked if the LHD governing body discussed in the past two years or is currently discussing the potential for creating a CJS arrangement, 48% (n=30) responded no, 44% (n=28) responded yes and 8% (n=5) were uncertain. Eighty-six percent (n=54) reported no current discussions to discontinue a CJS arrangement.

IMPLICATIONS

The growing and widespread use of CJS arrangements implies that it is a useful strategy for providing public health services, at least under some circumstances. Agencies with no CJS arrangements may want to consider initiating them. Small LHD that seek to attain voluntary accreditation may find sharing services beneficial in achieving the capacities required by the accreditation standards.

Because CJS is common in LHD, basic and continuing education programs for public health administrators should include information and skills for developing CJS arrangements. Integrating successful strategies for CJS into the core competency standards for public health professionals within the domains of program planning or system-thinking skills should be considered. Implementing strategies to make the process of developing CJS agreements more efficient could also be helpful. As one respondent commented, “Having the ability to bring a tried and true template to legal counsel with supportive documentation is helpful in gaining support for the initiative.”

This study has several limitations. The lower response rate in 2014 might be explained by diminished novelty of the topic given that CJS was a new field of inquiry to Wisconsin public health administrators in 2012, and competition for time due to other events co-occurring with survey administration (For example, budget deadlines, Ebola outbreak, and influenza clinics). It is possible that the lower response rate may have introduced bias if the nonresponders actually had reduced sharing. Reliability testing was not completed on the instrument. A face validity check was conducted by the study advisory team.

Cross-jurisdiction sharing is a common and increasing practice in Wisconsin. Further study is needed to determine the effectiveness of sharing agreements in achieving desired goals, and to determine the impact of CJS on communities and population health.

SUMMARY BOX

What is already known about this topic? Past research reveals about half of local health departments nationally participate in cross-jurisdictional sharing, and it is more common in smaller health departments. In Wisconsin, 71% of local health departments reported sharing services in 2012 with greater prevalence in areas of smaller populations, most frequently focused on emergency preparedness and environmental health activities and motivated by interests in making better use of resources, responding to program requirements, and providing better services.

What is added by this report? Cross-jurisdictional sharing is a common and increasing practice in WI particularly among health departments that serve smaller population jurisdictions. Positive effect sizes indicate increased sharing in year 2014 relative to 2012, with significant differences in effect size seen for the overall sample and two population size categories (25,000–49,999 and 50,000–99,999).

What are the implications for public health practice, policy, and research? The growing and widespread use of cross-jurisdictional sharing arrangements implies that it is a useful strategy for providing public health services, at least under some circumstances. Basic and continuing education programs for public health administrators should include information and skills for developing cross-jurisdiction sharing arrangements. Further investigation of the effectiveness and impact of this service delivery model on population health is needed.

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