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Local Health Departments' Capacity for Workplace Health Promotion Programs to Prevent Chronic Disease: Comparison of Rural, Micropolitan, and Urban Contexts

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Abstract

Objective: To examine local health department (LHD) contexts, capacity for, and interest in partnering with employers on workplace health promotion programs (WHPPs) for chronic disease prevention.

Design: Qualitative interviews with LHD directors.

Setting: LHDs from 21 counties in 10 states.

Participants: Twenty-one LHD directors.

Main Outcome Measures(s): Experiences and perceptions of existing partnerships, decision-making, funding, data needs, and organizational capacity for WHPP partnerships with employers.

Results: We identified three themes: 1) LHDs see the value of partnering with employers but lack the capacity to do so effectively; 2) While LHDs base priorities on community need, funding ultimately drives decision-making; and 3) Rural, micropolitan, and urban LHDs differ in their readiness and capacity to work with employers.

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Contributions

M.C. Brown contributed to the conception and design of the project and led the conceptualization of the paper and review and synthesis of the literature, the acquisition of data, the analysis and interpretation of data, the writing of the initial manuscript draft, and administrative support. C. Kava contributed to the conception and design of the project, the acquisition of the data, the analysis and interpretation of the data, the critical review and revision of the manuscript for important intellectual content and administrative support. B. Bekemeier contributed to the conceptualization of the paper and review and synthesis of the literature, the acquisition of data, the critical review and revision of the manuscript for important intellectual content, obtaining funding, and supervision support. I.J. Ornelas contributed to the conception and design of the project, the analysis and interpretation of data, the critical review and revision of the manuscript for important intellectual content, and supervision support. J.R. Harris contributed to the conception and design of the project, the analysis and interpretation of data, the critical review and revision of the manuscript for important intellectual content, obtaining funding, and supervision support. G.K. Chan contributed to the conception and design of the project, the critical review and revision of the manuscript for important intellectual content, and supervision support. M. Robertson contributed to the analysis and interpretation of data, the critical review and revision of the manuscript for important intellectual content, and supervision support, and administrative support. P.A. Hannon led the conception and design of the project, critical review and revision of the manuscript for important intellectual content, obtaining funding, and supervision. P.A. Hannon also contributed to the conceptualization of the paper and review and synthesis of the literature, the acquisition of data, the analysis and interpretation of data, and the writing of the initial manuscript draft.

Conclusions: Understanding LHDs' partnership capacity and context are essential to the successful implementation of WHPP partnerships with employers. Expanding these partnerships may require additional financial investments, particularly among rural LHDs.

Introduction

Workplace health promotion programs (WHPPs) offer local health departments (LHDs) a practical approach to delivering evidence-based interventions (EBIs) for chronic disease prevention.[1,2] Frequently cited barriers to EBI implementation among LHDs include lack of time, funding, and leadership support, as well as difficulty interpreting research evidence.[2] LHDs in rural areas face a "double disparity" – higher risk of chronic disease and limited capacity (understaffed and underfunded) for chronic disease prevention.[3] For LHDs of all sizes, partnering with employers to implement WHPPs can increase capacity and reach in community-based settings.[4]

Connect to Wellness (CtW) is a successful, evidence-based WHPP designed to help LHDs disseminate EBIs and support their implementation in worksites across rural and urban communities in Washington State.[5] Plans are currently underway to expand *CtW* nationwide by training LHDs to deliver the program to employers in their own communities. Supporting LHDs in building successful WHPP partnerships with employers requires understanding LHDs' interest in and capacity for LHD-employer partnerships.[2] However, little is known about how to tailor these efforts for LHDs outside of Washington State.[6] To address this gap, we interviewed LHD directors nationwide about their capacity and interest in LHD-employer WHPP partnerships.

Methods

Sample and Recruitment Procedures

We recruited LHD directors by email primarily via referral from state chronic disease directors. However, to ensure variety in state representation, we also worked with the Northwest Center for Public Health Practice (a Health Resources and Services Administration [HRSA]-funded Public Health Training Center) to identify additional LHD directors.

Measures

The interview guide comprised 11 open-ended questions focused on 1) background information, including chronic disease prevention partners and partnerships with employers; 2) chronic disease funding and decision-making; and 3) capacity to deliver *CtW* (See supplemental digital content).

Interview Procedures

We conducted the interviews February-August 2019. LHD directors participated via 30–45-minute Zoom audio conference calls and provided verbal consent before starting the interview. Each interview was audio-recorded, professionally transcribed, and uploaded into

Atlas.ti version 8 for analysis. The Human Subjects Review Committee at the University of Washington approved all study procedures.

Analysis

We applied inductive constant comparison coding and analysis to transcripts,[7,8] an approach frequently used in formative implementation research.[9] First, we established a set of a priori codes based on study objectives and questions (e.g., "Chronic disease partners," "CtW barriers," and "CtW resources").[8] Three coders (MB, CK, MR) then read and coded two of the same transcripts. We reviewed these transcripts as a team to ensure consistency among coders and clarify any discrepancies. We divided the remaining transcripts for independent coding by coding team members. Coders met regularly to discuss the transcripts, refine the codebook, and ensure consistency.[10] After coding, we constructed code summary reports and reviewed coded text to identify the primary themes. While we analyzed the responses to all 11 interview questions, we include in this manuscript only the significant themes relevant to our research questions. Consensus among study team members determined the final codebook, primary themes, and representative quotes.

To further characterize these LHDs, we also obtained LHD characteristics and chronic disease prevention activity data from the *2016 National Profile of Local Health Departments* administered by the National Association of County and City Health Officials (NACCHO).[11] We defined LHD jurisdiction size (urban, micropolitan, or rural) with Rural-Urban Commuting Area Codes (RUCA) and each LHD's primary address zip code. We present these data as means, standard deviations, and proportions.

Results

LHD Characteristics

We interviewed 21 LHD directors from 10 U.S. states and three U.S. Census regions: Northeast (n=1), West (n=6), and Midwest (n=3). Of the 21 LHDs we interviewed, eight were in urban areas, eight in micropolitan areas, and five in rural areas. Table 1 describes LHD characteristics and relevant *National Profile* results from the 16 LHDs for which survey data were available. This subsample includes seven urban, six micropolitan, and three rural LHDs.

Qualitative Results

Three major themes emerged from qualitative analysis: 1) LHDs see the value of partnering with employers but lack capacity to do so effectively; 2) while LHDs base priorities on community need, funding ultimately drives decision-making; and 3) Rural, micropolitan, and urban LHDs differ in their readiness and capacity to work with employers.

LHDs see the value of partnering with employers but lack the capacity to do so effectively—LHD directors perceived community stakeholders as essential partners in their chronic disease work. Commonly mentioned partners included schools, hospitals, and public agencies such as school districts and other municipal government offices. Many LHD

directors perceived a need for partnering with employers on WHPP implementation and had the staff expertise needed for these partnerships.

While each LHD funding situation was unique, LHD directors all mentioned similar funding challenges and concerns. Many LHD directors said forging new partnerships with employers would be challenging without additional funding support or staff time. Over half (3/5) of rural LHDs we interviewed had past WHPP funding but did not have any at present. These rural LHDs were operating at capacity and could not undertake more work without additional funding. Most micropolitan LHDs had at least one WHPP initiative in place or were actively developing one. However, these were often educational presentations or topic-specific resources and not comprehensive. Half (4/8) of the urban LHD directors mentioned previously partnering with employers but discontinuing the programs due to lack of interest from employers. Urban LHD directors mentioned that with additional funding they would be willing to re-engage with employers.

> *"We know how to do this work. We've done policy work and we know how to do it, but we just don't have the capacity. We have capability, but not the capacity."* - LHD 029 (Rural)

LHDs identified siloed funding as one of their biggest funding challenges. Some LHD directors said restricted funding hampered their flexibility and ability to meet community needs. None of the rural LHD directors we interviewed received funding earmarked for chronic disease but applied general state funds towards chronic disease efforts. Rural LHDs also mentioned that low tax revenue, either due to declining tax bases or political resistance to increasing taxes at the local or state level, limited their capacity for chronic disease prevention. Generally, LHD directors felt that budgets were decreasing, with less funding and staff available to accomplish the same amount of work.

> *"Part of my reaction to this is that we wind up at health departments — because health departments are committed to this kind of work — we will often say, 'Yes, sure, we can do that, too.' But then there is a limit to how much we can do without bringing in new resources."* LHD 015 (Micropolitan)

While LHDs base priorities on community need, funding ultimately drives programmatic decision-making—LHD directors mentioned using strategic planning documents (e.g., Community Health Assessments) developed in partnership with stakeholders as their primary sources for determining whether a program is a good fit. Since chronic disease prevention is often a priority, evidence-based WHPPs fit community need. LHD directors also mentioned the importance of employer demand and community interest. If local employers were to express an interest in WHPPs, LHD directors indicated that they would be more interested in supporting these efforts. However, all said additional funding would still be needed.

> "*Certainly if there's a public health need, we'll look for ways to fund it, but we can't just do something without money."* – LHD 027 (Urban)

Both micropolitan and urban LHD directors varied in their willingness to consider committing existing resources towards *CtW*. Overall, micropolitan LHDs seemed to be more

interested in exploring ways to apply existing funds. When explicitly asked about *CtW*, they were open to partnering with employers on WHPPs but wanted to ensure the program fulfilled an unmet need or complemented existing work.

> *In general, [funders] want us to always use evidence-based programs. So when we have the flexibility of picking and defining our own scope of work, that's where we would start…what are the outcomes we're trying to impact and what are the evidence-based strategies to address that?...What's synergistic with other things we're doing, and what would be synergistic with what partners are doing but not duplicative?* - LHD 011 (Urban)

Rural, micropolitan, and urban LHDs differ in their readiness and capacity to work with employers—Despite having better funding environments, urban LHD directors in our sample were less interested in *CtW* than LHD directors in rural and micropolitan communities. Urban LHDs' reluctance was often due to lack of demand among employers when LHDs offered these programs in the past. Urban LHD directors also often already had numerous partnerships. In contrast, rural communities expressed a need for *CtW*. Despite this interest, funding and staff availability severely restricted rural LHD leaders' capacity for new partnerships. In contrast, most micropolitan LHDs had capacity and already had at least one WHPP initiative in place or development. Additionally, compared to urban LHDs, micropolitan LHDs said partnering with employers on WHPPs and EBI implementation would be a more comprehensive approach to their current WHPP work.

Discussion

We interviewed 21 LHD directors from three U.S. regions to understand chronic disease prevention decision-making, capacity, and WHPP partnership potential. Across rural, micropolitan, and urban areas, LHD directors said that while community needs do guide priorities, funding ultimately drives chronic disease prevention program and partnership decisions. Many directors mentioned using strategic planning documents developed in partnership with community stakeholders to inform priorities. This aligns with Public Health Accreditation Board standards and measures regarding data-driven decision-making.[14] However, funding constrains LHDs' efforts to be data-driven. As a result, their willingness to partner with employers often reflected balancing community need with available funding.

Rural LHD interest in partnering with employers on WHPPs is promising, given that these partnerships may be a salient strategy to improve capacity to address health disparities, despite limited resources.[8] Our study team has had previous success in working with rural LHDs to implement *CtW*. However, one notable difference between our pilot work and the rural LHD directors we spoke with is funding. In our pilot study, LHDs had funding from the Centers for Disease Control and Prevention (CDC) to implement community-based healthy eating, physical activity, and tobacco cessation EBIs.[11] In the present study, none of the rural LHD directors we spoke to had funding specific to chronic disease prevention. Additionally, our results differ from Linnan et al.'s (2019) assessment of WHPP activity among state and territorial health departments in that most of the LHDs we interviewed did

not currently partner with employers to implement WHPPs.[1] We believe this may be the result of two factors. First, CDC funding mechanisms that were available during the Linnan et al. study period ended before our study.[1] Second, state and territorial-level departments may have greater capacity. Our results are similar to Linnan et al. in suggesting that LHDs need increased funding flexibility, additional funding for partnerships, and improved funding stability to partner with employers on WHPP.[1]

The primary limitation of our study is the small numbers of LHDs. Conversations with additional LHD directors may have identified governance structure or region-specific rural, micropolitan, and urban contextual factors that did not arise in our interviews. Despite these limitations, our description of contextual factors that may impact LHDs' ability to partner with employers on WHPPs and those specific to rural, micropolitan, and urban-area LHDs is a strength of our study. Research identifying contextual considerations for LHD capacity-building is presently limited. This study presents new information on differences among LHDs that can inform future capacity-building efforts.

Public Health 3.0 goals call for health departments to engage with multiple sectors and community partners to generate collective impact.[15] LHDs are uniquely positioned to collaborate with organizations outside healthcare systems, and employers offer a high impact setting for the delivery of EBIs via WHPPs.[1,11,15,16] However, stakeholder partnerships to support these initiatives in public health practice requires sufficient capacity.[2] In the present environment, funding for chronic disease prevention and community partnership development is limited.[17,18] While employers may be promising partners, LHDs have severely restricted capacity for these efforts. Community size may be an additional crucial factor to consider for this type of work, with micropolitan communities offering the most promising setting.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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Conflicts of Interest and Sources of Funding

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Implications for Policy & Practice

- Partnering with employers on WHPPs may allow LHDs to strategically reach a large number of at-risk adults with EBIs to prevent chronic disease.
- Research on contextual factors that may influence LHD-employer partnerships is limited; understanding interest in and capacity for partnerships is vital to the successful implementation of WHPPs nationally.
- Community partnerships play a critical role in determining LHD priorities.
- LHDs have experience with and see the value in LHD-employer partnerships, but cannot maintain or develop new partnerships without increased funding and staff capacity.
- Expanding LHD-employer partnerships nationwide may require financial investments, particularly for rural communities.
- Micropolitan LHDs may be more suited to partner with employers than urban and rural LHDs, due to higher funding levels, staff availability, and limited scope of current partnerships.

Table 1:

Local Health Department (LHD) Characteristics, by Rural, Micropolitan, and Urban RUCA[1] code (n=16, 9 states represented[2])

Survey Item	Urban (n=7)	Micropolitan (n=6)	Rural (n=3)
Number of Staff	106 (SD: 72)	36 (SD: 34)	12 (SD: 3)
FTE	81 (SD: 37)	32 (SD: 33)	10 (SD: 2)
Annual Expenditures	$8 047 085 (SD: $6 656 257)	$4 548 706 (SD: $4 754 392)	$707 328 (SD: $327 789)
Governance Structure			
Unit of state government	0% (0)	33% (2)	33% (1)
Unit of local government	100% (7)	67% (4)	67% (2)
U.S. Census Region			
Northeast	0% (0)	33% (2)	33% (1)
West	57% (4)	50% (3)	33% (1)
Midwest	43% (3)	17% (1)	33% (1)
Chronic disease prevention activities are (select all that apply):			
Performed by LHD directly	100% (7)	83% (5)	67% (2)
Contracted out by LHD	0	0	0
Provided by others in community independent of LHD funding	43% (3)	83% (5)	100% (3)
Actively involved in obesity/chronic disease policy or advocacy in the past two years.	57% (4)	83% (5)	67% (2)
Check each way that your LHD has worked with businesses in the past year (select all that apply):			
Shared Personnel/Resources	0	0	0
Written agreement	0	0	0
Regularly scheduled meetings	14% (1)	0	0
Exchange information	14% (1)	50% (3)	0
LHD use of the Community Guide:			
LHD staff have not used the *Community Guide*	14% (1)	17% (1)	33% (1)
LHD staff in some programmatic areas have used the *Community Guide*	43% (3)	50% (3)	33% (1)
LHD staff consistently use the *Community Guide* in all relevant programmatic areas	0%	0%	0%
Do not know	43% (3)	33% (2)	33% (1)
LHD current fiscal year budget is			

Survey Item	Urban (n=7)	Micropolitan (n=6)	Rural (n=3)
Less than previous year	0%	0%	0%
About the same	29% (2)	50% (3)	0%
Greater than previous year	57% (4)	17% (1)	66% (2)
No response	14% (1)	33% (2)	33% (1)
LHD budget expectations for upcoming year			
Less than current year's budget	29% (2)	17% (1)	0%
Approximately the same	29% (2)	33% (2)	0%
Greater than the current year's budget	29% (2)	17% (1)	66% (2)
No response	14% (1)	33% (2)	33% (1)

Source: National Association of County and City Health Officials (NACCHO) 2016 National Profile Study

[1]Rural-Urban Community Area. RUCA codes classify U.S. Census tracts based on population density, urbanization, and daily commuting factors.[12,13] Using RUCA classifications, urban jurisdictions (codes 1–3) have population sizes of 50,000 or more, micropolitan jurisdictions (codes 4–6) have 10,000–49,999 residents, and rural jurisdictions (codes 7–10) have less than 10,000 residents.[12]

[2]In one state, none of the three LHDs we interviewed completed the National Association of County and City Health Officials (NACCHO) National Profile Study.