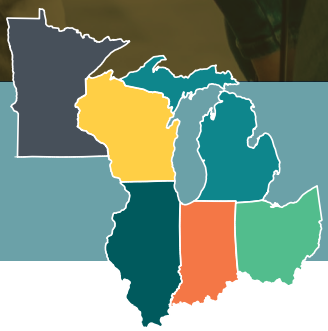
JUNE 2024

RESULTS FROM THE REGION V PUBLIC HEALTH TRAINING CENTER'S

2023 TRAINING NEEDS ASSESSMENT SURVEY

EXTERNAL VERSION



Identified Needs among Local Health Departments in Illinois, Indiana, Michigan, Minnesota, Ohio and Wisconsin

REGION V PUBLIC HEALTH TRAINING CENTER

Region V Public Health Training Center
University of Michigan School of Public Health
1415 Washington Heights
Ann Arbor, MI 48109-2029
rvphtc.org | rvphtc@umich.edu

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Authors:

Mariana Quinn, MPH
Evaluation Coordinator,
Region V Public Health Training Center
University of Michigan School of Public Health

JP Leider, PhD
Director of Evaluation,
Region V Public Health Training Center
Director, Center for Public Health Systems,
University of Minnesota School of Public Health

Editors:

Phoebe Kulik, MPH, CHES
Senior Director of Workforce Development,
Region V Public Health Training Center
University of Michigan School of Public Health

Dany Zemmel, MPH
Training & Engagement Senior Manager,
Region V Public Health Training Center
University of Michigan School of Public Health

Harshada Karnik, PhD
Evaluator, Region V Public Health Training Center
Research Scientist, Center for Public Health Systems,
University of Minnesota School of Public Health

Laura Power, MD, MPH
Director, Region V Public Health Training Center
University of Michigan School of Public Health

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Introduction

Overview of Region V Public Health Training Center

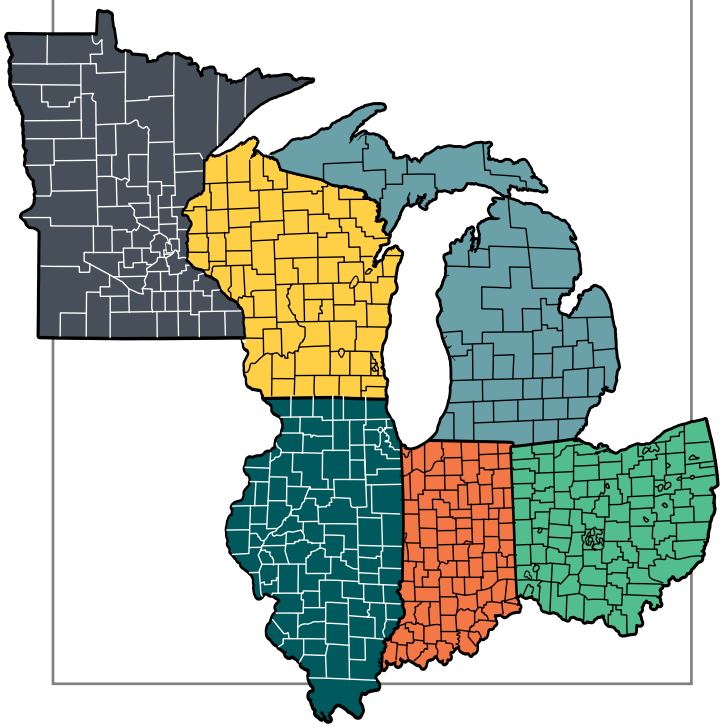
The **Region V Public Health Training Center** (RVPHTC) is part of the HRSA-funded national **Public Health Training Center (PHTC) Network**, a consortium of ten regional centers that collectively represent one of the nation's most comprehensive resources for public health workforce development. Our work focuses on assessing the training needs of the public health workforce, providing corresponding technical assistance and training with an emphasis on strategic skills, and supporting student experiential learning opportunities through field placements in practice-based settings.

Housed at the University of Michigan School of Public Health, the RVPHTC serves six states in the Health and Human Services Region V (RV): Illinois (IL), Indiana (IN), Michigan (MI), Minnesota (MN), Ohio (OH), and Wisconsin (WI) (see Figure 1). The RVPHTC operates by leveraging the collective expertise of partners in academic institutions, state and local health departments, Tribal health organizations, associations, and more to yield training initiatives that positively impact the workforce, the public health system, and population health.

Primary Audience

The primary audience of the RVPHTC's trainings are state and local governmental health department workers. A local health department (LHD), as defined by the National Association of County & City Health Officials (NACCHO) 2022 National Profile of Local Health Departments, is "an administrative or service unit of local or state government, concerned with health, and carrying some responsibility for the health of a jurisdiction smaller than the state."[1] LHDs are characterized by the following: size of population served, type of governance (local, state, or shared), US census regions, and degree of urbanization.

Figure 1.
Map of Region V Local Health Department Jurisdictions



[1] Cunningham, M., Patel, K., McCall, T., et al. (2024). 2022 National Profile of Local Health Departments. National Association of County and City Health Officials. Washington, DC. **https://www.naccho.org/resources/lhd-research/national-profile-of-local-health-departments**

Purpose of the Training Needs Assessment

The RVPHTC seeks to strengthen the current and future public health workforce largely through the development of continuing education designed to address identified training needs and gaps. **Our previous regional training needs assessment survey occurred in 2020**,[2] just before the declaration of the COVID-19 pandemic. The landscape of public health practice has changed dramatically since then, as the pandemic caused significant upheaval of the workforce within the context of increased public and political attention.[3] With the CDC's Public Health Infrastructure Grant[4], there is now increased national momentum around supporting the public health workforce.

The purpose of the RVPHTC's 2023 training needs assessment was to identify and prioritize the current training needs of LHD staff in our region. This information will allow the RVPHTC to develop training resources that will be most useful to our intended audience and thereby enable us to utilize our resources effectively and efficiently. To achieve the goals of this assessment, we administered an online survey to health officials of each LHD in our region (529 agencies). Health officials, or a designee, were asked to respond to questions from their leadership perspective about the workforce development opportunities available to and needed by their staff as a whole.

The purpose of this training needs assessment was to identify and prioritize the current training needs of LHD staff in our region.

[2] Kulik PK, Leider JP, Beck AJ. Leadership Perspectives on Local Health Department Workforce Development: A regional training needs assessment. Journal of Public Health Management and Practice. 2022;28(2):E619-E623. doi:**10.1097/phh.0000000000001395**

[3] Leider JP, Castrucci BC, Robins M, et al. The Exodus Of State And Local Public Health Employees: Separations Started Before And Continued Throughout COVID-19. Health Affairs. 2023;42(3):338-348. doi:**https://doi.org/10.1377/hlthaff.2022.01251**

[4] CDC Awards More Than $3 Billion to Improve U.S. Public Health Workforce and Infrastructure. CDC Newsroom Releases. Published online November 29, 2022. **https://www.cdc.gov/media/releases/2022/p1129-cdc-infrastructure.html**

Methods

Survey Design

The training needs assessment tool was a 32-question online survey administered using Qualtrics (a copy of the survey can be made available by request to rvphtc@umich.edu). The survey was adapted from the 2020 training needs assessment and was modified based on partner input and updated competency sets released in 2021. Survey items were both quantitative and qualitative, and incorporated elements of several existing sources: most substantively the 2021 Public Health Workforce Interests and Needs Survey (**PH WINS**), the de Beaumont Foundation's **Adapting and Aligning Public Health Strategic Skills**, the Council on Linkages Between Academia and Public Health Practice's **Core Competencies for Public Health Professionals**, and other assessments previously implemented in the region. The survey went through several rounds of review and revisions with partners, prioritizing fielding a concise and actionable tool. The survey comprised the following categories: health department characteristics, training needs, training networks, and student programming. This study was determined to be exempt from IRB oversight by the University of Michigan Health Sciences and Behavioral Sciences Institutional Review Board (HUM00240670).

Strategic Skill Domains

The 2023 survey focused on the Tier 2 level (supervisors & managers) Strategic Skill domains and competencies from the de Beaumont Foundation's 2021 Public Health Workforce Interests and Needs Survey. This differed from the **2020 Training Needs Assessment** that focused on the Tier 1 level (non-supervisors) competency statements. This change was made to better reflect the responsibilities and activities of the RVPHTC's primary training audience of supervisors and managers. Additionally, follow-up questions based on the Council on Linkages Between Academia and Public Health Practice's 2021 Core Competencies for Public Health Professionals were included in order to discern further detail to inform training development.

If respondents selected Strongly Disagree, Disagree, or I Don't Know in the main Strategic Skill block of questions, they met the criteria for a follow-up block for that domain including select Core Competencies. Respondents were presented a maximum of three randomly selected follow-up blocks, even if they qualified for more. Each CoL competency block was limited to 50 respondents, with two caveats. Some blocks have more than 50 responses, because pausing the survey resulted in a few respondents not counting towards the quota until they completed their survey. If multiple people who were presented the same blocks submitted their survey at the same time, both responses were counted, even if one of their responses would have fulfilled the quota.

Partners

Many partners across the six-state region were involved in the development of the survey tool and in the participant recruitment process. Survey development was primarily led by the RVPHTC staff team and their evaluation partners at the University of Minnesota School of Public Health. State Associations for County and City Health Officials (SACCHOs) and other partners across the region were engaged to provide additional feedback and to promote the survey among their members. Partners also provided health official contact lists for a total of 529 LHDs. See Appendix A for a complete list of partners.

Recruitment

The training needs assessment was intended for all health officials of LHDs and community health boards in the six-state region. For the purposes of this report, we will refer to respondents as LHDs. Health officials could designate another staff person or team to complete the survey on behalf of their agency. The survey was administered between October 2–November 3, 2023. It was initially set to be open for two weeks and was extended an additional two weeks. Partners shared an announcement about the upcoming survey with their networks the week before fielding began and again the week after. The RVPHTC sent recruitment messages directly to health officers, their designee, and/or their administrators a total of five times. Messages were tailored during the extended fielding based on the recipient's state.

Data Analysis

Complete and partial responses were included in data analysis if the participant had completed at least the main block of competency statements. Data were analyzed using Excel and Qualtrics analytics tools.

Results

Response Rates

A total of 501 were successfully reached (no bouncebacks), and respondents from 234 LHDs completed (or partially completed) this survey, earning a response rate of 46.7% based on the number of successful contacts. Most respondents (n=175) were the health officials that received the initial invitation to participate in the survey. Overall, 46 respondents were designated to complete the survey by their health official.

Table 1 reflects state response rates based on the size of the population served by the LHDs. Response rate by state ranged from 32% to 59%, and also varied by size of population served by the agency with responses from 49% of the region's LHDs serving small populations (<50,000), 41% of LHDs serving mid-size populations (50,000-249,000), and 8% of LHDs serving large populations (>249,000).

Each cell in Table 1 represents the percentage of LHDs serving populations that size who responded over the total number of LHDs serving populations that size in that state. For example, 28% of LHDs in Illinois who serve a population of 50,000 responded to the survey. Four health departments did not have a NACCHO ID number associated with them, therefore not allowing a population served size to be matched.

Table 1. Response Rates by State and Size of Population Served

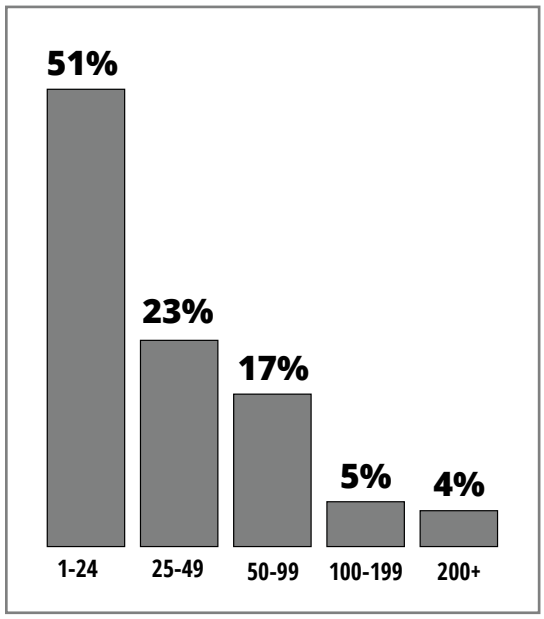
AREA	50K	50-250K	250K+	TOTAL
IL	28%	59%	67%	43% (n=39)
IN	36%	23%	0%	32% (n=29)*
MI	17%	57%	45%	52% (n=22)
MN	34%	70%	17%	48% (n=35)*
OH	51%	65%	36%	49% (n=62)
WI	51%	55%	100%	59% (n=47)
RV	49%	41%	8%	47% (n=234)

*4 health departments (1 IN, 3 MN) did not have NACCHO IDs to match for size of population served.

Health Department Staff Size

Approximately half of respondents work in small LHDs, defined as having fewer than 25 staff serving less than 25,000 people. This question asked respondents to identify all employees, including full- and part-time staff, seasonal, and contractual employees. The results in Figure 2 align approximately with the proportion of agencies serving small, mid-size, and large populations shown in Table 1 on the previous page.

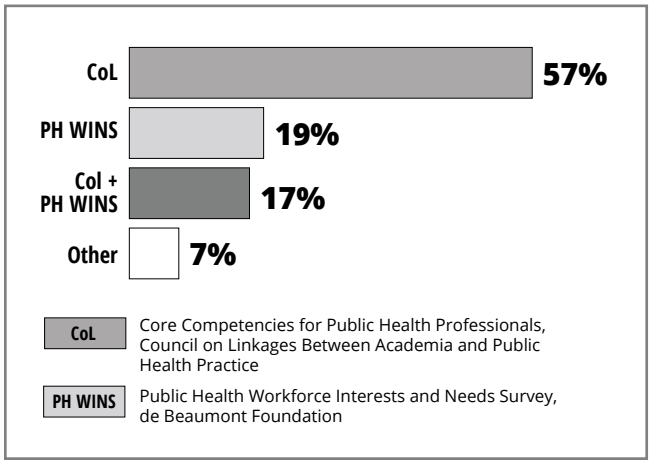
Figure 2. Health Department Staff Size (n=234)



Public Health Competency Set Usage

Respondents were asked to identify what public health competencies they currently use to inform their organization's workforce development plans. Respondents were able to select more than one option, and were able to input what other competency sets they use if not listed. There were 165 unique responses to this question, with 36 respondents selecting more than one option. As shown in Figure 3, about 57% of LHDs use the Core Competencies for Public Health Professionals (CoL) in their workforce development plans, while about 19% use the Strategic Skill domains and competencies (PH WINS). About 17% of respondents selected both the Core Competencies for Public Health Professionals and the Strategic Skill Domains and Competencies (CoL and PH WINS). For those who selected Other, competency sets used included PERMAH Wellbeing Survey, internal surveys and feedback, and position-specific competency sets (e.g., nursing, health education, environmental).

Figure 3. Public Health Competency Sets Used (n=165)



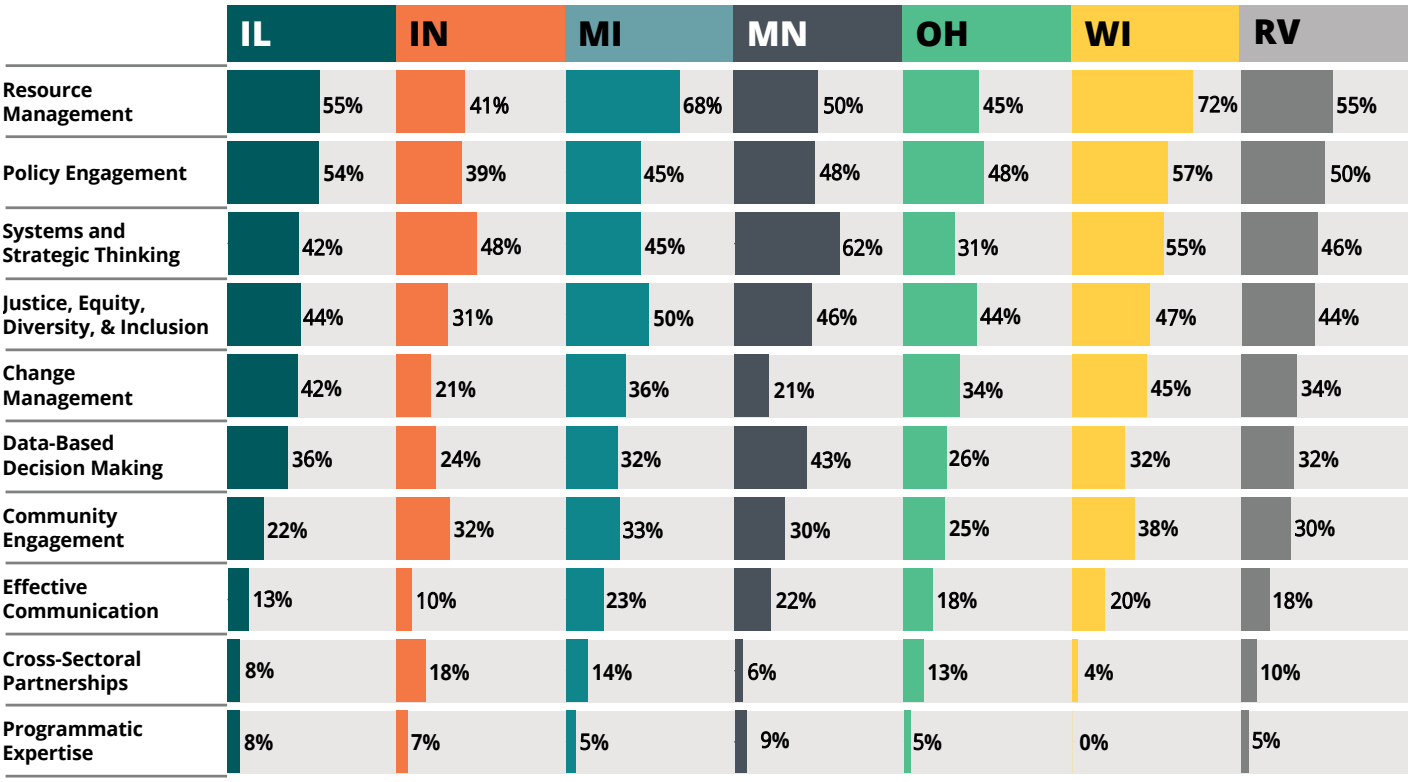
Overview of Training Gaps: Domains and Competencies

All respondents were first shown a set of questions referencing the **Strategic Skill domains** and Tier 2 competencies from the **2021 Public Health Workforce Interests and Needs Survey** (page 25). Participants were asked whether their public health staff (defined as those who are specifically involved in delivering the 10 Essential Public Health Services) are able to apply the stated skills in their day-to-day work to sufficiently meet the agency's needs. A training gap is calculated as the proportion of respondents who selected Strongly Disagree, Disagree, or I Don't Know. After the first set of questions that all respondents answered, randomized follow-up blocks of CoL competencies were shown to those who met selection criteria based on their responses. The CoL competencies shown can be found in Appendix B, organized by Strategic Skill domain.

Domain-Level Training Gaps

Figure 4 below shows the training gaps by state and domain. The values in the figure represent the percentage of LHDs who report having at least one training gap in that domain. **Regionally, the largest training gaps at the domain level are Resource Management, Policy Engagement, and Systems and Strategic Thinking.** These training gap domains are very similar to the ones reported in the 2020 Training Needs Assessment.[5]

Figure 4. Domain-Level Training Gaps by State and Region



[5] This training needs assessment cannot be directly compared to the 2020 training needs assessment, as the language of the specific competencies used in the assessments differ by tier.

Competency-Level Training Gaps

When narrowing training gaps down to the competency statement level, a wide range of training gaps emerge. Some competency statements have extremely low training gaps, while others have training gaps for nearly half of all responding health departments. The training gaps for competency statements are the proportion of respondents who selected Strongly Disagree, Disagree, or I Don't Know. Figure 5 reflects the training gaps for each competency statement at the regional level.

Figure 5. Competency-Level Training Gaps by Region

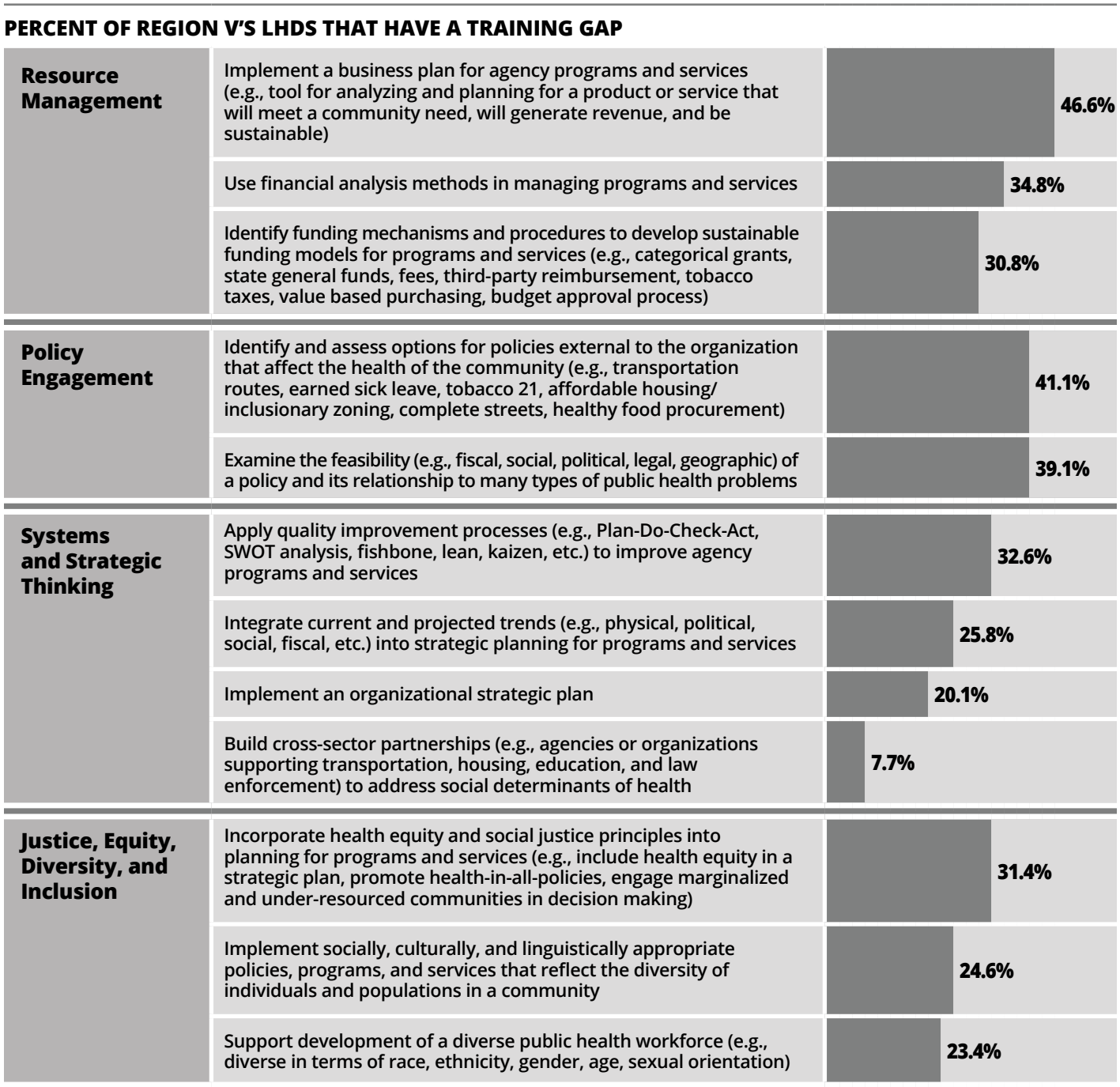


FIGURE 5 [CONTINUED]

PERCENT OF REGION V'S LHDS THAT HAVE A TRAINING GAP

Change Management	Modify programmatic practices in consideration of internal and external changes (e.g., social, political, economic, scientific	27.8%
	Assess the drivers in your environment (e.g., physical, political, social, fiscal, etc.) that may influence public health programs and services	27.4%
Data-Based Decision Making	Use valid data to drive decision making	21.6%
	Apply evidence-based approaches to address public health issues	17.9%
	Identify appropriate sources of data and information to assess the health of a community	16.5%
Community Engagement	Assess how agency policies, programs, and services advance population health	21.8%
	Engage community members in the design and implementation of programs to improve health in a community	17.5%
	Apply findings from a community health assessment or community health improvement plan to agency programs and services	8.8%
Effective Communication	Communicate in a way that persuades others to act	16.2%
	Communicate in a way that different audiences (e.g., the public, community organizations, external partners, the scientific community, etc.) can understand	4.7%
Cross-Sectoral Partnerships	Identify and engage assets and resources (e.g., Boys & Girls Clubs, public libraries, hospitals, faith-based organizations, academic institutions, federal grants, fellowship programs) that can be used to improve health in a community	7.8%
	Engage in collaborations within the public health system, including traditional and non-traditional partners, to improve the health of a community	6.1%
Programmatic Expertise	Apply technical skills specific to their programmatic area	5.2%
	Apply content knowledge specific to their programmatic area	2.6%

The top five competency-level training gaps across the region were:

1. **Resource Management (n=109, 47%):** Implement a business plan for agency programs and services (e.g., tool for analyzing and planning for a product or service that will meet a community need, will generate revenue, and be sustainable)
2. **Policy Engagement (n=94, 41%):** Identify and assess options for policies external to the organization that affect the health of the community (e.g., transportation routes, earned sick leave, tobacco 21, affordable housing/inclusionary zoning, complete streets, healthy food procurement)
3. **Policy Engagement (n=90, 39%):** Examine the feasibility (e.g., fiscal, social, political, legal, geographic) of a policy and its relationship to many types of public health problems
4. **Resource Management (n=81, 35%):** Use financial analysis methods in managing programs and services
5. **Systems and Strategic Thinking (n=76, 33%):** Apply quality improvement processes (e.g., Plan-Do-Check-Act, SWOT analysis, fishbone, lean, kaizen, etc.) to improve agency programs and services

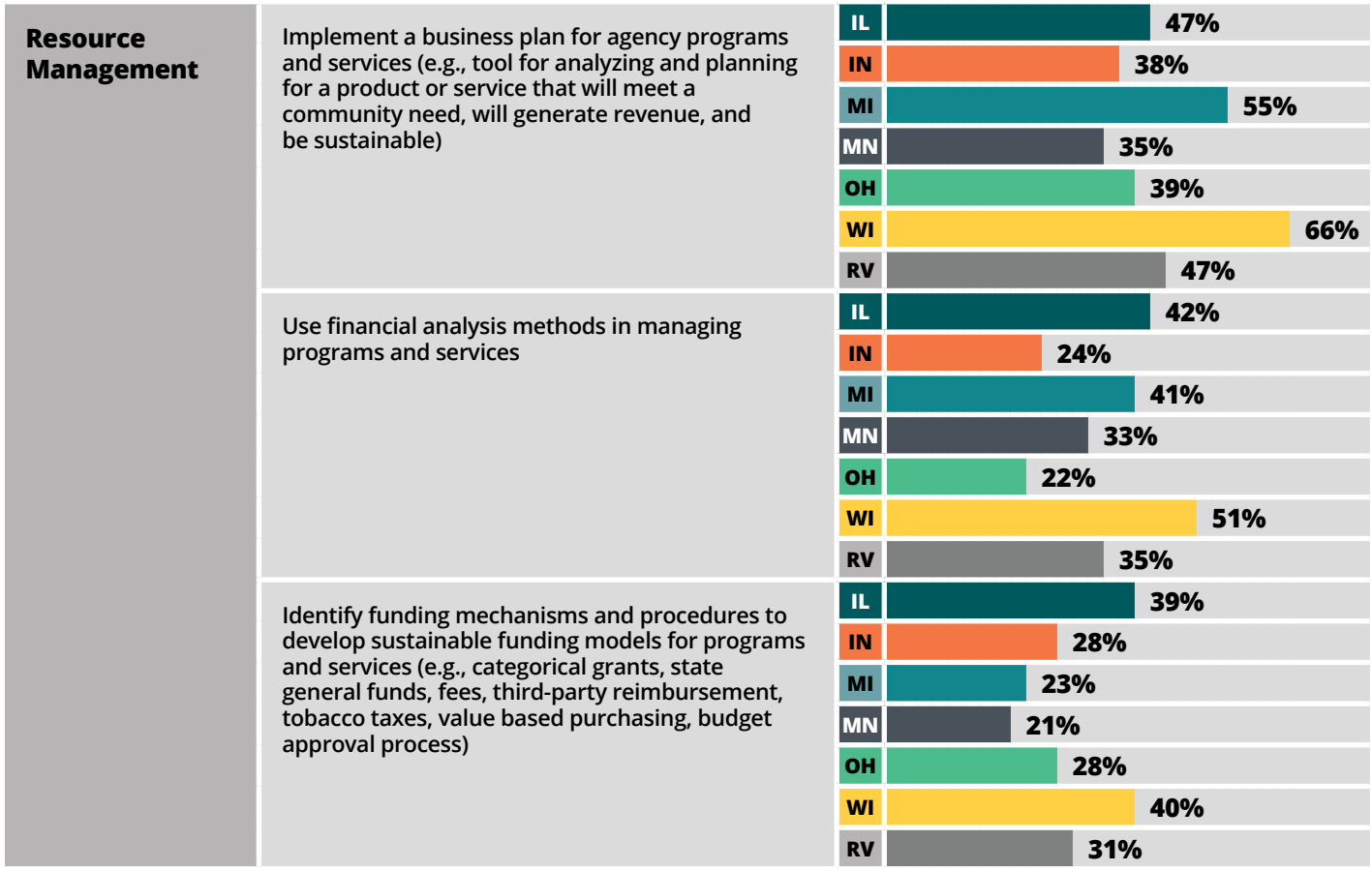
Table 2 below indicates the top training gap identified for each state. The top five training gaps by state can be found in Appendix C. The domain of Resource Management is the top training gap at the regional level, as well as in Illinois, Michigan, and Wisconsin. In Indiana and Minnesota, the top training gap was in the domain of Systems and Strategic Thinking. The top training gap in Ohio was in the domain of Policy Management.

Table 2. Overview of Top Training Gaps by State

AREA	STRATEGIC SKILL DOMAIN	COMPETENCY STATEMENT	TRAINING GAP
IL	Resource Management	Implement a business plan for agency programs and services (e.g., tool for analyzing and planning for a product or service that will meet a community need, will generate revenue, and be sustainable)	(n=18) 47%
IN	Systems and Strategic Thinking	Apply quality improvement processes (e.g., Plan-Do-Check-Act, SWOT analysis, fishbone, lean, kaizen, etc.) to improve agency programs and services	(n=13) 46%
MI	Resource Management	Implement a business plan for agency programs and services (e.g., tool for analyzing and planning for a product or service that will meet a community need, will generate revenue, and be sustainable)	(n=12) 55%
MN	Systems and Strategic Thinking	Integrate current and projected trends (e.g., physical, political, social, fiscal, etc.) into strategic planning for programs and services	(n=16) 47%
OH	Policy Engagement	Identify and assess options for policies external to the organization that affect the health of the community (e.g., transportation routes, earned sick leave, tobacco 21, affordable housing/inclusionary zoning, complete streets, healthy food procurement)	(n=26) 41%
WI	Resource Management	Implement a business plan for agency programs and services (e.g., tool for analyzing and planning for a product or service that will meet a community need, will generate revenue, and be sustainable)	(n=31) 67%
RV	Resource Management	Implement a business plan for agency programs and services (e.g., tool for analyzing and planning for a product or service that will meet a community need, will generate revenue, and be sustainable)	(n=109) 47%

Figure 6 below shows the training gaps for the block of competency statements that all respondents were shown. Training gaps varied widely among competency statements and across states, with some statements having training gaps as low as 2% on the state level, while others had training gaps larger than 40%. The competencies were presented to respondents as grouped by strategic skill domains.

Figure 6. Competency-level Training Gaps by State



Illinois (n=39); Indiana (n=29); Michigan (n=22); Minnesota (n=33); Ohio (n=63); Wisconsin (n=46); Region V (n=234)

FIGURE 6 [CONTINUED]

PERCENT OF REGION V'S LHDS THAT HAVE A TRAINING GAP

Policy Engagement	Identify and assess options for policies external to the organization that affect the health of the community (e.g., transportation routes, earned sick leave, tobacco 21, affordable housing/ inclusionary zoning, complete streets, healthy food procurement)	IL	43%
		IN	37%
		MI	41%
		MN	36%
		OH	41%
		WI	45%
		RV	41%
	Examine the feasibility (e.g., fiscal, social, political, legal, geographic) of a policy and its relationship to many types of public health problems	IL	43%
		IN	25%
		MI	36%
		MN	39%
		OH	35%
		WI	51%
		RV	39%

Illinois (n=39); Indiana (n=29); Michigan (n=22); Minnesota (n=33); Ohio (n=63); Wisconsin (n=46); Region V (n=234)

FIGURE 6 [CONTINUED]

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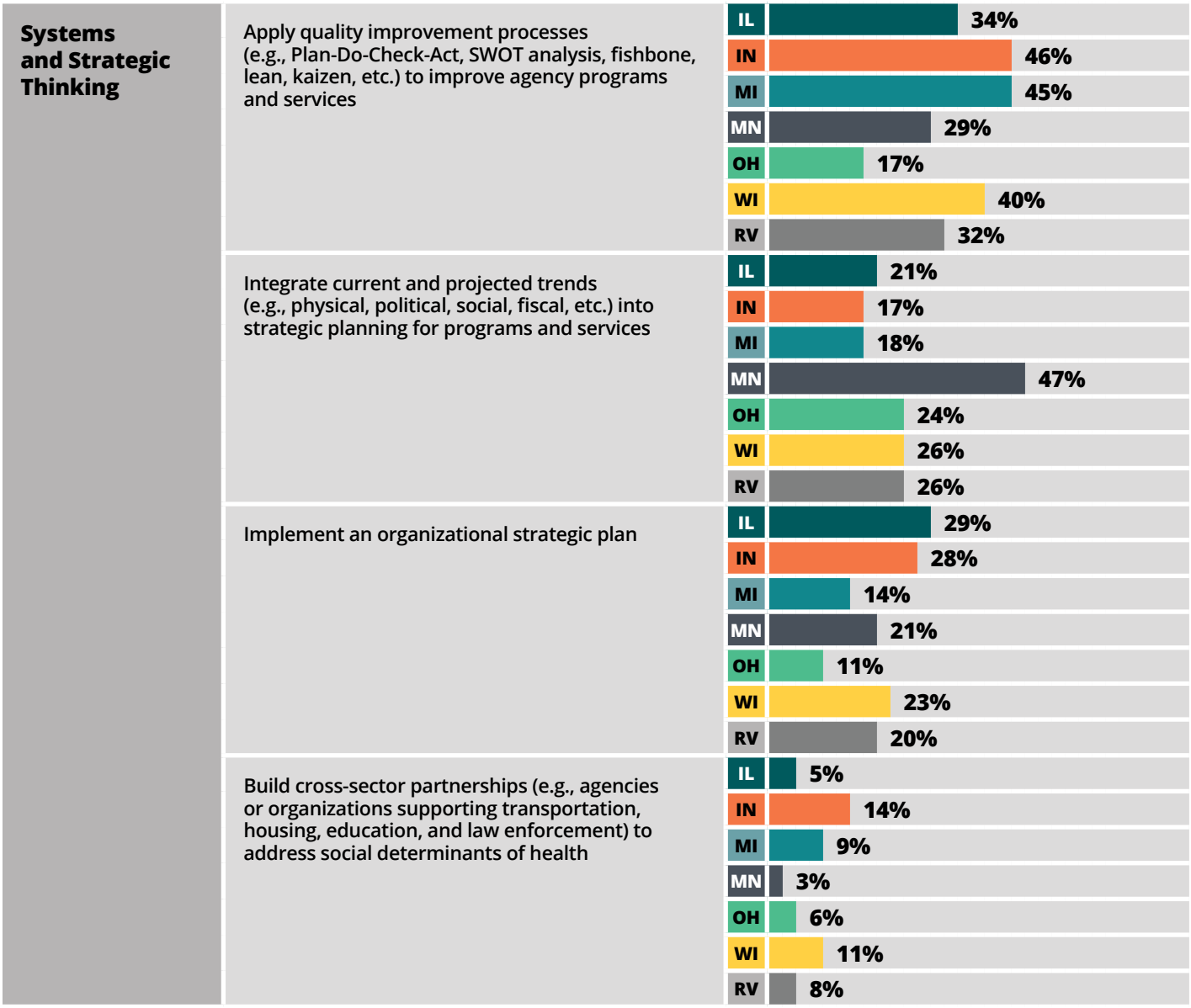

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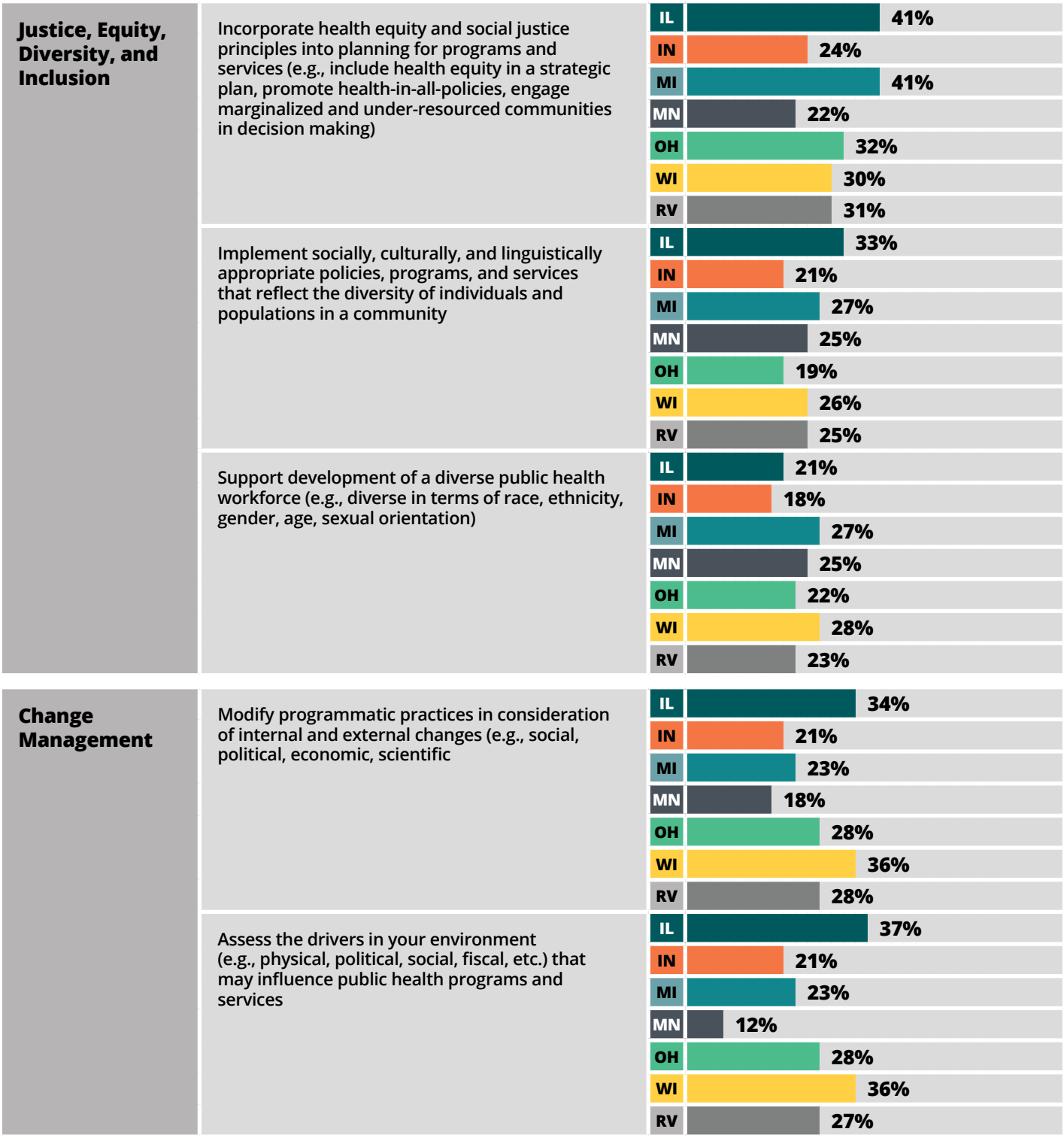

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FIGURE 6 [CONTINUED]

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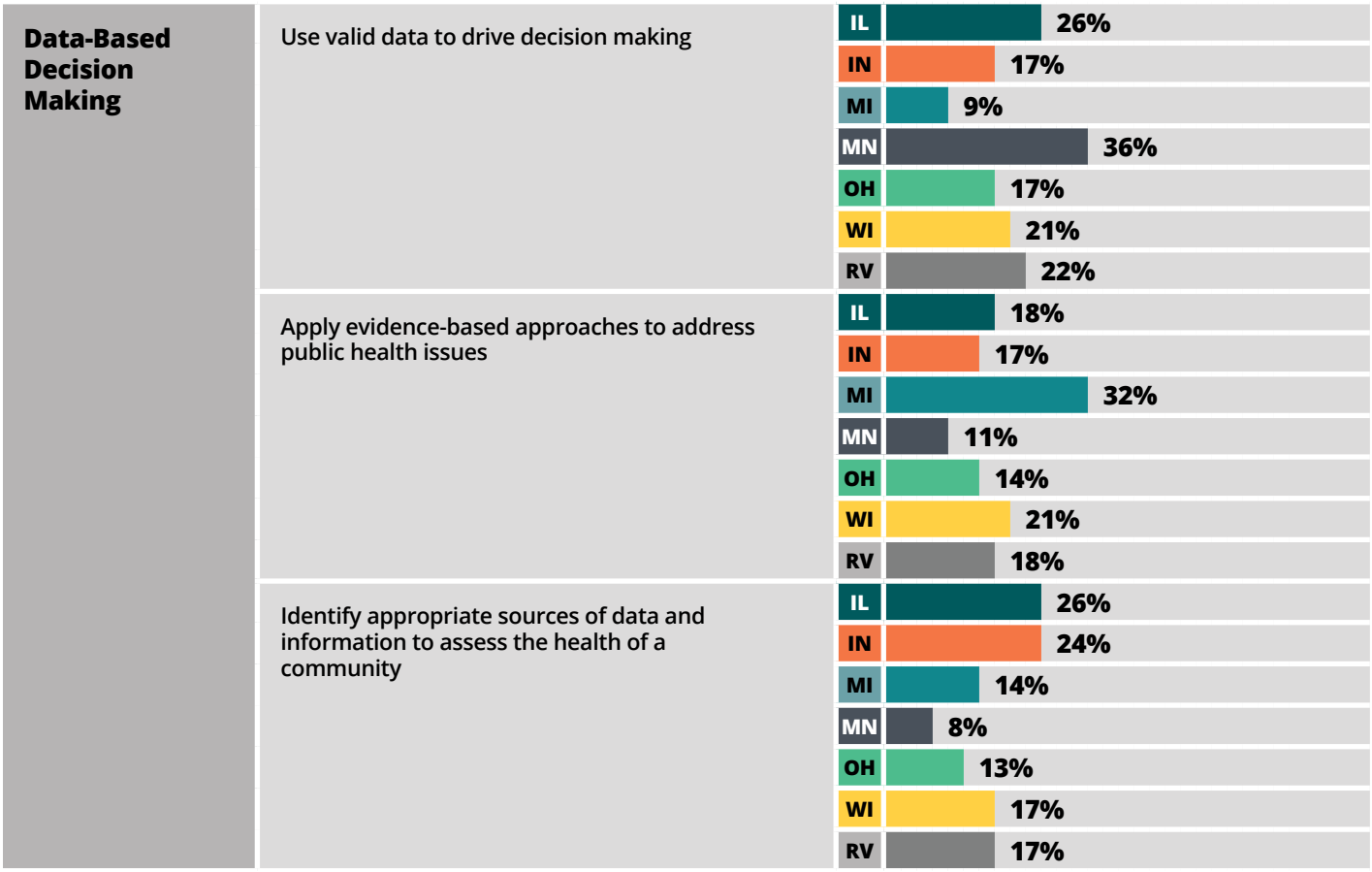

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FIGURE 6 [CONTINUED]

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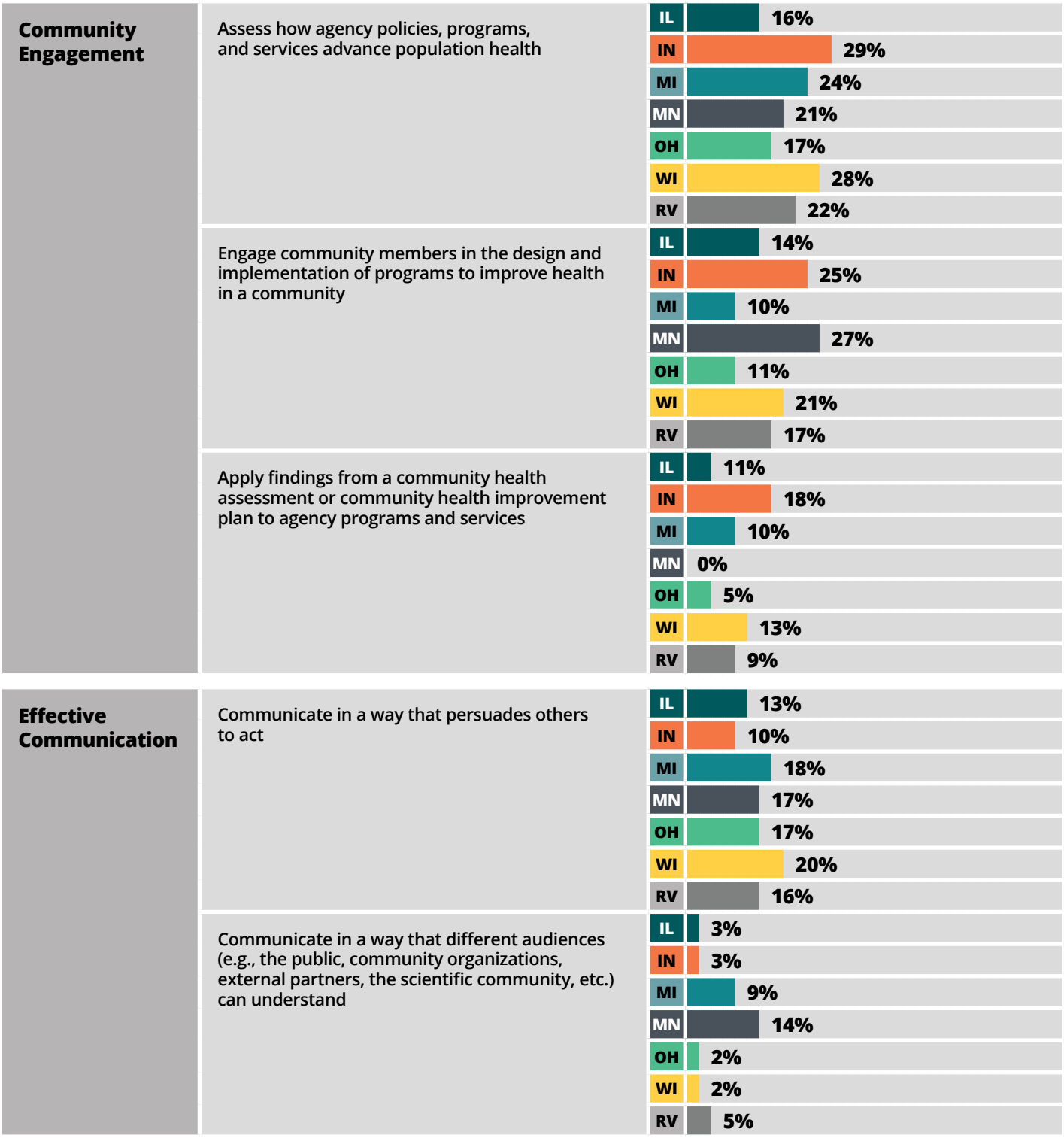

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FIGURE 6 [CONTINUED]

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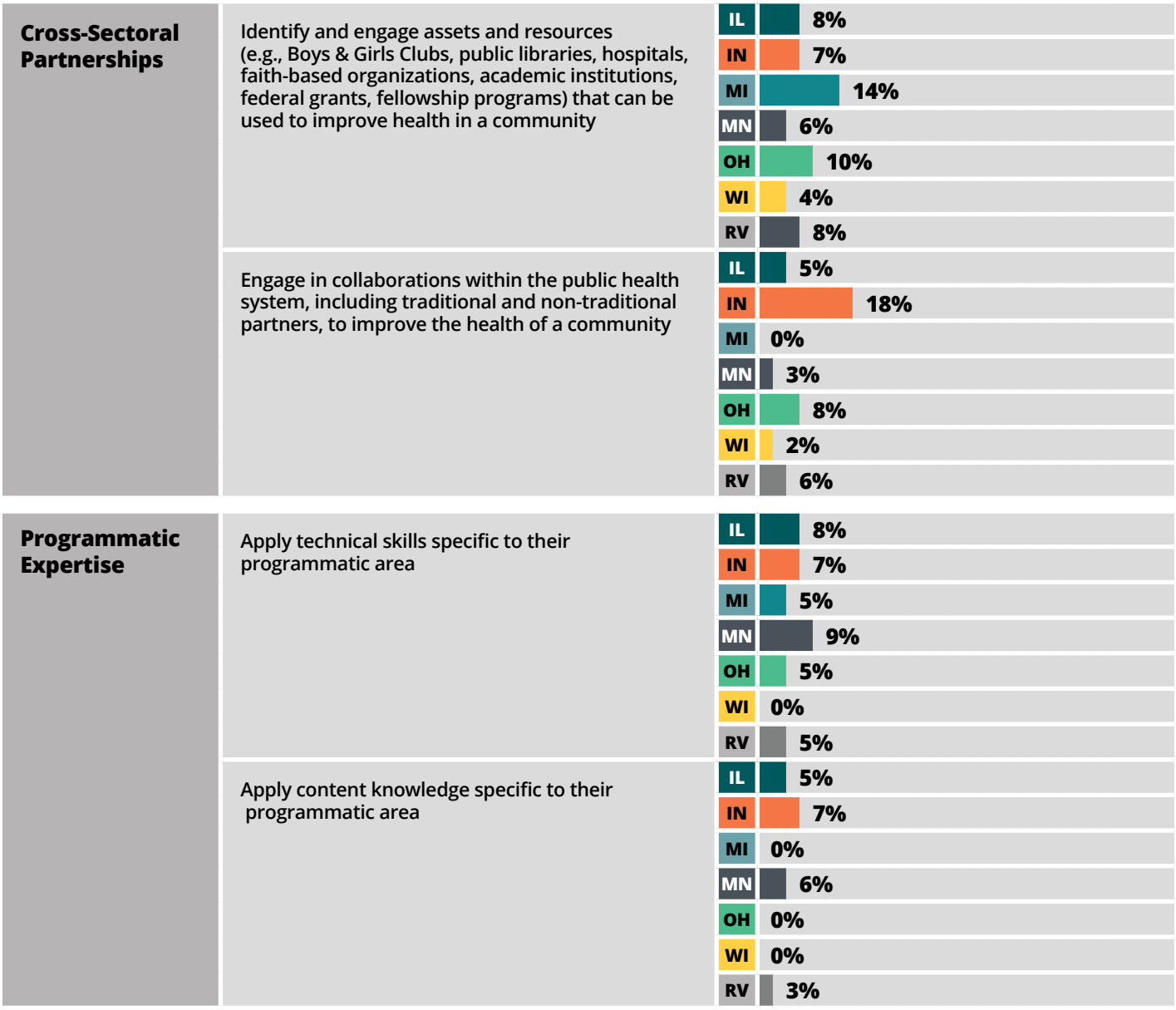


Illinois (n=39); Indiana (n=29); Michigan (n=22); Minnesota (n=33); Ohio (n=63); Wisconsin (n=46); Region V (n=234)

Supplemental Competency Training Gaps

After answering the main block of competency questions, respondents who met certain criteria were shown follow-up blocks with additional competency statements relating to that domain, drawn from the Core Competencies for Public Health Professionals. Domains with the highest training gaps (Resource Management, Systems and Strategic Thinking, and Policy Engagement) also had large training gaps in the additional competency statements. For each of those domains, there was at least one competency statement with a training gap larger than 50%. Some competency statements in those domains had training gaps as high as 70%. See Appendix B for the additional competency training gaps.

Survey responses show the diversity in what LHDs are prioritizing, especially as organizations transition away from the immediate crisis of COVID-19.

Community Issues and Workforce Development

Survey participants had the opportunity to respond to two open-ended questions to provide more insight on their workforce needs and priorities. Respondents were asked:

- Our goal is to build skills among the workforce to ultimately improve population health outcomes. What are 1-2 of the most pressing community or systems level challenges that your agency is working to address?
- Please list any other knowledge, skills, or abilities not listed previously that you believe your workforce needs further training in.

The community issues question received 191 unique responses. There was a wide range of responses, with themes related to access to care, behavioral/mental health, housing, infectious diseases, opioids/substance abuse, and workforce issues (staff recruitment/retention, motivated workforce). This question shows the diversity in what LHDs are prioritizing, especially as organizations transition away from the immediate crisis of COVID-19 to their new workflows. There are issues that require a more immediate response, such as infectious diseases and lack of housing, but also more long-term issues, such as implementing health equity into the policy planning process and rebuilding trust in communities to create new partnerships.

Below are some examples from survey respondents:

"Including health in all policies; Our county is not a very diverse county, but diversity exists — We are trying to break down barriers to our underserved community but the rest of the county doesn't acknowledge they exist."

"Working on mental health & substance abuse; challenging at times to get buy-in from elected officials and partners specializing in this area; as working class suburb of a large city, challenge to get resources allocated despite demonstrating need."

"We are working to address the decline in the amount of childhood immunizations that children are receiving in the community and we are also working on addressing the changing landscape of our population as more refugees and migrants are working in our area putting a strain on the services we are able to provide to the community."

For the question addressing potential further training, 113 unique respondents answered the question. Some common themes for this question included:

- Workforce needs (e.g., recruitment, retention, extra training generally)
- Skills addressing public health sciences (e.g., basic knowledge of the 10 Essential Services, Public Health 3.0, specific public health skills)
- Partnerships (e.g., engaging with community members, exploring new partnerships, building trust)
- Financial skills (e.g., grant management, writing budgets, applying for funding)

Some of these general themes also appear as training gaps in the Strategic Skill domains, such as Community Engagement, Resource Management, and Systems and Strategic Thinking.

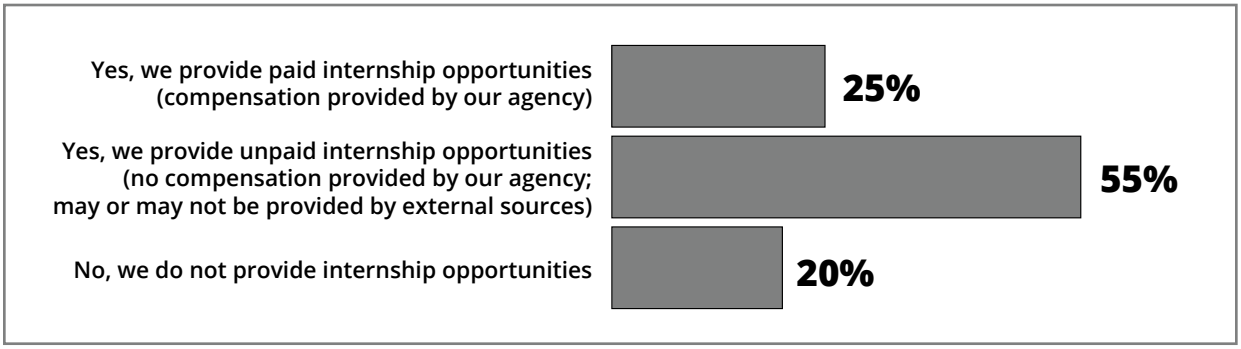
Training Network Analysis

As part of the training needs assessment in 2020 and 2023, we asked respondents to indicate with whom they received training, and how often the training was received. With that information, **a social network analysis was conducted, described further in Appendix D.** Visualization at the regional level shows that, with contact at least monthly, the RVPHTC has become a central contact for LHDs between 2020 and 2023.

Internships

The following questions were asked to gauge the internship landscape across the region. A total of 179 LHDs offer some kind of internship opportunity at their agencies, though more than half that do so offer unpaid internships (Figure 7).

Figure 7. Student Internship Offerings (n=224)



Respondents who selected either of the affirmative options were promoted with an open-ended question asking what skills or experiences are desired for incoming interns. Some common themes included:

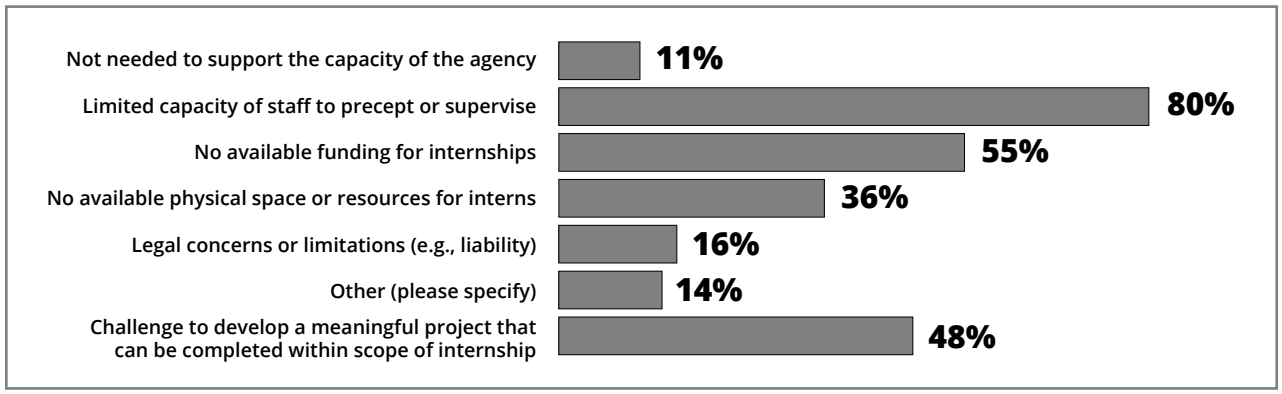
- Academic qualifications (e.g., certain majors/degree types)
- Communication skills (e.g., oral, written, or social media)
- Having a positive attitude and/or interest in public health

Other themes that appeared include:

- Data analysis skills
- Technical skills (e.g., familiarity with computer softwares)
- Soft skills/professionalism skills

Those who selected no were asked to indicate why they currently do not offer student internships (Figure 8). Participants were able to select more than one response. A total of 44 unique individuals responded to this question, indicating 114 selections. The most common reasons for not offering student internships were limited capacity of staff to precept or supervise (80% of the 44 individual responses) and no available funding for internships (55%). Many also indicated it is challenging to develop a meaningful project that can be completed within the scope of an internship (48%). For those who selected Other, some reasons included no infrastructure in place to host an intern and challenges with hosting interns in a very small health department.

Figure 8. Reasons for Not Offering Student Internships (n=44)



Discussion

Overall, the survey was successful. There was a satisfactory response rate (46.7%), and there were no technical issues that were brought to the attention of the survey team. Respondents were forthcoming with their thoughts in the open-ended questions, providing insights on the needs of their communities, workforce development skills, and student programming opportunities. The model of this survey has been used before, and the findings can be triangulated with other individual-level data sources, such as the Public Health Workforce Interests and Needs Survey, to inform programming.

The training gaps in the Strategic Skill domains showed overlap across the states in the region. Three of the states share the same top training gap, *Implement a business plan for agency programs and services (e.g., tool for analyzing and planning for a product or service that will meet a community need, will generate revenue, and be sustainable)*. Resource Management; Systems and Strategic Thinking; Policy Engagement; and Justice, Equity, Diversity, and Inclusion are all domains that appear in the top five training gaps across all states. When accounting for regional and state-level training gaps, there were only three statements that appeared a single time as a training gap, highlighting the very similar training needs at the regional level and at the state levels. The RVPHTC is already working towards many of the training gaps presented in the survey, and the current training catalog offered by the RVPHTC can be filtered by the Strategic Skill domains, allowing for those looking for training to find opportunities that address those specific domains.

Recommendations

- **Continued training opportunities.** The RVPHTC could target the competencies in the top five competency-level training gaps moving forward which are within the domains of Resource Management, Policy Engagement, and Systems and Strategic Thinking. However, other domains should still have opportunities for engagement, since training gaps are still prevalent across all the domains.
- **Better engagement with LHDs.** There are always opportunities to improve response rates for surveys, and this assessment is no different. Though overall the response rate was in line with what was anticipated, a lot of effort was placed to promote and communicate with partners about the survey. If there were stronger relationships with the LHDs, there may have been a higher response rate overall and the survey may not have needed a two week extension.
- **Increase support to LHDs for student programming.** Though a large number of respondents reported offering student internships, there were still one-fifth of respondents who do not offer any kind of student internships. Being able to support health departments who are interested in hosting students would be beneficial. The RVPHTC could also extend its support of student experiential learning beyond stipends and a student community of practice to offer a guidebook or trainings on how to recruit interns and how to build short but meaningful experiences for students, or help identify a schedule or structure for students to be able to complete a project and still receive mentorship. Though this does not address the lack of funding, there may be creative solutions for students to receive school credit or apply for external funding to complete their experiences. Future qualitative needs assessments could further explore facilitators for student placements in governmental public health settings.
- **Continue to recognize that LHDs have different priorities and needs.** Through the open-ended questions asking participants to identify community issues and additional workforce needs, responses covered an extremely wide range of topics. Some health departments are focused on addressing more traditional public health needs of communities, such as increasing immunization rates and lowering obesity rates, while others are working towards systems-level changes such as implementing health equity in policies and practices, and building healthy environments. With the diverse needs present across the region, the RVPHTC should continue to ensure that the trainings developed are diverse in their offerings and topic areas. The RVPHTC can also explore opportunities to expand related initiatives from the PHTC Network such as the **Racial Justice Competency Model** and **Public Health Learning Agenda for Systems Change** in order to support LHD capacity to address the issues they identified.

- **Keep expanding the RVPHTC's presence in the region.** In the training network analysis, the RVPHTC became more centralized in some states in the region compared to the previous assessment in 2020. Being able to continue the growth of the RVPHTC as a central training provider in the region would increase the value, benefit, and impact of the RVPHTC for the governmental public health workforce. Reflecting on the training network analysis also suggests potential key partners for the RVPHTC in each state. If the role of the RVPHTC continues to expand and become more centralized in the region the RVPHTC has the potential to increasingly serve as a true hub for resources and training.
- **Continue evaluation activities.** Being able to continue to evaluate the needs of the region is crucial to the work that the RVPHTC does. The assessment tool for 2023 did change slightly from 2020, and even with slight modifications for future assessments, keeping the bulk of the assessment the same would allow for longitudinal comparison. Having the ability to directly compare assessments in the future would allow the RVPHTC to better measure growth in workforce skill and the impact the center is having.

Limitations

Though the survey was successful overall, limitations were still present. This survey was administered to LHD leadership, typically the health officer of the department. Having a singular person answer on the behalf of an entire health department's staff has the potential to bias results. Some LHDs may operate in a more siloed manner and a health officer may not have a complete idea of what the training needs are for their entire staff. Health officers and health department leadership may also have different perceptions on priorities for the department compared to other staff. Additional limitations potentially affecting the survey response rate are survey fatigue and competing priorities. Since the COVID-19 pandemic, many state and national level surveys have been administered, and another request may not be a high priority item for an LHD. In Michigan, the survey was launched on the same day as a large statewide public health conference, and in Indiana, a statewide survey was also being conducted at the same time. However, the survey response rate was still considered a success. One other potential limitation is time, as there were some surveys that were only partially completed or opened but not completed at all, indicating that the 10-15 minute commitment was longer than was feasible for some respondents.

Conclusion

By conducting a region-wide survey, the RVPHTC is able to take a snapshot of the training gaps and needs for LHDs. As a training center, it is important to keep the pulse of what LHDs need in order to develop training that will be beneficial to the staff using the materials. In this training needs assessment, agency leaders were asked to consider the needs of their staff by answering questions about the Strategic Skill domains and Core Competencies for Public Health Professionals, student internships, and the other organizations that they engage with for training and information. As the RVPHTC plans for the next grant year, information from this training needs assessment will be a crucial information source. By identifying training gaps and domains of high need, the RVPHTC can ensure that new materials and opportunities for engagement specifically address the domains with higher training gaps. The RVPHTC can tailor these training opportunities for local public health audiences with the goal to increase the reach to LHD staff and strengthen their skills in the Strategic Skill domain areas. Being able to observe long-term trends on where training gaps lie in the region will be a large part of the work that the RVPHTC does, and allow for some measure of impact and success.

APPENDIX A

List of Partners

The following partners supported this project by giving input on the survey tool, providing contact lists, and/or promoting the survey during fielding.

- Illinois Association of Public Health Administrators
- Illinois Public Health Association
- Illinois Department of Health
- University of Illinois Chicago
- Indiana State Association of County and City Health Officials
- Indiana Public Health Association
- Indiana University Richard M. Fairbanks School of Public Health
- Michigan Association of Local Public Health
- Michigan Department of Health and Human Services
- Local Public Health Association of Minnesota
- Minnesota Department of Health
- Association of Ohio Health Commissioners
- Ohio Department of Health
- The Ohio State University
- Kent State University
- Wisconsin Association of Local Health Departments and Boards
- University of Wisconsin-Madison

APPENDIX B

CoL Competencies Breakdown

Select Core Competencies for Public Health Professionals were mapped to the Strategic Skill domains for further inquiry. Each respondent was presented with a maximum of three CoL competency blocks, based on how the Strategic Skill domain statements were answered. If respondents selected Strongly Disagree, Disagree, or I Don't Know to any of the statements in the primary block of Strategic Skill domains, they qualified for a follow-up block of Core Competencies. The survey instrument was set up to randomly select a maximum of three blocks to present to the respondent.

Each of the CoL competency blocks was capped at 50 responses. Some domains have more than 50 responses, due to how Qualtrics determines when a response counts towards the quota. A response will count once the respondent completes the entire survey, so a respondent taking the survey in more than one sitting would allow for more people to be presented the CoL competency block. Once the quota was met, the CoL competency block was turned off, and was not presented to other participants, even if they met the criteria. Seven of the nine domains with follow-ups hit the quota and were turned off.

Table 3. Training Gaps for CoL Competencies by Strategic Skill Domain

	STRONGLY DISAGREE	DISAGREE	AGREE	STRONGLY AGREE	I DON'T KNOW	TOTAL TRAINING GAP
RESOURCE MANAGEMENT (N=53)						
Develop strategies to secure financial resources	2%	49%	45%	2%	2%	53%
Determine financial resources needed for organizational infrastructure, programs, and services	0%	32%	56%	6%	6%	38%
Engage in contingency planning (e.g., for emergencies, succession, cross-training staff, continuity of operations, economic downturns)	0%	23%	62%	9%	6%	29%
Manage financial resources	0%	17%	66%	15%	2%	19%
Support individuals and teams in engaging in professional development	0%	6%	66%	21%	7%	13%
POLICY ENGAGEMENT (N=54)						
Engage politicians, policymakers, and the public to support public health infrastructure	9%	59%	26%	4%	2%	70%
Determine priorities for influencing policies, programs, and services external to the organization	2%	46%	48%	2%	2%	50%
Describe the differences between educating and lobbying	0%	41%	44%	9%	6%	47%
Advocate for public health	0%	24%	59%	17%	0%	24%

TABLE 3 [CONTINUED]

	STRONGLY DISAGREE	DISAGREE	AGREE	STRONGLY AGREE	I DON'T KNOW	TOTAL TRAINING GAP
SYSTEMS AND STRATEGIC THINKING (N=52)						
Monitor impact of organizational strategic plan	0%	58%	32%	4%	6%	64%
Contribute to adjustment of organizational strategic plan for continuous improvement	0%	48%	40%	6%	6%	54%
Engage in performance management	2%	43%	41%	8%	6%	51%
Contribute to development of organizational strategic plan	0%	23%	60%	15%	2%	25%
Engage individuals and teams to achieve program and organizational goals	0%	13%	56%	27%	4%	17%
JUSTICE, EQUITY, DIVERSITY, AND INCLUSION (N=52)						
Develop strategies to recruit a diverse, inclusive, and competent workforce	6%	56%	27%	10%	2%	64%
Collaborate with the community to reduce systemic and structural barriers that perpetuate health inequities	4%	56%	32%	6%	2%	62%
Develop strategies to retain a diverse, inclusive, and competent workforce	6%	48%	39%	6%	2%	57%
Assess the impact of organizational policies, programs, and services on health equity and social and environmental justice	2%	50%	40%	6%	2%	54%
Advocate for health equity and social and environmental justice	0%	44%	50%	6%	0%	44%
Collaborate with the community to identify systemic and structural barriers that perpetuate health inequities	4%	38%	52%	6%	0%	42%
Engage in continuous self-reflection about one's biases	0%	36%	56%	4%	4%	40%
Address the diversity of individuals and populations when developing, implementing, evaluating, and improving policies, programs, and services	0%	35%	50%	13%	2%	37%
Apply principles of ethics, diversity, equity, inclusion, and justice	0%	21%	67%	10%	2%	23%

TABLE 3 [CONTINUED]

	STRONGLY DISAGREE	DISAGREE	AGREE	STRONGLY AGREE	I DON'T KNOW	TOTAL TRAINING GAP
CHANGE MANAGEMENT (N=51)						
Manage uncertainty	2%	47%	37%	4%	10%	59%
Consider potential unintended consequences of decisions	4%	39%	51%	0%	6%	49%
Consider factors influencing decisions	0%	33%	59%	6%	2%	35%
Engage staff in the change process	0%	33%	59%	6%	2%	35%
Describe conditions, systems, and policies affecting community health and resilience	0%	31%	59%	8%	2%	33%
Make evidence-informed decisions	0%	27%	67%	4%	2%	29%
Identify emerging needs	0%	25%	63%	8%	4%	29%
Foster creativity and innovation	2%	23%	65%	8%	2%	27%
Develop a shared vision	0%	18%	78%	0%	4%	22%
DATA-BASED DECISION MAKING (N=51)						
Analyze the quality of existing data	2%	53%	33%	4%	8%	63%
Use data to determine the root causes of health disparities and inequities	0%	53%	35%	2%	10%	63%
Apply evidence in developing, implementing, evaluating, and improving policies, programs, and services	0%	49%	43%	0%	8%	57%
Interpret evidence to support decision making	0%	43%	43%	4%	10%	53%
Determine data needs	0%	39%	51%	4%	6%	45%
Recognize the context in which data were collected	0%	35%	51%	4%	10%	45%
Access evidence from print and electronic sources to support decision making	0%	31%	59%	2%	8%	39%

TABLE 3 [CONTINUED]

	STRONGLY DISAGREE	DISAGREE	AGREE	STRONGLY AGREE	I DON'T KNOW	TOTAL TRAINING GAP
COMMUNITY ENGAGEMENT (N=54)						
Share power and ownership with community members and others	2%	41%	44%	2%	11%	54%
Ensure accountability to the community	2%	44%	41%	6%	7%	53%
Develop community health improvement plan	0%	28%	52%	18%	2%	30%
Use community health assessment, community input, and other information to determine improvement priorities	2%	22%	57%	17%	2%	26%
Collaborate with community members and organizations to identify community health and resilience needs	0%	15%	66%	19%	0%	15%
Establish relationships to improve community health and resilience	0%	11%	67%	20%	2%	13%
EFFECTIVE COMMUNICATION (N=36)						
Communicate with linguistic and cultural proficiency	0%	61%	30%	6%	3%	64%
Respond to information, misinformation, and disinformation	3%	61%	36%	0%	0%	64%
Select approaches for disseminating public health data and information	0%	58%	33%	9%	0%	58%
Assess the communication needs and preferences of internal and external audiences	3%	39%	50%	8%	0%	42%
Develop messaging for disseminating public health data and information	0%	28%	53%	19%	0%	28%
Determine purposes and goals for disseminating public health data and information	0%	25%	61%	14%	0%	25%
Facilitate communication among individuals, groups, and organizations	0%	19%	67%	14%	0%	19%
CROSS-SECTORAL PARTNERSHIPS (N=22)						
Facilitate collaboration among individuals, groups, and organizations	0%	32%	45%	23%	0%	32%
Engage individuals and teams to achieve program and organizational goals	0%	18%	73%	9%	0%	18%

APPENDIX C

Table 4. Top 5 Training Gaps by State

AREA	#1	#2	#3	#4	#5
IL	Implement a business plan for agency programs and services (e.g. tool for analyzing and planning for a product or service that will meet a community need, will generate revenue, and be sustainable. **Resource Management (n=18) 47%**	Examine the feasibility (e.g., fiscal, social, political, legal, geographic) of a policy and its relationship to many types of public health problems. **Policy Engagement (n=16) 43%**	Identify and assess options for policies external to the organization that affect the health of the community (e.g., transportation routes, earned sick leave, tobacco 21, affordable housing/ inclusionary zoning, complete streets, healthy food procurement). **Policy Engagement (n=16) 43%**	Use financial analysis methods in managing programs and services. **Resource Management (n=16) 42%**	Incorporate health equity and social justice principles into planning for programs and services (e.g., include health equity in a strategic plan, promote health-in-all-policies, engage marginalized and under-resourced communities in decision making). **Justice, Equity, Diversity, and Inclusion (n=16) 41%**
IN	Apply quality improvement processes (e.g., Plan-Do-Check-Act, SWOT analysis, fishbone, lean, kaizen, etc.) to improve agency programs and services. **Systems and Strategic Thinking (n=13) 46%**	Implement a business plan for agency programs and services (e.g. tool for analyzing and planning for a product or service that will meet a community need, will generate revenue, and be sustainable. **Resource Management (n=11) 38%**	Identify and assess options for policies external to the organization that affect the health of the community (e.g., transportation routes, earned sick leave, tobacco 21, affordable housing/ inclusionary zoning, complete streets, healthy food procurement). **Policy Engagement (n=10) 37%**	Assess how agency policies, programs, and services advance population health. **Community Engagement (n=8) 29%**	Identify funding mechanisms and procedures to develop sustainable funding models for programs and services (e.g., categorical grants, state general funds, fees, third-party reimbursement, tobacco taxes, value based purchasing, budget approval process). **Resource Management (n=8) 28%**

TABLE 4 [CONTINUED]

AREA	#1	#2	#3	#4	#5
MI	Implement a business plan for agency programs and services (e.g. tool for analyzing and planning for a product or service that will meet a community need, will generate revenue, and be sustainable. **Resource Management (n=12) 55%**	Apply quality improvement processes (e.g., Plan-Do-Check-Act, SWOT analysis, fishbone, lean, kaizen, etc.) to improve agency programs and services. **Systems and Strategic Thinking (n=10) 46%**	Incorporate health equity and social justice principles into planning for programs and services (e.g., include health equity in a strategic plan, promote health-in-all-policies, engage marginalized and under-resourced communities in decision making). **Justice, Equity, Diversity, and Inclusion (n=9) 41%**	Identify and assess options for policies external to the organization that affect the health of the community (e.g., transportation routes, earned sick leave, tobacco 21, affordable housing/ inclusionary zoning, complete streets, healthy food procurement). **Policy Engagement (n=9) 41%**	Use financial analysis methods in managing programs and services. **Resource Management (n=9) 41%**
MN	Integrate current and projected trends (e.g., physical, political, social, fiscal, etc.) into strategic planning for programs and services. **Systems and Strategic Thinking (n=16) 47%**	Examine the feasibility (e.g., fiscal, social, political, legal, geographic) of a policy and its relationship to many types of public health problems. **Policy Engagement (n=13) 39%**	Use valid data to drive decision making. **Data-Based Decision Making (n=13) 36%**	Identify and assess options for policies external to the organization that affect the health of the community (e.g., transportation routes, earned sick leave, tobacco 21, affordable housing/ inclusionary zoning, complete streets, healthy food procurement). **Policy Engagement (n=12) 36%**	Implement a business plan for agency programs and services (e.g. tool for analyzing and planning for a product or service that will meet a community need, will generate revenue, and be sustainable. **Resource Management (n=12) 35%**
OH	Identify and assess options for policies external to the organization that affect the health of the community (e.g., transportation routes, earned sick leave, tobacco 21, affordable housing/ inclusionary zoning, complete streets, healthy food procurement). **Policy Engagement (n=26) 41%**	Implement a business plan for agency programs and services (e.g. tool for analyzing and planning for a product or service that will meet a community need, will generate revenue, and be sustainable. **Resource Management (n=25) 39%**	Examine the feasibility (e.g., fiscal, social, political, legal, geographic) of a policy and its relationship to many types of public health problems. **Policy Engagement (n=22) 35%**	Incorporate health equity and social justice principles into planning for programs and services (e.g., include health equity in a strategic plan, promote health-in-all-policies, engage marginalized and under-resourced communities in decision making). **Justice, Equity, Diversity, and Inclusion (n=20) 32%**	Identify funding mechanisms and procedures to develop sustainable funding models for programs and services (e.g., categorical grants, state general funds, fees, third-party reimbursement, tobacco taxes, value based purchasing, budget approval process). **Resource Management (n=18) 28%**

TABLE 4 [CONTINUED]

AREA	#1	#2	#3	#4	#5
WI	Implement a business plan for agency programs and services (e.g. tool for analyzing and planning for a product or service that will meet a community need, will generate revenue, and be sustainable. **Resource Management (n=31) 67%**	Use financial analysis methods in managing programs and services. **Resource Management (n=24) 51%**	Examine the feasibility (e.g., fiscal, social, political, legal, geographic) of a policy and its relationship to many types of public health problems. **Policy Engagement (n=24) 51%**	Identify and assess options for policies external to the organization that affect the health of the community (e.g., transportation routes, earned sick leave, tobacco 21, affordable housing/ inclusionary zoning, complete streets, healthy food procurement). **Policy Engagement (n=21) 45%**	Identify funding mechanisms and procedures to develop sustainable funding models for programs and services (e.g., categorical grants, state general funds, fees, third-party reimbursement, tobacco taxes, value based purchasing, budget approval process). **Resource Management (n=19) 40%**
RV	Implement a business plan for agency programs and services (e.g. tool for analyzing and planning for a product or service that will meet a community need, will generate revenue, and be sustainable. **Resource Management (n=109) 47%**	Identify and assess options for policies external to the organization that affect the health of the community (e.g., transportation routes, earned sick leave, tobacco 21, affordable housing/ inclusionary zoning, complete streets, healthy food procurement). **Policy Engagement (n=94) 41%**	Examine the feasibility (e.g., fiscal, social, political, legal, geographic) of a policy and its relationship to many types of public health problems. **Policy Engagement (n=90) 39%**	Use financial analysis methods in managing programs and services. **Resource Management (n=81) 35%**	Apply quality improvement processes (e.g., Plan-Do-Check-Act, SWOT analysis, fishbone, lean, kaizen, etc.) to improve agency programs and services. **Systems and Strategic Thinking (n=76) 33%**

APPENDIX D

Training Networks

As part of the training needs assessment in 2020 and 2023, we asked respondents to indicate with whom they received training, and how often the training was received. With that information, a social network analysis was conducted, where relationships were defined between organizations based on the individuals receiving training from those organizations *(rather than between the organizations themselves, directly)*.

In the training network figures on the following pages, the size of the circle represents the number of respondents who indicated monthly contact with an agency, the lines connecting circles represent common users between the organizations, and the location of the circle reflects the combination of the two as an indicator of centrality.

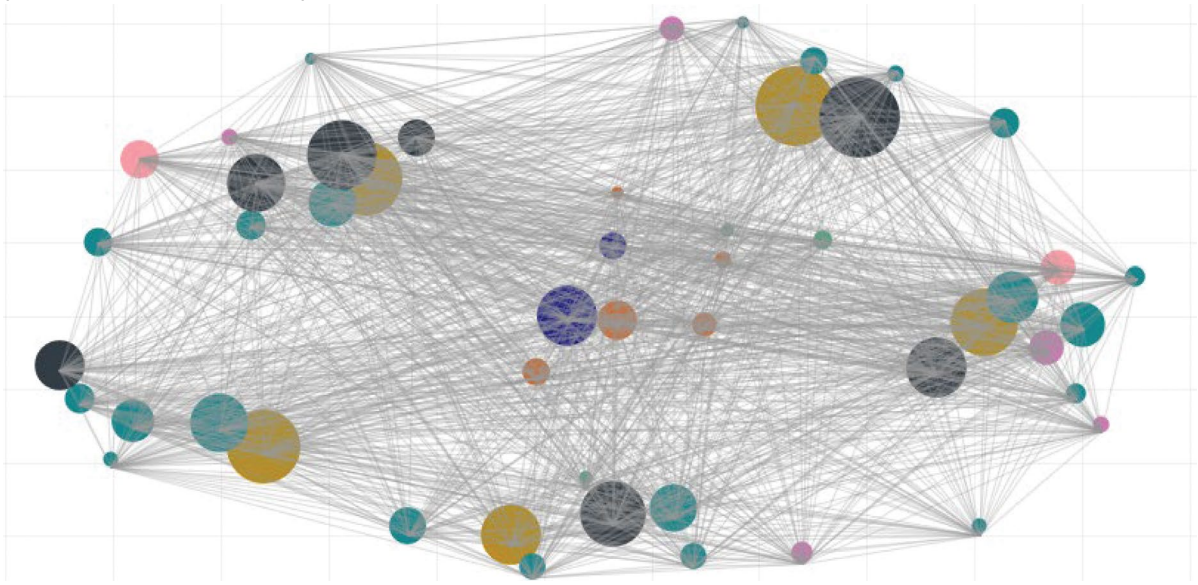
Visualization at the regional level (p. 35) shows that, with contact at least monthly, the Region V Public Health Training Center (RVPHTC) has become a central contact for LHDs between 2020 and 2023. Several national organizations also remain relatively present.

Visualization at the regional level shows that the RVPHTC has become a central contact for LHDs between 2020 and 2023.

Figure 9. Region V Training Network 2020 and 2023 Comparison

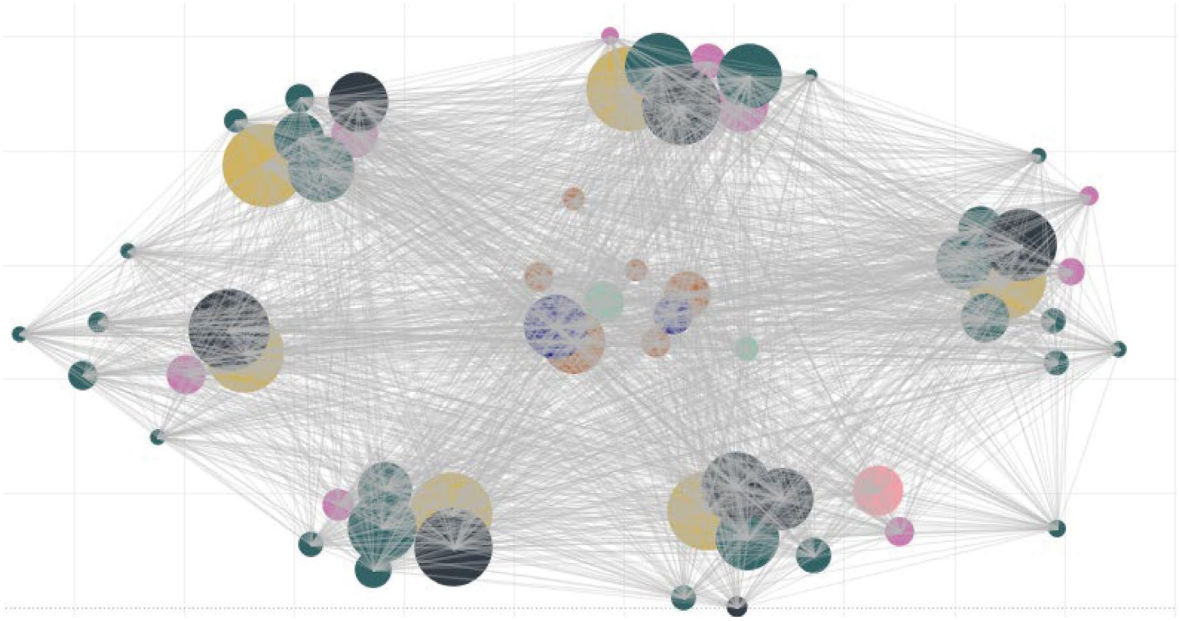
TRAINING NETWORK **REGION V** 2020

(AT-LEAST-MONTHLY CONTACT)



TRAINING NETWORK **REGION V** 2023

(AT-LEAST-MONTHLY CONTACT)



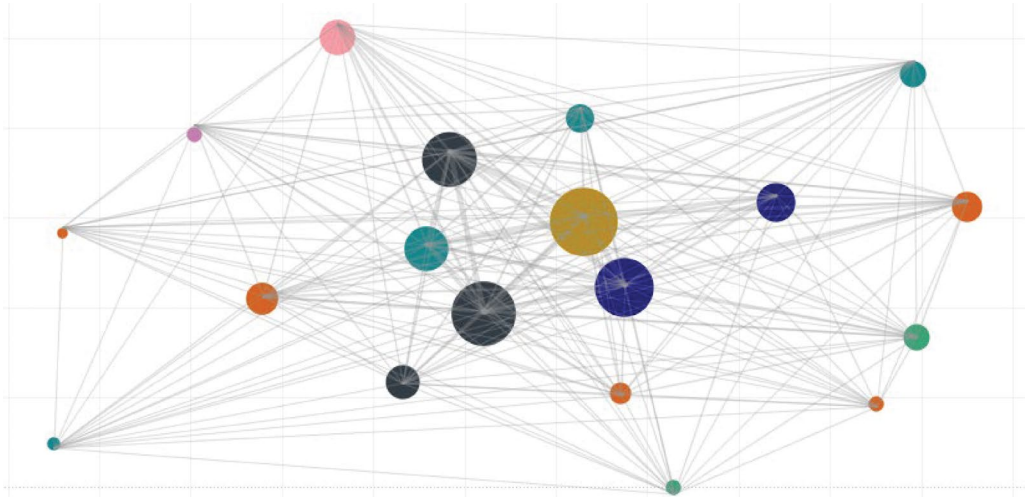
- Federal Government Org
- LHD Membership Org (SACCHO)
- National Membership Org
- National Non-profit
- State Affiliate Membership Org
- State Health Agency
- State Membership Org
- University

Figure 10. Illinois Training Network 2020 and 2023 Comparison

In the state of Illinois, RVPHTC was not part of the at-least-monthly network in 2020, but was somewhat central in 2023. The state health agency, LHD membership organizations and other national membership organizations were central in both years. Additionally, state affiliates of national organizations were relatively prominent in the at-least monthly network both in 2020 and 2023.

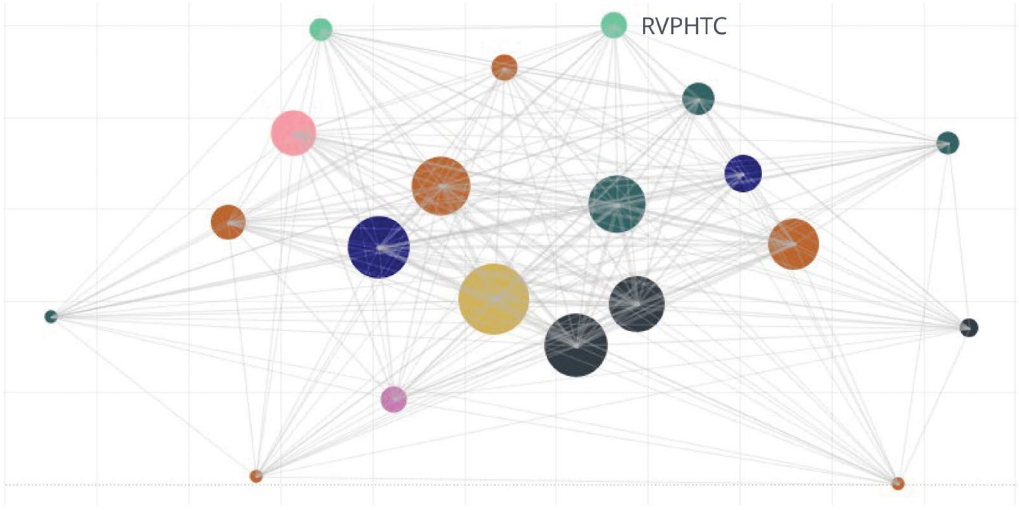
TRAINING NETWORK **ILLINOIS** **2020**

(AT-LEAST-MONTHLY CONTACT)



TRAINING NETWORK **ILLINOIS** **2023**

(AT-LEAST-MONTHLY CONTACT)



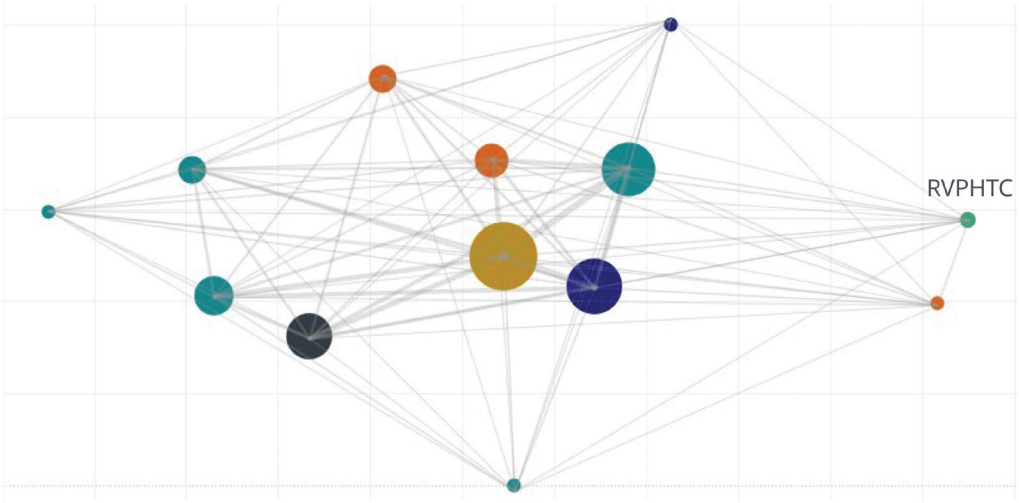
- Federal Government Org
- LHD Membership Org (SACCHO)
- National Membership Org
- National Non-profit
- State Affiliate Membership Org
- State Health Agency
- State Membership Org
- University

Figure 11. Indiana Training Network 2020 and 2023 Comparison

Indiana's at-least-monthly network was relatively small in 2020, with respondents indicating relatively fewer entities used for regular training compared to 2023. The RVPHTC is present in the social network in both years, but does not feature prominently. This suggests an opportunity for continued outreach and awareness raising. The state health agency, federal government agency, state affiliates of national organizations, and national membership organizations feature most centrally in the network, alongside a university.

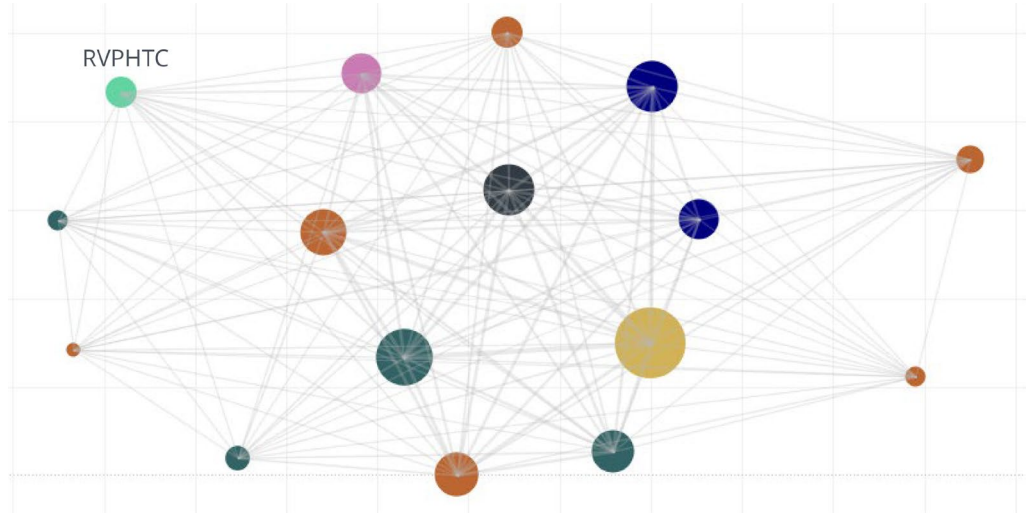
TRAINING NETWORK **INDIANA** 2020

(AT-LEAST-MONTHLY CONTACT)



TRAINING NETWORK **INDIANA** 2023

(AT-LEAST-MONTHLY CONTACT)



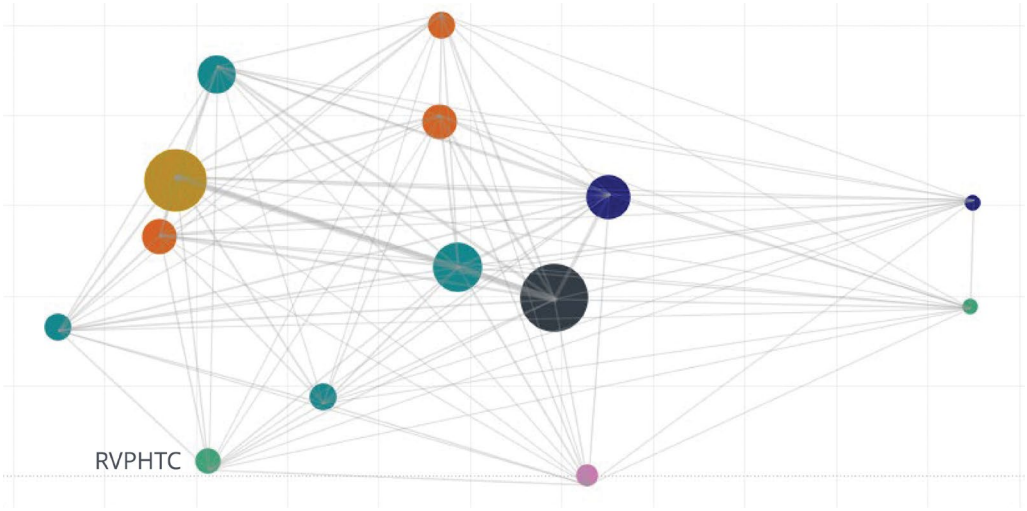
- Federal Government Org
- LHD Membership Org (SACCHO)
- National Membership Org
- National Non-profit
- State Affiliate Membership Org
- State Health Agency
- State Membership Org
- University

Figure 12. Michigan Training Network 2020 and 2023 Comparison

In Michigan, the LHD membership organization, state affiliates of national organizations, and a federal government agency feature most central in its training network in 2020, with some change observable in 2023 — a university, the RVPHTC, and the state health agency became more central by 2023. Additional membership organizations became more central in the network in 2023, as well.

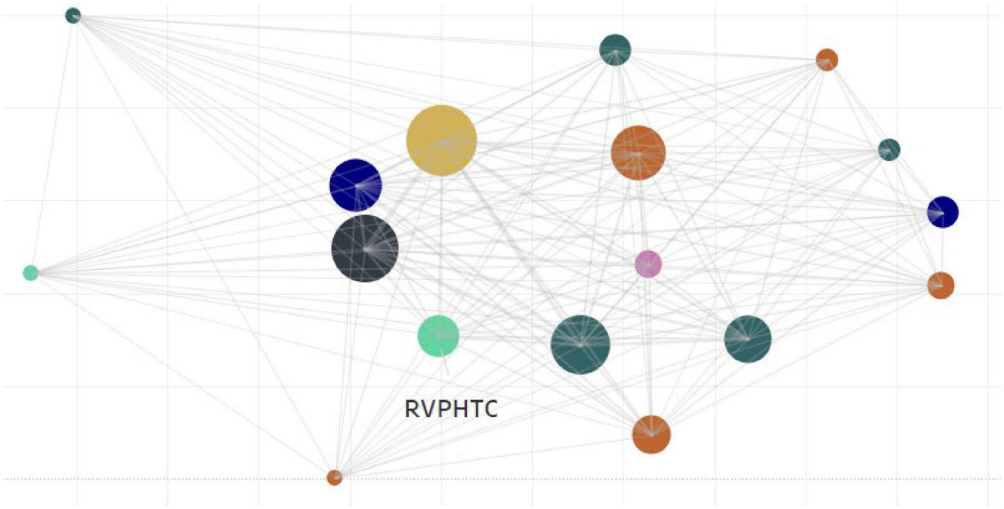
TRAINING NETWORK **MICHIGAN** **2020**

(AT-LEAST-MONTHLY CONTACT)



TRAINING NETWORK **MICHIGAN** **2023**

(AT-LEAST-MONTHLY CONTACT)



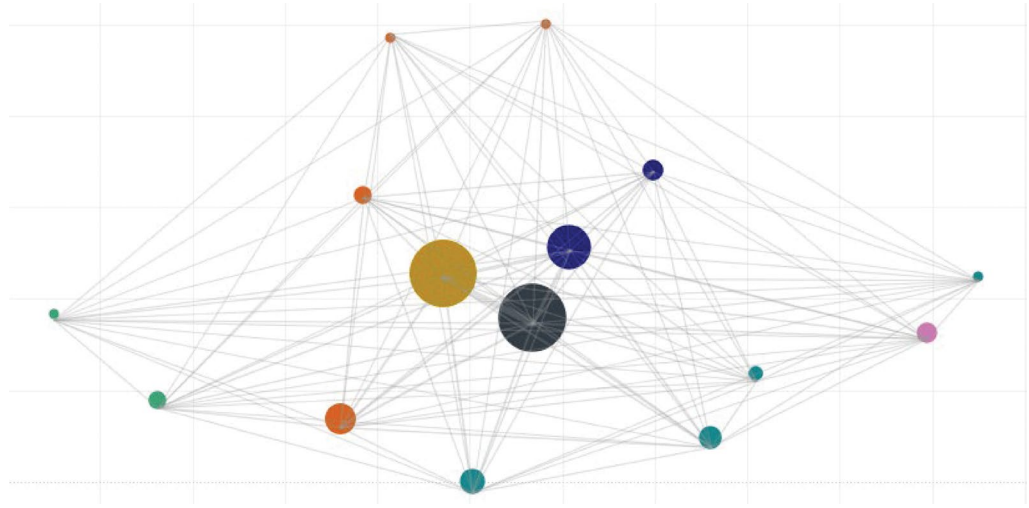
- Federal Government Org
- LHD Membership Org (SACCHO)
- National Membership Org
- National Non-profit
- State Affiliate Membership Org
- State Health Agency
- State Membership Org
- University

Figure 13. Minnesota Training Network 2020 and 2023 Comparison

In Minnesota, the RVPHTC was not present in the at-least-monthly contact network in 2020, but became more connected by 2023. The major central entities in 2020 were the state health agency, LHD membership organization, and a federal government agency — with a national membership organization becoming more central by 2023. State affiliates of national organizations were present, though not often selected by multiple similar respondents. Like RVPHTC, a university became more central by 2023.

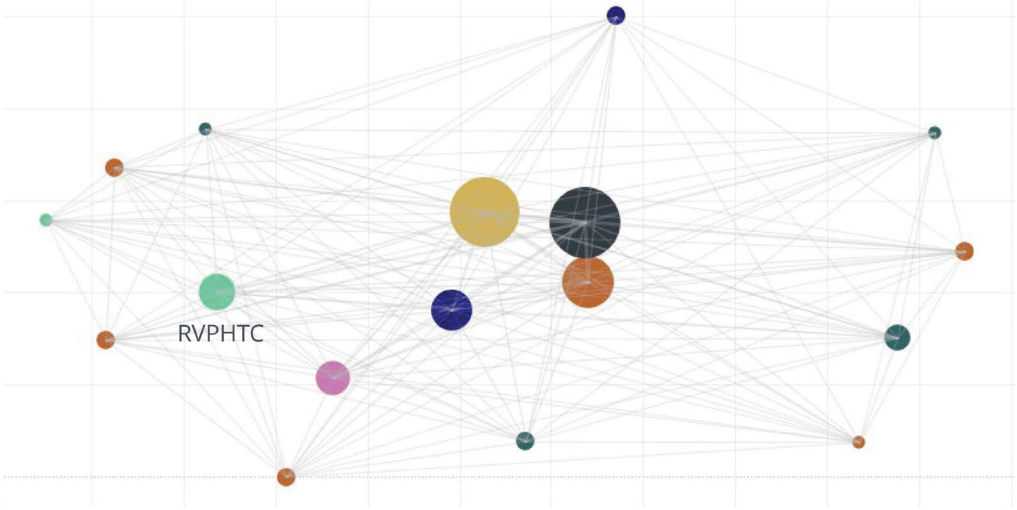
TRAINING NETWORK **MINNESOTA** **2020**

(AT-LEAST-MONTHLY CONTACT)



TRAINING NETWORK **MINNESOTA** **2023**

(AT-LEAST-MONTHLY CONTACT)



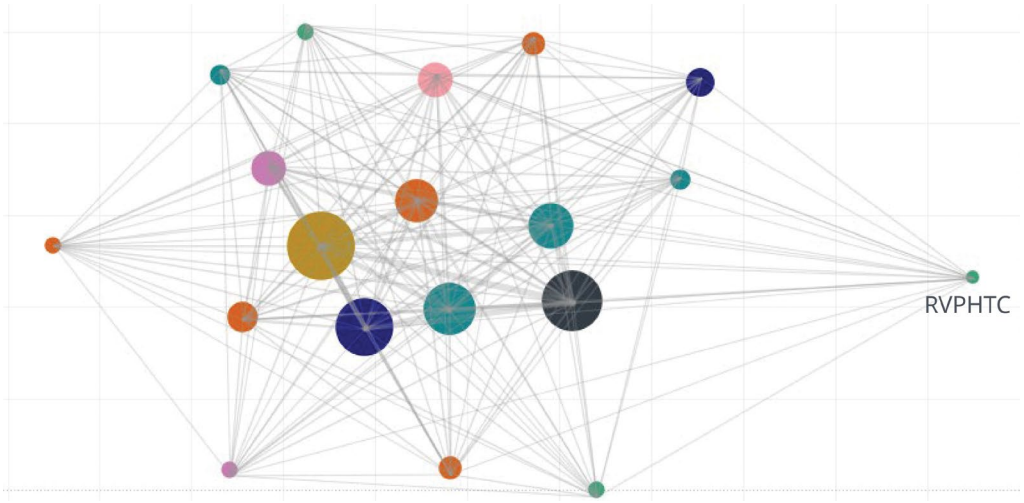
- Federal Government Org
- LHD Membership Org (SACCHO)
- National Membership Org
- National Non-profit
- State Affiliate Membership Org
- State Health Agency
- State Membership Org
- University

Figure 14. Ohio Training Network 2020 and 2023 Comparison

Ohio has a relatively dispersed training network, in both 2020 and 2023. The state health agency, RVPHTC, and the LHD membership organization were central in both years. State affiliates of national organizations became more central. Slightly more agencies became part of the at-least-monthly contact list by 2023.

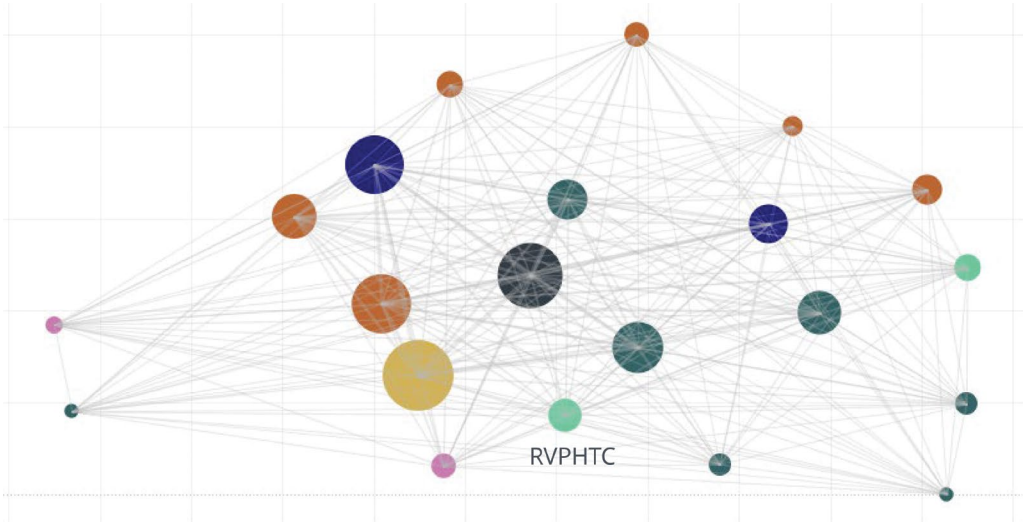
TRAINING NETWORK **OHIO** **2020**

(AT-LEAST-MONTHLY CONTACT)



TRAINING NETWORK **OHIO** **2023**

(AT-LEAST-MONTHLY CONTACT)



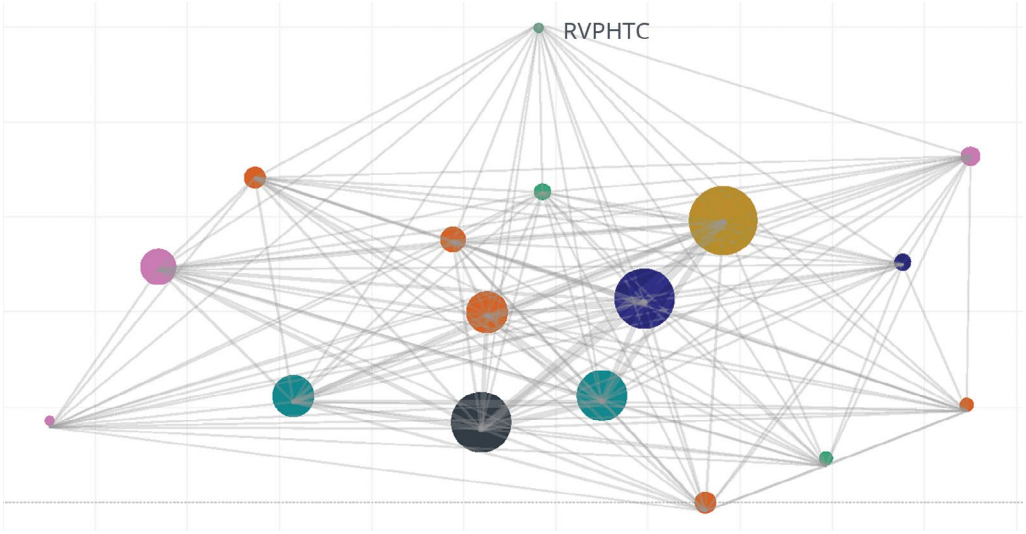
- Federal Government Org
- LHD Membership Org (SACCHO)
- National Membership Org
- National Non-profit
- State Affiliate Membership Org
- State Health Agency
- State Membership Org
- University

Figure 15. Wisconsin Training Network 2020 and 2023 Comparison

The Wisconsin at-least-monthly contact network was relatively sparse in 2020, but grew by 2023. In 2023, the LHD membership organization, state health agency, and a university were relatively central and common in the network. RVPHTC grew in use and state affiliate organizations became more central in 2023.

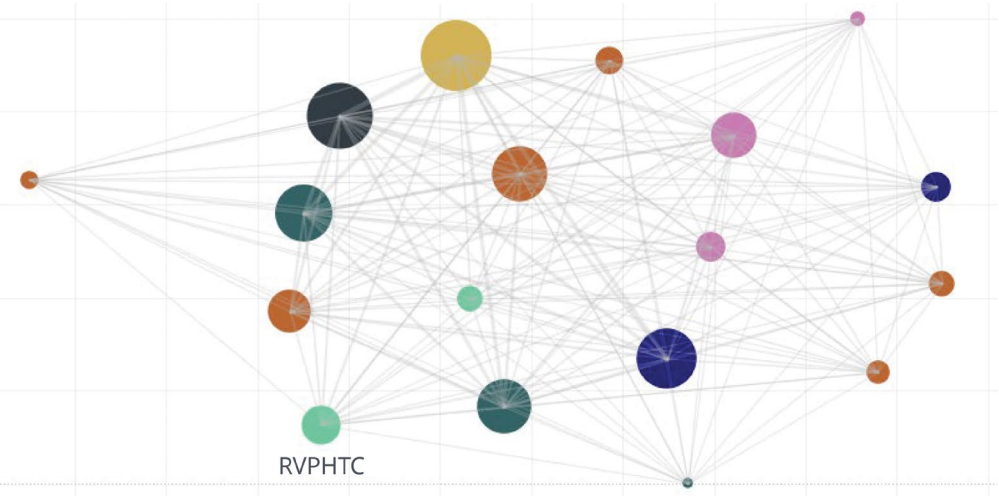
TRAINING NETWORK **WISCONSIN** **2020**

(AT-LEAST-MONTHLY CONTACT)



TRAINING NETWORK **WISCONSIN** **2023**

(AT-LEAST-MONTHLY CONTACT)



- Federal Government Org
- LHD Membership Org (SACCHO)
- National Membership Org
- National Non-profit
- State Affiliate Membership Org
- State Health Agency
- State Membership Org
- University