Local Public Health Capacity to Assure Foundational Public Health Services in Missouri

Report prepared by:

#HealthierMO

Transforming the future of public health in Missouri

HealthierMO.org

Dear public health leader,

The Missouri Public Health Association has been a proud supporter of the #HealthierMO initiative and its transformation efforts since the beginning in 2017. As you know, the development of Missouri's Foundational Public Health Services (FPHS) model and the FPHS capacity assessment are just two of the incredibly helpful projects that the initiative has spearheaded, led, and completed for the public health system in Missouri.

Now, we are excited to share with you the results of the FPHS capacity assessment in the form of this toolkit. We think you will find the local, regional, and statewide data comparisons useful for your own planning and assessment efforts. In addition to the data, the resources in the toolkit will provide pathways and ideas for operationalization of foundational public health services within your own health departments.

We thank you for your continued support of the effort to positively transform Missouri's public health system. Together we're building a stronger, more resilient public health system that will be more responsive to the needs of Missourians.

Sincerely,

Kristi Campbell
President of Missouri Public Health Association (MPHA)
Director of the Cole County Health Department

PRESENTED BY:

#HealthierMO is a grassroots initiative to build a stronger public health system in Missouri that lays a strong, dependable foundation for assuring every Missourian the opportunity to live their healthiest life.

#HealthierMO is a project of the Missouri Public Health Association, with support from Missouri State University. Funding provided by Missouri Foundation for Health and Health Forward Foundation.

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Foundational Public Health Services (FPHS) Model

Every Missourian deserves the opportunity to live their healthiest life. Pockets of funding offer more options for some communities, but don't benefit all of us equally.

Missouri needs a stronger, more equitable public health system, guided by local public health agencies (LPHAs) who are committed to assuring that critical public health services are in place to protect the health of every Missourian.

Missouri has developed a Foundational Public Health Services (FPHS) model that defines a minimum set of fundamental public health services and capabilities that must be available in every community in order for Missouri to have a functional public health system. The model builds on the 10 Essential Services and Core Public Health Functions to create a simplified operational framework upon which LPHAs can explain the vital role of public health in a thriving community, identify capacity gaps, determine the cost for assuring foundational public health capabilities and areas, and justify funding requests.

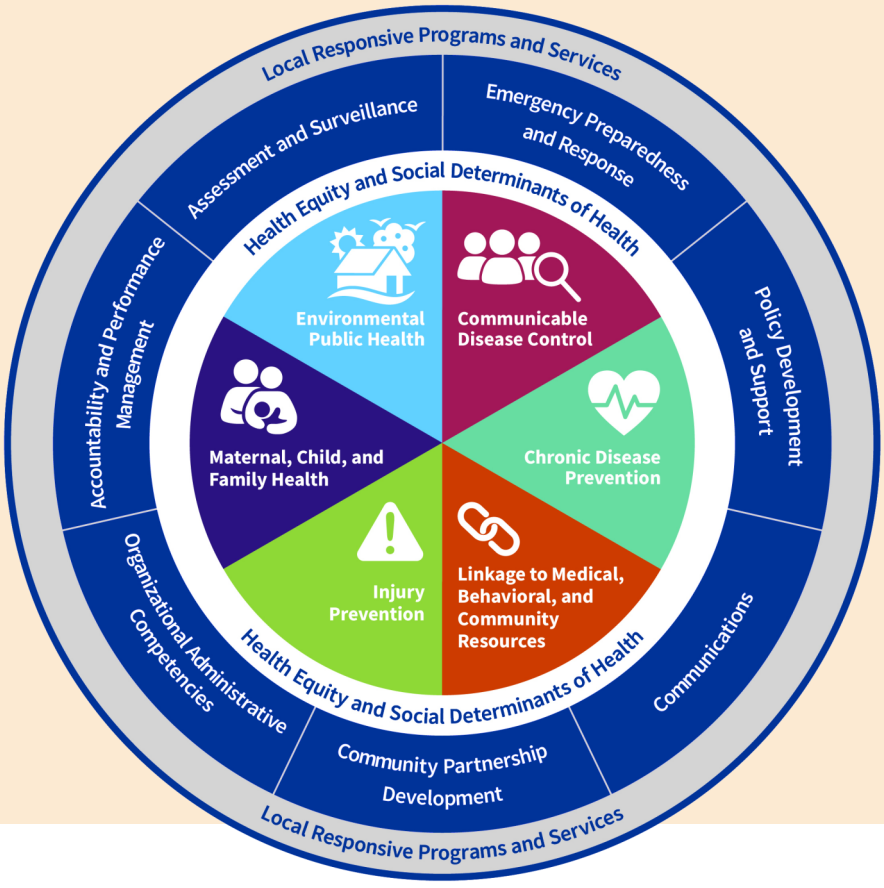
Rather than focusing on individual programs defined by limited funding streams, the model describes a minimum set of measurable capabilities and areas of expertise that are truly essential in every Missouri community. Important programs and services that meet specific local needs are also highlighted. In addition, the model features Health Equity and Social Determinants of Health as a lens through which all public health programs and services should be provided.

LPHAs depend on a network of partners to assure that community members have equitable access to the expertise and resources necessary to address many of the underlying causes of poor health. Missouri's LPHAs have a rich history of creatively solving the challenge of increasing demand for services with shrinking resources.

Collaborative partnerships and resource sharing are just two of the effective tools already being used by Missouri LPHAs to assure foundational public health capabilities.

This report summarizes data from the 2020 Capacity Assessment, in which LPHAs self-assessed their capacity to assure the foundational capabilities and areas of expertise defined in Missouri's FPHS model.

The report can be the springboard for public health system transformation as LPHAs assess policies and processes, explore ways to close gaps and address health inequities, and strategically strengthen Missouri's public health system from the grassroots level. By utilizing Missouri's FPHS model as a framework, LPHAs will build a stronger public health system and a healthier Missouri for all of us.



Foundational Capabilities Foundational Areas

FPHS Capacity Assessment Findings

In 2020, #HealthierMO partnered with the Missouri Department of Health and Senior Services (DHSS) to conduct an infrastructure and capacity assessment survey of Missouri's local public health agencies (LPHAs).

Nearly all (112 of 115) of the LPHAs completed the survey, self-assessing and reporting their own agency's capacity to assure the foundational public health capabilities and areas of expertise identified in the Missouri FPHS model. The Capacity Assessment revealed five major findings.

1 FPHS capacity varies widely across LPHAs in Missouri.

Capacity differences were not driven by urban or rural location. Both the largest urban and smallest rural LPHAs are assuring capabilities and areas at rates higher than expected. Densely settled rural and semi-urban LPHAs were slightly less likely to assure either areas or capabilities but were more likely to assure the areas without assuring the capabilities.

2 The level of per capita funding drives capacity.

Assessment data analysis revealed per-capita funding alone (apart from any other variable) distinguished LPHAs with capacity to assure FPHS from those who lack capacity. The mean difference in per capita funding among LPHAs with capacity compared to those lacking capacity is approximately $6.50 for Capabilities and $10.00 for Areas.

3 Administrator experience and focus on a single role influence their agency's capacity.

LPHAs are more likely to have higher capacity when their administrator has two or more years of experience in the administrator/director role and is able to focus solely on administrative functions, rather than filling multiple positions within the organization.

4 Capacity in the FPHS capabilities is a strong predictor of capacity in the areas of expertise.

LPHAs with a higher capacity to assure capabilities (like organizational administrative competencies, communication, and policy development) are 2.3 times more likely to also have higher capacity in the public health areas of expertise. Only 42.6% of LPHAs who did not assure the capabilities were able to assure the areas, compared to 98% of LPHAs who did assure the capabilities. Capacity in the seven capabilities depends on strong leadership skills and successful workforce development.

5 Communicable disease control ranked as the area of expertise with the highest capacity across the state.

This finding was illustrated by the dynamic public health response to COVID-19, which depended heavily on communicable disease control activities like investigations, contact tracing, non-pharmaceutical interventions such as isolation and quarantine, and vaccinations.

View a printable infographic summarizing Capacity Assessment findings on page 5 of this report.

LOCAL PUBLIC HEALTH CAPACITY AFFECTS ALL MISSOURIANS

Missourians depend on public health agencies to build a strong foundation for community health and wellness. To give all of us the opportunity to thrive, public health agencies must have the capacity to assure the foundational public health capabilities and areas of expertise defined by Missouri's Foundational Public Health Services Model (*right*). This empowers the whole public health system to function effectively for all of us.

COMMUNICABLE DISEASE CONTROL RANKED AS THE AREA OF EXPERTISE WITH THE HIGHEST LEVEL OF CAPACITY ACROSS THE STATE.

A FINDING ILLUSTRATED BY THE DYNAMIC PUBLIC HEALTH RESPONSE TO COVID-19.

Missouri's local public health agencies evaluated their own capacity to assure the components of the FPHS model.

KEY FINDINGS INCLUDE THE FOLLOWING:

The Level of Per Capita Funding Drives Capacity

Differences were not in rural vs urban, personnel, or other financial variables.

Local public health funding in Missouri varies dramatically.

Only the level of per capita funding distinguished LPHAs with capacity from those without.

A full costing assessment would define the funding increase necessary to improve public health capacity statewide.

Administrator Experience and Focus Influence Capacity

LPHAs are more likely to lack capacity in the *capabilities* when their administrator has less than two years of experience in the position or must also fill other positions.

With an administrator turnover rate of 25% since June 2019

1 in 4 local public health agencies in Missouri now has an administrator with **less than two years of experience.**
(19% between March 2020 and 2021)

Capacity in Capabilities Strong Predictor of Capacity in Areas of Expertise

LPHAS WITH HIGHER CAPACITY IN THE CAPABILITIES ARE

2.3x

more likely to have higher capacity in the areas of expertise

Capacity in capabilities relies on leadership skills and training.

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Using passion, policy and partnerships to build a stronger foundation for health

A project of the Missouri Public Health Association, with support from Missouri State University. Funding provided by Missouri Foundation for Health and Health Forward Foundation.

Read the full report here.

The Capacity Assessment measured local public health capacity in elements and activities around each of the FPHS capabilities and areas of expertise. There were 38 elements and 74 activities under the capabilities and 30 elements and 67 activities under the public health areas of expertise.

For each activity, LPHAs were asked to rank their capacity on a scale of 1 to 6 *(see Table 2).* Options 1 to 3 indicated that the service was not provided in that jurisdiction, whether from lack of ability or lack of priority. Options 4 to 6 indicated that the service was provided to a minimal, adequate, or exceptional degree.

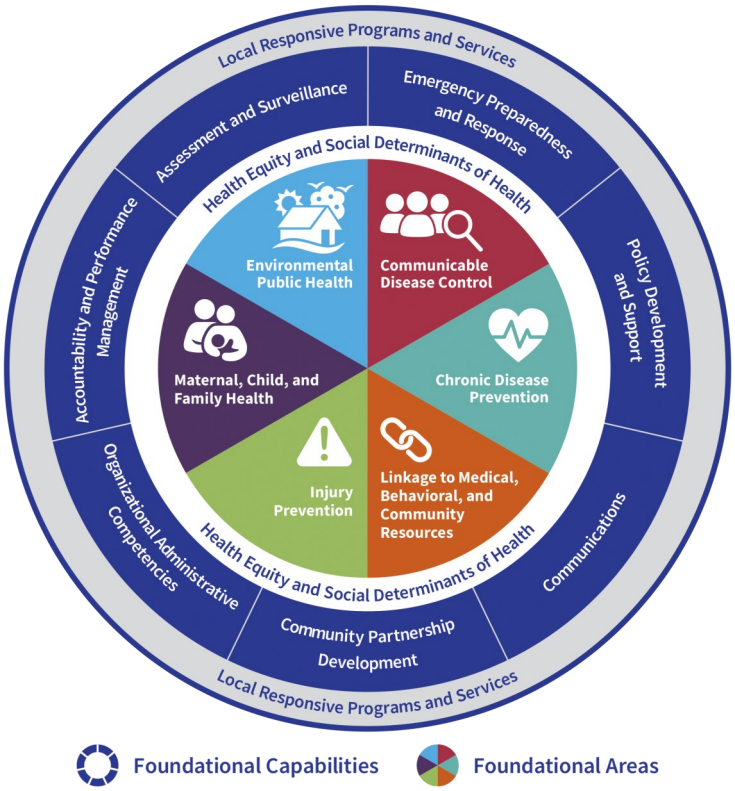


TABLE 1

EXAMPLE SURVEY ITEM AND RESPONSE OPTIONS FOR FPHS CAPABILITY

Capability: Ability to collect primary public health data.

We currently lack this capability and would require additional resources to provide it. (1)

We might be able to provide this capability with difficulty, but currently do not. (2)

We could competently provide this capability, but we currently do not. (3)

We currently provide/assure this capability, but not at the level needed for our community. (4)

We currently provide/assure this capability adequately for our entire community. (5)

We excel at providing this capability in our community and could assist others in doing it. (6)

A mean score of 3 or below indicates the LPHA generally does not have capacity to assure that capability or area of expertise. Scores of 4 and above indicate the LPHA is assuring the foundational service to some degree. LPHAs were categorized into two clusters based on their average scores in capabilities and areas of expertise.

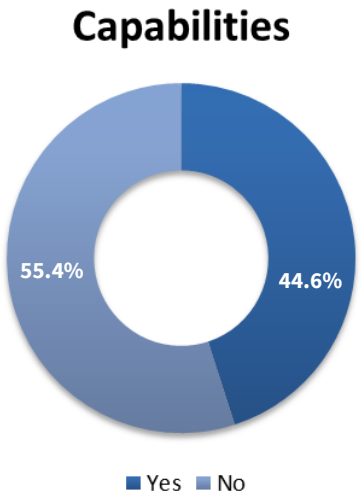
Cluster 1 (Yes) LPHAs have average scores at or above 4 for all FPHS Capabilities and at or above 3.75 for all FPHS Areas. They are generally able to assure all elements and activities within that capability or area.

Cluster 2 (No) LPHAs have average scores around 3 for Capabilities and below 3 for Areas, with the exception of Communicable Disease Control, for which all LPHAs are above 4, on average.

Capabilities

Overall, 44.6% (50 of 111) of LPHAs assured the Capabilities and 67.9% (76 of 112) assured the Areas. (One LPHA didn't answer all the capability questions, resulting in the cluster counts differing by one.)

Cluster 2 LPHAs generally report lacking capacity to fully assure the elements and activities specified in the FPHS model. Of course, not all Cluster 2 LPHAs lack capacity in all areas, nor do all Cluster 1 LPHAs report full capacity, but in general, patterns of capacity or lack define the two clusters. These clusters were not pre-defined, but emerged from the data.



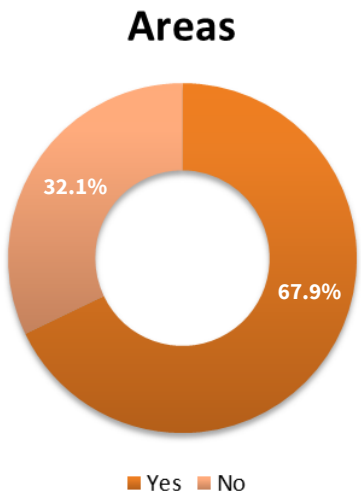


TABLE 2

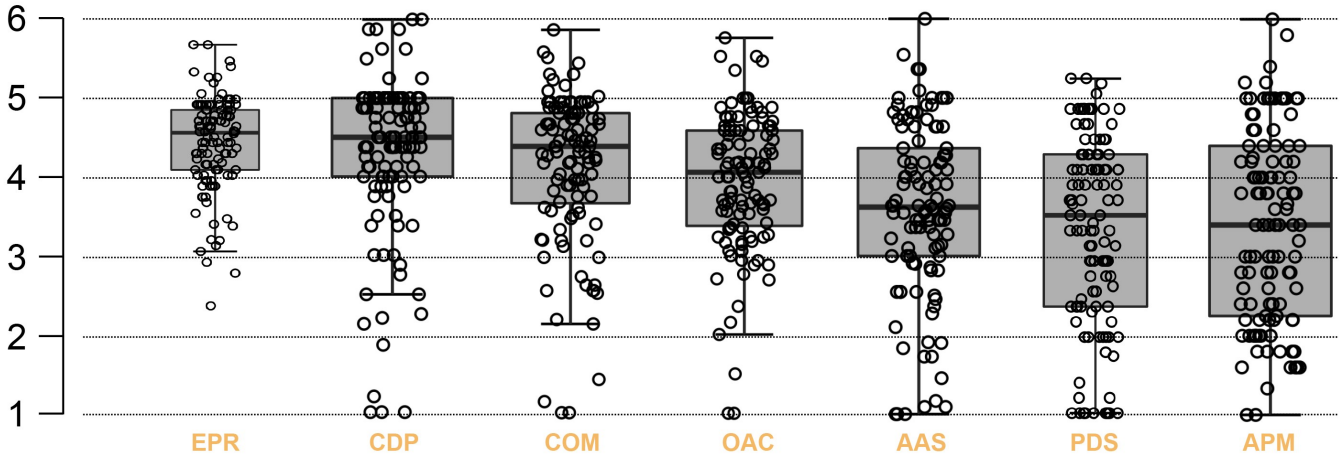
COMPARISON OF YES AND NO CAPABILITY CLUSTERS ILLUSTRATING MEAN DIFFERENCES

Capability (7)	Yes (n = 50)		No (n = 61)		Total (N = 111)	
	Mean	SD	Mean	SD	Mean	SD
Assessment and Surveillance	4.40	0.64	2.94	0.95	3.60	1.10
Emergency Preparedness and Response	4.83	0.38	4.08	0.59	4.42	0.63
Policy Development and Support	4.39	0.63	2.57	1.02	3.39	1.25
Communications	4.85	0.41	3.62	0.98	4.17	0.99
Community Partnership Development	4.92	0.50	3.74	1.06	4.27	1.04
Accountability and Performance Management	4.03	0.95	2.84	1.12	3.38	1.20
Organizational Administrative Competencies	4.54	0.59	3.43	0.76	3.93	0.88

Note: One LPHA did not answer one set of items and could not be included in the cluster analysis for capabilities.

FPHS Capabilities

	Emergency Preparedness and Response	Community Partnership Development	Communication	Organizational Administrative Competencies	Assessment and Surveillance	Policy Development and Support	Accountability and Performance Management
Number LPHAs	112	112	112	111	112	112	112
Mean	4.42	4.28	4.17	3.93	3.59	3.39	3.39
Std. Deviation	0.63	1.03	0.99	0.88	1.10	1.25	1.21
	Quartiles						
Maximum	5.71	6.00	5.93	5.76	6.00	5.40	6.00
75th percentile	4.86	5.00	4.86	4.59	4.36	4.40	4.40
Median (50th)	4.56	4.50	4.43	4.06	3.62	3.60	3.40
25th percentile	4.07	4.00	3.70	3.38	3.00	2.40	2.25
Minimum	2.29	1.00	1.00	1.00	1.00	1.00	1.00



The FPHS Capabilities maintain consistency, indicating that overall LPHA functionality is a more coherent set of skills; whereas, meeting minimum provision in one FPHS Area is no guarantee that service provision will be equally high in other Areas. FPHS Areas are more separate from one another with less overlap in skill sets or "shorter coattails" in terms of bringing along other Areas. Among the FPHS Capabilities, by contrast, higher capacity in one capability is more reliably related to provision in all of the other capabilities.

The reliability analysis also identifies which services are most different from the others; identifying "areas for improvement" or at least further exploration. Each cluster also has one service that further weakens its reliability: Accountability and Performance Management for Capability and Injury Prevention for Area. These two services were rated most different from the others in its scale and likely indicate areas of greatest capacity deviation.

Areas of Expertise

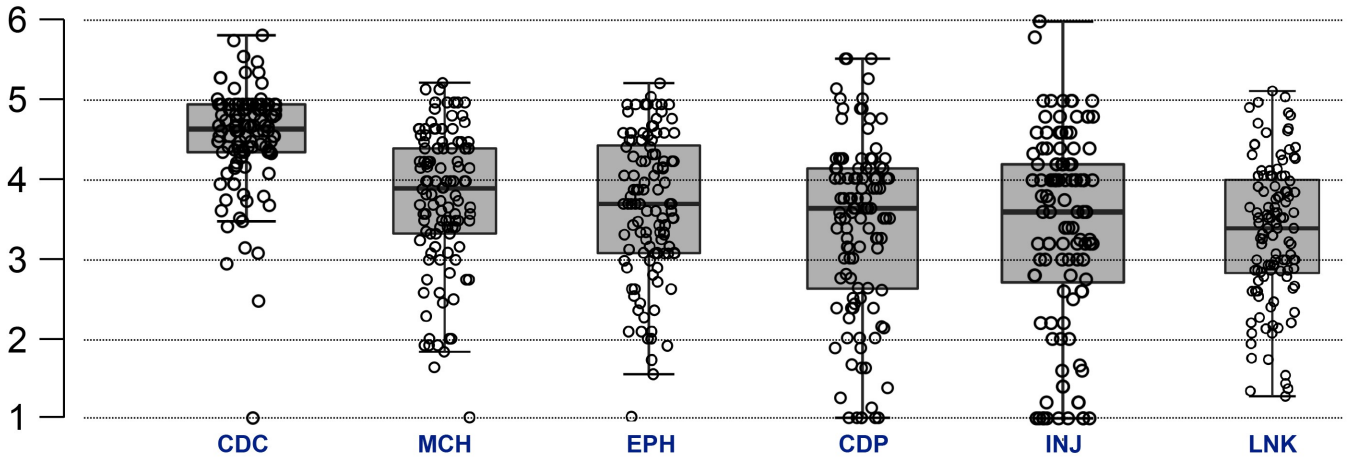
TABLE 3

COMPARISON OF YES AND NO AREA CLUSTERS ILLUSTRATING MEAN DIFFERENCES

Area (6)	Yes (n = 76)		No (n = 36)		Total (N = 112)	
	Mean	SD	Mean	SD	Mean	SD
Communicable Disease Control	4.84	0.33	4.02	0.80	4.58	0.65
Environmental Public Health	4.03	0.77	2.99	0.83	3.70	0.92
Maternal Child Family Health	4.21	0.57	2.84	0.73	3.77	0.89
Chronic Disease	3.88	0.83	2.34	0.92	3.38	1.12
Injury Prevention	3.75	1.05	2.56	1.24	3.36	1.24
Access to and Linkage with Clinical Care	3.75	0.67	2.48	0.68	3.34	0.90

FPHS Areas of Expertise

	Communicable Disease Control	Maternal Child Family Health	Environmental Public Health	Chronic Disease Prevention	Injury Prevention	Access to and Linkage with Clinical Care
Number LPHAs	112	112	112	112	112	112
Mean	4.58	3.77	3.70	3.38	3.36	3.34
Std. Deviation	0.65	0.89	0.92	1.12	1.24	0.90
	Quartiles					
Maximum	5.87	5.25	5.27	5.50	6.00	5.14
75th percentile	5.00	4.42	4.48	4.13	4.20	4.02
Median (50th)	4.69	3.91	3.73	3.63	3.60	3.40
25th percentile	4.40	3.33	3.10	2.62	2.71	2.83
Minimum	1.07	1.00	1.00	1.00	1.00	1.27



Missouri's local public health agencies' capacity to assure the capabilities and public health areas of expertise defined in Missouri's Foundational Public Health Services model is summarized below.

	MO	Regions A	B	C	D	E	F	G	H	I
Capabilities										
Emergency Preparedness and Response	🟢	🟡	🟢	🟢	🟡	🟢	🟢	🟢	🟢	🟢
Policy Development and Support	🔴	🔴	🔴	🟡	🔴	🟡	🟡	🔴	🟡	🔴
Communications	🟡	🟡	🟡	🟢	🟡	🟢	🟡	🟢	🟢	🔴
Community Partnership Development	🟢	🟢	🟢	🟢	🟡	🟡	🟡	🟢	🟢	🟢
Organizational Administrative Competencies	🟡	🔴	🟡	🟡	🟡	🟡	🟡	🔴	🟡	🔴
Accountability and Performance Management	🔴	🔴	🔴	🟡	🔴	🟡	🔴	🔴	🔴	🔴
Assessment and Surveillance	🔴	🔴	🔴	🟡	🔴	🟡	🔴	🔴	🔴	🔴
Areas of Expertise										
Communicable Disease Control	🟢	🟢	🟢	🟢	🟢	🟢	🟢	🟢	🟢	🟢
Chronic Disease	🔴	🔴	🔴	🔴	🟡	🔴	🔴	🔴	🔴	🔴
Linkage to Medical, Behavioral, and Community Resources	🔴	🔴	🔴	🔴	🔴	🔴	🔴	🔴	🔴	🔴
Injury Prevention	🔴	🔴	🟡	🔴	🔴	🔴	🟡	🔴	🟡	🔴
Maternal, Child, and Family Health	🔴	🔴	🟡	🟡	🔴	🔴	🔴	🔴	🟡	🔴
Environmental Public Health	🔴	🔴	🟡	🟡	🔴	🔴	🔴	🔴	🟡	🔴

🟢 100% of jurisdictions have capacity at ≥ 4 🟡 56%—77% of jurisdictions have capacity at ≥ 4 🔴 55% or less of jurisdictions have capacity at ≥ 4

Resource Needs

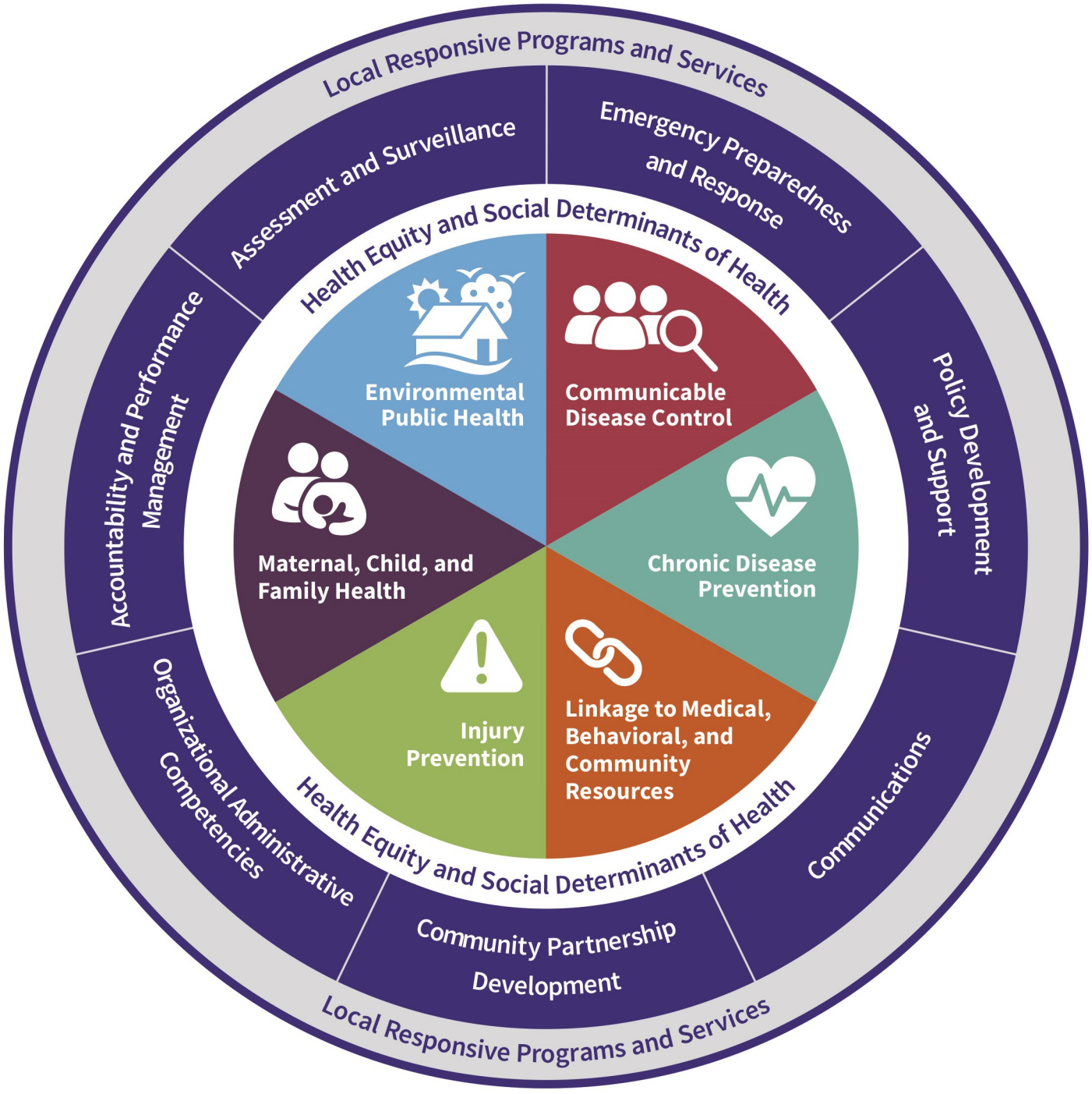
When LPHAs indicated low capacity with a score of 1—3, they were asked in a follow-up to specify what they would need to provide that service effectively.

- We would need to hire more people with this expertise (Hiring)
- We would need specific training for our existing people (Training)
- We would need specific technology to provide this (Technology)
- We would need to partner share with another LPHA (Partner)
- We would need to partner with another entity to assure it (Share)
- We face resistance in providing this to our community (Resistance)
- We do not think this is necessary to provide in our community (Not necessary)

Across the board, hiring and training were identified as the top needs. Technology was identified as the third priority need under the Assessment and Surveillance capability. The area with the highest expressed need was Linkage to Medical, Behavioral, and Community Resources. The capability with the highest expressed need was Organizational Administrative Competencies.

Visit HealthierMO.org to access the full report, "Report on the Capacity of Missouri's Public Health System to Deliver the Missouri Foundational Public Health Services Model."

Missouri's Foundational Public Health Services



Foundational Capabilities Foundational Areas