Maricopa County, Arizona

Report of Local Public Health System Assessment

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This report was written by staff of the Maricopa County Department of Public Health's Office of Performance Improvement.

Contents

INTRODUCTION

The National Public Health Performance Standards (NPHPS) is a tool created to assess the performance of public health systems throughout the United States and is a result of partnership and collaboration between the Centers for Disease and Control (CDC) and several other partner organizations.*

The main goals as stated by the NPHPS are as follows:

- o   Identify partners and community members in the public health system;
- o   Engage those partners in health assessment and health improvement planning; and
- o   Promote improvement in agencies, systems and communities.

The NPHPS assesses the quality of public health services and programs with the use of the 10 Essential Public Health Services, by focusing on the overall public health system as a whole, and by being used for the intent of a continuous quality improvement process.

The benefits of implementing the NPHPS include:

- o   Identifying areas for system improvement by identifying strengths and weaknesses;
- o   Strengthening state and local partnerships;
- o   Ensuring a strong system exists and can respond effectively to daily public health issues as well as public health emergencies;
- o   Improving upon organizational and community communication and collaboration;
- o   Educating participants in public health concepts and how various sectors in public health intertwine; and
- o   Providing a benchmark for public health practice and quality improvements.

From the three separate assessment pieces to the NPHPS framework, the Maricopa County Department of Public Health completed the *Local Public Health System Assessment (LPHSA)*, which was developed

and is continually being updated by the CDC, the National Association of County and City Health Officials (NACCHO), and the Office for State, Tribal, Local and Territorial Support.   The local piece of the public health assessment centers its focus on the entities – or, organizations and agencies – that collectively make up the public health system within the local community.

In order to measure the level of quality the local public health system operates at; the assessment tool focuses on the 10 Essential Public Health Services. It does so by assessing how often and how well these services are provided in the local system, as well as determining and defining components, activities, competencies and capacities of the local public health system.

Figure 1. The 10 Essential Public Health Services
Source: https://www.cdc.gov/nphpsp/essentialservices.html

The local public health system performance assessment is then implemented by involving community partners from varying organizations and agencies – both public and private. Examples of community partner organizations can be directly health related such as local healthcare providers, local schools and educational organizations, as well as those not necessarily associated with health such as public safety agencies and youth development organizations. Through the local public health system, all kinds of roles within the community intertwine with one another and indirectly affect the health of those living within the community. In a collaborative manner, these agencies are able to network with one another,

identifying components of the local public health system they may have not been aware of prior, which results in agencies becoming more aware of how exactly their role in the community impacts other organizations and the health and wellness of community members, and vice-versa.

Organizations other than the public health department at the national, state, and local levels are able to utilize the NPHPS and its results to their benefit, in terms of expanding upon public health and its impact across the nation. The Mobilizing for Action through Planning and Partnerships (MAPP) utilizes the LPHSA in a community-wide strategic planning process, focused on improving public health within communities. The Internal Revenue Service (IRS) can use LPHSA data and results when reviewing community health needs assessments (CHNAs) from all non-profit hospitals, which was mandated by the Patient Protection and Affordable Care Act (PPACA) in 2010. Also, the Public Health Accreditation Board (PHAB) is able to use the LPHSA to fulfill guidelines which must be completed by public health departments in order to become, or stay, accredited.

See https://www.cdc.gov/nphpsp/index.html for further information regarding the NPHPS and its three assessment pieces.

*Partner organizations of the National Public Health Performance Standards: CDC, American Public Health Association (APHA), Association of State and Territorial Health Officials (ASTHO), National Association of County and City Health Officials (NACCHO), National Association of Local Boards of Health (NALBOH), National Network of Public Health Institutes (NNPHI), and the Public Health Foundation (PHF)

METHODS

To initiate the local assessment piece of the National Public Health Performance Standards (NPHPS), Maricopa County Department of Public Health (MCDPH) staff and community partner organizations who had worked with and among MCDPH in the past were contacted and invited to participate in the 2020 Local Public Health Systems Assessment (LPHSA). Invitations were sent directly to partner organizations, as well as sent to internal MCDPH supervisors to distribute to any other known partner organizations they have personal and networking connections with. The invitation linked to a Qualtrics survey, which was designed to ask questions about the participant's daily work based on the sector and specific Essential Public Health Service they work with.

A total of 48 assessments were completed by professionals in various public health-related organizations and agencies within the Maricopa County, Arizona area. The assessments were completed via the online (Qualtrics) format.
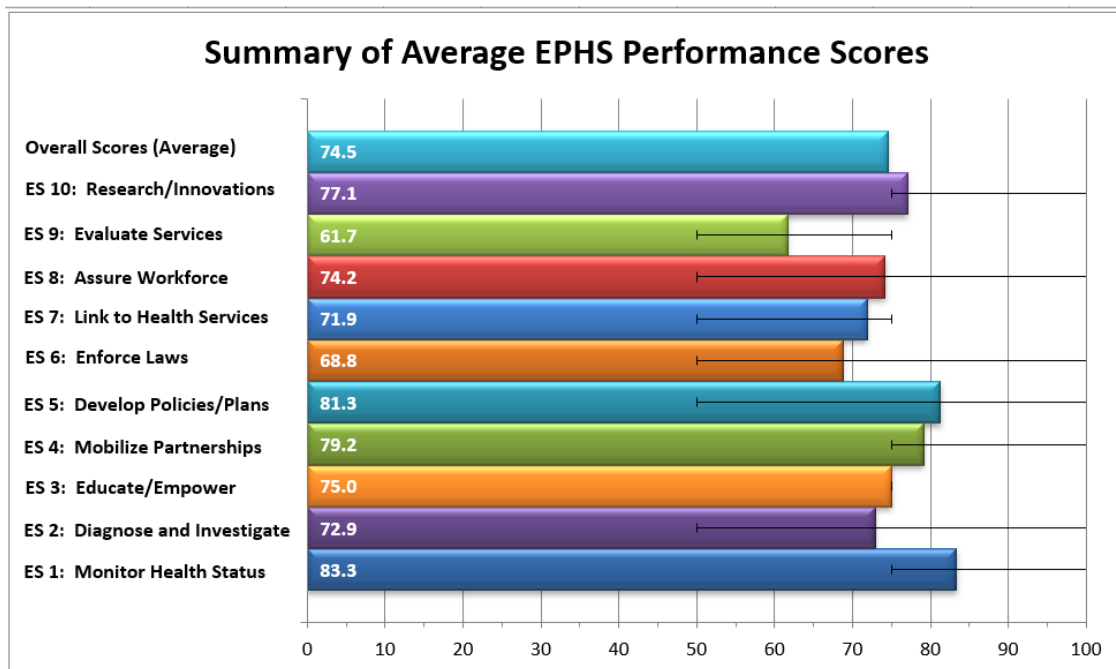
Participants were asked to complete the assessment section for which they were most familiar and had the most experience working in, pertaining specifically to Maricopa County. The assessment was structured in the way that a brief description to each essential service was provided and then between 2-5 model standards for each essential service were explained. In the assessment, each model standard had between 3-7 questions related to public health in Maricopa County. Each participant was then asked to rank how well the Maricopa County Local Public Health System (MCLPHS) achieved each question addressed, on a scale of 1-5 (scale shown below).

Rank	Score	Extent to which Standard is Met
1	No Activity	0%
2	Minimal Activity	1-25%
3	Moderate Activity	26-50%
4	Significant Activity	51-75%
5	Optimal Activity	76-100%

Participants were also asked to provide comments, explanations, and areas for improvement for each domain area. This included identifying any strengths the local public health system has, for each model standard. They were also asked to identify any weaknesses observed for each model standard. Finally, they were asked to identify any improvement opportunities or ideas the participants had in in regard to each model standard. Following completion of the assessment, the quantitative ranking data were analyzed. These data were compiled into a report format provided by the Public Health Foundation (PHF), resulting in representative tables and graphs. The qualitative data (comments) are provided under these scores.
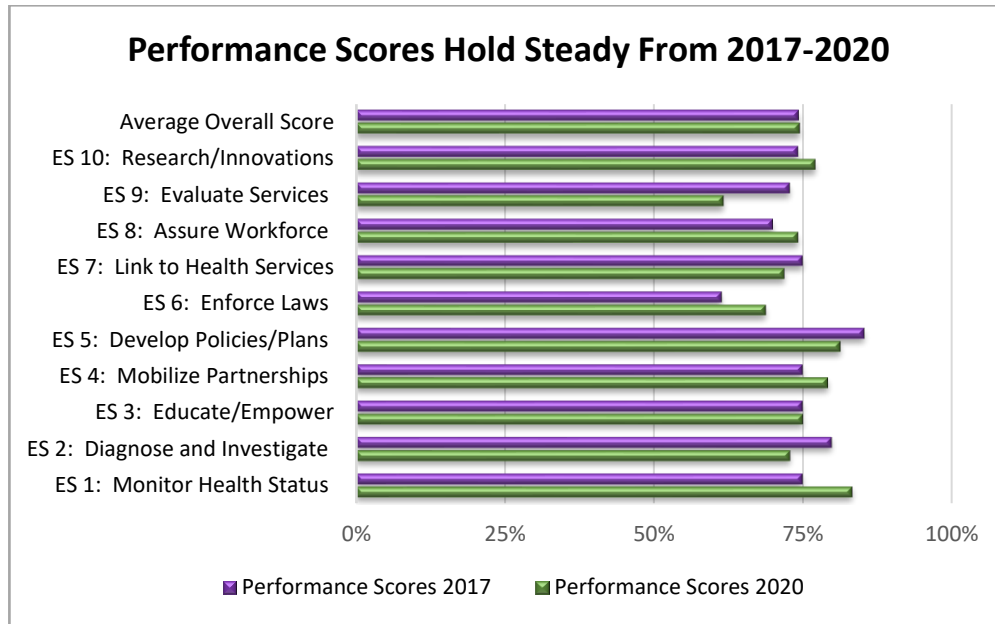
FINDINGS

After collection of the quantitative data obtained in the local assessment, the tool provided by the Public Health Foundation (PHF) was used to obtain the results for the local assessment. Based on these findings, the Maricopa County Public Health System was overall shown to be operating at the level "significant activity," with scores for each essential public health service ranging between 61.7% and 83.3% activity, with an average score of 74.5% activity across all ten essential public health services.

Summary of Average EPHS Performance Scores

Category	Score
Overall Scores (Average)	74.5
ES 10: Research/Innovations	77.1
ES 9: Evaluate Services	61.7
ES 8: Assure Workforce	74.2
ES 7: Link to Health Services	71.9
ES 6: Enforce Laws	68.8
ES 5: Develop Policies/Plans	81.3
ES 4: Mobilize Partnerships	79.2
ES 3: Educate/Empower	75.0
ES 2: Diagnose and Investigate	72.9
ES 1: Monitor Health Status	83.3

As seen above, the Maricopa County Local Public Health System performance scores are generally in the "optimal" level with consensus that the System is functioning best in Essential Service #1: Monitoring Health Status, followed by Essential Service 5: Develop Policies/Plan, then Essential Service #4: Mobilize Partnerships.

When comparing the results of this assessment with the last iteration of the survey, the overall scores remained the same. Compared to the 2017 assessment, major public health system gains or improvements in the 2020 assessment are seen in Essential Service #1: Monitoring Health Status, Essential Service #6: Enforcing Laws, followed by Essential Service #4: Mobilizing Partnerships and Essential Service #8: Assure Workforce. Perceptions of performance in the system decreased in Essential Service # 9: Evaluating Services, followed by Essential Service #2: Diagnose and Investigate. A comparison of all 10 of the Essential Service scores are below.

Performance Scores Hold Steady From 2017-2020

(Horizontal bar chart comparing Performance Scores 2017 and Performance Scores 2020)

- Average Overall Score
- ES 10: Research/Innovations
- ES 9: Evaluate Services
- ES 8: Assure Workforce
- ES 7: Link to Health Services
- ES 6: Enforce Laws
- ES 5: Develop Policies/Plans
- ES 4: Mobilize Partnerships
- ES 3: Educate/Empower
- ES 2: Diagnose and Investigate
- ES 1: Monitor Health Status

X-axis: 0% 25% 50% 75% 100%

■ Performance Scores 2017 ■ Performance Scores 2020

TRENDS ACCORDING TO ESSENTIAL SERVICE

Essential Service #1: Monitor Health Status to Identify and Solve Community Health Problems

As seen on the right, there are three model standards for essential service (ES) #1; the first and third were scored at 75%, which means that the Maricopa County Public Health System is operating at "significant," while the use of current technology in public health was scored with "optimal," at 100%. (See Appendix B for the list of the Model Standards.)

EPHS 1: Monitor Health Status

1.1 Community Profile	75.0
1.2 Current Technology	100.0
1.3 Registries	75.0
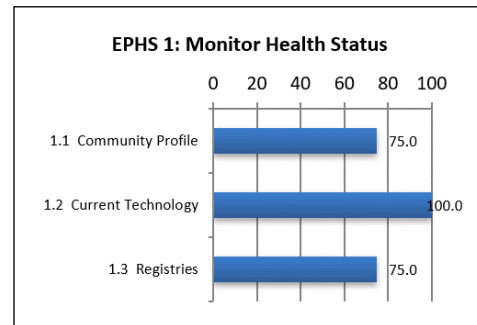
Feedback on ES #1

Strengths of local health system performance in this Essential Service:

- *The public can access health information*
- *Ability to collect and analyze data from many sources*
- *The collection of community health assessment to identify community needs.*
- *Timely data provided through well trained staff.*
- *Provides a snapshot of community health status and needs*

Weaknesses of local health system performance in this Essential Service:

- *Only those who respond to community health surveys (based on what organizations are doing the outreach) are included in the data.... The data may be stacked based on outreach.*
- *Ability to influence decision-makers with data, need policy/political power and authority.*
- *Is it representative of all communities?*
- *Ease of access to data.*
- *Information is based on the last assessment and may not reflect current or emerging need.*

Improvement Opportunities for local health system performance in this Essential Service:

- *Include a wide of outreach organizations (faith-based, civic, ethnic and in strategic parts of the state etc.) to ensure best level of data.*
- *Gain buy-in from managers and politicians for wider improvements and funds to do so based upon data.*
- *Reaching vulnerable populations to conduct this health assessment.*
- *Data dashboard or similar type of mechanism.*
- *Increase frequency of CHA Leverage technology to close assessment gaps.*

Essential Service #2: Diagnose and Investigate Health Problems and Health Hazards in the Community

Shown below, model standard (MS) #1 is operating with "optimal" performance when being performed within the Maricopa County Public Health System, while MS #2 and MS #3 scored slightly lower scores and are still operating at the level of "significant" performance.
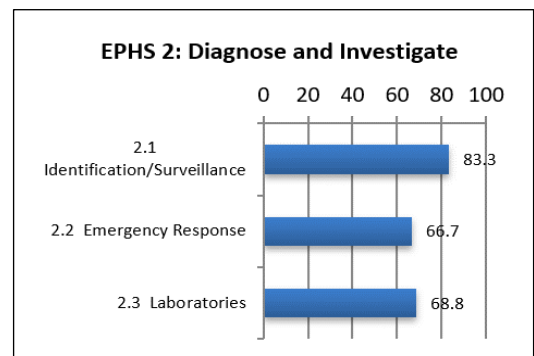
Feedback on ES #2

Strengths of local health system performance in this Essential Service:

- *Fully developed processes to investigate disease.*
- *Trained investigators.*

Weaknesses of local health system performance in this Essential Service:

- *Staffing limits investigations of all cases of reportable disease.*

EPHS 2: Diagnose and Investigate

2.1 Identification/Surveillance	83.3
2.2 Emergency Response	66.7
2.3 Laboratories	68.8

Improvement Opportunities for local health system performance in this Essential Service:

- *Sustainable funding, improved staffing model, and technology to allow the county to investigate all cases of reportable disease.*

Essential Service #3: Inform, Educate, & Empower People about Health Issues

As seen below, each of the three model standards for Essential Service (ES) #3 were scored at 75%, which means that the Maricopa County Public Health System is operating at "significant," and nearly "optimal," performance when performing ES #3.

Feedback on ES #3

Strengths of local health system performance in this Essential Service:

- *Developing awareness of one's health.*
- *Ability to involve many individuals and partners.*
- *Solid staff with wealth of knowledge.*
- *The strength of this model is that different methods of communication are used to reach the community.*
- *The three words are great.*

EPHS 3: Educate/Empower

3.1	75.00
3.2	75.00
3.3	75.00
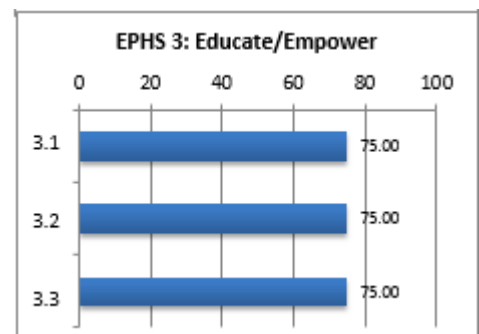
Weaknesses of local health system performance in this Essential Service:

- *The general public have no idea what the emergency preparedness systems are in place.*
- *Difficult to reach many different individuals and partners who are target groups needing different versions of messages and channel distribution.*
- *Most programs are grant funded and as a result unsustainable.*
- *Implementing this program and always funding issues.*
- *Significant challenges in coordinating messaging across multiple entities including government, private, and non-governmental.*

Improvement Opportunities for local health system performance in this Essential Service:

- *Allocate resources to dissemination and implementation science activities with multiple audiences.*
- *Find more professionals from various fields to be representatives to different communities in their own language.*
- *More partnerships?*
- *Identify more trained spokespersons; train more spokespersons; coordinate messaging across the system.*

Essential Service #4: Mobilize Community Partnerships and Action to Identify and Solve Health Problems

As seen below, model standard (MS) #1 within Essential Service (ES) scored at 75%, which means that the Maricopa County Public Health System is operating at "significant," while MS #2 improved to the "optimal" performance level in ES #4.

Feedback on ES #4

Strengths of local health system performance in this Essential Service:

EPHS 4: Mobilize Partnerships

4.1 Constituency Development	75.0
4.2 Community Partnerships	83.3

- *HIPMC is a great model, but it could be more effective. MCDPH did a great job recently with the CHNA, engaging partners and getting out there. It's very tough.*
- *The concept is very positive.*
- *HIPMC is widely known with diverse members.*
- *HIPMC.*
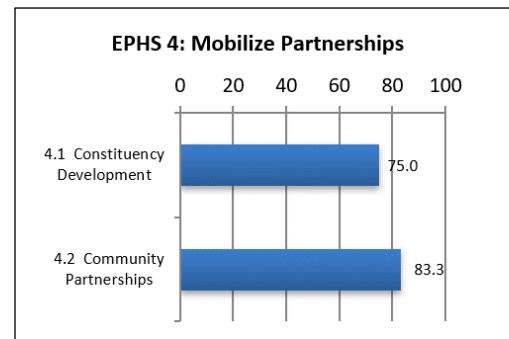
Weaknesses of local health system performance in this Essential Service:

- *Never have enough funding, and unfortunately not a lot of interested partners.*
- *Hard to do some of the work because the county is so big.*
- *Challenging to get stakeholders all engaged and focused on the same priorities.*

Improvement Opportunities for local health system performance in this Essential Service:

- *Moving forward, it would be great to find a way to reach the more affluent areas of the Valley (south Chandler, PV, North Scottsdale, etc.) in order for them to better understand what is PH and MCDPH does to protect them. They could be a great champion for your efforts and I just haven't seen that happen successfully. Get them engaged in the CHNA next time as well.*
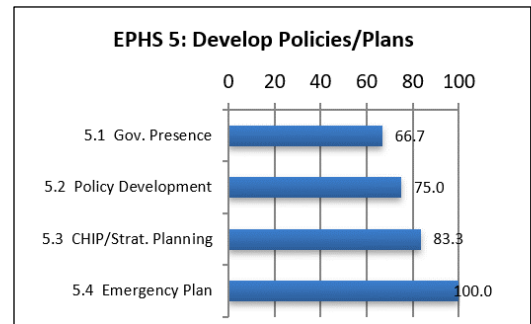- *More community events needed.*

Essential Service #5: Develop Policies and Plans that Support Individual and Community Health Efforts

Shown below, model standards (MS) #2 and #3 within Essential Service (ES) #5 operate at "significant" performance within the Maricopa County Public Health System. MS #3 operates at the nearly "optimal" performance within the system while respondents scored MS #4 at the highest level of functioning.

Feedback on ES #5

Participants did not have feedback on strengths or improvement opportunities in this Essential Service.

Weaknesses of local health system performance in this Essential Service:

- *Inadequate funding within the county to support the public health community needs.*
- *Challenges on coordinating plans across multiple entities.*

EPHS 5: Develop Policies/Plans

|	
5.1 Gov. Presence	66.7
5.2 Policy Development	75.0
5.3 CHIP/Strat. Planning	83.3
5.4 Emergency Plan	100.0

Essential Service #6: Enforce Laws and Regulations that Protect Health and Ensure Safety

Shown below, two of the three model standards (MS) within Essential Service (ES) #6 operate at "optimal" level of performance while MS #2 remains at "moderate" performance for the Maricopa County Public Health System.

Feedback on ES #6

For ES #6, no participants provided comments to use as qualitative data in this assessment. There is only quantitative data for this ES, seen at right.

EPHS 6: Enforce Laws

6.1 Review Laws	81.3
6.2 Improve Laws	50.0
6.3 Enforce Laws	75.0
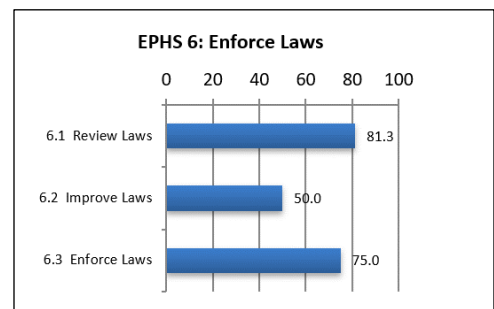
Essential Service #7: Link People to Needed Personal Health Services and Assure the Provision of Healthcare When Otherwise Unavailable

As seen in below, both model standards for Essential Service (ES) #7 were scored at "significant" performance.

Feedback on ES #7

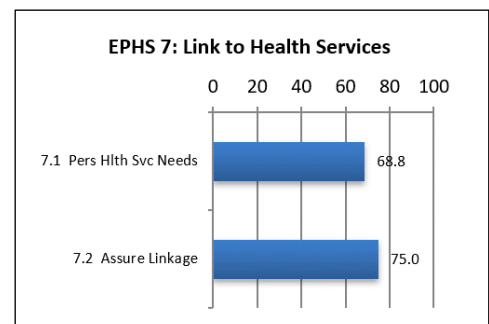Strengths of local health system performance in this Essential Service:

- *This is very important.*

Weaknesses of local health system performance in this Essential Service:

- *Not enough funding to hire the appropriate amount of people for this program to thrive.*
- *System is not fully developed or coordinated across all stakeholders engaged in these efforts.*

Improvement Opportunities for local health system performance in this Essential Service:

- *More funding needs to go to this area because too many people are unaware of resources that exist and how to access them.*

EPHS 7: Link to Health Services

7.1 Pers Hlth Svc Needs	68.8
7.2 Assure Linkage	75.0

Essential Service #8: Assure Competent Public and Personal Healthcare Workforce

Shown below, model standard (MS) #1 of Essential Service (ES) #8 operates at the lower spectrum of "significant" performance, whereas MS #2 and #4 operate at the higher spectrum of "significant," and MS #3 operates at "optimal" performance.

Feedback on ES #8

Strengths of local health system performance in this Essential Service:

- *A good number of staffs are seasoned and experts in their field, staff numbers for the size of county are still low, however. Some partnering at the program level seen.*

EPHS 8: Assure Workforce

	0 20 40 60 80 100
8.1 Workforce Assessment	66.7
8.2 Workforce Standards	75.0
8.3 Continuing Educ.	80.0
8.4 Leadership Dev.	75.0

Weaknesses of local health system performance in this Essential Service:

- *Limited staff leads to limited staff available to participate in leadership and policy level activities including collaborative and partnership activities that influence system level efficiencies.*
- *Coordination of these efforts across a diverse set of stakeholders is challenging.*

Improvement Opportunities for local health system performance in this Essential Service:

- *We need local level health department activity within our larger cities, so the cost of public health is funded to the local level and not just the county. Linkages with our large healthcare system is important as well. Further partnering with all healthcare system to complete the community assessment, implementation plan would be best for the community as a whole.*
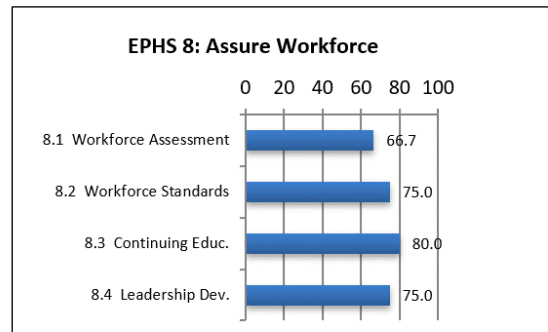
Essential Service #9: Evaluate Effectiveness, Accessibility, and Quality of Personal and Population-based Health Services

Within the Maricopa County Public Health System and as shown in below, model standards (MS) #1-3 all operate at the lower end of "significant".

Feedback on ES #9

Strengths of local health system performance in this Essential Service:

- *Assessment and engagement with the community to develop the assessment and implementation plan is well done.*
- *Involvement of large variety of data and partners.*

EPHS 9: Evaluate Services

	0 20 40 60 80 100
9.1 Eval of Pop Health	56.3
9.2 Eval of Pers Health	60.0
9.3 Eval of LPHS	68.8

Weaknesses of local health system performance in this Essential Service:

- *Data from the healthcare (acute care) system seems very separate from that of public health. They systems do not link together in many ways.*
- *Needs many evaluators/epis to collect, track and report on wide variety of data from many partners and sources.*
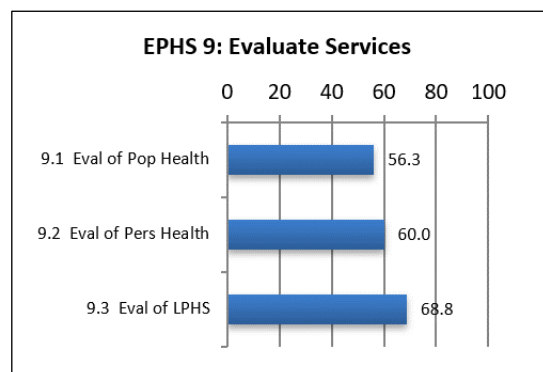
Improvement Opportunities for local health system performance in this Essential Service:
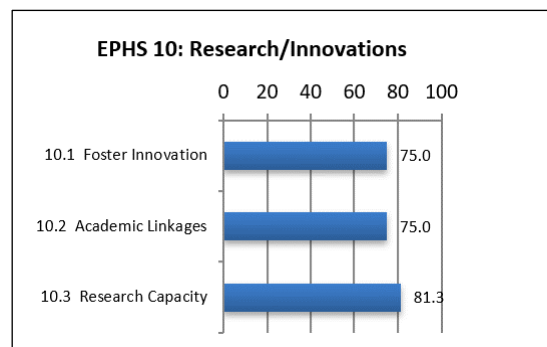
- *Looking at the entire system and working together on a comprehensive delivery system would be great-can it be done? Would take some effort.   Also, national data present a picture of SDOH and environmental issues as the leading cause of health issues. Air quality is one and not many health systems are seeing this, doing anything about it, including at the policy level. This should be a priority to change.*
- *Allocate additional resources toward data collection, analysis and reports that highlight all of those aspects of the systems and USE the data for improvement which means allocation of resources for improvement activities.*

Essential Service #10: Research for New Insights and Innovative Solutions to Health Problems

Seen in below, both model standards (MS) #1 and #2 operate at "significant" performance, while MS #3 now operates at "optimal" performance.

Feedback on ES #10

For ES #10, no participants provided comments to use as qualitative data in this assessment. There is only quantitative data for this ES, seen at right.

EPHS 10: Research/Innovations

10.1 Foster Innovation	75.0
10.2 Academic Linkages	75.0
10.3 Research Capacity	81.3

NEXT STEPS

The Local Public Health System Assessment is one component of a comprehensive Community Health Assessment (CHA), identifying areas of the public health system that are in need of improvement. A CHA collects and analyzes data from various members and organizations of the local community to determine the health needs for the community, including its risk factors and root causes.

The LPHSA is also a component of the framework recommended when conducting a CHA, by the Mobilizing Action through Planning and Partnerships (MAPP) process. The MAPP process includes not only the LPHSA, but also:

- *Community Themes and Strengths Assessment* – implements community surveys to address community residents what they think would improve their health status that is missing, what factors are important to them for health status, and other questions to assess how the community perceives their own health status and factors, as well as concerns they may have.
- *Community Health Status Assessment* – utilizes systemic and statistical quantitative data analysis on health indicators for the community to determine which factors affect the health status of the community itself. These indicators can include demographics, social determinants of health when looking at health equity, behavioral and/or environmental risk factors, morbidity and mortality rates, and many more.
- *Forces of Change Assessment* – requires a systematic analysis of external factors that both negatively and positively affect the health status of the local community, the organization of the public health system, and the delivery of health services to the community. These factors can be trends of the surroundings such as weather, population events such as a sudden increase in a minority or special population, technology as used in health services, passage of new legislation as related to health, among many more.

This study was conducted as part of the MAPP process for the 2017 Maricopa County Community Health Assessment. This assessment has included gathering data from focus groups, community surveys, key informant interviews, creating a community health profile, and lastly the Local Public Health System Assessment. The result of this data collection is a strategic and objective prioritization by the HIPMC Steering Committee to determine the County's new health priorities. The Maricopa County Department of Public Health (MCDPH) has facilitated the remaining MAPP pieces, in a continuous process from March to October 2016. Advisory committees for the CHA periodically meet to strategize how to narrow down each of the sources of data, in order to create a rubric for which health priorities that are relevant in Maricopa County are scored, weighted against each other, discussed, the relationships between them analyzed, and synthesized into various reports. In mid-2020, MCDPH will be finishing the prioritization of these health priorities, which will become the official priorities for Maricopa County over the next three years, from 2021-2023.

See http://www.naccho.org for more information on Community Health Assessments and their Improvement Planning strategies, and http://www.arizonahealthmatters.org for Maricopa County's progression through the CHA and in developing and implementing the upcoming CHIP.

APPENDICES

Appendix A. Performance Score Averages for Each Essential Service & Model Standard

Overall Performance by Essential Public Health Service and Corresponding Model Standard

Model Standards by Essential Services	Performance Scores 2020	Performance Scores 2017	Performance Change
ES 1: Monitor Health Status	**83.3**	**75.0**	⬆
1.1 Community Health Assessment	75.0	75.0	
1.2 Current Technology	100.0	75.0	⬆
1.3 Registries	75.0	75.0	
ES 2: Diagnose and Investigate	**72.9**	**79.9**	⬇
2.1 Identification/Surveillance	83.3	83.3	
2.2 Emergency Response	66.7	75.0	⬇
2.3 Laboratories	68.8	81.3	⬇
ES 3: Educate/Empower	**75.0**	**75.0**	
3.1 Health Education/Promotion	75.0	75.0	
3.2 Health Communication	75.0	75.0	
3.3 Risk Communication	75.0	75.0	
ES 4: Mobilize Partnerships	**79.2**	**75.0**	⬆
4.1 Constituency Development	75.0	75.0	
4.2 Community Partnerships	83.0	75.0	⬆
ES 5: Develop Policies/Plans	**81.3**	**85.4**	⬇
5.1 Governmental Presence	66.7	75.0	⬇
5.2 Policy Development	75.0	83.3	⬇
5.3 CHIP/Strategic Planning	83.3	83.3	
5.4 Emergency Plan	100.0	100.0	
ES 6: Enforce Laws	**68.8**	**61.4**	⬆
6.1 Review Laws	81.3	62.5	⬆
6.2 Improve Laws	50.0	66.7	⬇
6.3 Enforce Laws	75.0	55.0	⬆
ES 7: Link to Health Services	**71.9**	**75.0**	⬇
7.1 Personal Health Service Needs	68.8	75.0	⬇
7.2 Assure Linkage	75.0	75.0	
ES 8: Assure Workforce	**74.2**	**70.0**	⬆
8.1 Workforce Assessment	66.7	50.0	⬆
8.2 Workforce Standards	75.0	75.0	
8.3 Continuing Education	80.0	80.0	
8.4 Leadership Development	75.0	75.0	
ES 9: Evaluate Services	**61.7**	**72.9**	⬇
9.1 Evaluation of Population Health	56.3	62.5	⬇
9.2 Evaluation of Personal Health	60.0	75.0	⬇
9.3 Evaluation of LPHS	68.8	81.3	⬇
ES 10: Research/Innovations	**77.1**	**74.3**	⬆
10.1 Foster Innovation	75.0	68.8	⬆
10.2 Academic Linkages	75.0	91.7	⬇
10.3 Research Capacity	81.3	62.5	⬆
Average Overall Score	**74.5**	**74.4**	

Appendix B. Compilation of Questions used in Quantitative Analysis

Essential Service #1 Monitor Health Status to Identify Community Health Problems

Model Standard 1: Population-based community health assessment

1. How many of you have participated in the *current* assessment?
2. How well does the system conduct regular CHAs?
3. How well does the system continuously update the CHA with current information?
4. How well does the system promote the use of the CHA among community members and partners?

Model Standard 2: Current technology to manage and communicate population health data

1. Have you used the Maricopa Health Matters website to access CHA information?
2. How well does the system use the best available technology and methods to display data on the public's health?
3. How well does the system analyze health data, including geographic information, to see where health problems exist?
4. How well does the system use computer software to create charts, graphs and maps to display complex public health data (trends over time, sub-population analyses, etc.)?

Model Standard 3: Maintaining population health registries

1. Which population health registries exist/maintained within Maricopa County?
2. How well does the system collect timely data consistent with current standards on specific health concerns in order to provide the data to population health registries?
3. How well does the system use information from population health registries in CHAs or other analyses?

Essential Service #2 Diagnose & Investigate Health Problems & Health Hazards

Model Standard 1: Identifying and monitoring health threats

1. Who is aware of surveillance system(s) designed to monitor health problems and identify health threats?
2. How well does the system participate in a comprehensive surveillance system with national, state, and local partners to identify, monitor and share information and understand emerging health problems and threats?
3. How well does the system provide and collect timely and complete information on reportable diseases and potential disasters, emergencies, and emerging threats (natural and manmade)?
4. How well does the system ensure that the best available resources are used to support surveillance systems and activities, including information technology, communication systems, and professional expertise?

Model Standard 2: Investigating & responding to public health threats & emergencies

1. How does the county mobilize volunteers during a disaster?
2. How well does the system maintain written instructions on how to handle communicable disease outbreaks and toxic exposure incidents, including details about case finding, contact tracing, and source identification and containment?
3. How well does the system develop written rules to follow in the immediate investigation of public health threats and emergencies, including natural and intentional disasters?
4. How well does the system designate a jurisdictional Emergency Response Coordinator?
5. How well does the system prepare to rapidly respond to public health emergencies according to emergency operations coordination guidelines?
6. How well does the system identify personnel with the technical expertise to rapidly respond to possible biological, chemical, and/or nuclear public health emergencies?

7. How well does the system evaluate incidents for effectiveness and opportunities for improvement (such as After Action Reports, Improvement Plans, etc.)?

Model Standard 3: Laboratory support for investigating health threats

1. How does Maricopa County use laboratory services for investigations of public health threats, hazards, and emergencies?
2. How well does the system have ready access to laboratories that can meet routine public health needs for finding out what health problems are occurring?
3. How well does the system maintain constant (24/7) access to laboratories that can meet public health needs during emergencies, threats, and other hazards?
4. How well does the system use only licensed or credentialed laboratories?
5. How well does the system maintain a written list of rules related to laboratories, for handling samples, determining who is in charge of the samples at what point, and reporting the results?

Essential Service #3 Inform, Educate, and Empower People about Health Issues

Model Standard 1: Health education & promotion

1. How many of you provide information on community health to the general public, policymakers, and public and private stakeholders?
2. How well does the system provide policymakers, stakeholders, and the public with ongoing analyses of community health status and related recommendations for health promotion policies?
3. How well does the system coordinate health promotion and health education activities at the individual, interpersonal, community, and societal levels?
4. How well does the system engage the community throughout the process of setting priorities, developing plans, and implementing health education and health promotion activities?

Model Standard 2: Health communication

1. How many of your organizations have developed health communication plans?
2. How well does the system develop health communication plans for media and public relations and for sharing information among LPHS organizations?
3. How well does the system use relationships with different media providers (e.g., print, radio, television, the internet) to share health information, matching the message with the target audience?
4. How well does the system identify and train spokespersons on public health issues?

Model Standard 3: Risk communication

1. Who is involved in or aware of the LPHS emergency communications plans?
2. How well does the system develop an emergency communications plan for each stage of an emergency to allow for the effective dissemination of information?
3. How well does the system make sure resources are available for a rapid emergency communication response?
4. How well does the system provide risk communication training for employees and volunteers?

Essential Service #4 Mobilize Community Partnerships to Identify and Solve Health Problems

Model Standard 1: Constituency development

1. How well does the system maintain a complete and current directory of community organizations?

2. How well does the system follow an established process for identifying key constituents related to overall public health interests and particular health concerns?
3. How well does the system encourage constituents to participate in activities to improve community health?
4. How well does the system create forums for communication of public health issues?

Model Standard 2: Community partnerships
1. How well does the system establish community partnerships and strategic alliances to provide a comprehensive approach to improving health in the community?
2. How well does the system establish a broad-based community health improvement committee?
3. How well does the system assess how well community partnerships and strategic alliances are working to improve community health?

Essential Service #5 Develop Policies & Plans that Support Individual and Community Health Efforts

Model Standard 1: Governmental presence at the local level
1. How well does the system support the work of the local health department (or other governmental local public health entity) to make sure the 10 Essential Public Health Services are provided?
2. How well does the system see that the local health department is accredited through the PHAB's voluntary, national public health department accreditation program?
3. How well does the system ensure that the local health department has enough resources to do its part in providing essential public health services?

Model Standard 2: Public health policy development
1. How well does the system contribute to public health policies by engaging in activities that inform the policy development process?
2. How well does the system alert policymakers and the community of the possible public health effects (both intended and unintended) from current and/or proposed policies?
3. How well does the system review existing policies at least every three to five years?

Model Standard 3: Community health improvement process & strategic planning
1. How well does the system establish a CHIP, with broad-based diverse participation, that uses information from the CHA, including the perceptions of community members?
2. How well does the system develop strategies to achieve community health improvement objectives, including a description of organizations accountable for specific steps?
3. How well does the system connect organizational strategic plans with the CHIP?

Model Standard 4: Plan for public health emergencies
1. How well does the system support a workgroup to develop and maintain emergency preparedness and response plans?
2. How well does the system develop an emergency preparedness and response plan that defines when it would be used, who would do what tasks, what standard operating procedures would be put in place, and what alert and evacuation protocols would be followed?
3. How well does the system test the plan through regular drills and revise the plan as needed, at least every two years?

Essential Service #6 Enforce Laws and Regulations that Protect Health and Ensure Safety

Model Standard 1: Reviewing & evaluating laws, regulations, and ordinances

1. How well does the system identify public health issues that can be addressed through laws, regulations, or ordinances?
2. How well does the system stay up-to-date with current laws, regulations, and ordinances that prevent health problems or that promote or protect public health on the federal, state, and local levels?
3. How well does the system review existing public health laws, regulations, and ordinances at least once every three to five years?
4. How well does the system have access to legal counsel for technical assistance when reviewing laws, regulations, or ordinances?

Model Standard 2: Involvement in improving laws, regulations, and ordinances
1. How well does the system identify local public health issues that are inadequately addressed in existing laws, regulations, and ordinances?
2. How well does the system participate in changing exiting laws, regulations, and ordinances, and/or creating new laws, regulations, and ordinances to protect and promote public health?
3. How well does the system provide technical assistance in drafting the language for proposed changes or new laws, regulations, and ordinances?

Model Standard 3: Enforcing laws, regulations, and ordinances
1. How well does the system identify organizations that have the authority to enforce public health laws, regulations, and ordinances?
2. How well does the system ensure that a local health department (or other governmental public health entity) has the authority to act in public health emergencies?
3. How well does the system ensure that all enforcement activities related to public health codes are done within the law?
4. How well does the system educate individuals and organizations about relevant laws, regulations, and ordinances?
5. How well does the system evaluate how well local organizations comply with public health laws?

Essential Service #7 Link People to Needed Personal Health Services and Assure the Provision of Healthcare when otherwise Unavailable
Model Standard 1: Identifying personal health service needs of populations
1. How well does the system identify groups of people in the community who have trouble accessing or connecting to personal health services?
2. How well does the system identify all personal health service needs and unmet needs throughout the community?
3. How well does the system define partner roles and responsibilities to respond to the unmet needs of the community?
4. How well does the system understand the reasons that people do not get the care they need?

Model Standard 2: Ensuring people are linked to personal health services
1. How well does the system connect or link people to organizations that can provide personal health services they may need?
2. How well does the system help people access personal health services in a way that takes into account the unique needs of different populations?
3. How well does the system help people sign up for public benefits that are available to them (e.g., Medicaid or medical and prescription assistance programs)?
4. How well does the system coordinate the delivery of personal health and social services so that everyone in the community has access to the care they need?

Essential Service #8 Assure Competent Public and Personal Healthcare Workforce
Model Standard 1: Workforce assessment, planning & development
1. How well does the system complete a workforce assessment, a process to track the numbers and types of LPHS jobs – both public and private sector – and the associated knowledge, skills and abilities required of the jobs?
2. How well does the system review the information from the workforce assessment and use it to identify and address gaps in the LPHS workforce?
3. How well does the system provide information from the workforce assessment to other community organizations and groups, including governing bodies and public and private agencies, for use in their organizational planning?

Model Standard 2: Public health workforce standards
1. How well does the system ensure that all members of the local public health workforce have the required certificates, licenses, and education needed to fulfill their job duties and comply with legal requirements?
2. How well does the system develop and maintain job standards and position descriptions based in the core knowledge, skills, and abilities needed to provide the 10 Essential Public Health Services?
3. How well does the system base the hiring and performance review of members of the public health workforce in public health competencies?

Model Standard 3: Life-long learning through continuing education, training & mentoring
1. How well does the system identify education and training needs and encourage the public health workforce to participate in available education and training?
2. How well does the system provide ways for public health workers to develop core skills related to the 10 Essential Public Health Services?
3. How well does the system develop incentives for workforce training, such as tuition reimbursement, time off for attending class, and pay increases?
4. How well does the system create and support collaborations between organizations within the LPHS for training and education?
5. How well does the system continually train the public health workforce to deliver services in a culturally competent manner and understand the social determinants of health?

Model Standard 4: Public health leadership development
1. How well does the system provide access to formal and informal leadership development opportunities for employees at all organizational levels?
2. How well does the system create a shared vision of community health and the LPHS, welcoming all leaders and community members to work together?
3. How well does the system ensure that organizations and individuals have opportunities to provide leadership in areas where they have knowledge, skills, or access to resources?
4. How well does the system provide opportunities for the development of leaders who represent the diversity of the community?

Essential Service #9 Evaluate Effectiveness, Accessibility, and Quality of Personal and Population-based Health Services
Model Standard 1: Evaluating population-based health services
1. How well does the system evaluate how well population-based health services are working, including whether the goals that were set for programs and services were achieved?

2. How well does the system assess whether community members, including vulnerable populations, are satisfied with the approaches taken toward promoting health and preventing disease, illness, and injury?
3. How well does the system identify gaps in the provision of population-based health services?
4. How well does the system use evaluation findings to improve plans, processes, and services?

Model Standard 2: Evaluating personal health services
1. How well does the system evaluate the accessibility, quality, and effectiveness of personal health services?
2. How well does the system compare the quality of personal health services to established guidelines?
3. How well does the system measure user satisfaction with personal health services?
4. How well does the system use technology, like the internet or electronic health records, to improve quality of care?
5. How well does the system use evaluation findings to improve services and program delivery?

Model Standard 3: Evaluating the local public health system
1. How well does the system identify all public, private, and voluntary organizations that contribute to the delivery of the 10 Essential Public Health Services?
2. How well does the system evaluate how well the LPHS activities meet the needs of the community at least every five years, using guidelines that describe a model LPHS and involving all entities contributing to the delivery of the 10 Essential Public Health Services?
3. How well does the system assess how well the organizations in the LPHS are communicating, connecting, and coordinating services?
4. How well does the system use results from the evaluation process to improve the LPHS?

Essential Service #10 Research for New Insights and Innovative Solutions to Health Problems
Model Standard 1: Fostering innovation
1. How do LPHS organizations identify and stay current with best practices?
2. How well does the system provide staff with the time and resources to pilot test or conduct studies to test new solutions to public health problems and see how well they actually work?
3. How well does the system suggest ideas about what currently needs to be studied in public health to organizations that conduct research?
4. How well does the system keep up with information from other agencies and organizations at the local, state, and national levels about current best practices in public health?
5. How well does the system encourage community participation in research, including deciding what will be studied, conducting research, and sharing results?

Model Standard 2: Linking with institutions of higher learning and/or research
1. How well does the system develop relationships with colleges, universities, or other research organizations, with a free flow of information, to create formal and informal arrangements to work together?
2. How well does the system partner with colleges, universities, or other research organizations to conduct public health research, including community-based participatory research?
3. How well does the system encourage colleges, universities, and other research organizations to work together with LPHS organizations to develop projects, including field training and continuing education?

Model Standard 3: Capacity to initiate or participate in research
1. How well does the system collaborate with researchers who offer the knowledge and skills to design and conduct health-related studies?

2. How well does the system support research with the necessary infrastructure and resources, including facilities, equipment, databases, information technology, funding, and other resources?
3. How well does the system share findings with public health colleagues and the community broadly, through journals, websites, community meetings, etc.?
4. How well does the system evaluate public health systems research efforts throughout all stages of work from planning to effect on local public health practice?