Title: Workforce Development Report

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Subject:

This report provides a summary of the analysis and recommendations that resulted from Core Competencies for Public Health Professionals self-assessment completed by the San Bernardino County Department of Public Health workforce in July 2017.

Background:

The Core Competencies for Public Health Professionals[1] are a consensus set of skills for the broad practice of public health as defined by the 10 Essential Public Health Services[2] developed and reflect the foundational skills desirable for professionals engaging in the practice, education, and research of public health.[3] The competencies are organized into eight domains reflecting skill areas within public health[4] (for full descriptions, see Appendix A):

- *Analytical Assessment Skills*
- *Policy Development/Program Planning Skills*
- *Communication Skills*
- *Cultural Competency Skills*
- *Community Dimensions of Practice Skills*
- *Public Health Sciences Skills*
- *Financial Planning and Management Skills*
- *Leadership and Systems Thinking Skills*

The Council refrains from recommending a target level of competency for a public health workforce, but the framework provides a means of self-assessment to determine current level of skills and the eight domains should be used to identify training needs, develop workforce training plans, crafting job descriptions, and conducting performance evaluations. Overall, this serves as a framework for workforce planning and action, and departments are encouraged to interpret and adapt these competencies to meet their specific organizational needs.

The Council also identifies three tiers that delineate levels of the workforce, representing career stages for public health professionals[5], which include: (for full descriptions, see Appendix B):

[1] http://www.phf.org/resourcestools/Documents/Core_Competencies_for_Public_Health_Professionals_2014June.pdf

[2] https://www.cdc.gov/publichealthgateway/nphps/index.html

[3] http://www.phf.org/resourcestools/pages/core_public_health_competencies.aspx

[4] http://www.phf.org/programs/corecompetencies/Pages/Core_Competencies_Domains.aspx

[5] http://www.phf.org/programs/corecompetencies/Pages/COL_CorePublicHealthCompetencies_Guidance_Definitions.aspx

- *Tier 1a: Administrative/Clerical Level*
- *Tier 1b: Front Line Level*
- *Tier 2: Program Management/Supervisory Level*
- *Tier 3: Senior Management/Executive Level*

Workforce Summary Overview:

- For the 2017-2018 fiscal year (as of 7/2/2018), the Department of Public Health had a workforce that included 983 positions across all programs, including 190 (19.3%) vacant positions and 793 (80.7%) filled as of 7/2/2018.
    - These numbers reflect a larger workforce from the previous two years (937 budgeted positions for FY 2016-2017 and 935 budgeted positions for FY 2015-2015).
    - The quantity and proportion of vacant positions have increased from previous years and are an area to target for improvement [142 (15.15%) vacant positions in FY16-17 and 159 (17.0%) in FY15-16].
    - The units with the most budgeted positions are:
        - CA Children Services (CCS): 180 Positions*
        - Women, Infants, and Children (WIC): 148 Positions*
        - Environmental Health Services (EHS) – Food Protection: 91 Positions
        - Family Health Section (FHS): 78 Positions*
        - Animal Care and Control (ACC): 69 Positions
            - CCS, WIC, and FHS are also have the most vacant positions

- For FY17-18, the Department of Public Health had a 12.2% attrition rate as a result of 120 lost employees.
    - 93 of 120 DPH employees (9.5% of budgeted positions) separated from the County of San Bernardino (compared to 31/3.3% for FY16-17 and 109/11.7% for FY15-16).
        - Detailed information on reasons for termination are not interpretable and a recommended area for department improvement is better training on how to solicit information about reasons for employee resignations and how to accurately report this on the EMACS Separation Report.
        - Units with the most attrition volume are:
            - EHS Food Protection – 17 losses (18.7% of unit)
            - CA Children Services – 14 losses (7.8% of unit)
            - WIC – 12 losses (8.1% of unit)
        - Losses from larger units are potentially less likely to be "felt" by the staff, whereas units with attrition that make up a large share of the unit workforce may be more heavily impacted. Those units most impacted were:
            - Vital Statistics – 2 losses (25.0% of unit)
            - Community Outreach & Innovation – 3 losses (18.8% of unit)
            - EHS Food Protection – 17 losses (18.7% of unit)
            - EHS Waste Management – 4 losses (17.4% of unit)

- For FY17-18, 169 DPH employees transferred or promoted; however 142 (84.0% of budgeted positions) were retained in DPH positions, while the other 27 staff members comprising the rest of the 120 workforce losses.
    - The next two largest receiving departments for staff promotions and transfers were Behavioral Health (7 employees/4.1% of transfers and promotions) and ARMC (5 employees/3.0% of transfers/promotions).

Long term, in order to have a better understand workforce size, attrition, and composition, it is recommended that the department continue to review and report on workforce performance indicators for the department and sub-units, which would at a minimum include:

- Total Budgeted Positions (Workforce Size)
    - Budgeted Positions By Classification

- Total Vacant Positions (Unfilled Workforce Capacity)
    - Vacant Positions By Classification

- Total Attrition % (Employees Lost As A Percent Of Budgeted Positions)
    - Total Attrition By Position Description (Classification)

    - Total Terminations (Employees Leaving SB County)
        - Terminations By Position Description (Classification)
        - Terminations By Reason

    - Total Transfers/Promotions (Outside Of The Department)
        - Transfers/Promotions By Previous Position (Classification)
        - Transfers/Promotions By Receiving Department
        - Transfers/Promotions By Reason

- Other indicators as applicable

Analysis and Results:

The data from the self-assessment were evaluated individually by workforce tier in order to separate unique skill differences and areas for improvement by workforce levels (i.e. Tier 1a and 1b responses only, Tier 2 responses only, and Tier 3 responses only).

a. Tier 1a: Administrative and Clerical Staff
b. Tier 1b: Front Line Staff
c. Tier 2: Supervisory Staff
d. Tier 3: Executive Staff

The self-assessment consisted of two major sections:

(1) Core Competency Assessment: Respondents were asked multiple questions within each skill domain and asked to rate the level at which they are currently able to perform these elements of each skill on a scale of:

a. None (1): I am unaware or have very little knowledge of the skill
b. Aware (2): I have heard of, but have limited knowledge or ability to apply the skill
c. Knowledgeable (3): I am comfortable with my knowledge or ability to apply the skill
d. Proficient (4): I am very comfortable, am an expert, or could teach this skill to others

The results of this assessment were used to calculate average scores within each domain by workforce tier and then ranked from Least (1) to Most (8) proficient. These average scores can be used to measure the average level of proficiency in a specific domain for a tier of the workforce and in future assessments determine positive or negative changes in this level. Understanding these measures are also beneficial to determine where the greatest priority area for training and professional development should be focused which is the justification for prioritization of the eight domains by greatest need.

(2) Skills/Trainings Assessment: In this section, respondents were given a list of specific skill areas or training topics and based on their workforce tier, asked to identify:
   a. What top 5 skills are the most important for themselves, their supervisor, and their staff (if applicable) to develop.
   b. What top 5 training topics are most needed for themselves, their supervisor, and their staff (if applicable) to take.

The results were counted and ranked (within tiers) to determine the top 3 skills and training topics identified as most important for the different tiers of the workforce.

There were a total of 713 responses to the assessment. Tier 1 (a and b), Tier 2, and Tier 3 level staff accounted for 28% (201), 58% (410), 11% (79), and 3% (23), respectively. The majority of Tier 1 (a and b) staff have been *working in the public health field between 1 to 5 years* (40% and 33%), while the majority for Tier 2 and Tier 3 level staff have *11 to 20 years* of experience (43% and 35%). Similar findings are exhibited regarding *years spent at San Bernardino Department of Public Health*; 42% and 36% of Tier 1 (a and b) staff noted *1 to 5 years* and 38% and 39% between *11 to 20 years* for Tier 2 and Tier 3 level staff. Lastly, nearly 46% and 85% of Tier 1 (a and b) staff works *directly with community residents* compared to 48% for both Tier 2 and Tier 3 level staff.

Core Competency Assessment:

Overall, no Tier averaged a three or higher (knowledgeable) on the assessment. The assessment average for Tier 1 (a and b), Tier 2, and Tier 3 were 1.79, 2.15, 2.39, and 2.75, respectively. What may be troubling is Tier 1a staff scoring under two, which indicates many are *unaware or have very little knowledge of the skill.* Moreover, no Tier averaged a three or higher in any individual domain (*comfortable with my knowledge or ability to apply the skill*); although the highest domain scores were seen among Tier 3 level staff (as high as 2.91). Needless to say, no Tier for any individual domain indicated they are proficient (score 4 - *comfortable, am an expert, or could teach the skill to others*).

Table 1 provides an overview of domain rankings by tier level. The lowest scores (closest to 1) are those where the self-reported level of proficiency is lowest (alternatively the highest scores/closet to 8 are where self-reported proficiency is highest).

Tier 1a, Tier 1b and Tier 2 level staff identified deficiencies in *Financial Planning and Management* and *Public Health Sciences*. Conversely, the highest scoring domains for each were *Analytical/Assessment* and *Cultural Competency* for Tier 1a and 1b employees and *Cultural Competency* and *Leadership and Systems Thinking Skills* for Tier 2 employees.

Tier 3 level staff scored themselves most proficient in *Policy Development/Program Planning* and *Financial Planning and Management*; but identified the largest deficiencies in *Public Health Sciences* and *Community Dimensions of Practice*.

Table 1. Domain Rankings by Tier Level.

Domain	**Tier 1a**	**Tier 1b**	**Tier 2**	**Tier 3**
1. Analytical/Assessment Skills	8	8	3	3
2. Policy Development/Program Planning Skills	6	4	6	8
3. Communication Skills	5	6	5	4
4. Cultural Competency Skills	7	7	8	5
5. Community Dimensions of Practice Skills	4	5	4	2
6. Public Health Sciences Skills	1	2	2	1
7. Financial Planning and Management Skills	2	1	1	7
8. Leadership and Systems Thinking Skills	3	3	7	6

**Red (or 1) indicating areas of greatest need*

The common domain with low proficiency across all tier levels is *Public Health Sciences Skills*. This domain (6) focuses on understanding the foundation and prominent events of public health, applying public sciences to practice, critiquing and developing research, using evidence when

developing policies and programs, and establishing academic partnerships. This area should be a primary concentration for training and improving proficiency for all tiers of the workforce and a general public health training regarding the topics above should be beneficial across the entire department. Other deficiencies are more specific to different tiers. For instance, *Cultural Competency* may be improved for Tier 3 staff. Additionally *Analytical/Assessment Skills* for Tier 2 and Tier 3 staff (but not Tier 1a and 1b), and *Financial Planning and Management Skills* targeted for improvement within Tier 1a, 1b and Tier 2, but not Tier 3 staff.

Although the top domain rankings for Tier 1b and Tier 2 level staff are the same, the specific skills deficient in each domain may vary (see Table 2). For instance in *Financial Planning and Management*, Tier 1b staff could both benefit from financial analysis methods training, while Tier 2 level staff could benefit from contract negotiations training. Within *Public Health Sciences*, Tier 1a and revealed training needs in identifying and building partnerships, while Tier 3 level staff revealed a different area for improvement, critique the scientific foundation. Identifying these differences between tiers and adapting trainings to specific levels of staff will help prevent money, time and other resources being misused.

Gaps were also identified among the three Tiers. The most obvious is the difference in *Financial Planning and Management Skills* of Tier 3 staff compared to all others. As mentioned, Tier 1 (a and b) and Tier 2 exhibited this skill as a top one or two priority, compared to Tier 3 level staff who scored comparatively well. Important to note, use caution when interpreting gaps as rankings are based on raw domain scores, particularly domains where Tier 1 (a and b) ranked well compared to the higher level tiers.[6]

Table 2. Specific Training Opportunities in Top 2 Domains by Tier Level (w/percent increase to meet domain average).

Tier 1a – Admin/Clerical		
Public Health Sciences Skills	Suggest partnerships that may increase use of evidence in public health practice (e.g., between practice and academic organizations, with health sciences libraries)	8% (1.42 to 1.54)*
	Describe how public health sciences (e.g., biostatistics, epidemiology, environmental health sciences, health services administration, social and behavioral sciences, and public health informatics) are used in the delivery of the 10 Essential Public Health Services	4% (1.48 to 1.54)
Financial Planning and Management Skills	Provide information for proposals for funding (e.g., foundations, government agencies, corporations)	17% (1.42 to 1.66)
	Describe financial analysis methods used in making decisions about policies, programs, and services (e.g., cost-effectiveness, cost-benefit, cost-utility analysis, return on investment)	17% (1.42 to 1.66)
Tier 1b – Front Line		
Financial Planning and	Describe financial analysis methods used in making decisions about policies, programs, and services (e.g., cost-effectiveness, cost-benefit, cost-utility analysis, return on investment)	29% (1.44 to 1.86)

[6] Comparing rankings across tiers may be inappropriate, as ranking are based on raw domain scores. For instance, Tier 1a ranked *Analytical/Assessment Skills* as their best performing domain (raw score = 2.02), while Tier 3 ranked it as 3rd worst (raw score = 2.70). Based on raw score comparisons, Tier 3 is more proficient in this skill compared to Tier 1 (a and b).

Management Skills	Provide information for development of contracts and other agreements for programs and services	23% (1.51 to 1.86)
Public Health Sciences Skills	Suggest partnerships that may increase use of evidence in public health practice (e.g., between practice and academic organizations, with health sciences libraries)	12% (1.79 to 2.01)
	Contribute to the public health evidence base (e.g., participating in Public Health Practice-Based Research Networks, community-based participatory research, and academic health departments; authoring articles; making data available to researchers)	10% (1.83 to 2.01)
Tier 2 - Supervisory		
Financial Planning and Management Skills	Negotiate contracts and other agreements for programs and services	25% (1.71 to 2.13)
	Use financial analysis methods in making decisions about policies, programs, and services (e.g., cost-effectiveness, cost-benefit, cost-utility analysis, return on investment)	16% (1.84 to 2.13)
Public Health Sciences Skills	Contribute to the public health evidence base (e.g., participating in Public Health Practice-Based Research Networks, community-based participatory research, and academic health departments; authoring articles; making data available to researchers)	16% (1.89 to 2.19)
	Develop partnerships that will increase use of evidence in public health practice (e.g., between practice and academic organizations, with health sciences libraries)	12% (1.96 to 2.19)
Tier 3 - Executive		
Public Health Sciences Skills	Critique the scientific foundation of the field of public health	14% (2.18 to 2.49)
Community Dimensions of Practice Skills	Engage the organization in community-based participatory research	16% (2.23 to 2.59)

**This is the percent increase needed to achieve overall domain average.*

Skills/Trainings Assessment:

Table 3 provides an overview of the top 3 responses of the most important skills noted by all tier levels. A common important skill that is found throughout is *communication*, particularly for Tier 1(a and b) level staff who noted this as the number one skill needed for themselves (45%, 48%) and supervisors (45%, 50%). The other notable important skills identified for Tier 1 were *team work*, *problem solving*, and *customer service*.

Tier 2 level staff noted *communication* for themselves (39%) and their supervisors (48%), but also *management and supervision* (both 41%) as important skills. Supervisory level staff noted *customer service* (57%) as the number one skill needed by their staff followed by *problem solving* (53%) and *team work* (49%) – all of which were selected by nearly a majority (or more) of respondents. *Leadership, management/supervision*, and *communication* were the other skills noted when evaluating themselves and their supervisors.

Tier 3 level staff responses exhibited skills for themselves not mentioned by other tiers, including *change management* and *systems thinking*. The decisions and actions by executive management are typically influential across many programs and departments. Any trainings or

exercises that can improve facilitation of change, understanding of the interrelatedness among their programs and internal processes, and how to engage with policymakers are beneficial.

Table 3. Skills Assessment by Tier Level (w/percent respondents).

Tier 1a - Admin/Clerical		
Top 3 "Important Skills" for YOURSELF	Communication	45%
	Team Work	37%
	Problem Solving	35%
Top 3 "Important Skills" for SUPERVISORS	Communication	45%
	Leadership	43%
	Team Work	39%
Tier 1b - Front Line		
Top 3 "Important Skills" for YOURSELF	Communication	48%
	Customer Service	41%
	Team Work	38%
Top 3 "Important Skills" for SUPERVISORS	Communication	50%
	Leadership	44%
	Team Work	34%
Tier 2 - Supervisory		
Top 3 "Important Skills" for YOURSELF	Leadership	47%
	Management/Supervision	41%
	Communication	39%
Top 3 "Important Skills" for SUPERVISORS	Communication	48%
	Leadership	44%
	Management/Supervision	41%
Top 3 "Important Skills" for STAFF	Customer Service	57%
	Problem Solving	53%
	Team Work	49%
Tier 3 - Executive		
Top 3 "Important Skills" for YOURSELF	Leadership	52%
	Change Management	52%
	Systems Thinking	48%
Top 3 "Important Skills" for SUPERVISORS	Policy Engagement	43%
	Leadership	39%
	Communication	30%
Top 3 "Important Skills" for STAFF	Team Work	52%
	Communication	52%
	Customer Service	43%

The second part of the assessment allows employees to recommend trainings they recognize as necessary for themselves and the workforce in tiers above them. These recommendations are based on employee perception of need and therefore likely represent areas deemed lacking, unclear, that staff are deficient in, and are important and can use improvement or refinement.

Table 4 identifies top trainings needed by all tier levels. Overall, the responses are rather diverse with one exception, *Understanding Public Health Systems and Change* and *Developing the Leader in You* were identified highly across all tiers in some manner. The former was identified among the top by Tier 1a (42%), Tier 1b (46%) and Tier 3 (70%) employees for themselves, and 47% of Tier 2 staff identified it as a needed for their own staff as well. *Developing the Leader in*

You was an important area identified for Tier 1 (a and b) and Tier 2 employees for themselves and was further supported by Tier 3 staff who saw this as important for their staff.

Training differences from each tier can be found throughout. One difference to note for Tier 1a staff is *conflict management* (31%) needed for their supervisors. Being the largest group of respondents (n = 410, 86%), this suggests a number "conflicts" may be occurring more often than it should and not being resolved effectively by supervisors. Other differences to note by Tier 2 of their staff is *what is public health?* (65%) and *time and self-management* (53%). Both of these are important areas for improvement since these provide information on the foundation of our department operations and how staff can better manage their work to be more organized and productive. This training was also noted by Tier 3 for their staff as well (57%).

Table 4. Training Assessment by Tier Level (w/percent respondents).

Tier 1a - Admin/Clerical		
Top 3 "Trainings Needed" for YOURSELF	Developing the Leader in You	48%
	Understanding Public Health Systems and Change	42%
	Community Needs/Resource Assessments	28%
Top 3 "Trainings Needed" for SUPERVISORS	Effective Program Management	45%
	Developing the Leader in You	35%
	Conflict Management	31%
Tier 1b - Front Line		
Top 3 "Trainings Needed" for YOURSELF	Understanding Public Health Systems and Change	46%
	Developing the Leader in You	44%
	What is Public Health (e.g., Public Health 101)?	31%
Top 3 "Trainings Needed" for SUPERVISORS	Effective Program Management	45%
	Developing the Leader in You	35%
	Program Planning	27%
Tier 2 - Supervisory		
Top 3 "Trainings Needed" for YOURSELF	Developing the Leader in You	42%
	Effective Program Management	41%
	Financial Planning and Budgeting	41%
Top 3 "Trainings Needed" for SUPERVISORS	Effective Program Management	41%
	Program Planning	30%
	Conflict Management	27%
Top 3 "Trainings Needed" for STAFF	What is Public Health (e.g., Public Health 101)?	65%
	Time and Self-Management	53%
	Understanding Public Health Systems and Change	47%
Tier 3 - Executive		
Top 3 "Trainings Needed" for YOURSELF	Understanding Public Health Systems and Change	70%
	Program Evaluation and Evidence-based Public Health	43%
	Effective Program Management	39%
Top 3 "Trainings Needed" for SUPERVISORS	Program Evaluation and Evidence-based Public Health	26%
	Developing the Leader in You	22%
	Understanding Public Health Systems and Change	22%
Top 3 "Trainings Needed" for STAFF	What is Public Health (e.g., Public Health 101)?	57%
	Understanding Public Health Systems and Change	57%
	Developing the Leader in You	39%

Recommendations:

Table 5 presents the top 2 domains for each tier level where proficiency is lowest. The percent noted is the increase needed to meet the average score for the assessment. These differences present quantifiable areas to seek to improve levels of proficiency through targeted trainings.

Table 5. Domain Objectives by Tier Level (w/percent increase to meet domain average).

Tier 1a - Admin/Clerical	
Public Health Sciences Skills	17% (1.54 to 1.80)
Financial Planning and Management Skills	8% (1.66 to 1.80)
Tier 1b - Front Line	
Financial Planning and Management Skills	16% (1.86 to 2.15)
Public Health Sciences Skills	7% (2.01 to 2.15)
Tier 2 - Supervisory	
Financial Planning and Management Skills	12% (2.13 to 2.39)
Public Health Sciences Skills	9% (2.19 to 2.39)
Tier 3 - Executive	
Public Health Sciences Skills	11% (2.49 to 2.75)
Community Dimensions of Practice Skills	6% (2.59 to 2.75)

**This is the percent increase needed to achieve overall assessment average.*

1. **Increase average scores of all tier levels (1a, 1b, 2, 3) in *Public Health Sciences* by 17%, 7%, 9% and 11% by 2019 from 1.54 to 1.80; 2.01 to 2.15; 2.19 to 2.39; and 2.49 to 2.75, respectively.**
    a. This focuses on understanding the foundation and prominent events of public health, applying public sciences to practice, critiquing and developing research, using evidence when developing policies and programs, and establishing academic partnerships.
2. **Increase average scores of Tier 1 (a and b) and Tier 2 level staff in Financial Planning and Management by 8%, 16% and 12% by 2019 from 1.66 to 1.80; 1.86 to 2.15; and 2.13 to 2.39, respectively.**
    a. This focuses on engaging other government agencies that can address community health needs, leveraging public health and health care funding mechanisms, developing and defending budgets, motivating personnel, evaluating and improving program and organization performance, and establishing and using performance management systems to improve organization performance.
3. **Increase average scores of Tier 3 level staff in Community Dimensions Practice by 6% by 2019 from 2.59 to 2.75.**
    a. This focuses on evaluating and developing linkages and relationships within the community, maintaining and advancing partnerships and community involvement, negotiating for use of community assets, defending public health policies and programs, and evaluating effectiveness and improving community engagement.

Table 6 presents the specific skills within each domain that can benefit from training. Overall, provides greater detail, particularly where resources are limited and more focus is desired. The

percent noted is the increase required for each skill to meet the average score across that particular domain.

4. Increase the knowledge and awareness of all staff levels in specific **Public Health Sciences** skills.

    a. **Increase average scores of Tier 1a and Tier 2 level staff by 8% and 12% regarding *partnership development for public health practice* by 2019 from 1.42 to 1.54 and 1.96 to 2.19.**

    b. **Increase average scores of Tier 3 level staff by 14% regarding *critiquing the scientific foundation of the field of public health* by 2019 from 2.18 to 2.49.**

5. Increase the knowledge and awareness of Tier 1 (a and b) and Tier 2 level staff in specific **Financial Planning and Management** skills.

    a. **Increase average scores of Tier 1 (a and b) and Tier 2 level staff by 17%, 29% and 25%, respectively, regarding *financial analysis methods* by 2019 from 1.42 to 1.66, 1.44 to 1.86 and 1.84 to 2.13.**

    b. **Increase average scores of Tier 1b level staff by 23% regarding *information contract development for programs and services* by 2019 from 1.51 to 1.86.**

    c. **Increase average scores of Tier 1a level staff by 17% regarding *provide information for proposal funding* by 2019 from 1.42 to 1.66.**

    d. **Increase average scores of Tier 2 level staff by 25% regarding *contract negotiations for programs and services* by 2019 from 1.71 to 2.13.**

6. Increase knowledge and awareness of executive level staff in specific **Community Dimensions of Practice** skills.

    a. **Increase average scores of Tier 3 level staff by 16% regarding *community-based research* by 2019 from 2.23 to 2.59.**

Table 6. Specific Skill Objectives by Tier Level (abbreviated version of table 2 above).

Tier 1a - Admin/Clerical		
Public Health Sciences Skills	Suggest partnerships that may increase use of evidence in public health practice	8% (1.42 to 1.54)*
	Describe how public health sciences are used in the delivery of the 10 Essential Public Health Services	4% (1.48 to 1.54)
Financial Planning and Management Skills	Provide information for proposals for funding	17% (1.42 to 1.66)
	Describe financial analysis methods used in making decisions	17% (1.42 to 1.66)
Tier 1b - Front Line		
Financial Planning and Management Skills	Describe financial analysis methods used in making decisions	29% (1.44 to 1.86)
	Provide information for development of contracts	23% (1.51 to 1.86)
Public Health Sciences Skills	Suggest partnerships that may increase use of evidence in public health practice	12% (1.79 to 2.01)

	Contribute to the public health evidence base	10% (1.83 to 2.01)
Tier 2 - Supervisory		
Financial Planning and Management Skills	Negotiate contracts and other agreements for programs and services	25% (1.71 to 2.13)
	Use financial analysis methods in making decisions	16% (1.84 to 2.13)
Public Health Sciences Skills	Contribute to the public health evidence base	16% (1.89 to 2.19)
	Develop partnerships that will increase use of evidence in public health practice	12% (1.96 to 2.19)
Tier 3 - Executive		
Public Health Sciences Skills	Critique the scientific foundation of the field of public health	14% (2.18 to 2.49)
Community Dimensions of Practice Skills	Engage the organization in community-based participatory research	16% (2.23 to 2.59)

**This is the percent increase needed to achieve overall domain average.*

The following are training priorities based on the responses of all staff. For more detailed responses refer to table 4 above.

7. **Provide training to all staff in *understanding public health systems and change.***
8. **Provide training to Tier 1 (a and b) and Tier 2 level staff in *developing the leader in you*.**
9. **Provide training to Tier 2 and Tier 3 level staff in *effective program management.***
10. **Provide training in *what is public health?* (e.g. Public Health 101) to all entry level staff.**
11. **Provide training in *conflict management* to Tier 2 level staff.**
12. **Provide training in *program evaluation and evidence-based public health* to Tier 3 level staff.**

Limitations:

This assessment is not without its limitations, the first being the lack of position titles. Although the assessment asked *what program or unit you work in,* specific classifications are unknown. For instance, the program or unit that one may indicate is Environmental Health Services, but with this information alone it is impossible to determine whether the respondent is an office assistant, statistical analyst, health educator, registered environmental health specialist or other. Consequently, it is difficult to determine if training is applicable to someone's job responsibilities. It would not be beneficial to provide financial analysis training to health educators or providing community outreach training to accountants. Relying solely on the outcomes of this assessment can result in wasted time, effort and resources. In the future, refining this survey to identify positions along with tiers will help apply trainings most specific to job responsibilities.

The second limitation is staff education. This assessment was created by the Council on Linkages between Academia and Public Health Practice who evaluate public health education and its application to public health practice. Like all public health departments, the composition of staff varies; they work in units such as education, accounting, nursing, therapy, business, information systems and a host of others, none of which require formal public health education to perform their job effectively. Essentially, a public health assessment is taken by staff without

public health education; therefore, domains and skills specific to public health education (e.g. biostatistics, health behavioral models, epidemiology, etc.) may be lower, yet non-essential for many. For the 2019 assessment, it is recommended that educational information be added to job classification in order to collect data needed to control for this limitation.

The interpretation of these results will depend heavily on supervisory and executive level staff. As mentioned, it is recommended by the Council that public health departments interpret these results based on workforce compositions, organizational structure, and other characteristics unique to the department. This assessment serves as a tool only, supervisory level staff will need to evaluate staff titles and descriptions and determine whether or not suggested trainings coincide with their staff's responsibilities until future, refined assessments can be completed.

Appendix A:

Analytical/Assessment Skills. Analytical/Assessment Skills focus on identifying and understanding data, turning data into information for action, assessing needs and assets to address community health needs, developing community health assessments, and using evidence for decision making.

Policy Development/Program Planning Skills. Policy Development/Program Planning Skills focus on determining needed policies and programs; advocating for policies and programs; planning, implementing, and evaluating policies and programs; developing and implementing strategies for continuous quality improvement; and developing and implementing community health improvement plans and strategic plans.

Communication Skills. Communication Skills focus on assessing and addressing population literacy; soliciting and using community input; communicating data and information; facilitating communications; and communicating the roles of government, health care, and others.

Cultural Competency Skills. Cultural Competency Skills focus on understanding and responding to diverse needs, assessing organizational cultural diversity and competence, assessing effects of policies and programs on different populations, and taking action to support a diverse public health workforce.

Community Dimensions of Practice Skills. Community Dimensions of Practice Skills focus on evaluating and developing linkages and relationships within the community, maintaining and advancing partnerships and community involvement, negotiating for use of community assets, defending public health policies and programs, and evaluating effectiveness and improving community engagement.

Public Health Sciences Skills. Public Health Sciences Skills focus on understanding the foundation and prominent events of public health, applying public sciences to practice, critiquing and developing research, using evidence when developing policies and programs, and establishing academic partnerships.

Financial Planning and Management Skills. Financial Planning and Management Skills focus on engaging other government agencies that can address community health needs, leveraging public health and health care funding mechanisms, developing and defending budgets, motivating personnel, evaluating and improving program and organization performance, and establishing and using performance management systems to improve organization performance.

Leadership and Systems Thinking Skills. Leadership and Systems Thinking Skills focus on incorporating ethical standards into the organization; creating opportunities for collaboration among public health, health care, and other organizations; mentoring personnel; adjusting practice to address changing needs and environment; ensuring continuous quality improvement; managing organizational change; and advocating for the role of governmental public health.

Appendix B:

Tier 1 (a and b) – Administrative/Clerical and Front Line Level. Tier 1 competencies apply to public health professionals who carry out the day-to-day tasks of public health organizations and are not in management positions. Responsibilities of these professionals may include data collection and analysis, fieldwork, program planning, outreach, communications, customer service, and program support.

Tier 2 – Program Management/Supervisory Level. Tier 2 competencies apply to public health professionals in program management or supervisory roles. Responsibilities of these professionals may include developing, implementing, and evaluating programs; supervising staff; establishing and maintaining community partnerships; managing timelines and work plans; making policy recommendations; and providing technical expertise.

Tier 3 – Senior Management/Executive Level. Tier 3 competencies apply to public health professionals at a senior management level and to leaders of public health organizations. These professionals typically have staff who report to them and may be responsible for overseeing major programs or operations of the organization, setting a strategy and vision for the organization, creating a culture of quality within the organization, and working with the community to improve health.