Program-Level Assessment: Annual Report

Program: Master of Public Health (MPH) Program	**Department:** Behavioral Sciences & Health Education and Epidemiology & Biostatistics (offering concentrations in Behavioral Health & Health Education; Biosecurity & Disaster Preparedness; Biostatistics; Epidemiology; Global Health; Maternal & Child Health)
Degree or Certificate Level: MPH	**College/School:** College for Public Health & Social Justice
Date (Month/Year): June 2020	**Primary Assessment Contact:** Anne Sebert Kuhlmann, PhD, MPH, Associate Professor & MPH Program Director, anne.sebertkuhlmann@slu.edu, 314-977-4029

In what year was the data upon which this report is based collected? AY 2019-2020

In what year was the program's assessment plan most recently reviewed/updated? 2018

1. Student Learning Outcomes

Which of the program's student learning outcomes were assessed in this annual assessment cycle?

CEPH, the accrediting body for public health programs, recently revised its guidelines to dictate 22 competencies grouped into 8 categories for all MPH students regardless of concentration. Our 2020 MPH graduates are our first cycle of students to graduate under our revised curriculum designed to meet these new CEPH accreditation guidelines. This year, we assessed student learning outcomes associated with two groups of the 22 competencies – Evidence-Based Approaches to Public Health (4 competencies) and Planning & Management to Promote Health (5 competencies).

MPH Program Learning Outcomes

Evidence-Based Approaches to Public Health

1. Apply epidemiological methods to the breadth of settings and situations in public health practice
2. Select quantitative and qualitative data collection methods appropriate for a given public health context
3. Analyze quantitative and qualitative data using biostatistics, informatics, computer-based programming and software, as appropriate
4. Interpret results of data analysis for public health research, policy or practice

Planning & Management to Promote Health

1. Assess population needs, assets and capacities that affect communities' health
2. Apply awareness of cultural values and practices to the design or implementation of public health policies or programs
3. Design a population-based policy, program, project or intervention
4. Explain basic principles and tools of budget and resource management
5. Select methods to evaluate public health programs

2. Assessment Methods: Student Artifacts

Which student artifacts were used to determine if students achieved this outcome? Please identify the course(s) in which these artifacts were collected. Clarify if any such courses were offered a) online, b) at the Madrid campus, or c) at any other off-campus location.

DIRECT Measures:

1. **Capstone projects** from the two in-person sections of the course – Epidemiology/Biostatistics and Behavioral Sciences/Global Health/Maternal Child Health/Professional Practice – were reviewed against the learning outcomes under the selected categories – Evidence-Based Approaches to Public Health and Planning & Management to Promote Health

2. **Preceptor evaluations** from internships of students across all concentrations assessed students' mastery of program learning outcomes

3. **Certified in Public Health (CPH) exam** is typically used as an external national benchmark for overall mastery of program learning outcomes; however, May and August 2020 graduates were exempted from the CPH exam requirement this year due to the COVID-19 pandemic and resulting stay-at-home orders.

INDIRECT Measures:

1. **Exit survey data** from May and August 2020 graduating students provided students' self-assessment of their mastery of each of the MPH program learning outcomes

Madrid student artifacts are not applicable to MPH program, nor are any other off-campus location.

3. Assessment Methods: Evaluation Process

What process was used to evaluate the student artifacts, and by whom? Please identify the tools(s) (e.g., a rubric) used in the process and include them in/with this report.

DIRECT Measures:

1. **Capstone projects** were reviewed using the same rubric as last year, updated with the new CEPH-mandated competencies. The rubric was originally developed based on the existing MSPH program assessment. Two of our 3 sections of capstone (the 2 in-person sections) were selected for review this year because they included six of our eight concentrations, including a couple that hadn't been reviewed for several years. The review of capstone projects focused on the MPH Program Learning Outcomes in the categories selected for this year's assessment – Evidence-Based Approaches to Public Health and Planning & Management to Promote Health. Per CEPH requirements for the capstone, students are supposed to identify a small number of the core competencies (learning outcomes) to integrate with a few concentration competencies in their capstone projects.

2. **Preceptor evaluations** were analyzed in Qualtrics and Excel to characterize the percentage of students assessed by their internship preceptors to show mastery of each program learning outcome. Preceptor evaluations from students completing internship during Summer 2019, Fall 2019, and Spring 2020 were analyzed. Students completing internship in Summer 2019 were a mix of 2019 and 2020 graduates. The preceptor evaluation form contained the MPH competencies for the 2019 graduates, prior to the shift to the new CEPH-mandated core competencies. While the wording of the previous competencies differs from the current ones, many of the concepts from the previous competencies align with the *Evidence-Based Approaches to Public Health* and *Planning & Management to Promote* Health categories being assessed this year. The form has since been updated with the new competencies, so we will report on those competencies from preceptor evaluations in our AY2020-2021 program assessment.

3. **Certified in Public Health (CPH) exam:** N/A

INDIRECT Measures:

1. **Exit survey data** from May and August 2020 graduating students were analyzed in Qualtrics, Excel, and SPSS to characterize the percentage of students reporting mastery of each program learning outcome

Analysis of all data was conducted by the MPH Program (Anne Sebert Kuhlmann, MPH Program Director; Allese McVay, MPH Program Coordinator; and Laura Schrubb, MPH Internship Coordinator).

4. Data/Results

What were the results of the assessment of the learning outcomes? Please be specific. Does achievement differ by teaching modality (e.g., online vs. face-to-face) or on-ground location (e.g., STL campus, Madrid campus, other off-campus site)?

DIRECT Measures:

1. **Capstone projects:** Seventeen capstone projects were reviewed – four from the section with students in the epidemiology and biostatistics concentrations and thirteen from the section with students from behavioral sciences, global health, maternal child health, and professional practice concentrations. The four projects from the first section were all draft manuscripts for journal articles reporting analyses of large-scale epidemiological dataset. These projects all demonstrated mastery of the four competencies under Evidence-Based Approaches to Public Health; however, none of them were designed to demonstrate any of the competencies under Planning and Management to Promote Health. The thirteen projects from the second section were a mix of grant proposals, draft manuscripts, survey designs, and intervention development – all of which were appropriate for students in these concentrations to show the integration of their core competencies with a range of concentration competencies. This diversity meant, however, tremendous variability in which competencies the individual projects were designed to demonstrate. All thirteen demonstrated ability to select appropriate quantitative and qualitative data collection methods, as well as demonstrated ability to interpret results of data analysis for public health research, policy or practice under Evidence-Based Approaches to Public Health. Twelve of the thirteen demonstrated ability to assess population needs, assets, and capacities under Planning and Management to Promote Health. Only three of the projects were designed to demonstrate competency related to applying budget and management tools. (Appendices A)

2. **Preceptor evaluations:** Thirty-seven preceptor evaluation forms from student internships were completed during Summer 2019, Fall 2019, and Spring 2020. Overall, the evaluations indicate strong mastery across all competencies for a large percentage of students. The "unable to assess" percentages on the part of the preceptors are to be expected given that not every internship project will require students to demonstrate all competencies. This is particularly relevant for MPH 1 which represents foundational knowledge important for the discipline of public health but would be less likely to be the focus of an internship. (Appendix B)

MPH 1: Explain the organizational structure, financing, politics, and history of the public health and medical care systems.

- 48.65% significant or above average competency; 18.92% moderate or average competency; 32.43% unable to assess

MPH 2: Recognize the ecological nature of determinants of health that include biological, behavioral, social, environmental, economic, and political factors.

- 67.57% significant or above average competency; 21.62% moderate or average competency; 10.81% unable to assess

MPH 3: Describe the approaches to disease prevention and control using tools from the five core areas of public health: behavioral science, biostatistics, environmental health, epidemiology, and health management and policy.

- 59.46% significant or above average competency; 21.62% moderate or average competency; 16.22% unable to assess

MPH 4: Participate in multidisciplinary partnerships and coalitions as both a leader and participant.

- 59.46% significant or above average competency; 27.03% moderate or average competency; 10.81% unable to assess

MPH 5: Appropriately utilize qualitative and quantitative data in order to effectively address public health problems.

- 83.78% significant or above average competency; 13.51% moderate or average competency; 0.00% unable to assess

MPH 6: Use an evidence-based approach for the development of public health programs and policies.

- 64.86% significant or above average competency; 24.32% moderate or average competency; 10.81% unable to assess

MPH 7: Utilize appropriate communication strategies to educate, disseminate, and advocate for health services and preventive interventions.

- 62.16% significant or above average competency; 21.62% moderate or average competency; 13.51% unable to assess

MPH 8: Apply principles of management in program, organizational, and community initiatives.

- 51.35% significant or above average competency; 18.92% moderate or average competency; 29.73% unable to assess

MPH 9: Apply principles of ethical reasoning, human rights, and cultural competence when working with and in organizations and communities.

- 56.76% significant or above average competency; 13.51% moderate or average competency; 24.32% unable to assess

3. **Certified in Public Health (CPH) exam:** N/A

INDIRECT Measures:

1. **Exit survey data:**

Thirty-five of our 60 graduating students completed the exit survey (58.3% response rate). This is a lower response rate than last year despite having sent out more reminders. Some of this dip in response rate may have been a result of the COVID-19 situation in that students were receiving lots of requests for information and feedback from courses, the program, the College, and the University overall. We will work to boost our response rate next year with a goal of having >90% of graduating students respond. Of the 31 students who completed the self-assessment of their program learning outcomes in the two categories, over 70% of the students rated themselves as above average proficiency or very proficient in 3 of the 4 learning outcomes under the *Evidence-Based Approaches to Public Health* category. Analyzing quantitative and qualitative data had 51.6% of the students rate themselves as above average or very proficient. While "analyzing" is a higher-order learning outcome than the other outcomes in this category (applying, selecting, and interpreting), this response from our students suggests a need to revisit the content of our core courses focused in this area – PUBH 5030: Methodological Approaches to Public Health Data and PUBH 5040: Generating Evidence from Public Health Data. Under *Planning & Management to Promote Health*, over 70% of the students rated themselves as above average proficiency or very proficient for 3 of the 5 learning outcomes. Selecting methods to evaluate public health programs had 61.3% of the students rate themselves as above average or very proficient. The learning outcome with the lowest self-assessment was explaining principles and tools of budget and management where only 32.2% of students rated themselves as above average or very proficient. To address this, a small group of faculty are reviewing the syllabus and assignments in PUBH 5050: Health Care across the Life Course, from Policy to Practice this summer. We expect that some revisions in this course will help solidify our students' proficiency in budgeting and management. We are also looking at where else in the curriculum we can incorporate aspects of budgeting and management. As these May and August 2020 graduates are our first graduating cohort under the new CEPH core competencies and revised MPH curriculum, we are not yet able to compare these ratings across years. (Appendix C)

5. Findings: Interpretations & Conclusions

What have you learned from these results? What does the data tell you?

The capstone projects were very strong in the learning outcomes that they focused on, but, appropriately, not all capstone projects focused all of learning outcomes in the categories reviewed in this year's program assessment. With 22 new CEPH-mandated core competencies, it would be impossible for any single capstone project to demonstrate mastery of all the competencies. Furthermore, CEPH guidance indicates that capstones should be an integration of students' core knowledge into their concentration knowledge. The capstone artifacts assessed here reflect that integration; however, our annual MPH program assessment focuses exclusively on the core competencies that apply regardless of concentration. Therefore, we need to revisit our rubric for assessing capstone projects as part of the annual program assessment and consider how to better align the SLU annual assessment requirements with our CEPH accreditation compliance and reporting requirements.

There is convergence between several of our data sources. For example, the competency in which the preceptor evaluations rated our students the strongest – appropriately utilize qualitative and quantitative data in order to

effectively address public health problems – is most similar to the new CEPH-mandated competency – interpret results of data analysis – on which 70.9% of the students self-assessed themselves as above average or very proficient. All of the capstone projects reviewed also demonstrated ability to interpret results of data analysis. These data suggest that interpretation of data analysis, an important competency for public health professionals, is a strength of our program. Likewise, one of the lowest rated competencies from the preceptor evaluations – apply principles of management in program, organizational, and community initiatives – is similar to the new CEPH-mandated competency on which the students self-assessed themselves as the weakest – explaining principles and tools of budget and management. The capstone projects reviewed that addressed budgeting demonstrated command of the competency, but only three projects included this component.

6. Closing the Loop: Dissemination and Use of Current Assessment Findings

A. When and how did your program faculty share and discuss these results and findings from this cycle of assessment?

Results from the annual program assessment will be shared with the MPH Steering Committee, which consists of faculty representatives from all concentrations in the MPH program, during the first meeting of AY2020-2021 in August 2020. Results will also be shared with the 3 department chairs whose faculty teach and advise in the MPH program so that they can share and discuss the results in their monthly faculty meetings.

B. How specifically have you decided to use findings to improve teaching and learning in your program? For example, perhaps you've initiated one or more of the following:

Changes to the Curriculum or Pedagogies	• Course content • Teaching techniques • Improvements in technology • Prerequisites	• Course sequence • New courses • Deletion of courses • Changes in frequency or scheduling of course offerings
Changes to the Assessment Plan	• Student learning outcomes • Student artifacts collected • Evaluation process	• Evaluation tools (e.g., rubrics) • Data collection methods • Frequency of data collection

Please describe the actions you are taking as a result of the findings.

Our May and August 2020 graduates were the first to graduate under the revised MPH curriculum designed to meet the new CEPH accreditation standards. Given the disruption to their education due to the COVID-19 pandemic during their final semester(s) in the program, we will need additional years of assessment data to help us understand how effective the revised curriculum has been and where there are weaknesses that may need to be tweaked to improve program learning outcomes.

We have updated the preceptor evaluation form for student internships to incorporate the new CEPH core competencies and the revised concentration competencies. Under the new CEPH guidelines, students must identify at least 3 core competencies and at least 2 concentration competencies that they anticipate further enhancing during their internship experience. Students rate themselves on these selected competencies before and after internship. The updated preceptor evaluation form now asks preceptors to rate the student's mastery of these same selected competencies, which we will use as part of our program assessment data going forward.

A small group of faculty is working over the summer to review and revise our PUBH 5050 course which maps to the students' lowest self-assessment of competency proficiency in the exit survey, budgeting and management tools. We will also look at where else in our curriculum we can incorporate aspects of budgeting and management.

The MPH faculty will need to decide next academic year, AY2020-2021, whether the graduating students will be required to take the CPH exam, depending on the situation with the COVID-19 pandemic. If the faculty decide to exempt the exam requirement for a 2nd year in a row due to the pandemic, then we may need to

consider an alternative mechanism for data collection and evaluation to replace the CPH exam results in our annual program assessment.

If no changes are being made, please explain why.

7. Closing the Loop: Review of Previous Assessment Findings and Changes

A. What is at least one change your program has implemented in recent years as a result of assessment data?

The MPH program has undergone a tremendous amount of change in recent years as we revised our core curriculum and adopted the new CEPH-mandated core competencies. This year's graduating cohort was the first to complete our MPH program under these revisions. In addition, the cohort suffered through the mid-semester changes in instructional modality forced by the rise of the COVID-19 pandemic in Spring 2020. These changes dramatically affected two of our four measures for assessment – the capstone projects completed during their last semester in the program (Spring 2020) and the national CPH exam requirement that we waived, as well as likely had an effect on our exit survey response rate. Therefore, it is difficult to compare this year's assessment data for the MPH program from previous years' data.

Based on last year's data, we noted that student mastery of one former competency, MPH 8: Apply principles of management in program, organizational, and community initiatives, appeared lower than our other core competencies. We introduced a new course this year in our revised curriculum, PUBH 5050: Health Care across the Life Course, that was mapped to similar concepts. We anticipated that this new course would help boost our students' competency in this area. However, our assessment data from this year show that we still need to work to enhance our students' mastery of the new CEPH-mandated competency, explain basic principles and tools of budget and resource management, most closely aligned to this former competency.

B. How has this change/have these changes been assessed?

This competency is assessed both through preceptor evaluation forms and student exit survey data. We waived the national CPH exam requirement for our May and August 2020 graduating students due to the COVID-19 pandemic which typically provides another data point in our annual assessment.

C. What were the findings of the assessment?

Data from the preceptor evaluations and the student exit survey data converged. One of the lowest rated competencies from the preceptor evaluations – apply principles of management in program, organizational, and community initiatives – is similar to the new CEPH-mandated competency on which the students self-assessed themselves as the weakest – explaining principles and tools of budget and management. Our assessment data from this year show that we still need to work to enhance our students' mastery of this competency.

D. How do you plan to (continue to) use this information moving forward?

A small group of faculty is working over the summer to review and revise our PUBH 5050 course which maps to the students' lowest self-assessment of competency proficiency in the exit survey, budgeting and management tools. In future years, we will assess how students perform on the national CPH exam in the Planning & Management to Promote Health. We will also look at where else in our curriculum we can incorporate aspects of budgeting and management.

IMPORTANT: Please submit any assessment tools and/or revised/updated assessment plans along with this report.

Appendix A;
Assessment Rubric for MPH Capstones (Behavioral Sciences, Global Health, Maternal Child Health, Professional Practice, SP20, n=13 [part I, n=6 of 13])

Learning Outcomes	LO Assessed by this Capstone (Yes/No)*	Capstone Demonstrates Achievement of Competency (Addressing anxiety…)	Capstone Demonstrates Achievement of Competency (Caregivers of down syndrome…)	Capstone Demonstrates Achievement of Competency (Resilience of mothers…)	Capstone Demonstrates Achievement of Competency (Breast cancer screening…)	Capstone Demonstrates Achievement of Competency (Improving infant health…)	Capstone Demonstrates Achievement of Competency (Opioid knowledge …)	Overall
Evidence-Based Approaches to Public Health								
1. Apply epidemiological methods to the breadth of settings and situations in public health practice	Yes	N/A	Limited	Yes	Limited	Limited	Yes	Mixed
2. Select quantitative and qualitative data collection methods appropriate for a given public health context	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
3. Analyze quantitative & qualitative data using biostatistics, informatics, computer-based programming & software, as appropriate	Variable	Yes	Limited	Yes	Limited	N/A	Yes	Yes
4. Interpret results of data analysis for public health research, policy or practice	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Planning & Management to Promote Health								
1. Assess population needs, assets & capacities that affect communities' health	Yes	Yes	Yes	Yes	Limited	Yes	Yes	Yes
2. Apply awareness of cultural values & practices to the design or implementation of public health policies or programs	Variable	N/A	N/A	N/A	Yes	Yes	Yes	Yes
3. Design a population-based policy, program, project or intervention	Variable	Yes	N/A	N/A	Yes	Yes	N/A	Yes

Appendix A;
Assessment Rubric for MPH Capstones (Behavioral Sciences, Global Health, Maternal Child Health, Professional Practice, SP20, n=13 [part I, n=6 of 13])

4. Explain basic principles and tools of budget and resource management	Variable	N/A	N/A	N/A	N/A	Yes	N/A	Yes
5. Select methods to evaluate public health programs	Variable	Limited	N/A	N/A	Yes	Yes	N/A	Yes

*Capstones were individualized projects designed to enhance students' mastery of multiple core competencies with several concentration-specific competencies. Because they were individualized projects, they were each designed to address a slightly different set of competencies, hence the "variable" response in this column.

Appendix A;
Assessment Rubric for MPH Capstones (Behavioral Sciences, Global Health, Maternal Child Health, Professional Practice, SP20, n=13 [part II, n=7 of 13])

Learning Outcomes	LO Assessed by this Capstone (Yes/No)*	Capstone Demonstrates Achievement of Competency (Eating disorder treatment…)	Capstone Demonstrates Achievement of Competency (Yoga & mindfulness…)	Capstone Demonstrates Achievement of Competency (Food pantry surveys …)	Capstone Demonstrates Achievement of Competency (Law enforcement suicide…)	Capstone Demonstrates Achievement of Competency (Solar water disinfection…)	Capstone Demonstrates Achievement of Competency (Sexy fitness…)	Capstone Demonstrates Achievement of Competency (Improved health outcomes…)	Overall
Evidence-Based Approaches to Public Health									
1. Apply epidemiological methods to the breadth of settings and situations in public health practice	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
2. Select quantitative and qualitative data collection methods appropriate for a given public health context	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes	Yes
3. Analyze quantitative & qualitative data using biostatistics, informatics, computer-based programming & software, as appropriate	Variable	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
4. Interpret results of data analysis for public health research, policy or practice	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes
Planning & Management to Promote Health									
1. Assess population needs, assets & capacities that affect communities' health	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Appendix A;
Assessment Rubric for MPH Capstones (Behavioral Sciences, Global Health, Maternal Child Health, Professional Practice, SP20, n=13 [part II, n=7 of 13])

2.	Apply awareness of cultural values & practices to the design or implementation of public health policies or programs	Variable	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
3.	Design a population-based policy, program, project or intervention	Variable	Yes	Yes	N/A	Yes	Yes	Yes	Yes	Yes
4.	Explain basic principles and tools of budget and resource management	Variable	N/A	Yes	N/A	N/A	N/A	N/A	Yes	Yes
5.	Select methods to evaluate public health programs	Variable	N/A	Yes	Yes	N/A	N/A	Yes	Limited	Mixed

*Capstone projects were individualized projects designed to enhance students' mastery of multiple core competencies along with several concentration-specific competencies. Because they were individualized projects, they were each designed to address a slightly different set of competencies, hence the "variable" response in this column. No single capstone project would address all of competencies/learning outcomes under the two categories being assessed this year.

Appendix A;
Assessment Rubric for MPH Capstones (Epidemiology/Biostatistics, SP20, n=4)

Learning Outcomes	LO Assessed by this Capstone (Yes/No)	Capstone Demonstrates Achievement of Competency (Hourly Air Pollution…)	Capstone Demonstrates Achievement of Competency (CAUTI Performance…)	Capstone Demonstrates Achievement of Competency (Ambient $PM_{2.5}$ Pollution…)	Capstone Demonstrates Achievement of Competency (ACA …)	Overall
Evidence-Based Approaches to Public Health						
1. Apply epidemiological methods to the breadth of settings and situations in public health practice	Yes	Yes	Yes	Yes	Yes	Yes
2. Select quantitative and qualitative data collection methods appropriate for a given public health context	Yes	Yes	Yes	Yes	Yes	Yes
3. Analyze quantitative and qualitative data using biostatistics, informatics, computer-based programming and software, as appropriate	Yes	Yes	Yes	Yes	Yes	Yes
4. Interpret results of data analysis for public health research, policy or practice	Yes	Yes	Yes	Yes	Yes	Yes
Planning & Management to Promote Health						
1. Assess population needs, assets and capacities that affect communities' health	No	-	-	-	-	N/A
2. Apply awareness of cultural values and practices to the design or implementation of public health policies or programs	No	-	-	-	-	N/A
3. Design a population-based policy, program, project or intervention	No	-	-	-	-	N/A

4. Explain basic principles and tools of budget and resource management	No	-	-	-	-	N/A
5. Select methods to evaluate public health programs	No	-	-	-	-	N/A

#	Question	Significant or above average competence		Moderate or average competence		Limited or no competence		Unable to assess		Total
1	MPH 1: Explain the organizational structure, financing, politics, and history of the public health and medical care systems.	48.65%	18	18.92%	7	0.00%	0	32.43%	12	37
2	MPH 2: Recognize the ecological nature of determinants of health that include biological, behavioral, social, environmental, economic, and political factors.	67.57%	25	21.62%	8	0.00%	0	10.81%	4	37
3	MPH 3: Describe the approaches to disease prevention and control using tools from the five core areas of public health: behavioral science, biostatistics, environmental health, epidemiology, and health management and policy.	59.46%	22	21.62%	8	2.70%	1	16.22%	6	37
4	MPH 4: Participate in multidisciplinary partnerships and coalitions as both a leader and participant.	59.46%	22	27.03%	10	2.70%	1	10.81%	4	37
5	MPH 5: Appropriately utilize qualitative and quantitative data in order to effectively address public health problems.	83.78%	31	13.51%	5	2.70%	1	0.00%	0	37
6	MPH 6: Use an evidence-based approach for the development of public health programs and policies.	64.86%	24	24.32%	9	0.00%	0	10.81%	4	37
7	MPH 7: Utilize appropriate communication strategies to educate, disseminate, and advocate for health services and preventive interventions.	62.16%	23	21.62%	8	2.70%	1	13.51%	5	37
8	MPH 8: Apply principles of management in program, organizational, and community initiatives.	51.35%	19	18.92%	7	0.00%	0	29.73%	11	37
9	MPH 9: Apply principles of ethical reasoning, human rights, and cultural competence when working with and in organizations and communities.	56.76%	21	13.51%	5	5.41%	2	24.32%	9	37

MPH Exit Survey, self-assessment of competencies – May & August 2020 Graduates
Evidence-Based Approaches to Public Health and Planning & Management to Promote Health

Evidence-based Approaches to Public Health - Apply epidemiological methods to the breadth of settings and situations in public health practice

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Somewhat proficient	4	11.4	12.9	12.9
	Proficient	4	11.4	12.9	25.8
	Above Average Proficiency	10	28.6	32.3	58.1
	Very Proficient	13	37.1	41.9	100.0
	Total	31	88.6	100.0	
Missing	System	4	11.4		
Total		35	100.0		

Evidence-based Approaches to Public Health - Select quantitative and qualitative data collection methods appropriate for a given public health context

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Somewhat proficient	1	2.9	3.2	3.2
	Proficient	5	14.3	16.1	19.4
	Above Average Proficiency	14	40.0	45.2	64.5
	Very Proficient	11	31.4	35.5	100.0
	Total	31	88.6	100.0	
Missing	System	4	11.4		
Total		35	100.0		

Evidence-based Approaches to Public Health - Analyze quantitative and qualitative data using biostatistics, informatics, computer-based programming and software, as appropriate

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all proficient	3	8.6	9.7	9.7
	Somewhat proficient	5	14.3	16.1	25.8
	Proficient	7	20.0	22.6	48.4
	Above Average Proficiency	9	25.7	29.0	77.4
	Very Proficient	7	20.0	22.6	100.0
	Total	31	88.6	100.0	
Missing	System	4	11.4		
Total		35	100.0		

MPH Exit Survey, self-assessment of competencies – May & August 2020 Graduates
Evidence-Based Approaches to Public Health and Planning & Management to Promote Health

Evidence-based Approaches to Public Health - Interpret results of data analysis for public health research, policy or practice

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all proficient	1	2.9	3.2	3.2
	Somewhat proficient	3	8.6	9.7	12.9
	Proficient	5	14.3	16.1	29.0
	Above Average Proficiency	9	25.7	29.0	58.1
	Very Proficient	13	37.1	41.9	100.0
	Total	31	88.6	100.0	
Missing	System	4	11.4		
Total		35	100.0		

Planning and Management to Promote Health - Assess population needs, assets and capacities that affect communities' health

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Somewhat proficient	3	8.6	9.7	9.7
	Proficient	5	14.3	16.1	25.8
	Above Average Proficiency	8	22.9	25.8	51.6
	Very Proficient	15	42.9	48.4	100.0
	Total	31	88.6	100.0	
Missing	System	4	11.4		
Total		35	100.0		

Planning and Management to Promote Health - Apply awareness of cultural values and practices to the design or implementation of public health policies or programs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Somewhat proficient	2	5.7	6.5	6.5
	Proficient	5	14.3	16.1	22.6
	Above Average Proficiency	7	20.0	22.6	45.2
	Very Proficient	17	48.6	54.8	100.0
	Total	31	88.6	100.0	
Missing	System	4	11.4		
Total		35	100.0		

MPH Exit Survey, self-assessment of competencies – May & August 2020 Graduates
Evidence-Based Approaches to Public Health and Planning & Management to Promote Health

Planning and Management to Promote Health - Design a population-based policy, program, project or intervention

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Somewhat proficient	4	11.4	12.9	12.9
	Proficient	5	14.3	16.1	29.0
	Above Average Proficiency	11	31.4	35.5	64.5
	Very Proficient	11	31.4	35.5	100.0
	Total	31	88.6	100.0	
Missing	System	4	11.4		
Total		35	100.0		

Planning and Management to Promote Health - Explain basic principles and tools of budget and resource management

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all proficient	2	5.7	6.5	6.5
	Somewhat proficient	9	25.7	29.0	35.5
	Proficient	10	28.6	32.3	67.7
	Above Average Proficiency	5	14.3	16.1	83.9
	Very Proficient	5	14.3	16.1	100.0
	Total	31	88.6	100.0	
Missing	System	4	11.4		
Total		35	100.0		

Planning and Management to Promote Health - Select methods to evaluate public health programs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all proficient	1	2.9	3.2	3.2
	Somewhat proficient	2	5.7	6.5	9.7
	Proficient	9	25.7	29.0	38.7
	Above Average Proficiency	10	28.6	32.3	71.0
	Very Proficient	9	25.7	29.0	100.0
	Total	31	88.6	100.0	
Missing	System	4	11.4		
Total		35	100.0		