

## Program Assessment: *Annual Report*

**Program(s):** 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)

**College/School:** College for Public Health & Social Justice (CPHSJ)

**Date:** June 29, 2018

**Primary Assessment Contact:** Anne Sebert Kuhlmann, PhD, MPH, Associate Professor & MPH Program Director, [anne.sebertkuhlmann@slu.edu](mailto:anne.sebertkuhlmann@slu.edu), 314-977-4029

1. Which program student learning outcomes were assessed in this annual assessment cycle?

All 9 of the MPH Program Learning Outcomes were assessed via 3 of our 4 measures – preceptor evaluations, CPH exam, and exit survey data. One measure (the review of capstone projects from selected concentrations) focused only on learning outcomes MPH 2, MPH 3, MPH 5, MPH 6, and MPH 7.

### MPH Program Learning Outcomes

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

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

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

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

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

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

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

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

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

2. What data/artifacts of student learning were collected for each assessed outcome? Were Madrid student artifacts included?

DIRECT Measures:

1. **Capstone projects** from two concentrations – Biosecurity Disaster Preparedness and Biostatistics – were reviewed against the selected learning outcomes
2. **Preceptor evaluations** from internships assessed students’ mastery of program learning outcomes
3. **Certified in Public Health (CPH) exam** will be an external national benchmark for overall mastery of program learning outcomes once the national pass rate information is released

INDIRECT Measures:

1. **Exit survey data** from 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.

3. How did you analyze the assessment data? What was the process? Who was involved?

*NOTE: If you used rubrics as part of your analysis, please include them in an appendix.*

DIRECT Measures:

1. **Capstone projects** were reviewed using a rubric modified from the MSPH program assessment. Two of our 8 concentrations were selected for review this year (different from the 3 concentrations reviewed last year). The review of capstone projects focused on the MPH Program Learning Outcomes identified as for the program in our capstones (MPH 2, MPH 3, MPH 5, & MPH 7).
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
3. **Certified in Public Health (CPH) exam** pass rate was compared to our previous pass rates and will be compared to the national pass rate when that information becomes available

INDIRECT Measures:

1. **Exit survey data** from 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 Jackie Bernstein, MPH Internship Coordinator). This Program Assessment report will be shared with the MPH Steering Committee which has faculty representatives from all the MPH concentrations during Fall 2019.

4. What did you learn from the data? Summarize the major findings of your analysis for each assessed outcome.

*NOTE: If necessary, include any tables, charts, or graphs in an appendix.*

DIRECT Measures:

1. **Capstone projects:** Overall, the capstone projects showed evidence of student mastery of 3 of the 4 program learning outcomes identified in the syllabus as being addressed in the capstone courses. One of the learning outcomes (MPH 3 Describe the approaches to disease prevention & control using tools from the 5 core areas of public health...) may have been addressed in the courses, but evidence of these learning outcomes was not explicitly apparent in the final capstone projects reviewed. As a program, we may need to do a better job ensuring that our students are

explicitly tying their work back to approaches of disease prevention and control, not merely identifying and describing what the issues are. Capstone projects are good assessment tools for some, but not all, of the program learning outcomes.

**2. Preceptor evaluations:** We received 47 preceptor responses of 101 students registered (46.5% response rate). [NOTE: Some students register across multiple semesters in order to complete all internship but only receive 1 preceptor evaluation.] Over 60% of the preceptors who responded rated our students as having significant or above average mastery for 7 out of our 9 program learning outcomes. For the one program learning outcomes where less than 60% of preceptors rated our students as having significant or above average mastery (MPH 1 Explain organizational structure ... and MPH 8 Apply principles of management ...), 32 % and 26%, respectively, said they were unable to assess the student on that outcome. We will be monitoring the preceptors' ability to assess our students on the new MPH core competencies as we adjust our curriculum and consider additional or different direct measures of competencies as appropriate.

**3. Certified in Public Health (CPH) exam:** NOTE: The content of the CPH exam to match the new CEPH accreditation competencies shifted in January 2019 despite the fact that CEPH did not require programs to implement a new curriculum until the entering cohort of Fall 2018; these students will not be eligible for the CPH exam until Spring 2020. This means that our students taking the CPH in April 2019 studied under a curriculum that was a slight mismatch to the exam competencies. Our graduating MPH students had a 90% pass rate on the CPH exam in April 2019. This is somewhat lower than previous years, a dip which is likely due to the shift in CPH exam content prior to the corresponding curriculum adjustment. We expect that next year our pass rate will return to its historically high-level when the students taking the exam will have completed their entire degree program under the new curriculum. CPH has not yet released the national pass rate for the new version of the exam. Therefore, we are unable to use the national pass rate as an external benchmark at this time. We do, however, anticipate that our pass rate will be significantly higher than the national pass rate once the data are released. This suggests that, relative to this national benchmark, our program is successful in achieving our program learning outcomes and preparing our students for their future careers. The lowest institutional average scores were in the areas of Collaboration & Partnership, Policy in Public Health, and Public Health Biology & Human Disease Risk. These areas are the foci of some of the new or revised courses being launched with the new curriculum that started with the FL18 incoming cohort. Therefore, we will keep an eye on these courses and make revisions to them as necessary.

INDIRECT Measures:

**1. Exit survey data from graduating students:** Fifty-one of our sixty-seven graduating students completed the survey (76.1% response rate). We managed to increase our Exit Survey response rate this year (up from 43.5% last year) by sending it out earlier and with more reminders. We will continue to work on increasing our response rate next year with a goal of having >90% of graduating students respond. Of the 48 students who completed the self-assessment of their competencies, over 90% of students either somewhat or strongly agreed that they had mastered the competency for 7 of the 9 program learning outcomes. For the other two, 79% somewhat or strongly agreed for MPH 1 Explain organizational structure, financing, politics, and history of public health and medical systems ... and 81% somewhat or strongly agreed for MPH 8 Apply principles of management in program, organizational, and communitive initiatives. Interestingly, MPH 2 Recognize the ecological nature of determinants of health was the competency where our students rated themselves lowest last year but highest this year. MPH 8 was consistently low both years, highlighting a need to pay particular attention to this area. The revamped curriculum includes a new course, PUBH 5050 Health Care across the Life Course, that should help address this perceived weakness by our students. Our competencies changed with the FL18 incoming cohort per our CEPH accreditation standards, but we will keep an eye on new competencies around organizational structure and around management in our new curriculum.

5. How did your analysis inform meaningful change? How did you *use the analyzed data to make or implement recommendations for change* in pedagogy, curriculum design, or your assessment plan?

Our CEPH accreditation standards changed with the FL18 incoming cohort, including both the program competencies or learning outcomes and the curriculum. Previously, CEPH did not dictate program learning outcomes and let programs establish their own. CEPH now dictates 22 foundational competencies that we must assess of students individually on an annual basis. The MPH Program has spent much of this past academic year rolling out our new curriculum. This next year, we will focus on the corresponding assessment plan to meet these new accreditation standards as AY 2019-2020 begins our first of three years of self-study for our next accreditation cycle. Two courses, PUBH 5050 Health Care across the Life Course and PUBH 5960 Integrated Capstone will be offered for the first time during the AY19-20. In addition to the specific assessments within the curriculum, we will continue to monitor preceptor evaluations, CPH exam results, and student exit survey data as these provide summary evidence of our success in meeting our program learning outcomes overall. Given how the MPH core competencies required assessments have changed based on changes in our CEPH accreditation requirements, we may need to adjust our program assessment plan in the coming year.

6. Did you follow up (“close the loop”) on past assessment work? If so, what did you learn? *(For example, has that curriculum change you made two years ago manifested in improved student learning today, as evidenced in your recent assessment data and analysis?)*

We are continuing to revise our program assessment plan based on the feedback received in the evaluation rubric last year and from our accrediting body, CEPH. In order to comply with the new CEPH criteria, we revamped our curriculum for the FL18 incoming curriculum. We are asking faculty that teach different sections of the same course to meet together to discuss inconsistencies and share strategies. Some courses will be taught for the first time during AY19-20 as they are intended for 2<sup>nd</sup> year students. We will convene a working group in FL19 of all faculty teaching sections of PUBH 5960 Integrated Capstone in SP20 to help ensure more consistency across sections and that all sections utilize projects that allow us to assess the integration of core competencies with concentration competencies, as prescribed by our accrediting body. We will continue to monitor all of our courses as well as both the direct and indirect measures of assessment that we have identified.

***IMPORTANT: Please submit any revised/updated assessment plans to the University Assessment Coordinator along with this report.***

**Appendix A;  
Assessment Rubric for MPH Capstones (Biosecurity & Disaster Preparedness, SP19, n=6)**

<b>Learning Outcomes</b>	<b>LO Assessed by this Capstone (Yes/No)</b>	<b>Capstone Demonstrates Achievement of Competency (Personal Disaster Preparedness ...)</b>	<b>Capstone Demonstrates Achievement of Competency (Trend Analysis...)</b>	<b>Capstone Demonstrates Achievement of Competency (Colorectal SSI Prevention...)</b>	<b>Capstone Demonstrates Achievement of Competency (Quarantine ...)</b>	<b>Capstone Demonstrates Achievement of Competency (Hospital Preparedness ...)</b>	<b>Capstone Demonstrates Achievement of Competency (Hospital Pharmaceutical ...)</b>	<b>Overall</b>
<i>MPH 1: Explain the organizational structure, financing, politics, &amp; history of the public health &amp; medical care systems</i>	No	-	-	-	-	-	-	N/A
<i>MPH 2: Recognize the ecological nature of determinants of health that include biological, behavioral, social, environmental, economic, &amp; political factors</i>	Yes	Limited	Yes	Yes	Yes	Yes	Yes	Yes
<i>MPH 3: Describe the approaches to disease prevention &amp; control using tools from the five core areas of public health: behavioral science, biostatistics, environmental health, epidemiology, &amp; health management &amp; policy</i>	Yes	Limited	Limited	Yes	Limited	Limited	Limited	Limited

<i>MPH 4: Participate in multidisciplinary partnerships &amp; coalitions as both a leader &amp; participant</i>	No	Group work only	Group work only	Group work only	Group work only	Group work only	Group work only	N/A
<i>MPH 5: Appropriately utilize qualitative &amp; quantitative data in order to effectively address public health problems</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<i>MPH 6: Use an evidence-based approach for the development of public health programs and policies</i>	No	-	-	-	-	-	-	N/A
<i>MPH 7: Utilize appropriate communication strategies to educate, disseminate, &amp; advocate for health services &amp; preventive interventions</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<i>MPH 8: Apply principles of management in program, organizational, &amp; community initiatives</i>	No	-	-	-	-	-	-	N/A
<i>MPH 9: Apply principles of ethical reasoning, human rights, &amp; cultural competence when working with &amp; in organizations &amp; communities</i>	No	-	-	-	-	-	-	N/A



**Appendix A;  
Assessment Rubric for MPH Capstones (Biostatistics, SP19, n=5)**

<b>Learning Outcomes</b>	<b>LO Assessed by this Capstone (Yes/No)</b>	<b>Capstone Demonstrates Achievement of Competency (Cold Spells &amp; Stroke Mortality...)</b>	<b>Capstone Demonstrates Achievement of Competency (Palliative Care...)</b>	<b>Capstone Demonstrates Achievement of Competency (Air Pollution &amp; Urticaria...)</b>	<b>Capstone Demonstrates Achievement of Competency (Insurance Churn...)</b>	<b>Capstone Demonstrates Achievement of Competency (Paternal Involvement ...)</b>	<b>Overall</b>
<i>MPH 1: Explain the organizational structure, financing, politics, &amp; history of the public health &amp; medical care systems</i>	No	-	-	-	-	-	N/A
<i>MPH 2: Recognize the ecological nature of determinants of health that include biological, behavioral, social, environmental, economic, &amp; political factors</i>	Yes	Limited	Yes	Yes	Yes	Yes	Yes
<i>MPH 3: Describe the approaches to disease prevention &amp; control using tools from the five core areas of public health: behavioral science, biostatistics, environmental health, epidemiology, &amp; health management &amp; policy</i>	Yes	No	No	No	No	No	No
<i>MPH 4: Participate in multidisciplinary partnerships &amp;</i>	No	Group work only	Group work only	Group work only	Group work only	Group work only	N/A



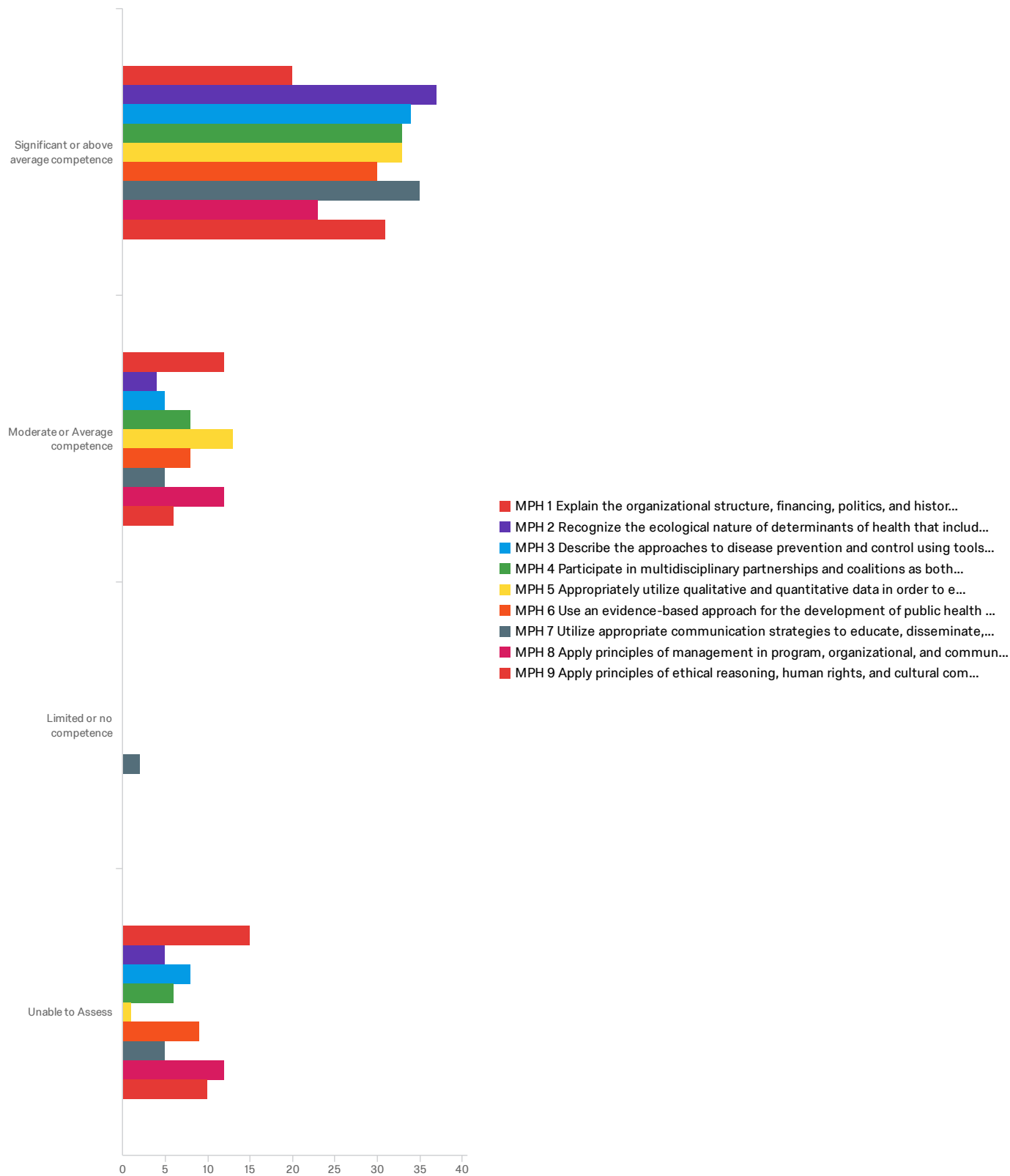
<i>coalitions as both a leader &amp; participant</i>							
<i>MPH 5: Appropriately utilize qualitative &amp; quantitative data in order to effectively address public health problems</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<i>MPH 6: Use an evidence-based approach for the development of public health programs and policies</i>	No	-	-	-	-	-	N/A
<i>MPH 7: Utilize appropriate communication strategies to educate, disseminate, &amp; advocate for health services &amp; preventive interventions</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<i>MPH 8: Apply principles of management in program, organizational, &amp; community initiatives</i>	No	-	-	-	-	-	N/A
<i>MPH 9: Apply principles of ethical reasoning, human rights, &amp; cultural competence when working with &amp; in organizations &amp; communities</i>	No	-	-	-	-	-	N/A

# Default Report

*Preceptor Evaluation of Students - Summer 2018, Fall 2018, Spring 2019*

June 27, 2019 12:01 PM MDT

Q2 - MPH Core Competencies



#	Field	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.	42.55% 20	25.53% 12	0.00% 0	31.91% 15	47

#	Field	Significant or above average competence	Moderate or Average competence	Limited or no competence	Unable to Assess	Total
2	MPH 2 Recognize the ecological nature of determinants of health that include biological, behavioral, social, environmental, economic, and political factors	80.43% 37	8.70% 4	0.00% 0	10.87% 5	46
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	72.34% 34	10.64% 5	0.00% 0	17.02% 8	47
4	MPH 4 Participate in multidisciplinary partnerships and coalitions as both a leader and participant	70.21% 33	17.02% 8	0.00% 0	12.77% 6	47
5	MPH 5 Appropriately utilize qualitative and quantitative data in order to effectively address public health problems	70.21% 33	27.66% 13	0.00% 0	2.13% 1	47
6	MPH 6 Use an evidence-based approach for the development of public health programs and policies	63.83% 30	17.02% 8	0.00% 0	19.15% 9	47
7	MPH 7 Utilize appropriate communication strategies to educate, disseminate, and advocate for health services and preventive interventions	74.47% 35	10.64% 5	4.26% 2	10.64% 5	47
8	MPH 8 Apply principles of management in program, organizational, and community initiatives	48.94% 23	25.53% 12	0.00% 0	25.53% 12	47
9	MPH 9 Apply principles of ethical reasoning, human rights, and cultural competence when working with and in organizations and communities	65.96% 31	12.77% 6	0.00% 0	21.28% 10	47

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**End of Report**

**VII. About the MPH Core Competencies: Please indicate how well you think you have mastered each of the following MPH competencies.**

**I am confident that I can: - (MPH 1) Explain the organizational structure, financing, politics, and history of the public health and medical care systems.**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	1	2.0	2.1	2.1
	Somewhat disagree	7	13.7	14.6	16.7
	Neither agree nor disagree	2	3.9	4.2	20.8
	Somewhat agree	19	37.3	39.6	60.4
	Strongly agree	19	37.3	39.6	100.0
	Total	48	94.1	100.0	
Missing	System	3	5.9		
Total		51	100.0		

**VII. About the MPH Core Competencies: Please indicate how well you think you have mastered each of the following MPH competencies.**

**I am confident that I can: - (MPH 2) Recognize the ecological nature of determinants of health that include biological, behavioral, social, environmental, economic, and political factors.**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	1	2.0	2.1	2.1
	Somewhat agree	10	19.6	20.8	22.9
	Strongly agree	37	72.5	77.1	100.0
	Total	48	94.1	100.0	
Missing	System	3	5.9		
Total		51	100.0		

**VII. About the MPH Core Competencies: Please indicate how well you think you have mastered each of the following MPH competencies.**

**I am confident that I can: - (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.**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	1	2.0	2.1	2.1
	Somewhat disagree	1	2.0	2.1	4.2
	Neither agree nor disagree	2	3.9	4.2	8.3
	Somewhat agree	16	31.4	33.3	41.7
	Strongly agree	28	54.9	58.3	100.0
	Total	48	94.1	100.0	
Missing	System	3	5.9		
Total		51	100.0		

**VII. About the MPH Core Competencies: Please indicate how well you think you have mastered each of the following MPH competencies.**

**I am confident that I can: - (MPH 4) Participate in multidisciplinary partnerships and coalitions as both a leader and participant.**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	2	3.9	4.2	4.2
	Neither agree nor disagree	2	3.9	4.2	8.3
	Somewhat agree	9	17.6	18.8	27.1
	Strongly agree	35	68.6	72.9	100.0
	Total	48	94.1	100.0	
Missing	System	3	5.9		
Total		51	100.0		

**VII. About the MPH Core Competencies: Please indicate how well you think you have mastered each of the following MPH competencies.**

**I am confident that I can: - (MPH 5) Appropriately utilize qualitative and quantitative data in order to effectively address public health problems.**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	1	2.0	2.1	2.1
	Neither agree nor disagree	3	5.9	6.3	8.3
	Somewhat agree	20	39.2	41.7	50.0
	Strongly agree	24	47.1	50.0	100.0
	Total	48	94.1	100.0	
Missing	System	3	5.9		
Total		51	100.0		

**VII. About the MPH Core Competencies: Please indicate how well you think you have mastered each of the following MPH competencies.**

**I am confident that I can: - (MPH 6) Use an evidence-based approach for the development of public health programs and policies.**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	1	2.0	2.1	2.1
	Neither agree nor disagree	3	5.9	6.3	8.3
	Somewhat agree	9	17.6	18.8	27.1
	Strongly agree	35	68.6	72.9	100.0
	Total	48	94.1	100.0	
Missing	System	3	5.9		
Total		51	100.0		

**VII. About the MPH Core Competencies: Please indicate how well you think you have mastered each of the following MPH competencies.**

**I am confident that I can: - (MPH 7) Utilize appropriate communication strategies to educate, disseminate, and advocate for health services and preventive interventions.**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	1	2.0	2.1	2.1
	Somewhat disagree	1	2.0	2.1	4.2
	Neither agree nor disagree	2	3.9	4.2	8.3
	Somewhat agree	13	25.5	27.1	35.4
	Strongly agree	31	60.8	64.6	100.0

	Total	48	94.1	100.0	
Missing	System	3	5.9		
	Total	51	100.0		

**VII. About the MPH Core Competencies: Please indicate how well you think you have mastered each of the following MPH competencies.**

**I am confident that I can: - (MPH 8) Apply principles of management in program, organizational, and community initiatives.**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	3	5.9	6.3	6.3
	Somewhat disagree	3	5.9	6.3	12.5
	Neither agree nor disagree	3	5.9	6.3	18.8
	Somewhat agree	19	37.3	39.6	58.3
	Strongly agree	20	39.2	41.7	100.0
	Total	48	94.1	100.0	
Missing	System	3	5.9		
	Total	51	100.0		

**VII. About the MPH Core Competencies: Please indicate how well you think you have mastered each of the following MPH competencies.**

**I am confident that I can: - (MPH 9) Apply principles of ethical reasoning, human rights, and cultural competence when working with and in organizations and communities.**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	1	2.0	2.1	2.1
	Neither agree nor disagree	2	3.9	4.2	6.3
	Somewhat agree	10	19.6	20.8	27.1
	Strongly agree	35	68.6	72.9	100.0
	Total	48	94.1	100.0	
Missing	System	3	5.9		
	Total	51	100.0		