An Analysis of Public Health Employers Experience with Muskie’s Master of Public Health Students

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An Analysis of Public Health Employers Experience with Muskie’s Master of Public Health Students

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Table of Contents

Introduction .......................................................... 3
Background Literature ........................................... 3
Methods ................................................................ 8
Findings ................................................................. 12
Suggestions & Discussion ....................................... 18
Recommendations for Future Research ................. 20
Conclusion ............................................................. 22
Bibliography ........................................................... 23

Appendices

Appendix 1

*Brief Informant Survey*

Appendix 2

*Key Informant Interview Protocol*
**Introduction**

Master of Public Health (MPH) students at the Muskie School of Public Service have the opportunity to interact and work with public health professionals in Maine throughout the entirety of their degree program. Students work closely with public health professionals in a number of settings including graduate assistantships, research assistantships, field experience placements, capstone projects, and employment. This capstone project presents insights and suggestions collected from key informant interviews with public health professionals and employers in Maine who have worked directly with Muskie MPH students and graduates. The findings from this capstone will be beneficial to the MPH faculty and current and future students at the University of Southern Maine. Faculty will have a better understanding about employers’ experiences with students, strengths of MPH students, and suggested areas of improvement for the MPH program. Current and future Muskie MPH students will have a better grasp on their academic and professional strengths and weaknesses.

**Background Literature**

**Mode of Question Administration**

Strong research methods are critical in order to obtain quality data from the research question, including how the questions are delivered (Bowling, 2005). Common ways of question administration include postal questionnaires, telephone interviews, online surveys, and face-to-face interviews. Response rates vary from less than 20% for postal questionnaires to as great as 90% for some face-to-face surveys (Bowling, 2005; Kelley, Clark, Brown, & Sitzia, 2003; Doyle, 2014).
Response rates depend on various factors including the length and detail of the survey (Kelley et al., 2003).

Postal questionnaires have the benefit of being able to reach a large geographic area, however there is usually no contact between the researcher and the respondent. Face-to-face interviews allow for two-way communication and allow the researcher to carefully select who they sample in order to answer the research question (Kelley et al., 2003). This approach allows the researcher to observe as well as listen and allows for more complex questions to be asked (General Accounting Office, 1991). Face-to-face interviews typically last as long as an hour allowing for many questions to be asked, unlike phone interviews that typically last about 20 to 30 minutes (General Accounting Office, 1991). Research has also shown that face-to-face surveys provide the most representative findings (Szolnoki & Hoffman, 2013).

In addition to the literature pointing to face-to-face interviews as the best mode for survey response rate, the Muskie School’s Master of Public Health (MPH) Advisory Committee recommended in-person interviews when trying to gather important information. The MPH Advisory Committee was created to provide advice and give input to the MPH program and its members represent many sectors of public health in Maine. The consensus from the MPH Advisory Committee was that people receive many online questionnaires, that are often overlooked. The committee members suggested conducting in-person interviews in order to generate a better response rate and higher quality information.
Designing Questions & Determining Question Format

Arguably the most important piece of designing a survey is the creation of questions that accurately depict the respondent’s thoughts on the key questions underlying the inquiries (Pew Research Center, 2017). Questions must be appropriate, relevant, directed at the right individuals, and easily answered by the respondent. To achieve quality data from a survey or interview, questions should avoid requiring the respondent to look up information, and if this is necessary these questions should be asked in a postal questionnaire (General Accounting Office, 1991).

There are a number of ways to format questions, which can affect the respondent’s answer and the way the answers are evaluated, including the difference between using open and closed-ended questions. Open-ended questions are easy to write, but they can be challenging since they do not provide the respondent with any structure. This often leads to the respondent talking about things that the researcher may not be interested in (General Accounting Office, 1991). Open-ended questions can be useful in initial research to help develop more specific questions or for obtaining qualitative data (Files, 2008). Data show that when the same question is asked in an open-ended format versus a closed-ended format with choices, the responses were very different (Pew Research Center, 2017). If using an closed-ended question, the number of responses and the order of options provided need to be considered to prevent bias in how people respond (Pew Research Center, 2017). Question wording is a critical element of survey development to ensure that each question is interpreted the same way by every
respondent and careful consideration of question order can help prevent bias in the respondent’s answers.

**Conducting Key Informant Interviews**

One form of in-person interviewing is key informant interviews. Key informant interviews are a type of interview held with individuals that have knowledge about the topic of interest. The purpose of key informant interviews is to collect information from an assortment of individuals, including community leaders and professionals, who have first hand experience with what the researcher is interested in (UCLA Center for Health Policy Research, n.d.). The informants have knowledge and understanding of a particular area of interest and can provide recommendations on the topic. Key informant interviews are conversational interviews, which allow for a free flow of ideas and information. During these interviews, the researcher probes for information and takes notes.

Key informant interviews are useful for a variety of situations. These interviews can be helpful when working to identify, plan, implement, and evaluate projects. The information gathered from key informant interviews can be used to help decision-making, when there is a need to understand perspectives and behavior patterns, and to help generate recommendations (USAID Center for Development Information and Evaluation, 1996).

When conducting key informant interviews, the researcher should begin by explaining the purpose of the interview and the intended use of the information gathered. Questions should be phrased to avoid simple yes or no answers and should provoke detailed information (USAID Center for Development Information
and Evaluation, 1996). Probing for additional information can help the researcher understand the informant’s recommendations. Key informant interviews can provide copious amounts of qualitative data.

**Working with Qualitative Data**

The purpose of compiling qualitative data is to provide knowledge and understanding by describing a particular area of interest based on input from specific groups of people or populations. Qualitative data is beneficial to a researcher because it allows multiple views and perspectives about a particular experience of interest. This type of data is also important because it lays the foundation for future qualitative and quantitative research and has been found to be useful in many areas of research (Wu, Thompson, Aroian, McQuaid, & Deatrick, 2016).

Qualitative research questions are usually written as open-ended questions to gain information about a specific knowledge gap. These questions are not typically hypothesis driven. The sample size needed for qualitative research varies depending on the research question(s); however, even small sample size often yield a lot of data (Wu et al., 2016). This can lead to insight regarding the particular area of interest.

Qualitative data must be coded in order to break down data into categories and themes. Selecting quotes to support researcher interpretation can be included in the results section of the research paper to show support of the themes identified (Wu et al., 2016). Quotes should be chosen carefully in order to be representative of all the informants.
**Stakeholder Engagement**

Engaging stakeholders is an important part of any project. Each stakeholder comes with his or her own perspective about what it will take for an organization to succeed. Key stakeholders that should be involved in strategic planning include individuals with an interest in the success of the organization. For Muskie’s public health program, stakeholders would include members serving on the Advisory Committee, professors, students, public health employers, and alumni. Stakeholder engagement is an important part of Muskie’s Master of Public Health program accreditation criteria for the Council on Education for Public Health (CEPH) (CEPH, 2011). CEPH places an emphasis on engaging stakeholders and getting input from external partners to help shape programmatic decision-making (CEPH, 2011).

**Methods**

**Literature Search**

A literature search on qualitative data collection was completed in the first month of the project. Online databases including ERIC-Education, Medline, PubMed, and Google Scholar were searched to identify the best mode of survey administration, designing survey questions/format, and how to work with qualitative data.

**Informant Sample Selection**

As a theme for this study, the researcher targeted employers who work in healthcare quality and safety, health education, or as prevention program managers. The researcher compiled a list of potential organizations to interview and specific
departments of interest within each organization. During the capstone proposal, the MPH faculty at the Muskie School of Public Service provided the researcher with names and contact information of specific individuals within each organization that worked directly with Muskie MPH students. A follow-up conversation with Judy Tupper, the field experience placement coordinator, provided the researcher with additional contacts. One suggested informant was not pursued due to a potential conflict of interest for the researcher. The individuals that were interviewed and their organization include:

1. Natalie Morse - MaineGeneral Health
2. Jaclyn Jacobson - Martin’s Point Health Care
3. Nicole Anderson - The Opportunity Alliance
4. Kathi-Anne Fortin - Maine Medical Center
5. Julie Evans - Maine Medical Partners
6. Elisabeth Snell - Cutler Institute, Violence Against Women Act Project
7. Barrett Wilkinson - Portland Public Health

**Brief Informant Survey**

After completing the literature review, a brief survey about informant experience with MPH students was created to gather specific information from interviewees. The researcher worked with the MPH faculty to consider the topics queried about the number of graduates the informant worked with, other ways that the informant has been involved with Muskie’s Master of Public Health (MPH) program, and their familiarity with Muskie’s MPH curriculum (see Appendix 1 for the brief informant survey).
The original intent was to have the informant fill out the survey and return it via email before the interview. The researcher tried this approach with the first few informants with no returned surveys and instead the informant filled out the survey during the time set aside for the interview.

The survey inquired about a number of closed-ended questions that were of interest to the researcher and the MPH faculty. The brief informant survey asked:

1. How many Muskie MPH students and graduates have you worked with, to date?
2. What other ways have you been engaged with Muskie’s public health program?
3. How long have you been involved in the MPH program, in any capacity?
4. What is your level of familiarity with Muskie’s MPH curriculum?

Key Informant Interview Protocol Development

After completing the literature review, the key informant interview protocol was developed (See Appendix 2 for key informant interview protocol). Interview questions were carefully designed to gain appropriate, in depth, and unbiased information. The qualitative interview questions were specifically designed, following the recommendations for quality and effective research questions. Using a loosely structured interview, the researcher sought to answer these three overarching questions during the key informant interviews with public health employers:

- What has your experience been with our students?
- What strengths do our students bring to your organizations?
• What improvement can be made to the MPH program?

The specific questions that the researcher asked in the key informant interviews:

1. Given your experience with our students and/or graduates, what are your general impressions about their readiness for employment in your organization?
2. In your opinion, what are the strengths of the Muskie students and/or graduates you have worked with?
3. How would you characterize the students and graduates you have worked with in terms of the professionalism and work ethic?
4. In your opinion, what could the MPH program do to better prepare students to succeed in Maine’s Healthcare and Public Health system?
5. Is there anything else you would like to share that could help strengthen the MPH program or any additional information that you would like to add to any of the questions that we have discussed?

Interviews

Individuals identified for interviews were contacted by an initial email asking if they would be interested in talking about their experience. An interview was scheduled with individuals who showed interest and those who did not respond were sent a second, follow-up email. Of the eleven potential interviewees contacted, seven agreed to interview. This resulted in a response rate of 63.6 percent. All seven interviews were conducted at the informant’s place of work and were done face-to-face in late spring of 2017. The interviews were all recorded with permission from the informant. The time per interview ranged from 20 minutes to over an hour.
Data Management

Immediately following each interview, the recording was reviewed to transcribe detailed information on responses to each question. Notes from each interview were reviewed for recurring information and themes. Once identified, these themes were used to guide development of suggestions.

Institutional Review Board

The capstone plan was submitted to the USM Office of Research Integrity and Outreach (ORIO) Human Research Protection Program for review. The USM ORIO categorized this project as non-research, meaning it was exempt from a full Institutional Review Board review.

Findings

This section summarizes the information collected in the brief informant survey and identifies the themes that came from the key informant interviews. Notes directly from informants are in italics.

Brief Informant Survey Summary

1. How many Muskie MPH students and graduates have you worked with, to date? (Total numbers for all seven informants)

<table>
<thead>
<tr>
<th># of students worked with</th>
<th>Field Experience</th>
<th>Capstones</th>
<th># worked w/directly</th>
<th># your organization has employed</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>8</td>
<td>17</td>
<td>Unknown</td>
<td></td>
</tr>
</tbody>
</table>
Smaller organizations such as The Opportunity Alliance and the Cutler Institute’s Violence Against Women’s Act (VAWA) project gave specific numbers for the number of graduates that their organization had employed. Informants that worked at larger organizations such as Maine Medical Partners and Maine Medical Center were not able to give specific numbers.

2. **What other ways have you been engaged with Muskie’s public health program?** (Total numbers for all seven informants)

<table>
<thead>
<tr>
<th>Other ways engaged w/MPH program</th>
<th>MPH Advisory Committee</th>
<th>Guest Lecturer</th>
<th>Other-Mentor to MBA/MPH program</th>
<th>Other-Key informant for CEPH site visit</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

3. **How long have you been involved in the MPH program, in any capacity?**

(Total numbers for all seven informants)

<table>
<thead>
<tr>
<th>Length of involvement in the MPH program</th>
<th>&lt; 1 year</th>
<th>1-3 years</th>
<th>&gt; 3 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td></td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

4. **What is your level of familiarity with Muskie’s MPH curriculum?** (Total numbers for all seven informants)

<table>
<thead>
<tr>
<th>Level of familiarity w/ MPH curriculum</th>
<th>Very familiar</th>
<th>Somewhat familiar</th>
<th>Not familiar</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>2</td>
<td>4</td>
<td>1</td>
</tr>
</tbody>
</table>
One informant that indicated “somewhat familiar” is an alumnus of Muskie’s MPH program and noted that she does not know how the program has changed since she graduated.

**Key Informant Interviews**

1. **Given your experience with our students and/or graduates, what are your general impressions about their readiness for employment in your organization?**

**Common themes:**

- **Students are ready for employment.** The majority of informants indicated that students are, as a whole, ready for employment. When the researcher asked this question, the informants talked about student’s eagerness, capacity to learn, interest in many topics, willingness to try new things and deep background in public health. For these reasons, Muskie MPH students appear to be viewed as ready for employment.

- **Some students are ready for employment while others are not.** The underlying reason why informants categorized students as being ready for employment or not, depended on whether the student had “real world” public health experience. “Some students have had some life experience and have done other kinds of work, or they work and go to school. These students seem to be better prepared for this environment.” These students tend to make the transition easier than students coming straight from their undergraduate program. While only one informant directly answered the
question this way, other informants indicated this later in the interview discussion.

2. In your opinion, what are the strengths of the Muskie students and/or graduates you have worked with?

Common themes:

- **Students have strong research skills.** Students come with a great foundation for researching projects including synthesizing information and bringing forward recommendations.

- **Students come with personal interest and/or content knowledge in a specific area.** “Many students have specific interests in a certain content area which is a definite strength.”

- **Students want to learn new things.** Students come with enthusiasm for learning, willingness to try new things, and are very teachable. They also have the ability to easily move from one topic to another.

- **Strong oral and written skills.** Interviewees reported that this was demonstrated through projects that students took part in.

3. How would you characterize the students and graduates you have worked with in terms of the professionalism and work ethic?

Common themes:

- **Very professional.** “I have taken my students to many interprofessional meetings, where they have always conducted themselves appropriately. They ask insightful questions and interact well with others.”
• **Strong work ethic.** “The students that I have worked with go above and beyond even after their placement is finished.”

4. **In your opinion, what could the MPH program do to better prepare students to succeed in Maine’s healthcare and public health system?**

**Common themes:**

• **Strengthen grant writing and analytic skills.** A deep level of understanding of biostatistics and epidemiology is missing in Muskie students. Informants discussed that analytical skills could be stronger and that students sometimes need direction or mentoring in this area. Key informants brought up the lack of grant writing skills and suggested that Muskie create a course on this topic and include:
  - Finding potential funding sources
  - Dissemination skills
  - Lessons learned
  - Understanding which journal to submit to for publication

• **Increase the students network to public health professionals.** Virtually every individual interviewed suggested more job shadowing, informational interviews, alumni/student events, and more opportunities for students to interact with the Cutler Institute.

• **Communication.** This includes “general communication and communication of messages”. “Students are not always the best at asking for help when they need it.” This is something that students should not be afraid to do. Students should also know the best way to communicate a message. It is important to
“understand the differences in talking to senators, seniors and youth” and being able to craft messages to specific audiences.

- **Missing topic areas.** For example, health and wellness is a huge topic area in public health that MPH students are not exposed to in their coursework. One informant raised the question, “How do you make the program more relevant to people that are not interested in traditional healthcare.”

5. **Is there anything else you would like to share that could help strengthen the MPH program?**

**Common themes:**

- **Employers want to engage students and strengthen the connection between the Muskie School and their respective organization.** The majority of the informants that the researcher spoke with mentioned this.

- **As an employer it would be helpful to know what the areas of interest are for the student and which classes they have taken.** This would better help place students for field experience and understand which student may be best when hiring for a specific position.

**Suggestions and Discussion**

The themes extracted from the key informant interviews were used to develop suggestions to the Muskie public health faculty.

- **The Muskie School of Public Service Master of Public Health program can benefit from efforts to be more connected to public health employers and alumni.** When employers were asked about how to
strengthen the program or any additional information they want to provide, many employers answered that they “want to find a way to keep the pipeline open” between the Muskie school and their organization. This could be accomplished by incorporating more guest speakers, encouraging or requiring students to do informational interviews with Muskie public health alumni, and having more student/alumni events to create more networking opportunities. The students in the Muskie Student Organization (MSO) or graduate assistants can assist the faculty with strengthening these connections.

- **The Muskie School of Public Service Master of Public Health program needs to increase analytical and grant writing skills in MPH coursework.** Employers suggested that Muskie students improve their analytical and grant writing skills to help them better succeed in Maine’s healthcare and public health system. This could be accomplished by having students participate in more analysis-based student projects where they evaluate different data and identify trends and key information to inform selections. Specifically, biostatistics and epidemiology classes could use more of these skills and “case” approaches.

  Since students have experience with grant writing skills sprinkled throughout different classes, tying these pieces together would be beneficial. This would allow students to have a better understanding of what grant writing as a whole consists of and would give students a better
understanding of other pieces of grant writing not covered in the current coursework.

- **The Muskie School of Public Service Master of Public Health program should continue to do “more of the same” with their coursework.** The public health employers that participated in the key informant interviews had positive things to say about the students and the program. Students have great oral and written skills, research skills, are willing to try new things and are teachable. Key informants attributed these skills to the rigor of the program, the many projects and presentations that students do, and the number of guest speakers that students get to hear.

- **Students will be more competitive if they create a biosketch of the classes they have taken and their areas of interest.** Many of the public health employers that were interviewed said that knowing these two things would be incredibly helpful for field experience placements and for employment. Employers noted that field experience allows for many possible directions and knowing students interests before they start can help tailor this experience. Similarly, when an employer has two candidates for a position in permanent employment, knowing which student has more experience and/or interest in that particular area can help the employer make a final decision. Students could write their biosketch before they look for placements for field experience and revise these before looking for employment.
Limitations

• This project had a number of limitations. The biggest limitation was that each employer interviewed had only worked with a handful of Muskie’s Master of Public Health students. Therefore, the sample size on which to base their responses was small. In addition to each informant working with a handful of students, the researcher’s sample size only consisted of seven public health employer informants. This is more of a limitation for certain questions due to the under elaboration of apparent themes. For example, the question “What can the MPH program do to better prepare students” yielded a wide array of answers among the seven informants. A larger sample size would allow for even greater variety and potentially additional themes in response to questions.

• Finally, the research interviewer is currently a student at the University of Southern Maine in Muskie’s MPH program, which was disclosed to the informants prior to each interview. This factor may have deterred the employers that were not responsive to being contacted if they had a negative experience or could have caused biased information during the interviews conducted.

Recommendations for Future Research

1. Use informational interviewing. Informational interviews are beneficial for both students and the key informant. It allows students to work on their interviewing skills and key informants get to learn about the student
and be more connected to the Muskie school. Interviews should consist of two to three underlying questions. Every student should have experience with informational interviewing and this could be accomplished by making it a requirement for one of Muskie’s MPH core classes.

2. Make data collected available to students. Students would be able to utilize collected data for case studies to develop qualitative analyses. Epidemiology and Biostatistics coursework focuses on quantitative analysis and this would allow students to gain experience working with qualitative data.

3. Capture the experiences of public health partners outside of Portland, Maine. Many students that graduate from Muskie’s MPH program are employed outside of Portland, Maine and it is important that these key informants are reached. This could be accomplished by phone or Skype interviews. It may be helpful to have the graduate connect their employer with the student researcher.

Conclusion

Engaging key informants to help shape Muskie’s Master of Public Health program is critical to the success of the program. The key informant interviews helped the faculty understand areas where the program is excelling and areas of weakness that provide opportunity for improvement. The researcher found the lack of grant writing skills to be the most discussed area for improvement and could be resolved by created a course around this topic. Another area for improvement the
researcher heard in the majority of interviews is that key informants want to be more connected to the MPH program and to its students. Overall, this capstone was very informative and provided Muskie’s MPH faculty with a number of suggestions and recommendations to improve their program.
Bibliography


Appendix 1: Brief Informant Survey

Experience with MPH Students and Program
Brief Informant Survey

Directions: In an effort to understand your level of involvement with our MPH students, graduates and program, please complete the following items.

1. Your Name: ________________________________________________

2. How many Muskie MPH students and graduates have you worked with, to date?
   a. _____ # field experience students
   b. _____ # capstones
   c. _____ # graduates you have worked with directly
   d. _____ # graduates your organization has employed

3. Please indicate other ways you have been engaged with Muskie’s public health program.
   o Serve or served as a member of the MPH Advisory Committee
   o Guest lectured in one or more courses
   o Other: (please explain): ________________________________

4. How long have you been involved in the MPH program, in any capacity?
   o Less than one year
   o 1-3 years
   o More than 3 years

5. Please rate your level of familiarity with our MPH curriculum?
   o Very familiar
   o Somewhat familiar
   o Not familiar

Thank you.
Appendix 2: Key Informant Interview Protocol

Name of Employer:

Did you have a chance to answer the survey of basic information?

Introduction

Thank you for agreeing to do this interview today. My name is Catie Peranzi and I am a Master of Public Health student at the University of Southern Maine. I will be conducting this interview as a part of my capstone project and I am interested in learning about your experience working with students and graduates of our program. This purpose of this interview is to help the Muskie School faculty understand if they are adequately preparing their students for employment in the public health field.

Would it be okay if I audiotaped our interview for my personal use in this capstone project? Saying no to audio recording will have no effect on the interview.

Do you have any questions before we get started?

Questions—Previous Experience

I will be asking a series of questions about your experience working with Muskie graduates of our program. I would ask that you please do not identify the specific individuals that you have worked with.

1. Given your experience with our students and/or graduates, what are your general impressions about their readiness for employment in your organization?

2. In your opinion, what are the strengths of the Muskie students and/or graduates you have worked with? (Probes: skills, knowledge, competencies)

3. How would you characterize the students and graduates you have worked with in terms of their professionalism and work ethic?

4. In your opinion, what could the MPH program do to better prepare students to succeed in Maine’s Healthcare and Public Health system? (Probes: courses, skills etc.)
5. Is there anything else you would like to share that could help strengthen the MPH program?

Closing

1. Is there any additional information that you would like to add to any of the questions that we have discussed?

2. Would you like me to send you a copy of my final capstone report once it is finished?

Thank you for your time and participation in this interview. The information you provided is very helpful to my project.