

Master of Public Health Applied Practice Experience

by

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MPH Candidate

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MASTER OF PUBLIC HEALTH

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Chapter 1 - Background and Portfolio Products

The Flint Hills Food Recovery project, under the Farm and Food Council in Riley County, is where I pursued my applied practical experience. Food Recovery is focused on bridging the gap between abundance and need, through facilitating rescue transfers of edible food from food businesses which would go to waste if not used. These foods are then directly connected to community organizations and programs where they can have the greatest impact. This was a project facilitated by Vickie James, who is the coordinator at the Farm and Food Council. The applied practice experience was a 39 week-long project where I would attend tasks or activities 3 times each week. I got to take part in different activities that have shaped my knowledge and skills, thus giving me an understanding of the working environment.

Firstly, I was engaged in monthly meetings that discussed the use of the Flint Hills Food Recovery app called Chow-Match. This app is used by food businesses that are matched with food assistance organizations. Donors such as restaurants and caterers use this app by entering their untouched surplus into the Chow-Match, then volunteers can deliver it to recipients such as food pantries and emergency shelters. This app is mostly useful in coordination connections between partners, and all partners must ensure they follow standard food safety guidelines. It took two days to learn more on how to use the app, understanding how food businesses are connected or matched with organizations that work with people in need to reduce food insecurity by providing healthy meals that are an overabundance from food businesses. This was done to reduce food waste, while ensuring that food safety precautions are met so that people receiving these foods can be safe. The monthly meetings were held at the Riley County Health department, and sometimes online through zoom meetings and emails. Meetings were facilitated by Kate LaRosh, in monitoring and understanding the Chow-Match app which is useful for donors and information on redistribution of foods to the Manhattan community.

Secondly, I was tasked with monitoring and recording temperatures for a walk-in refrigerator unit at the Riley County health department. This walk-in refrigerator unit serves as a unit to store food from donors such as restaurants, caterers and grocery stores which have an over-abundance of food. These foods are then redistributed to places where they are needed the most, such as people in need, to provide healthy meals and reduce food insecurity. Shared places of redistribution include food pantries, crisis centers, community meal programs and other emergency food programs. When in access, these foods are then stored in the walk-in refrigerator for donor pickup to the respective places thus delivered to the people in need. Regular temperature checkups were recorded by me through a log-in sheet created by Vickie James. What needed to be recorded in the log sheet was the date, name of person responsible, temperature recorded during the morning, temperature recorded afternoon, activities performed (such as cleaning, or packaging food items in the refrigerator). This was performed twice a week to ensure food is safe and the walk-in refrigerator unit is clean and well maintained. This was a self-monitoring task which needed me to be self-motivated and work under minimal supervision. In addition, meetings were held to access how the online food recovery system was performing, thus allowing more donors from food outlets to register and donate more food and follow-ups to get more sponsorship in terms of supporting the food recovery project. All the tasks of this internship aligned with the MPH core competencies, and I was fortunate to help develop a walk-in refrigerator unit protocol to ensure all donors using the refrigerator take necessary precautions to ensure food safety, maintain cleanliness, be responsible for registering what they have delivered to the walk-in refrigerator unit, and record the temperatures. Food businesses were also allowed to use the walk-in refrigerator unit and had to also record the activity of bringing the food and record the temperatures of the refrigerator and freezer to ensure food

safety. A lock code for the front entry to the walk-in refrigerator unit was given to them by Vickie, as she would be aware of when they would be making deliveries to the walk-in refrigerator unit.

Other tasks included volunteering at the Konza student table which included packing and serving meals to Kansas State University students, and the Manhattan community. The Konza student meals were packed every Tuesday and Wednesdays. On Tuesday, breakfast packs consisted of a fruit, snack bar and oatmeal. On other days, the breakfast package would include fruit juice, apple sauce, and biscuits. Meals packed on Wednesday were for dinner. These meals were usually cooked and frozen, then packed into meal boxes to be served to students. In one day, about five hundred breakfast and dinner packs would be packed and distributed to students, which I took part in on Wednesdays. Another project was taking part in the Farm Produce project held at the Farmer's Market. This event took place every Saturday, where all community members would visit the market with their family, especially children, to purchase different local foods. Our stall was near the fruits and vegetable stalls in the Farmer's Market, which was nicely decorated with bright colors and banners for visibility. This event was targeted at the Manhattan community. The main activities during the Farmer's market were focused on recruiting children aged 12 years and under to register and take part in farming. This project helps children understand the importance of growing their own fruits and vegetables through gardening, and consuming them frequently to ensure healthy eating habits, and reducing the intake of sugar sweetened foods and beverages. Further, children gain education on nutrition and healthy lifestyles.

Lastly, I attended a winter alternative break, in Denver Colorado for a week. This alternative break was under the Staley School of Leadership, which offered sponsorship to Denver, and provided accommodation for the week-long period. Activities I was engaged in included volunteering at the Food Bank. This was a once-of-a-time visit to the food bank. The day was spent packaging meals for over one thousand homeless people around the Denver community. These meals were healthy meals which included a salad, carbohydrates, and protein. Most of the recipes were more of Mexican style recipes. We were a team of three, from K-State, therefore, it made the experience enjoyable. Other activities during the winter break included volunteering at the Westside Middle school. We would arrive every morning at 9:00 a.m. and leave at 4:00 p.m. daily. Tasks were given by the school principal. We would help clean the art classroom and share motivational talks with the students. I had to share a brief talk about being a college student to inspire the students to look forward to college. Topics included having a vision and goal for the future, finding purpose, and dreaming big. These topics inspired the students to work hard through their middle school academic journey so that they can have a better future and contribute positively to society. Visiting the middle school lasted for four days. This was an exceptional experience as I got to understand how middle schools in Denver operate and the diverse cultures in the school, thus meeting new people all together.

Table 1.1 Summary of Portfolio Products

Portfolio Product		Description
1.	Log sheet for walk-in refrigerator unit temperature recording	A log sheet was used to capture the date, record the refrigerator and freezer outside and inside temperatures, thus recording whether any food has been stored in the

		walk-in refrigerator unit. Signature after every recording was crucial to ensure that the task had been completed and who completed it.
2.	Chow-Match app	Log-in details were provided to view food businesses matched with food assistance organizations, which was a useful tool in connecting and coordination between partners of the food recovery project. This tool was developed by the Flint Hills Food Recovery project staff. I learnt how to use it and see how all operations are made. Since I am a student, and have never met any of the food businesses, it hindered being given access to use the app independently to connect food businesses myself.
3.	Walk-in refrigerator unit protocol	Informative details on how to perform temperature checks, guidelines on food safety in the walk-in refrigerator and monitoring the refrigerator were created and document to be used by donors accessing the walk-in refrigerator unit to ensure the unit is well maintained and food is always safe when stored in the refrigerator and freezer unit.

Portfolio Product		Number and Competency Addressed	
1	Log sheet for walk-in refrigerator unit temperature recording	3	Analyze quantitative and qualitative data using biostatistics, informatics, computer-based programming, and software as appropriate.

2	Chow-Match app	7	Assess population needs, assets and capacities that affect communities' health.
		22	Apply systems thinking tools to a public health issue.
3	Walk-in refrigerator unit protocol	19	Communicate audience-appropriate public health content, both in writing and through oral presentation.
		9	Design a population-based policy, program, project, or intervention.

Chapter 2 - Competencies

Number and Competency		Description
3	Analyze quantitative and qualitative data using biostatistics, informatics, computer-based programming, and software as appropriate.	Formulating log sheets was particularly useful in gathering data that indicated all captured temperatures, to ensure food safety and walk-in refrigerator unit management. In addition, data was useful in evaluating the effectiveness of having the walk-in refrigerator unit and frequency of use by local donors.
7	Assess population needs, assets and capacities that affect communities' health.	Using the Chow-Match app was a bridge to help populations that are food insecure, to be provided with nutritious meals, ensuring they have access to food. Further, having more donors and redistribution of foods indicated the needs of the Manhattan community to be supplied with food as this affects the community's health overall.
9	Design a population-based policy, program, project, or intervention.	As the Chow-Match is an app, mostly with only written wording and attached documents, adding an intervention such as an audio version, was a useful idea especially for people with who are illiterate, or have disabilities, further, the audio can be interpreted in different languages common in the United States, in case some people do not understand English well.
19	Communicate audience-appropriate public health content, both in writing and through oral presentation.	Developing a walk-in refrigerator unit protocol was vital, with the use of audience-appropriate content that is easy to understand and addresses public health content such as food safety and food handling practices and ensuring appropriate temperature checks when storing food.
22	Apply systems thinking tools to a public health issue.	Scenario planning on how the food recovery project can be sustained independently as the Chow-Match app is able to match donors with places of redistribution, and further, producing ways to collaborate with more donors that will ensure consistency of the project.

22 Public Health Foundational Competencies Course Mapping	MPH 701	MPH 720	MPH 754	MPH 802	MPH 818
Evidence-based Approaches to Public Health					
1. Apply epidemiological methods to the breadth of settings and situations in public health practice	x		x		
2. Select quantitative and qualitative data collection methods appropriate for a given public health context	x	x	x		
3. Analyze quantitative and qualitative data using biostatistics, informatics, computer-based programming, and software, as appropriate	x	x	x		
4. Interpret results of data analysis for public health research, policy, or practice	x		x		

Public Health and Health Care Systems					
5. Compare the organization, structure and function of health care, public health and regulatory systems across national and international settings		x			
6. Discuss the means by which structural bias, social inequities and racism undermine health and create challenges to achieving health equity at organizational, community and societal levels					x
Planning and Management to Promote Health					
7. Assess population needs, assets and capacities that affect communities' health		x		x	
8. Apply awareness of cultural values and practices to the design or implementation of public health policies or programs					x
9. Design a population-based policy, program, project, or intervention			x		
10. Explain basic principles and tools of budget and resource management		x	x		
11. Select methods to evaluate public health programs	x	x	x		
Policy in Public Health					
12. Discuss multiple dimensions of the policy-making process, including the roles of ethics and evidence		x	x	x	
13. Propose strategies to identify stakeholders and build coalitions and partnerships for influencing public health outcomes		x		x	x
14. Advocate for political, social, or economic policies and programs that will improve health in diverse populations		x			x
15. Evaluate policies for their impact on public health and health equity		x		x	
Leadership					
16. Apply principles of leadership, governance, and management, which include creating a vision, empowering others, fostering collaboration, and guiding decision making		x			x
17. Apply negotiation and mediation skills to address organizational or community challenges		x			
Communication					
18. Select communication strategies for different audiences and sectors	DMP 815, FNDH 880 or KIN 796				
19. Communicate audience-appropriate public health content, both in writing and through oral presentation	DMP 815, FNDH 880 or KIN 796				
20. Describe the importance of cultural competence in communicating public health content		x			x
Interprofessional Practice					
21. Perform effectively on interprofessional teams		x			x
Systems Thinking					
22. Apply systems thinking tools to a public health issue			x	x	

Table 2.3 Application of Systems Thinking Tools to a Public Health Issue

Use of Systems Thinking Tools	
Systems Thinking Tool	Description of Use
System Foundation	Finding ways to use technology in mobilizing more sponsors to support the food recovery project.
Scenario planning	Planning on how the food recovery project can be sustained independently as the Chow-Match app can match donors with places of redistribution and further, producing ways to collaborate with more donors to ensure consistency of the project.

Chapter 3 - Information Needed if Completing a Thesis Only

Table 3.1 Summary of MPH Emphasis Area Competencies

MPH Emphasis Area: Nutrition		
Number and Competency		Description
1	Information literacy of public health nutrition	Inform public health practice through analysis of evidence-based policy, systems, and environmental. Coursework such as Public Health Nutrition, Environmental Health Sciences and Functional Foods for Chronic Disease Prevention, were highly informative towards public health policies, systems, and environmental change, which Enlighted more knowledge and skills towards the field of the MPH program.
2	Compare and relate research into practice	Examine chronic disease surveillance, policy, program planning and evaluation, and program management, in the context of public health nutrition. Public health Nutrition, Nutritional Epidemiology and Epidemiology were able to bring awareness of the public health practice and study designs that are suitable for analysis of different studies of the population towards health outcomes and certain disparities.
3	Population-based health administration	Critically examine population-based nutrition programs. The Administration of Health Care Organizations clarified U.S healthcare systems, thus population-based nutrition programs that can help populations achieve a healthy lifestyle and access to services that can improve their overall health through nutrition education and awareness of nutritional concepts that can help people make informed decisions about their health.
4	Analysis of human nutrition principles	Examine epidemiological concepts of human nutrition to improve population health and reduce disease risk. Understanding Social and Behavioral Sciences, Epidemiology and

		Biostatistics were major contributors of understanding more human nutrition principles and developing strategies than should be kept in mind towards disparities that increase risk towards diseases and solutions to reduce the risks through early assessment and preventative measures.
5	Analysis of nutrition epidemiology	Describe criteria for validity in nutritional epidemiological methodology. Working on research studies and taking part in presentations about a certain area of interest in the Nutrition Epidemiology class was a critical factor enabling me to be able to know more about validity in research. All these skills were necessary to work on my thesis project.

The Master of Public Health Nutrition emphasis area competencies

Competency number 1: which was information literacy of public health nutrition, was attained through taking in part in meetings that were focused on the Chow-Match app, by seeing gaps that need to be addressed such as having an audio for donors or anyone visiting the site to clearly listen and understand information on public health. The information includes the food safety guidelines and quiz that assesses the knowledge of individuals who follow steps when registering to become a donor.

Competency number 2: Compare and relate research into practice, was attained when monitoring and evaluating donors responsible for food redistribution to local food pantries to reduce food insecurity, thus gathering information on suitable donor agencies that can help donate more food and be consistent during the food recovery project.

Competency number 3: Population-based health administration, was attained through working with the farm produce project and recruiting children from 12 years and below. This was a great initiative that helps educate children on nutrition-based programs, with the emphasis of consumption of healthy foods such as increased intake of fruits and vegetables.

Competency number 4: Analysis of human nutrition principles, was achieved from course assignments and presentations using study design analysis to ensure the understanding of concepts of human nutrition. Nutritional Epidemiology was vital in learn more ways to improve

population health and reduce disease risk through having a practical feel of doing research from scientific based articles and writing an appraisal for certain articles to ensure validity of the study.

Competency number 5: Analysis of nutrition epidemiology was attained through studying and working on research assignments that involved looking at dietary patterns, nutrients and contaminants that can lead to negative health outcomes. Courses such as Epidemiology, Functional Foods for Chronic Disease Prevention and Biostatistics were exceptional courses to achieve this competency, which can be transferred to future tasks under MPH program.

Appendix: Walk-in refrigerator protocol

[REDACTED]

[REDACTED]

[REDACTED]