

Exploring Strategies to Address Obesity with Eat Smart, Move More North Carolina

Rachel Ann Carson
University of North Carolina at Asheville
Health and Wellness Promotion

Faculty Advisor: Dr. Ameena Batada
Community Advisor: Dr. David Gardner, Eat Smart, Move More NC Executive
Committee

Abstract

More than two-thirds of adults and almost one-third of children in North Carolina are overweight or obese. These high rates are of great concern, because overweight and obesity are related to increased risk of chronic disease and decreases in life expectancy, productivity, and quality of life. To address these issues, a state organization called Eat Smart, Move More North Carolina (ESMMNC) is working to make the healthy choice the easy choice through the promotion of policy change as well as change in physical and social environments. ESMMNC recently published *North Carolina's Plan to Address Obesity: Healthy Weight and Healthy Communities 2013-2020* as a physical activity and healthy eating strategy guide for organizations in particular settings. The purpose of this public service project was to assist the ESMMNC Executive Committee in tracking the progress of the *2013-2020 Plan* so they could consider how to better support the work of ESMMNC Leadership Team member organizations. For this public service project, I worked with the ESMMNC Executive Committee to create and distribute an online survey, and in the coming month, I will analyze and report on the results. Survey results will show which strategies from the *2013-2020 Plan* have been adopted most, have not been adopted at all, are most difficult to implement, and which provide the greatest impact or benefit to organizations in certain settings. Through this project, I have learned about the importance of and barriers to communication and collaboration in a state-level organization while improving my own skills in communication and research. I have also gained a greater understanding of obesity as a multifaceted issue, influenced by numerous factors and therefore demanding comprehensive approaches in order to affect positive change.

Key Words: obesity, healthy eating, physical activity, setting-based health promotion

Origins of the Project

Overweight and obesity rates have risen significantly in the United States and worldwide in the past thirty years.¹ These high rates are so problematic because overweight and obesity come with many costs. Obesity can not only have a negative effect on quality of life, but it is highly associated with many chronic conditions such as type II diabetes mellitus, hypertension, high cholesterol, cardiovascular disease, stroke, various respiratory diseases, osteoarthritis, and some cancers.² Because of this, obesity is also associated with increased mortality.³ Obesity results in economic costs as well. The healthcare cost attributed to obesity in the United States is estimated to be \$147 billion to almost \$210 billion per year. Obesity-related job absenteeism contributes another \$4.3 billion each year to this cost.⁴

The prevalence of overweight and obesity needs to be addressed. In North Carolina specifically, 64.9% of adults were overweight and 27.8% were obese in 2010 according to a study conducted by the United States Centers for Disease Control and Prevention (CDC). Similar studies found that the prevalence of overweight and obesity among children in North Carolina has risen to roughly 30%.⁵

Although there are many factors that can affect bodyweight, it is likely that environmental and behavioral factors account for the increase in overweight and obesity prevalence rather than biological factors, because of the rapid increases.⁶ It is thus logical to address overweight and obesity through behavioral and environmental interventions. It is well-known that increased physical activity can contribute to weight loss. Overwhelmingly, physical activity has been proven to be negatively associated with obesity and weight gain over time.⁷ In addition, the US Department of Agriculture recognizes the positive impact that a healthy diet can make on overweight and obesity. One of the key recommendations of the 2010 Dietary Guidelines for Americans is to control calorie intake to prevent and reduce overweight and obesity in addition to consuming more nutrient-dense foods.⁸

Since adequate physical activity and a healthy diet contribute to healthy weights, the Surgeon General recommends addressing the rising rates of obesity through increasing opportunities for physical activity and healthy eating. Interventions should be multilevel, including individuals, organizations, industries, communities, and governments. Approaches should focus on communication of health information, establishing interventions, and improved research and evaluation related to overweight and obesity for families, communities, schools, health care settings, and worksites.⁹

Eat Smart, Move More North Carolina (ESMMNC) is a statewide organization that addresses overweight and obesity through such multilevel approaches. ESMMNC is working to make the healthy choice the easy choice by promoting policy change as well as change in physical and social environments.¹⁰ ESMMNC's mission is "to reverse the rising tide of obesity and chronic disease among North Carolinians by helping them to eat smart, move more and achieve a healthy weight". The organization envisions "a North Carolina where healthy eating and active living are the norm, rather than the exception".¹¹ The structure of ESMMNC includes an Executive Committee that oversees the Eat Smart, Move More movement and a leadership team composed of organizations from across North Carolina that support the mission and vision of this movement.¹²

ESMMNC recently published *North Carolina's Plan to Address Obesity: Healthy Weight and Healthy Communities 2013-2020* as a physical activity and healthy eating strategy guide for

organizations in particular settings. These settings include health care organizations, child care organizations, schools, colleges and universities, work sites, faith-based organizations and other community organizations, local governments, and food and beverage industries. The six core behaviors that this guide promotes are to increase breastfeeding, reduce consumption of energy-dense foods, increase consumption of fruits and vegetables, increase physical activity, decrease consumption of sugar-sweetened beverages, and reduce screen time.¹³

In January of 2014, the ESMMNC Executive Committee identified a need for a study that would allow them to track the progress of *North Carolina's Plan to Address Obesity: Healthy Weight and Healthy Communities 2013-2020*. They wanted to learn which strategies from the *Plan* were most commonly being adopted in each setting, which strategies were not being adopted at all, which are the most difficult to adopt, and which are perceived to provide the greatest impact or benefit to organizations of specific settings. This information would allow the Executive Committee to consider how to better support the work of ESMMNC Leadership Team member organizations. I was notified of this need by Dr. Ameena Batada of the UNC Asheville Health and Wellness Department, who put me in contact with Dr. David Gardener of the ESMMNC Executive Committee. Dr. Gardener further explained the goals and function of ESMMNC as well as the need for assistance in research. I was then introduced to members of the Executive Committee via teleconference, and I began to work as a consultant for this project.

Methods and Work Undertaken

At the beginning of the project, the ESMMNC Executive Committee provided me with an outline of the basic questions they wanted the research to answer. Given this information, I worked with Dr. Batada and Dr. Gardner to develop a timeline, a plan for a research project that would address these questions, and to draft a survey instrument. I then prepared and submitted an exemption request to the UNC Asheville Institutional Review Board (IRB). I also reproduced the survey instrument online using Survey Monkey and requested feedback from the ESMMNC Executive Committee. The survey included general demographic questions as well as setting-specific questions. Respondents were asked to identify which settings their organizations worked in, then to what extent they had adopted particular strategies from the *Plan* in their setting. There were also questions related to the strategies they felt were the most beneficial to their organization, the strategies that they felt were most difficult to implement, and which strategies representatives felt should be in the *Plan* but are not. After finalizing the survey and receiving IRB approval, I was ready to begin collecting data.

I worked with Lori Rhew, the Coordinator for the ESMMNC Executive Committee to send out a link for the online survey to ESMMNC Leadership Team member organization representatives. These representatives work in various organizations around the state of North Carolina. Throughout the three week period that the survey was open for responses, I collaborated with Lori to send out several reminder emails to contacts to request participation in the survey. I also attended the ESMMNC Leadership Team meeting in Raleigh on March 11th to personally present information about the survey and to request representative participation.

Final responses were collected on March 21st. Responses were cleaned, then summarized. A more thorough analysis will be conducted in the coming month, and will be used to create a report for the ESMMNC Executive Committee.

Ties to Academia

As a Health and Wellness Promotion Major, I have learned a great deal about the prevention of obesity and chronic disease through healthy eating and engaging in regular physical activity. Working with ESMMNC not only taught me more about strategies to promote healthy living in everyday settings, but I was also able to utilize and build upon the knowledge and skills I have gained through my classes and experiences at UNC Asheville. Specifically, my academic background in nutrition, exercise physiology, health parity, food economics, health communications, statistics and research, and pathophysiology of chronic conditions has served me well in this community project.

Working with ESMMNC has given me a greater understanding of obesity as a multifaceted issue, a topic discussed in many of my Health and Wellness Promotion classes. Since weight status is influenced by numerous biological, behavioral, environmental, and social factors, comprehensive approaches are necessary to address the increasing rates of overweight and obesity. This service learning project has taught me about such comprehensive approaches. During the data collection phase of this project, I was able to attend an ESMMNC leadership team meeting in Raleigh to share information about the survey. At this meeting, I also learned about current initiatives to decrease the prevalence of overweight and obesity across the state. These initiatives include programs to increase access to fresh, local produce and policy change related to healthy food marketing/costs, foods in schools, safe walking and biking routes, and physical activity standards for schools.

I felt very prepared to participate fully in this meeting because of the classes I had already taken in the health and wellness promotion major. For example, my background in nutrition allowed me to understand the importance of increasing consumption of water, fruits, and vegetables. Similarly, I have an understanding of the tremendous benefits of exercise on health because of classes like Exercise Physiology.

On a deeper level, in Health Parity I learned about the problem of inequitable access to foods and health information. Oftentimes, those who are least healthy are also those who struggle financially or are already disadvantaged in some other way. ESMMNC and other organizations working to address obesity are also addressing health disparities by making positive changes in policy and everyday environments that affect all populations. For example, one ESMMNC member organization is working to increase access to fresh produce. They not only support growth of farmers' markets and establishing new markets, but they create marketing tools to promote the use of the Supplemental Nutrition Assistance Program (SNAP) for low income populations at the markets.

My experience working with ESMMNC has helped me better understand other topics in my coursework at UNC Asheville as well. Specifically, this project has given me deeper insight into subjects discussed in a class I am currently enrolled in, Community Health Promotion. In this class, I've been learning about the health promotion program planning cycle, including effective program evaluation. The service project is a great complement to my classroom learning, because it has given me first-hand experience in program evaluation.

This project has also expanded my understanding of the significance of health behavior theory, another important topic in Community Health Promotion. Health theories help us recognize the interdependence of and interaction between factors related to a health problem. Theories I've learned about in my class show how intrinsic factors such as knowledge, perceptions, and beliefs, and extrinsic factors such as social, environmental, and policy influences can all affect health behavior. These factors must be taken into account to most effectively influence health behavior with a health promotion program. While working with ESMMNC, I have been able to see practical ways in which these theories are utilized to address high rates of overweight and obesity in North Carolina. ESMMNC recognizes the multitude of factors that affect weight status, so they promote change on multiple levels from increasing knowledge to altering policy.

I have gained insight into the workings of health promotion on a state level through this service project as well. At this level of health promotion, it is less about changing individual behaviors and health education, and more about making the healthy choice easier through environmental and policy changes. Although I don't have a great deal of knowledge in health policy, I did have some exposure to the impact of policy on health in my Economics of Food class. In this class, I learned how food policy can affect what foods are grown, which foods and where the foods are made available, and how much they cost. These policies can affect food access locally, nationally, or even internationally. It makes sense that state-level health promotion focuses on policy because policy is something that has the potential to reach everyone.

However, policy change alone is not enough to reverse the rising rates of obesity. Rather, it is through the collaboration and common vision of many organizations that will be able to affect the most change. Through this project, I have realized the importance of communication and collaboration between organizations as well as within an organization. With effective communication and collaboration, organizations are better able to support each other, share resources and ideas, and work together towards a common goal, in this case, reducing the prevalence of overweight and obesity. ESMMNC is able to facilitate such communication among organizations across North Carolina. Furthermore, effective communication within an organization allows it to function more efficiently, again helping to fulfill its mission.

In many of my classes, including ones outside of my Health and Wellness Promotion major, I have gained skills in communication and collaboration. In projects involving group effort or contact with community organizations, it is very important to communicate in an effective and timely manner. For example, in Health Communications, I collaborated with my team and with a local school to develop a healthy eating campaign for the students at our partner school. We frequently coordinated by phone, email, and in person to develop a plan, design our resources, and test our project with some of the students. Without effective communication and collaboration, this project would not have been a success. I was able to put the skills used in Health Communications and in other classes to use during this service project, while improving upon them as well. More specifically, I learned that sometimes meaning can be lost through email. It is often much easier to communicate by phone, although it can be difficult to make the connection.

In addition to communication and collaboration, there is a strong focus on research and using evidence-based practices in the field of Health Promotion. Not only is research essential for understanding the importance and effects of health behaviors, but it is also important for evaluating health programs and educational activities. Taking a class in statistics taught me about

data analysis, which was vital for this project. In other classes such as pathophysiology of chronic conditions, I gained a basic understanding of research methods in health promotion. I also learned about the usefulness of qualitative and quantitative data and about using surveys to study a population. In this project, I was able to apply these concepts to design an effective research plan and analyze survey data.

My additional academic experience in research has perhaps been the most useful during this project. I have previous experience in research through my Breman Research Assistant position at UNC Asheville and also through my internship with Mission Health's Research Institute. As a Breman Research Assistant, I conducted research at local farmers' markets. This research involved conducting a literature review, designing a survey instrument, designing observation and interview protocol, the IRB process, conducting the research, data analysis, and report writing. Because of this comprehensive research experience, I felt fairly comfortable taking on this community service research project in its entirety. Since the ESMMNC project relied on different methods and focused on a very different research goal from my previous research, applying what I had previously learned to this project really helped me to expand my knowledge and experience in the research process.

Furthermore, I frequently used Survey Monkey as a tool for research during my internship. Although I was familiar with its functions from my previous experience, this project allowed me to explore the functions of Survey Monkey on a deeper level. I learned a lot about formatting, the variety of ways an online survey can be distributed, and the question base offered by this online program. Although there are slight limitations with any such program, online surveys can be very useful in conducting health-related research when mail surveys or in-person surveys are impractical.

Challenges Faced and Responses to those Challenges

The majority of the challenges I faced while working on this project were related to communication and coordination during data collection. My first challenge, however, was that I was probably a little too ambitious while creating my timeline for the research project. During the planning phase, I failed to take into account any hiccups or delays with feedback that might occur and postpone the next steps.

Ideally, I would have personally entered the list of contacts into the Survey Monkey software so responses could be more easily tracked and so I could quickly send reminder emails only to those who had not yet participated in the survey. Unfortunately, the list of contacts could not be shared. Instead, I was able to collaborate with Lori to send emails to the entire list of contacts throughout the study. Over the course of several days, Lori and I coordinated and made a timeline for the initial and reminder emails to be sent. We planned for the survey to be open for just two weeks with three reminders sent over this time. This pushed back the first email request for participation in the survey by one week.

The next delay occurred because the emails Lori sent to the list of representatives needed authorization before they would actually be sent. It was about ten days until this was discovered, so none of the emails were sent until just a few days before the date we had scheduled to close

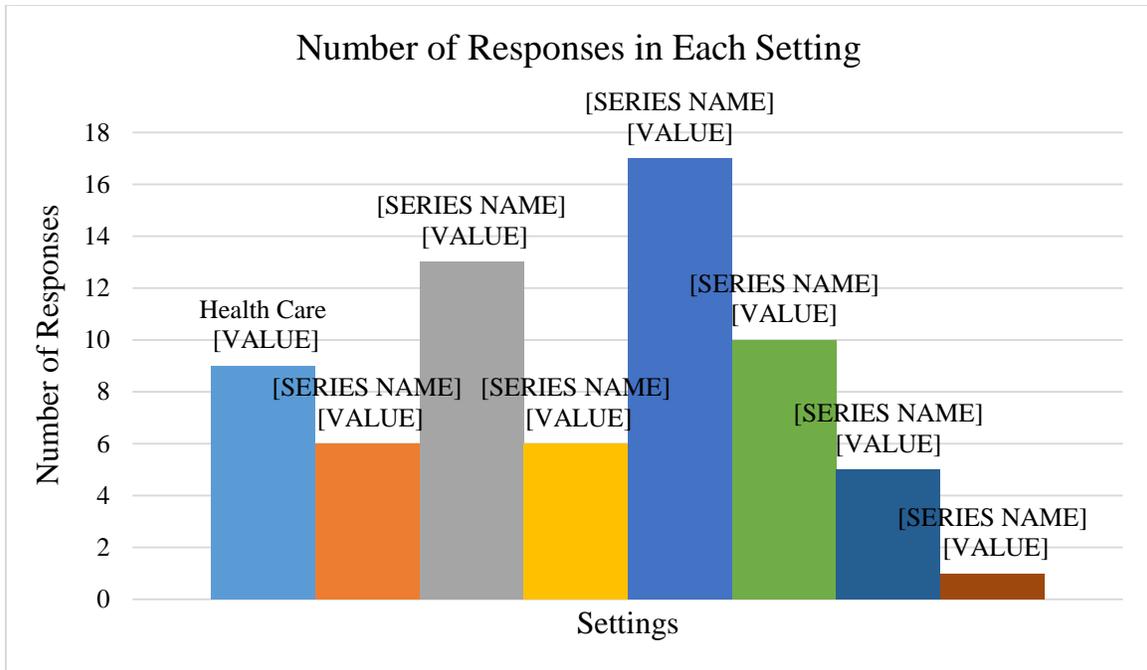
the survey. Because of this, we decided to give respondents one more week to participate in the survey.

Unfortunately, even with this extended deadline, we still had a fairly low response rate. At first I thought the response rate was pretty good. Survey Monkey indicated that there were 40 responses collected out of the 94 representatives contacted. This reflects roughly a 43% response rate. However, once I began working with the data, I realized that there were many respondents who completed no more than the informed consent or the demographic information for their organizations. After excluding these responses, I was left with 25 complete survey responses. This reflects about a 27% response rate. Although there is no agreed-upon minimal acceptable response rate, more responses mean that there is less likely to be a response bias. Many researchers recommend working to increase the response rate in order to maximize the generalizability of the survey results. A study published in 2008 found an average reported response rate of 35% among published research that involved surveying representatives of established organizations.¹⁴ The response rate for the ESMMNC survey is definitely not ideal, but there seemed to be an adequate distribution of responses for organizations in all settings except for the food and beverage industry setting. Because of this, we decided to move forward with the data that were collected without reaching out another time for more responses.

If this research is repeated in the future, I would make several recommendations to increase the response rate of the surveys. Firstly, the survey itself was fairly long. This probably deterred many of the representatives from participating in the survey. Although I'm not sure that the survey could be shortened much without losing meaningful information, I do think that providing a small incentive for completing the survey or really emphasizing the importance of a high number of responses would increase response rate. I would also recommend tracking responses to increase response rate. If respondents were tracked, follow-up emails requesting participation could read something like: "You are being sent this email, because you have not yet completed the ESMMNC survey." This would provide a small amount of accountability that may further encourage representatives to participate in the survey.

Results

The results in this section reflect survey responses from representatives of ESMMNC Leadership Team member organizations. Out of the 94 representatives contacted, 25 completed the survey. The graph below reflects the distribution of the responses who indicated that their organization worked in a particular setting. Note that some organizations worked in multiple settings, so the number of responses shown in this graph does not add up to 25.



The following results have been categorized based on setting: health care, child care, school, college or university, work site, faith-based or other community organization, local government, and food and beverage industry. For each setting, relevant data are listed in a table with up to five categories. These categories reflect responses to four questions related to each specific setting:

1. Within your setting, to what extent have you implemented each strategy from the *2013-2020 North Carolina’s Plan to Address Obesity: Healthy Weight and Healthy Communities*?
2. In your opinion, what strategy from the *2013-2020 Plan* do you feel provides the greatest impact/benefit for addressing obesity in your organization's setting?
3. In your opinion, what strategy from the *2013-2020 Plan* is most difficult to implement in your organization's setting?
4. Are there strategies in your setting that you feel should be in the *2013-2020 Plan* but are not listed? If so, what strategy(ies)?

Responses are related to the particular strategies listed for each setting in *North Carolina’s Plan to Address Obesity: Healthy Weight and Health Communities 2013-2020*. The strategies themselves as well as the number of strategies vary from setting to setting. If there was little to no consistency among responses regarding strategy adoption, then the data were not included in this summary.

Health Care Setting

Nine respondents indicated that their organization works in a health care setting. Responses are related to the fifteen strategies for this setting listed in *North Carolina’s Plan to Address Obesity: Healthy Weight and Health Communities 2013-2020*. The most and least commonly adopted strategies in the health care setting are included in Table 1 below.

Table 1

<i>Most commonly adopted strategy</i>	Practice healthy lifestyle behaviors, be role models for patients, and participate in community coalitions. (67% of respondents indicated their organization had adopted this strategy)
<i>Least commonly adopted strategies</i>	1) For treatment of people with severe mental illness who are at risk for overweight or obesity, consider medications that are more weight-neutral, and emphasize behaviors to minimize weight gain. (11%) 2) Promote effective prenatal counseling about maternal weight gain and the relationship between obesity and diabetes. (11%)

Child Care Setting

Six respondents indicated that their organization works in a child care setting. Responses are related to the eight strategies for this setting listed in *North Carolina's Plan to Address Obesity: Healthy Weight and Health Communities 2013-2020*. Table 2 below includes the most and least commonly adopted strategies, the strategies that respondents perceived to provide the most impact/benefit, the strategies that respondents perceived to be the most difficult to implement, and additional strategies suggested by respondents in the child care setting.

Table 2

<i>Most commonly adopted strategy</i>	Implement policies and practices to give infants, toddlers, and preschool children opportunities to be physically active throughout the day. (67%)
<i>Least commonly adopted strategies</i>	1) Accommodate the needs of breastfeeding mothers and infants. (17%) 2) Implement 10 Steps to Breastfeeding-Friendly Child Care. (17%)
<i>Strategies that provide the most impact/benefit</i>	Strategies mentioned were related to reducing sugar-sweetened beverages and increasing physical activity.
<i>Strategies that are most difficult to implement</i>	Strategies mentioned were related to supporting breastfeeding and healthy eating.
<i>Suggested additional strategies</i>	Strategies mentioned were related to improving nutrition.

School Setting

Thirteen respondents indicated that their organization works in a school setting. Responses are related to the seventeen strategies for this setting listed in *North Carolina's Plan to Address Obesity: Healthy Weight and Health Communities 2013-2020*. Table 3 below includes the most and least commonly adopted strategies, the strategies that respondents perceived to provide the

most impact/benefit, the strategies that respondents perceived to be the most difficult to implement, and additional strategies suggested by respondents in the school setting.

Table 3

<i>Most commonly adopted strategy</i>	Teach educators and other school personnel how to increase children’s physical activity, decrease their sedentary behavior, and advise parents or caregivers about their children’s physical activity. (85%)
<i>Least commonly adopted strategy</i>	Implement policies to limit advertisements for less healthy foods and beverages. (31%)
<i>Strategies that provides the most impact/benefit</i>	Strategies mentioned were related to improving and increasing physical activity.
<i>Strategies that are most difficult to implement</i>	Strategies mentioned were related to improving the quality of physical education programs according to standards and reaching the recommended thirty minutes of physical activity during the school day for students.
<i>Suggested additional strategies</i>	Strategies suggested were related to extending health education and promotion to the home environment.

College or University Setting

Six respondents indicated that their organization works in a college or university setting. Responses are related to the fourteen strategies for this setting listed in *North Carolina’s Plan to Address Obesity: Healthy Weight and Health Communities 2013-2020*. The most and least commonly adopted strategies, the strategy that respondents perceived to provide the most impact/benefit, and the strategy that respondents perceived to be the most difficult to implement in the college or university setting are included in Table 4 below.

Table 4

<i>Most commonly adopted strategy</i>	Provide healthy food and beverage choices, including smaller portion sizes, at college and university dining facilities and university events. (67%)
<i>Least commonly adopted strategies</i>	1) Within student health services, include routine BMI screening, counseling, and behavioral interventions to improve physical activity and dietary choices. (33%) 2) Implement policies to discourage consumption of sugar-sweetened beverages and increase consumption of water. (33%)
<i>Strategy that provides the most impact/benefit</i>	Enhance the university infrastructure to support all students, staff, and visitors in bicycling, walking, and wheeling on campus.
<i>Strategy that is most difficult to implement</i>	Implement policies to discourage consumption of sugar-sweetened beverages and increase consumption of water.

Work Site Setting

Seventeen respondents indicated that their organization works in a work site setting. Responses are related to the thirteen strategies for this setting listed in *North Carolina's Plan to Address Obesity: Healthy Weight and Health Communities 2013-2020*. The most and least commonly adopted strategies as well as the strategies that respondents perceived to provide the most impact/benefit in the work site setting are included in Table 5 below.

Table 5

<i>Most commonly adopted strategy</i>	Provide work site wellness programs, and promote healthy foods and physical activity. (81%)
<i>Least commonly adopted strategy</i>	Implement policies to limit advertisements for less healthy foods and beverages. (19%)
<i>Strategies that provide the most impact/benefit</i>	1) Provide work site wellness programs, and promote healthy foods and physical activity. 2) Implement healthier food and beverage choice policies and practices.

Faith-Based or Other Community Organization Setting

Ten respondents indicated that their organization works in a faith-based or other community organization setting. Responses are related to the twenty two strategies for this setting listed in *North Carolina's Plan to Address Obesity: Healthy Weight and Health Communities 2013-2020*. Table 6 below includes the most and least commonly adopted strategies as well as the strategies that respondents perceived to provide the most impact/benefit in the faith-based or other community organization.

Table 6

<i>Most commonly adopted strategies</i>	1) Ensure participation of organization leaders and members in community coalitions or partnerships to address obesity. (90%)
<i>Least commonly adopted strategies</i>	1) Promote and support exclusive breastfeeding for six months and continuation of breastfeeding in conjunction with complementary food for one year or more. (20%) 2) Implement policies ensuring that the amount of time toddlers and preschoolers spend sitting or standing still is minimized by limiting the use of equipment that restricts movement. (20%) 3) Strengthen programs that provide mother-mother support and peer counseling. (20%)
<i>Strategies that provide the most impact/benefit</i>	1) Ensure participation of organization leaders and members in community coalitions or partnerships to address obesity. 2) Implement budgets that provide community grants to promote physical activity and healthy eating.

Local Government

Five respondents indicated that their organization works in a local government setting. Responses are related to the eleven strategies for this setting listed in *North Carolina's Plan to Address Obesity: Healthy Weight and Health Communities 2013-2020*. The most and least commonly adopted strategies as well as the additional strategies suggested by respondents for the local government setting are included in Table 7 below.

Table 7

<i>Most commonly adopted strategy</i>	Promote joint use/community use of facilities. (100%)
<i>Least commonly adopted strategy</i>	Increase the geographic availability of supermarkets in underserved areas. (20%)
<i>Suggested additional strategies</i>	Strategies suggested were related to promoting gardening.

Food and Beverage Industry

One respondent indicated that their organization works in a food and beverage industry setting. Responses are related to the four strategies for this setting listed in *North Carolina's Plan to Address Obesity: Healthy Weight and Health Communities 2013-2020*. The respondent indicated that their organization had adopted all strategies listed in the *Plan* for the food and beverage industry setting. Table 8 below includes the strategies this respondent perceived to provide the most impact/benefit and to be the most difficult to implement, as well as additional strategies suggested by the respondent for the food and beverage industry setting.

Table 8

<i>Most commonly adopted strategy</i>	All strategies were adopted to a great extent by the respondent.
<i>Strategy that provides the most impact/benefit</i>	Implement policies to offer and promote healthier foods and beverages as part of an overall marketing mix, especially to children.
<i>Strategy that is most difficult to implement</i>	Implement menu-labeling policies and practices in restaurants and other food service venues.
<i>Suggested additional strategies</i>	1) Implement policies that reach adults in addition to the child-focused strategies. 2) Establish competitive pricing for healthy foods.

Sustainability

There are several sustainable aspects of this project. Firstly, the online survey itself can be reused over the next six years to track the progress of *North Carolina's Plan to Address Obesity: Healthy Weight and Health Communities 2013-2020*. It doesn't require any added resources

other than someone who is willing to initiate the data collection and to compile and analyze the results. This person would be able to compare the following year's survey results to the previous year's results to learn if organizations are making changes to their strategy adoption over time. This task could be taken on by a student intern each year or at intervals designated by the ESMMNC Executive Committee.

This online survey is also an easy means to reach our target audience. In this case, we simply email the survey link to the contacts designated as ESMMNC leadership team organization member representatives.

Secondly, the skills I have gained and improved upon while working on this project are most certainly sustainable. Since I played a large role in the project development and data collection, this experience has allowed me to really solidify the skills needed to carry out the project. For example, I heavily utilized research and communication skills, both of which I will be able to carry with me as I work in new positions in the future.

Conclusion

Survey results indicate that organizations across North Carolina are adopting numerous strategies in each setting outlined in *North Carolina's Plan to Address Obesity: Healthy Weight and Health Communities 2013-2020*. However, there are also many strategies that are seldom adopted. Further analysis will allow the ESMMNC Executive Committee to better support the ESMMNC member organizations in adopting more strategies from the *Plan*. The Committee will know where to focus their efforts based on the analysis of this data. They will also have a better understanding of which strategies may need additional support for adoption. Additionally, knowing which strategies are perceived to have the greatest impact/benefit could help the Executive Committee decide if they would like to support the adoption of certain strategies over others.

As more strategies to promote physical activity and healthy eating in everyday settings are adopted by organizations across North Carolina, the environments, policies, and cultures related to these behaviors will shift. Ideally, the widespread adoption of these strategies in places where we live, work, play, and pray will make the healthy choice the easy choice for all. Ultimately, increased adoption of these strategies has the potential to decrease the rates of overweight and obesity in the state.

I feel honored to be a part of this meaningful and important work. My passion for helping others live healthy lives resonates with the mission and vision of ESMMNC, and I have gained so much from my experience with this organization. I have not only learned more about effective initiatives to address obesity, but I have improved my skills in research and communication. I believe that ESMMNC will be able to make a significant impact on the prevalence of overweight and obesity in North Carolina as they continue to promote the adoption of healthy eating and physical activity strategies.

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