#### FIELD EXPERIENCE REPORT

by

## BROOKE J. CULL

B.S. Human Nutrition, Kansas State University, 2012 B.S. Kinesiology, Kansas State University, 2012

submitted in partial fulfillment of the requirements for the degree

MASTER OF PUBLIC HEALTH

Department of Human Nutrition College of Human Ecology

KANSAS STATE UNIVERSITY Manhattan, Kansas

2014

Approved by:

Major Professor Mark Haub

# Copyright

BROOKE J. CULL

2014

# **Table of Contents**

List of Figures	iv
Acknowledgements	v
Dedication	vi
Field Experience Report	1
Introduction	1
Walk Kansas Background Evidence	2
School-Based Nutrition Education Background Evidence	3
Focus and Scope of Work	6
Learning Objectives	10
Activities Performed	13
Walk Kansas Activities	13
Gardening and Nutrition Education Activities	16
Products Developed	22
Alignment with Public Health Core Competencies	37
Conclusion	40
Appendix – Riley County Walk Kansas Survey Results	42

# **List of Figures**

Figure 1.1 K-State research and extension organizational chart	8
Figure 1.2 MyPlate Visual Aid	9
Figure 1.3 Garden plot selection worksheet	19
Figure 1.4 Nutrition Education Workbook Pages	20
Figure 1.5 Walk Kansas promotional flier	25
Figure 1.6 Participant packet captain's letter	26
Figure 1.7 Participant packet team registration form	28
Figure 1.8 Participant guide	29
Figure 1.9 Individual registration form	31
Figure 1.10 Individual daily log	32
Figure 1.11 Team captain's log	33
Figure 1.12 Physical activity prescription form	34
Figure 1.13 Apparel order form	35

# Acknowledgements

I would like to sincerely thank all of the individuals who helped make my education, research and field experience possible. To my major professor, Dr. Mark Haub, and my committee members, Dr. Sara Roxenkranz and Dr. Ric Rosenkranz, thank you for accepting me as your graduate student and providing opportunities for professional and personal growth. You have given me encouragement for my endeavors and a passion for research. I appreciate your guidance, knowledge and kindness more than you know.

Thank you to Dr. Michael Cates, program director and Barta Stevenson for their working in providing a wonderful program for MPH students at Kansas State University. Additionally, I would like to acknowledge the professors and faculty who teach and mentor students in the MPH program. We are incredibly grateful to have you involved with our education.

I would like to express my gratitude to Ginny Barnard for allowing me to work alongside her at the research and extension office during my field experience. I have learned an incredible amount about the ways in which public health is working in our community, and Riley County is blessed to have her expertise in this field. Thank you to Sharon Riffey for helping me with anything and everything I needed during my time at the research and extension office. The entire staff was incredible kind and accommodating.

To the research assistants who helped with this thesis research, thank you for making the time enjoyable and for providing opportunities to learn from each other. My time spent working on this degree was many times more worthwhile thanks to all of you.

Finally, to my family, I cannot express the ways in which you have contributed to this graduate degree. Thank you for teaching me to believe in who I am and to know that an investment in myself and my education is always a safe bet. This would not have been possible without your unconditional love and support. To my husband, Charley, thank you, thank you, thank you.

# **Dedication**

For those who so	desperately need the	services and research	that the public health	field can offer.

# **Field Experience Report**

#### Introduction

My public health field experience was completed at the Riley County Research and Extension office at 110 Courthouse Plaza in Manhattan, KS. One hundred eighty hours were completed between January 4, 2014 and May 16, 2014. The goal of research and extension is to extend Kansas State University's education and research into the community where the general population can benefit and improve their worksites and personal lives. Resources and training materials are available for use regarding agriculture, economics, family life, youth development, community leadership and business. The Cooperative Extension was established in 1914, and the county extension programs are funded through various levels of government and land-grant universities. The organizational chart for Kansas State University Research and Extension is shown in Figure 5-1. In Riley County, the land-grant university that supports the department is Kansas State University. The Riley County office is directed by a county extension director, and there are four extension agents, one receptionist and two assistants. The agents specialize in the areas of family and consumer sciences, 4-H, horticulture and agriculture (Riley County, 2014).

I completed my field experience under the direction and supervision of Virginia (Ginny) Barnard, MPH. She is the Family and Consumer Sciences Agent for Riley County and specializes in the areas of nutrition, food safety, health and indoor environments. In addition to her many other responsibilities, Ginny organizes and runs the Riley County Walk Kansas program and the nutrition education classes for local elementary schools. During my time with her, these were the two areas where I was most involved. These programs were a great fit for my interests and education, and I was excited to be involved with the community and schools in order to extend my experience and offer my skills.

## Walk Kansas Background Evidence

Walk Kansas is an eight-week community-wide health promotion program that encourages physical activity and healthy eating. The program was created with the goal of increasing physical activity levels in Kansas residents, and the effectiveness of this communitylead, group-based physical activity promotion program has been studied and documented in the research. In a systemic review completed by the Task Force on Community Preventive Services, it was found that community-wide programs and social support campaigns show strong evidence for overall effectiveness in increasing the physical activity levels of individuals (Kahn et al., 2002). These two components, group membership and social support, are ones that the Walk Kansas program uses in its model, and there is evidence backing the effectiveness of this program, specifically. In a study completed by Estabrooks and colleagues (2008), the effectiveness of the Walk Kansas program in increasing minutes of MVPA was evaluated. Fifteen counties in Kansas participating in the program were randomly selected to be included in the research. Pre-tests were sent to the qualified participants with questionnaires regarding the amount of moderate and vigorous physical activity that they accumulated per week. At the end of the eight-week program, a post-test was mailed to the individuals. A smaller, random sample was also selected to complete a follow-up questionnaire six months after the program concluded. The researchers mentioned that the majority of Walk Kansas members were older adult women who tended to be more active than the general population in their county of residence. When looking at the participants all together, the authors found that Walk Kansas was an effective program for increasing the physical activity levels of the individuals. When they studied these results on a stratified level, they found that the increase in physical activity was dependent upon the physical activity levels at baseline. For those who were inactive and insufficiently active at baseline, they showed a significant increase in both their moderate (p<0.001) and vigorous (p<0.001) levels of

physical activity per week. For those who were meeting physical activity guidelines at baseline, however, the researchers did not find significant increases in their moderate or vigorous levels of physical activity following the eight-week program (Estabrooks, 2008). As this research shows, Walk Kansas is a useful program for the Kansas counties to implement in order to increase the activity levels of those who choose to participate. The results also suggest that those who are not meeting physical activity levels, a targeted group, at baseline can show the most improvement when they are involved with the program.

## School-Based Nutrition Education Background Evidence

As mentioned previously, another responsibility that I had was working with the local elementary schools to each nutrition-education with a gardening component. School-based nutrition education has been studied previously, and there is evidence to suggest that it can be effective tool for increasing the nutrition knowledgebase of students (Contento, Manning & Shannon, 1992). Contento and colleagues published a review piece in which they studied the effectiveness of school-based nutrition education on improving the dietary intakes of schoolaged children. They found that general nutrition education studies with short-term instruction or education components (10-15 hours) were effective in increasing the knowledge, skills and self-efficacy of the students towards nutrition, but that this did not significantly lead to a change in their food choice behaviors. For the programs that were more geared toward behavioral modifications and decision making, the outcomes on subsequent behavior changes were more favorable, but the authors concluded that the outcomes were inconsistent. In comparison to short nutrition education series, those programs that lasted for several years resulted in significant dietary intake behavior changes in the students (Contento et al., 1992). This research suggests

that if we were to see favorable outcomes following our nutrition education, they would be seen in the knowledge or self-efficacy components, rather than behavior changes.

During my experience in the schools, we started the nutrition education series with lessons regarding gardening, followed by the planting and harvesting of the vegetables that we grew. In addition to the research that shows that garden-enhanced nutrition increases children's preference for some vegetables (Morris & Zindenberg-Cherr, 2002), there is evidence to suggest that it is also an effective tool for increasing the fruit and vegetable consumption in school-aged children. In a study by McAleese and Rankin (2007), the effectiveness of nutrition education, based on school gardens, on increasing fruit and vegetable consumption was determined. They wanted to know whether nutrition education, combined with a gardening component, was more effective than the nutrition education lessons alone. The sample consisted of 122 sixth-grade students from three separate elementary schools. To assess dietary intake, 24-hour dietary recalls were given at baseline and at the conclusion of the 12-week intervention program. The students were given three days' worth of consecutive dietary recalls at both of the assessment periods. There were two separate intervention programs, and one site served as the control group. At the first school, students used the book, *Nutrition in the Garden*, for their lessons that covered topics in nutrition and gardening. The second school received the nutrition education materials, but they also planted and tended to their own garden. In addition to learning about gardening basics, they prepared snacks, dried herbs and made cookbooks. The researchers found that students in the nutrition education plus gardening increased their intake of fruits, vegetables, vitamins A and C, and fiber. The students in this group more than doubled their intake of combined fruits and vegetables (1.9 to 4.5 servings per day). When comparing baseline and post-intervention, there were no significant changes in these nutrition variables for either the nutrition education only

group or the control group. The authors suggested that the gardening activities increased the self-efficacy of the students to change their dietary behavior patterns (McAleese & Rankin, 2007). Although the nutrition education series carried out during my time with the research and extension office were shorter in duration than this study, the findings suggest that the gardening component could serve as an important factor in the effectiveness of our education series to improve self-efficacy and, potentially, lead to a change in the students' food choice behaviors.

## **Focus and Scope of Work**

When I first started with Ginny, I was educated about the Walk Kansas Program and was given the responsibilities related to getting the program started up for another year. This year (2014), the Walk Kansas program ran from March 16 to May 10. Participants joined the program as a team of six to eight people and logged their total minutes of physical activity and number of fruits and vegetables consumed every day for eight weeks. When the teams registered for the program, they were asked to select a physical activity challenge for themselves. The first challenge is based on the 2008 Physical Activity Guidelines and requires team members to accumulate 150 minutes of physical activity per week for the duration of the program. If all team members meet this goal for the eight weeks, their total walking would be approximately 423 miles and would represent the distance across the state of Kansas. The second challenge represents the distance that it would take to walk across the state of Kansas and back. To meet this challenge, team members need to each accumulate five hours of physical activity per week, which is approximately 846 miles. The third challenge requires each team member to reach the goal of six hours of physical activity per week, which would be approximately equivalent to walking around the perimeter of the state of Kansas, or about 1200 miles. During the program, the team captain reported their team miles and fruit/vegetable servings, either through the online reporting system or through e-mail at the conclusion of every week. Part of my job was keeping track of team progress and ensuring that all the teams were moving forward towards their goals.

I was also involved with the gardening and nutrition education lessons at several elementary schools in Manhattan. The ages of the children ranged from first grade to fourth grade. I assisted with the gardening component as part of the Junior Master Gardener series. Through this program, the elementary classes were educated about gardening, and they planted their own class gardens. We selected plants that were relatively easy to grow and that would be

ready for harvest within our time frame of about two months. We chose to plant spinach, onions, radishes and lettuce in the gardens. The students were taught about selecting an appropriate plot, the nutrients required for growth and how plants grow and function. We also taught the students about weeding, watering and harvesting the plants. At the conclusion of the program, we harvested the gardens and made salads from the plants that they grew. Following the gardening section, I took over the education classes and we switched the focus to nutrition and healthy eating. I assisted Ginny with the first few lessons at local elementary schools, and then I was given the responsibility of teaching all lessons at Flint Hills Christian School by myself. Following the workbook and Ginny's instruction, I began each lesson by introducing the concept of MyPlate (Figure 5-2) and interacting with the students about how they could make good decisions for their own personal plates. We had a total of five lessons, spread over five weeks. I led discussions over the five food groups (fruits, vegetables, grains, dairy, meat/beans) and the children completed activities focused on each section. During the class lessons, I would spend about 20 minutes teaching, followed by an interactive activity, and we would conclude the session with the preparation of a healthy snack.

Overall, the scope of work for this field experience fit with my education and interests very well. I was able to learn how to implement a successful community-wide health promotion program, as well as teach children about the importance of nutrition and healthy eating.

Figure 1.1 K-State research and extension organizational chart

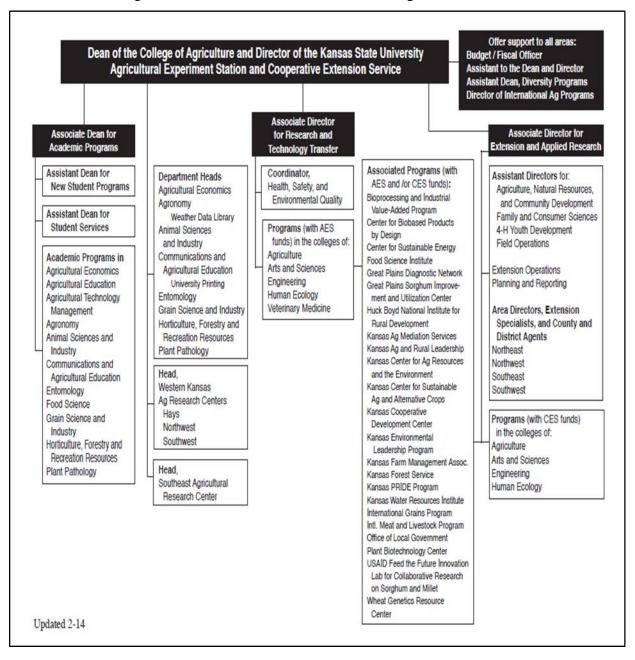
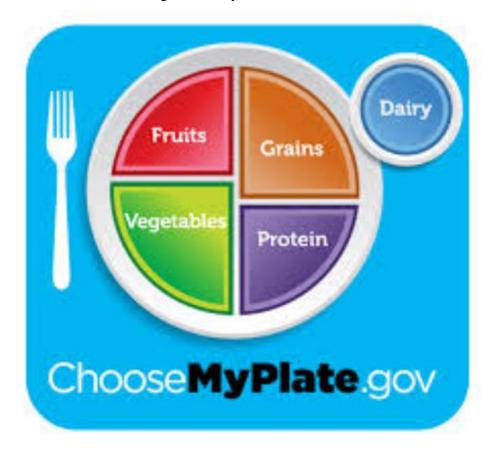


Figure 1.2 MyPlate Visual Aid



# **Learning Objectives**

Prior to beginning my field experience, I had developed the learning objectives that I hoped to accomplish throughout my time with Ginny at the research and extension office. These objectives were related to the relevant areas from my public health nutrition education. My first objective was to understand how to organize and implement a community-wide physical activity program. This objective was accomplished on several different levels. Ginny was a great teacher and she helped me understand the challenges and tasks that arise with an intervention in a community setting. Since the Walk Kansas program had already been established for several years, I was able to look at feedback from previous years in order to help improve the experience for our participants. From designing promotional materials to recruiting to planning and organizing group events, I was able to be very involved with the entire process of the health promotion campaign.

I also had the goal of identifying successful recruitment methods and ways to reach diverse groups in the Riley County population. The majority of Walk Kansas participants are middle aged women, and we wanted to recruit as diverse a population as possible for our program this year. In order to do this, I knew that we needed to recruit through several different avenues. I first contacted all of the participants who had participated in previous years, and encouraged them to recruit other family members, coworkers and friends. Since I had close ties with Kansas State University, I was able to put an article in K-State Today, as well as several email lists on campus. The research and extension office has a Facebook account, so we were also able to use this page for recruiting potential participants. I printed off and delivered about 50 flyers and informational handouts for businesses, schools, parks and other community areas around the Manhattan area. We were able to develop a press release and radio clip for Riley County, and these were available to the public for a few weeks prior to the start of the Walk

Kansas program. Another method of recruitment was having conversations with people who had questions and encouraging them to participate. Overall, I felt that I learned a lot about ways to recruit in a community setting and we were able to reach people from diverse demographics in Riley County.

My third objective was to recognize and implement ways to keep participants motivated in their physical activity and nutrition efforts. I was able to accomplish this objective through contact with the participants through email and telephone, as well as the group events that I organized. I sent out a newsletter each week to all Walk Kansas participants that gave information about physical activity and nutrition, as well as encouragement and a weekly recipe for them to try. In addition to the weekly newsletters, the team captains also received a captain's letter each week. When I sent these newsletters, I also sent a short letter or email with upcoming events or reminders for that week. If I noticed that a team had not been submitting their totals or if their numbers were going down, I would personally contact them to see if there was anything that I could help them with in order for them to reach their goals.

Finally, I wanted to gain an understanding of how public health works in a community-wide setting. This objective was the primary focus of my field experience, and I felt that I truly did gain an understanding and appreciation for the need for public health programs. I learned that sometimes the best ideas on paper do not translate in the community setting well. It is much more important to listen to your community and understand what needs they have for a program and how you can tailor it to be most effective and useful for them. Since we were working on a budget, I had to learn how to make events and motivational tools most cost-effective, while still being enjoyable for everyone. The survey results, shown in Appendix 1, show that the majority of participants found the program helpful in improving their physical activity and nutrition

behaviors. I would consider Walk Kansas to be a successful public health program for our state and community, and it was a pleasure and honor to work so closely and learn from the staff and participants.

#### **Activities Performed**

#### Walk Kansas Activities

I was given the opportunity to perform many activities related to physical activity, nutrition and public health during my time at the Riley County Research and Extension office. In the months leading up to the start of Walk Kansas, I created new and original documents that were used in the recruitment of participants for the program, and I modified existing participant packet information so that they met the needs of the current year and goals. An early responsibility that I was given was to set up the website system for online registration. Although individuals are given the option of registering in person or by filling out the paper forms, we wanted them to have the opportunity to register online, in order to appeal to the younger and working generation. We created a link that we could attach to emails, webpages and flyers that directed people to the registration website. In addition to online registration, we also set up a website for online Walk Kansas apparel orders this year. Although I did not start in my position with a lot of experience in webpage set up and design, I was given the opportunity to enhance my skills in this area. When team registrations started coming, I created a file to keep all participant records and releases organized. During these first couple of months, I quickly learned about the extent of work that it takes on the front end of a public health program to get it started and for it to be successful.

I wanted to kick off the program with a special event this year, in order to get people motivated and excited about working on their health journey. After considering many different venue options and the potential weather factors, I chose to hold the event in the commons area of Manhattan Town Center Mall. The kick off celebration included a mall walk, door prizes, apparel sales and opportunities for team building. Ginny and I set up several tables with

promotional materials and other information from the research and extension department. I created cards so that the walkers could keep track of the laps that they made around the mall. For every two laps (approximately one mile) that they walked, their name was entered into the drawing for one of two prizes. The prizes for this event were an iPod shuffle and a \$50 Manhattan Running Company gift card. Not only did our walkers have a great time and physical activity bonding session, but Ginny and I were able to talk to many community members who had never heard about Walk Kansas. We were able to interact and recruit people who we would not have been able to otherwise. Overall, it was a great event and something that could definitely be incorporated into future years of the program.

Once the program was kicked off, there were many different activities and responsibilities that I undertook. We wanted to implement the use of an online reporting system for the participants to utilize. Although other counties have used this system in their programs for a few years, I was able to help with the initiation of Riley County to the system. In previous years, the team captains have always called, emailed or faxed their team totals to the extension office. This year, In hopes of appealing to many of the participants and their busy schedules, I set up usernames and passwords for all team captains and directed them to a website where they could securely enter their totals and monitor their progress. The majority of team captains used this method to enter their totals and we had very few complications that arose. I tried to maintain a presence with the participants, and I served as a point of contact and answered any questions that they had during the program. Through my emails and newsletters, I was in contact with the participants on a weekly basis to serve as a source of encouragement and to keep track of their progress.

One of my final responsibilities for the Walk Kansas program was to plan, organize and host the finale celebration event. In past years, there have been about 100 participants who attended this event to celebrate the end of the program. I chose to hold the event at Pottorf Hall in Cico Park. I was given free reign to decide how the party would happen for this year, and I started my planning by deciding on the food menu and the prizes that we wanted to have donated. After considering time of preparation, appeal and cost, I chose the menu items that included cheese and crackers, black bean salsa and chips, fresh fruit, fresh vegetables and spinach strawberry salad. For the two days before the event, I did the shopping and food preparation in order to have everything ready. In addition to preparing the food, I also contacted community groups and local businesses to see if they would be interested in donating a prize for our raffle. We asked for donations that were approximately \$30 to \$50 in value. Thanks to our generous donors, we were able to offer Yoga for Life classes and apparel, yoga mats, Knotty Body massages, Dick's Sporting Goods gift card, Manhattan Running Company gift card and apparel and Walk Kansas merchandise. When participants come to the event, they were given a raffle card and they could put it in the basket of the prize that they wanted to win. Towards the end of the event, Ginny and I did the drawings and the prizes were claimed. I was also given the opportunity to address the crowd and thank them for their participation. At the end of the event, I handed out program evaluations that they could fill out anonymously to give us feedback about how we could improve Walk Kansas. I also sent the survey out through email so that those who weren't at the celebration event would still have a chance to provide input. I collected information regarding adherence to the program, outcomes and qualitative information about how participants felt the program impacted their health and wellness. The survey results are shown as appendix 1.

## Gardening and Nutrition Education Activities

During the eight weeks that the program was running, my responsibilities lessened in the office and my attention was more focused on the nutrition education lessons in the schools. As was explained previously, I lead the lessons at Flint Hills Christian school and covered several sessions at other local schools when help was needed. We started with the gardening sessions, and I helped the Master Gardener, Jaquee, teach the classes and ultimately plant the gardens. At the beginning of the course, the students were taught about which types of foods were plants and how these foods go from the garden to the stores and to their plates. We taught them about different types of seeds and bulbs and what it takes to successfully grow the plants. Interactive activities and discussions occurred, in which the children decided where the best place to plant their garden would be. We helped them accomplish this task with the help of the worksheet shown as Figure 5-3. Once the location of the garden plot was agreed upon, the vegetables were selected for the gardens. We needed to select vegetables that could withstand the heat and that would grow enough for harvest in approximately 2 months. The students learned how to plant the seeds and how to water and weed the gardens. Once the gardens were planted, I took over the lessons and we moved on to the nutrition component.

The nutrition education lessons were held once per week for about 45 minutes. At the beginning of each lesson, we discussed MyPlate and the importance of each of the food groups for our bodies and health. The students would tell me which types of foods belonged in each group and I would explain to them the uses that each of those food had in their functioning. After we touched on those topics, we would move into the substance of the discussion for that day. Each lesson focused on a different nutrition topic, and these included vitamins and minerals, carbohydrates, fats, proteins and water. A couple of the workbook and content pages are shown as Figure 5-4. As you can see, we talked about how many calories each nutrient provided, and

how our body used each of these to properly function. During each of these lessons, the students would have time to ask questions and give examples about what would happen if they didn't consume each of the nutrients. Since I was working with young children, I had to make sure that the content was age-appropriate and that they were able to understand. As a whole, the students were very interactive and excited to learn about nutrition. Following the lesson, we would make a snack as a group. This was the students' favorite part of the lesson and they would become very excited to help me prepare the food for that day. The snacks included air popped popcorn, bean dip with vegetables, fruit smoothies and homegrown salads. Since Flint Hills Christian was a small class, each student got to have a role in the preparation and was confident that they would be able to make this food at home for their own snack. For my final day with the students, we harvested the gardens and they learned how to prepare a salad from the vegetables. They learned about why we needed to wash the vegetables, and then they helped me trim and cut in order to make the salad. They were happy to have a successful garden and were excited to eat the foods that they grew themselves. Overall, the activities and responsibilities that I had in the schools were incredibly rewarding. I loved interacting with and teaching the students, and these responsibilities increased my confidence in working with this age group. I was able to be involved with public health on a very different level than what I was with the Walk Kansas program.

While the nutrition educations lessons are important for the students, a critical view of the program highlights some areas where improvement could be achieved. The Society for Nutrition Education compiled a report released in 2009 that revealed gaps in the current programs that are being offered. The report revealed that an inadequate amount of time is being spent on teaching the students about nutrition, and that the average instruction time was

approximately four to five hours per year. Additionally, they found that insufficient funding is available to train staff on nutrition education (Society for Nutrition Education, 2009). These two gaps in nutrition education were reflected in the local schools. Since the research and extension office is responsible for the instruction, there is not enough time or trained staff to lead the instruction for more than the four to five hours that were cited in the report. Since the nutrition education instructors were from the area of research and extension, they are not considered staff at the schools and the funding and day-to-day interaction is minimal. Finally, the report mentioned that the most effective programs involved behavior change opportunities, including healthier snack and food options available in the lunchroom. To my knowledge, the nutrition education classes by the research and extension and Master Gardener series were only offered to specific classes in the school, so the reach of the program was relatively narrow in a given year. Since our nutrition education program did not utilize questionnaires, diet records or surveys to assess dietary intake, attitudes or self-efficacy, we cannot be sure of the impact that these classes are having on the students.

ent 1 1 1	2	a. Circ	ie one	number fo
1		2		
1		2		
1		2		
1		2		
	_		4	5
1	2	3	4	5
	2	3	4	5
1	2	3	4	5
1	2	3	4	5
al Score	for Sit	e #1		
			4	5
				5
				5
				5
1	2	3	4	5
write the	total i	n the b	oox.	
al Score	for Sit	te #2		
1	2	3	4	5
				5
		_		5
1	2	3	4	5
	-	-	-	-
1	2	3	4	5
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 2 1 2 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 write the total in the tota	1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 write the total in the box.

Figure 1.4 Nutrition Education Workbook Pages

# 6 Nutrient Categories 1) Fat Provides \_\_\_\_\_ to the body. 1 gram of fat = calories (energy). Fat is divided into two categories: → are hard at room temperature → examples: stick of butter/margarine → are liquid at room temperature → examples: vegetable oils 2) Carbohydrates Body's main source of \_\_\_\_\_\_. 1 gram of carbohydrate = \_\_\_\_ calories (energy). If you skip \_\_\_\_\_\_, your body may run \_\_\_\_\_ on energy. Examples of carbohydrates: vegetables, fruits, table sugar, rice, bread, pasta 3) Protein Provides \_\_\_\_\_ to the body. 1 gram of protein = \_\_\_\_ calories (energy). Protein helps your body \_\_\_\_\_, \_\_\_\_, and disease. Examples of protein: meat, poultry, fish, eggs, beans, peas, nuts, and dairy products

4) \	Vater
<b>6</b>	Provides calories.
	Water helps your body nutrients, waste, and body temperature.  Your body is water!
	Your blood is water!
	Sources of water:  plain water, milk, juice, sports drinks, and many foods (watermelon is over 90% water!)
5) \	/itamins
	Provide calories.
	Only needed in amounts.
	They help the body:  → build tissue  → regulate body function  → help other nutrients do their job
	Sources of vitamins: fruits, vegetables, whole grains, nuts, meats, milk
6) 1	Minerals
	Provide calories.
	Promote good health while regulating body functions AND become part of your,, and
	Your bones need,, and
	to grow.
	Your blood needs to help red blood cells carry oxygen to all parts of your body.

# **Products Developed**

During the first few weeks of my field experience, a significant portion of my time was spent developing the materials for the Walk Kansas program. Starting in January, I began organizing, developing and preparing the participant packets, brochures, posters and webpages that we utilized in the recruitment and registration of members. This year, for the first time, we decided to use yard signs as part of the promotional materials. I was given the responsibility of designing several samples to add to the state's selection options. The other recruitment products that I helped develop and update were the fliers and brochures that I took around town to various locations. One of the fliers that we used this year is shown as figure 5-5. Although I did not have a great deal of experience with the development of graphic materials prior to this position, it was a great learning experience. I began to understand how promotional materials were incredibly important to our program, and that they must be designed appropriately in order to be effective.

The participant packets required that I update and develop several different pieces of material. The goal was for each team to have one packet that contained all of the information for the program for that year. The captain's letter, shown as figure 5-6, explained the program to the captain, instructed them how to report their team totals, gave motivational messages and provided important dates for the upcoming events. The team registration form, shown as figure 5-7, was filled out by the team captain with their participants' name and e-mail address. Also on this form was a place for the team captain to mark the challenge that they accepted. Once I received these forms back from the captains, I entered all of the information into our online system so that they could enter their minutes through the website if they wished to do so. Figure 5-8 is a copy of the participant guide, and this was developed so that each individual knew how to count their minutes of physical activity and what activities would give their team "bonus minutes". Additionally, it mentioned the recommendations of MyPlate and explained what their

responsibilities were to their team for each week. This was developed to be useful document for the participants to use to answer any questions that might arise during the program. The individual registration form, shown in figure 5-9, was filled out by each participant. It was from this form that we were able to collect information regarding their age group, ethnicity and gender. There was also a section that explained the risks and the participants signed it to assume responsibility for anything that could happen during their participation in the program. Finally, they were asked whether or not we could use their photograph or voice for any of our education or promotional materials. Figures 5-10 and 5-11 are the individual and team captain logs, respectively. The participants were asked to keep track of their minutes of physical activity and servings of fruits and vegetables for each day throughout the program. Each person logged their own information and at the end of the week, they gave this information to the team captain. The team captain then filled in the team totals on their log sheets and this information was submitted to the extension office, either through email/fax or through the online reporting system. These documents were developed so that the participants would be able to log their information prospectively, as well as having a reference for discrepancies. This year, we also provided a physical activity prescription form, in keeping with the theme of "exercise as medicine". This document, shown as figure 5-12, was meant to be a fun and informal document explaining the dosage and types of physical activities that the participants should accumulate. It also touched on some of the health benefits of regular physical activity and some tips on how to exercise safely. The final product that I developed for the participant packets was the Walk Kansas apparel order form, shown in figure 5-13. Participants were able to purchase t-shirts, long-sleeve shirts, hooded sweatshirts and performance shirts in a variety of colors. Once they filled out and returned their order forms, I was able to enter them online and submit their orders.

In addition to the participant packet material and promotional products, I also sent out requests for sponsorship letters leading up to our celebration event. In these letters, I explained the Walk Kansas program and the importance of community-based health promotion campaigns, and told them that we wanted to list their business as a sponsor of the program. Overall, I was able to help create and update many different materials and products for the Walk Kansas program this year.

Figure 1.5 Walk Kansas promotional flier

# Walk Kansas 2014

An 8-week healthy lifestyle challenge!

March 16 - May 10













**Walk Kansas** is a team-based program that will help you and others lead a healthier life by being more active, making better nutrition choices, and learning positive ways to deal with stress.

You can participate by gathering a team of 6 people, register the team in your local program, and start your journey toward a healthier life!

General information about Walk Kansas is available at:



# www.walkkansas.org

For local program information, contact:

Riley County Research and Extension 110 Courthouse Plaza Room B220 Manhattan, KS 66502



Kansas State University Agricultural Experiment Station and Cooperative Extension Service K-State Research and Extension is an equal apportunity provider and employer, Issued in furtherance of Cooperative Extension Work, Acts of May 8 and June 30, 1914, a samended. Kansas State University, County Extension Councils, Extension Districts, and United States Department of Agriculture Cooperating, John D. Floros, Director.



# 2014 Riley County Captain's Letter

#### Program Dates:

March 16 - May 10

#### Program Cost:

\$30.00 per team By March 8

\$42.00 per team After March 8

#### T-Shirts:

Color: Tropical Blue or Charcoal

Cost: \$7.50 each
\*additional cost for sizes
2XL - 5XL

#### Registration Deadline:

Fri, March 15 by 5 p.m.

No t-shirt orders accepted after March 29

#### Celebration Event:

Wed, May 15 at 5:30 p.m. Pottorf Hall, CiCo Park

#### Contact Information:

Riley County Extension Phone: 785-537-6350 Fax: 785-537-6353 www.riley.ksu.edu

#### Welcome to Walk Kansas!

Thank you for stepping up to lead your Walk Kansas team. Walk Kansas has been successful for a number of reasons, but participants are quick to point out that being part of a team is a great motivator! Thank you for serving as a team captain, for your leadership, caring, and interest in the success of your teammates. The program is simple, inexpensive and safe, and all you need is a team of six people and a desire to get moving. So, gather your team, dust off your exercise shoes and prepare to join us for an 8-week fitness program.

#### Your team will need:

- · Team Registration Form (1 copy)
- Individual Registration Form (6 copies)
- Participant Information (6 copies)
- Captain's Log (1 copy)
- Individual Log (6 copies)
- Apparel Order Form (1 copy)

#### Let's Start Walking

- Recruit a team of six members one captain (you), one co-captain and
  four teammates. Each team member will need to complete and sign an
  individual registration form. The captain will complete a team registration
  form and return it with the individual forms and one payment (check or
  cash) to the Riley County Extension Office. Registration is not complete
  until all forms are collected and fees are paid.
- Distribute the Participant Information, Approved Activities/Fruit & Vegetable Chart, and Individual Log to each team member.
- A weekly newsletter (9 issues) will be sent electronically to team members with an e-mail.
- Up for a Challenge! With your team-mates, select a challenge to strive for and check the appropriate box on the team registration form.



Challenge #1 represents the Physical Activity Guidelines for Americans recommendation – 150 minutes of moderate or vigorous activity per week. If each member met this recommendation, collectively over 8 weeks, the team would walk 423 miles\* or the distance across the state of Kansas.

#### Let's Start Walking, cont.

#### Challenge #2 - Across and Back

This challenge requires more than the minimum recommendation. Each team member would log 5 hours of activity per week, enough for your team to make it across the state and back.

#### Challenge #3 - Around

This challenge asks each team member to log 6 hours of activity per week. Collectively, over the 8 weeks, your team would walk 1200\* miles or the distance around the perimeter of the state of Kansas.

- \* Based on calculation of 15 minutes = one Walk Kansas mile.
- 4) Participants will begin to log minutes on Sunday, March 17.
- 5) Team members will need to report weekly minutes and fruit/veggies to their team captain. As team captain, you will need to communicate with your team members about the best way for them to report information to you. The team captain will report totals to the Extension Office by 5 p.m. on Monday OR online at www.walkkansas.org

You may call (785-537-6350), e-mail (sriffey@ksu.edu) or fax (785-537-6353) your total team minutes.

Captains will receive an e-mail reporting reminder message each week. If the captain plans to be out-of-town or cannot report for some reason, the co-captain will need to assume the reporting duty.

 Team progress will be posted on the Walk Kansas website at www.walkkansas.org by Wednesday of each week.

#### **Bonus Minutes!**

Each participant can earn 15 bonus minutes per week for breaking every hour of sitting (at work, home, while traveling, etc.) These minutes will be added to the physical activity minutes they report to you each week, so captains do not need to track bonus minutes.

#### What Activities Count as Walk Kansas Minutes?

This is the most popular question from participants each year! The physical activity guide is a good resource. Just to reinforce what counts, the activity must be at least 10 consecutive minutes (not 3 minutes walking from the parking lot, another 2 minutes walking up the stairs, etc.) Activities must also be moderate and/or vigorous, or they can be strengthening activities. Examples of these activities and the "talk test" are described in the packet materials or can be found at www.riley.ksu.edu

#### Captains Report Team Totals Online OR to Extension Office On:

March 24 March 31 April 7 April 14 April 21 April 28 May 5 May 12

#### Reporting Your Minutes Online

Captains can enter their team's minutes online at www.walkkansas.org.

- Click the "Team Captain" tab on the left side of the page
- Click on Riley County
- Enter the team leader's email address and password (we will provide your password to you)
- · Click on "Leader Login"
- Enter you team's minutes for the week

#### Thanks for making Riley County Walk Kansas a Success!

K-State Research & Extension is an equal opportunity provider and employer.

Figure 1.7 Participant packet team registration form



# 2014

# Riley County Team Registration Form

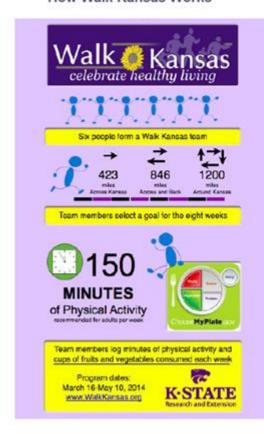
Please *print* or *type* your team information on this form. Team registration is \$30 before March 7 and \$42 after March 7. The final day to register your team is March 14.

ream Captain's Name:		
Captain's Mailing Address:	City:	Zip Code
Captain's Phone: ( )	Captain's E-Mail:	
First and Last of Team Me		E-mail Address
Captain		
Co-Captain		
3.		
4.		
5.		
6.		
□ Team Challenge #2 - Ac	cross the State (150 min/person/we cross and Back (5 hrs/person/week ound (6 hrs/person/week)	
Preferred Method of Repor	ting Minutes (MUST Mark One):	<b>X</b>
***************************************	ting Minutes (MUST Mark One): office at 785-537-6350	***
Preferred Method of Repor  By calling the extension Online at www.walkkans	ting Minutes (MUST Mark One): office at 785-537-6350 sas.org	\$30.00/team
Preferred Method of Repor  By calling the extension Online at www.walkkans  Early Bird Team Registration	ting Minutes (MUST Mark One): office at 785-537-6350 sas.org on (by March 7)	
Preferred Method of Repor  By calling the extension  Online at www.walkkans  Early Bird Team Registratio  Team Registration (after Machanism)	ting Minutes (MUST Mark One): office at 785-537-6350 sas.org on (by March 7)	\$30.00/team \$42.00/team check) per team payable to: Riley



#### Welcome to Walk Kansas! March 16 - May 10, 2014

How Walk Kansas Works



#### **Recording Activity Minutes**

Minutes you log and report for Walk Kansas should meet these guidelines.

- Activity should last for 10 consecutive minutes or more.
- During exercise, strive for moderate to vigorous exertion. Check yourself against these measurements: moderate = you're barely able to talk, but not sing; vigorous = you are only able to say a few words before stopping to catch your breath.
- Muscle strengthening activities are also important. You should do these two days per week, which also count toward Walk Kansas minutes.
- The physical activity prescription in this packet explains the recommendations in more detail.

Source: Physical Activity Guidelines for Americans are recommendations from the U.S. Department of Health and Human Services; http://www.health.gov/paguidelines

Bonus Minutes: You can earn 15 bonus minutes per week for breaking every hour of sitting (during hours you are awake). If you move every hour, 6 days during the week, add 15 bonus minutes to your weekly total.

Why the bonus? Research is showing that sedentary living is a big health risk. If you sit for more than one hour at a time at work, home, while driving or traveling – take a 1-2 minute break. Just standing for a few minutes every hour makes a difference.

#### Fruits and Vegetables – How Much?



- The health benefits of physical activity are greater when you also follow a healthy eating plan.
- MyPlate recommends that you fill half of your plate with fruits and vegetables.
   Ideally, you should eat 4 - 5 cups each day. This may sound like a lot, so add a fruit or vegetable to what you currently eat each day and increase gradually.
- Use your Daily Log to track cups of fruits/vegetables you eat.
- More healthy eating information will be included in your weekly newsletters and is also available at www.choosemyplate.org.

### How do I get started?

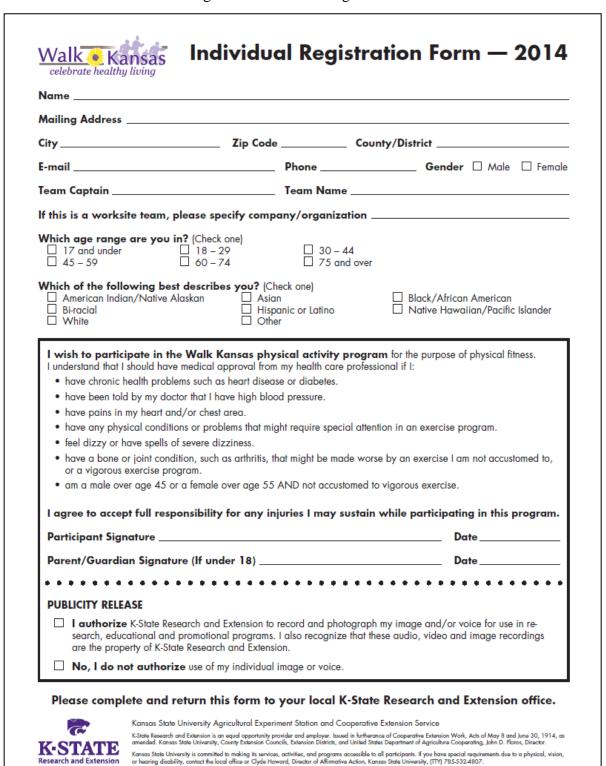
- Fill out a participant registration form and return it, along with program fee payment, to your team captain. Order a Walk Kansas T-shirt, long sleeve shirt, sweat shirt, or performance shirt if you want one. Apparel can be ordered online through the Walk Kansas link on www.riley.ksu.edu.
- Read and follow your Physical Activity Prescription.
- Use the Daily Log to record physical activity minutes and fruits/vegetables. (Begin March 16.)
- Physical activity minutes and fruit/vegetable consumption can also be turned in by the team captain online at www.walkkansas.org.
- Report weekly to your team captain.

- Read your newsletter. If you don't receive it weekly, contact your Extension office at 785-537-6350.
- Explore the website www.walkkansas.org
- Participate in any events, educational programs, fun walks/runs, kick-off and/or celebration events offered in your community or promoted through your team.
- Enter the photo challenge your photo could earn you a Walk Kansas hoodie!
- Complete a Walk Kansas evaluation after week 8.

#### Have a great Walk Kansas experience!

#### New in 2014!!

- Videos to show each "move of the week" on www.walkkansas.org.
- Walk Kansas on social media you don't want to miss this! Like "Kansas State University Walk Kansas" and "Riley County K-State Research & Extension"
- Walk Kansas Photo Challenge!
  Guidelines available from your local
  Extension office and www.walkkansas.org.



31

Figure 1.10 Individual daily log



Your Name —	
Team Name _	
Captain's Nar	me/Phone/E-mail

**Directions:** Each day, record cups of fruits/vegetables you eat, minutes of moderate or vigorous activity, and give yourself a bonus √ if you moved 1-2 minutes every hour of the day. Every Sunday, total the cups fruits/veg and minutes of activity. If you had bonus √ marks for at least 6 days add 15 minutes to your activity total. Report minutes and fruits/vegetables to your team captain each week.

		Sun	Mon	Tues	Wed	Thurs	Fri	Sat	TOTAL
March 16-22	Minutes								
Week	Bonus								1
#1	F/V								
March 23-29	Minutes								
Week	Bonus								
#2	F/V								
March 30-April 5	Minutes								
Week	Bonus								
#3	F/V								
April 6-12	Minutes								
Week	Bonus								
#4	F/V								
April 13-19	Minutes								
Week	Bonus								
#5	F/V								
April 20-26	Minutes								
Week	Bonus								
#6	F/V								
April 27-May 3	Minutes								
Week	Bonus								
#7	F/V								
May 4-10	Minutes								
Week	Bonus								
#8	F/V								



<sup>\*</sup> Fifteen minutes of moderate or vigorous physical activity counts as one Walk Kansas mile.

Kansas State University Agricultural Experiment Station and Cooperative Extension Service
K-State Research and Extension is an equal opportunity provider and employer. Issued in furtherance of Cooperative Extension Work, Acts of May 8 and June 30, 1914, as amended. Kansas State University, County Extension Councils, Extension Districts, and United States Department of Agriculture Cooperating, John D. Flores, Director.

Figure 1.11 Team captain's log



Team Captain's	Name_		
Team Name			

#### Directions:

- Collect individual registration forms and fees from each member (include yourself). Submit forms/fees to local K-State Research and Extension office before registration deadline.
- Record team members' total weekly activity minutes and fruit/vegetable amounts.
- · On Monday of each week, report team totals to local office or enter information at www.walkkansas.org
- Encourage team members to view their progress at www.walkkansas.org
- Check to make sure team members are receiving a weekly Walk Kansas newsletter.
- During week 7 and 8, encourage team-mates to complete a program evaluation survey and submit a success story if appropriate (online or turn paper survey in to local office).
- Contact information for local K-State Research and Extension Office:

Riley County Extension Office 110 Courthouse Plaza, Room B220 785-537-6350

Please report total minutes of activity for your team each week. (Each participant should report bonus minutes as part of their weekly total provided they qualify.) The website will convert minutes into miles for your team. Fifteen minutes of moderate or vigorous physical activity counts as one Walk Kansas mile.

	March We	16-22 eek 1	March We	23-29 ek 2		3-April 5 eek 3	April <b>W</b> e		April 1 <b>W</b> e	3-19 ek 5	April 2 We	0-26 eek 6	April 27 <b>We</b> #	-May 3 ek 7	May 4	
Names	Min.	F/V	Min.	F/V	Min.	F/V	Min.	F/V	Min.	F/V	Min.	F/V	Min.	F/V	Min.	F/V
1.																
2.																
3.																
4.																
5.																
6.																
Total Minutes																
Total F/V																



Kansas State University Agricultural Experiment Station and Cooperative Extension Service

K. State Research and Extension is an equal apportunity provider and employer. Issued in furtherance of Cooperative Extension Work, Acts of May 8 and June 30, 1914, a green of Cooperative Extension Work, Acts of May 8 and June 30, 1914, a green of Cooperative Extension Work, Acts of May 8 and June 30, 1914, a green of Cooperative Extension Work, Acts of May 8 and June 30, 1914, a green of Cooperative Extension Work, Acts of May 8 and June 30, 1914, a green of Cooperative Extension Work, Acts of May 8 and June 30, 1914, a green of Cooperative Extension Work, Acts of May 8 and June 30, 1914, a green of Cooperative Extension Work, Acts of May 8 and June 30, 1914, a green of Cooperative Extension Work, Acts of May 8 and June 30, 1914, a green of Cooperative Extension Work, Acts of May 8 and June 30, 1914, a green of Cooperative Extension Work, Acts of May 8 and June 30, 1914, a green of Cooperative Extension Work, Acts of May 8 and June 30, 1914, a green of Cooperative Extension Work, Acts of May 8 and June 30, 1914, a green of Cooperative Extension Work, Acts of May 8 and June 30, 1914, a green of Cooperative Extension Work, Acts of May 8 and June 30, 1914, a green of Cooperative Extension Work, Acts of May 8 and June 30, 1914, a green of Cooperative Extension Work, Acts of May 8 and June 30, 1914, a green of Cooperative Extension Work, Acts of May 8 and June 30, 1914, a green of Cooperative Extension Work, Acts of May 8 and June 30, 1914, a green of Cooperative Extension Work, Acts of May 8 and June 30, 1914, a green of Cooperative Extension Work, Acts of May 8 and June 30, 1914, a green of Cooperative Extension Work, Acts of May 8 and June 30, 1914, a green of Cooperative Extension Work, Acts of May 8 and Ma

Figure 1.12 Physical activity prescription form



Riley County Extension 110 Courthouse Plaza Room B220 Manhattan, KS 66502

(785) 537-6350 www.riley.ksu.edu

#### Important

How to use this information: This is a summary and does NOT have all possible information about this product.

### Helpful information for using this medication

Walk Kansas: www.walkkansas.org

Physical Activity
Guidelines for Americans:
www.health.gov/paguidelines/

### MyPlate" United States Department of Agriculture:

www.choosemyplate.gov/ foodgroups/physicalactivity.html

You will also find the "SuperTracker" here, which can help you plan, analyze and track your diet and physical activity. https://www.supertracker.usda. gov/default.aspx



Kansas State University Agricultural Experiment Station and Cooperative Extension Service

Extension Service
K-State Research and Extension is an equal opportunity provider and employer. Issued in furtherance of Cooperative Extension Work, Acts of May 8 and June 30, 1914, as amended. Kansas State University, County Extension Councils, Extension Councils, Extension Districts, and United States Department of Agriculture Cooperating, John Floros, Director.

Prescribed for Walk Kansas participants. RX# WALKKANSAS2014

#### Product information

combination with most other medications.

sports, gardening, strengthening exercises and more.

Drug: Walking



**Dosage:** Minimum 30 minutes a day, 5 days a week (total of 150 minutes a week.) Take at least 10 minutes at a time. It is safe to take during pregnancy and lactation, and in

Type: Something enjoyable that uses large muscle groups. Generic versions of this drug can include biking, swimming, dancing, team sports, jogging, aerobics, Zumba, team

Administration: Administer alone or take in company with others.

Generic name: Physical Activity; also known as the "wonder drug."

Refills: Unlimited

Price: Little to nothing

Uses: This medication is used to prevent chronic disease and to extend life. It has been proven to help prevent and treat diabetes, high blood pressure, cardiovascular disease, breast and colon cancer, obesity, depression, anxiety, and osteoporosis. It also aids in achieving and maintaining a healthy weight, helps ease pain from chronic disease, and slows functional decline from aging. The impact of this drug is enhanced if taken with a healthful diet and adequate sleep.

How to use: Take this medicine on most days of the week. Take at least three 10-minute segments of physical activity per day at a moderate or vigorous intensity. (Moderate is when you can barely carry on a conversation. If you can sing, work harder.)

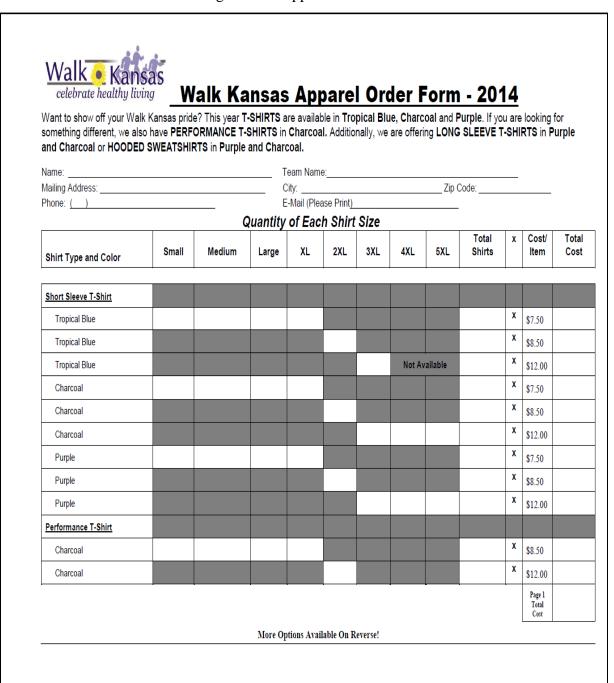
If walking, work toward a pace of 3 miles per hour or faster. Drink plenty of water while on this medication — staying hydrated is important. This medication works best if you break prolonged periods of sitting during your waking day. Stand or move every hour.

See your doctor before taking this medication if you: have chronic health problems such as heart disease or diabetes; have high blood pressure; have pains in your heart/chest area; have severe dizziness; have a bone or joint condition that might be made worse with new exercise activities; are over age 45 and not accustomed to vigorous exercise.

Side effects: Decreased blood pressure; stronger muscles; stronger bones; more energy; positive attitude; better sleep; more productive at work and home; improves ability to handle stress; lowers risk for suffering a heart attack or stroke; better posture; increased flexibility; healthy weight; improved fitness; sharper memory; better pain management; reduced anxiety; improved balance and coordination; improved self-esteem; more opportunities to socialize actively with friends and family.

Missed dose: Start taking again as soon as possible. Don't worry about a missed dose.

Figure 1.13 Apparel order form



Shirt Type and Color	Small	Medium	Large	XL	2XL	3XL	4XL	5XL	Total Shirts	X	Cost/ Item	Total Cost
Long Sleeve T-Shirt												
Purple										X	\$10.00	
Purple							Not Av	ailable		X	\$13.00	
Charcoal										X	\$10.00	
Charcoal							Not Av	ailable		X	\$13.00	
Hooded Sweatshirt												
Purple										X	\$18.50	
Purple							Not Av	ailable		X	\$21.50	
Charcoal										X	\$18.50	
Charcoal							Not Av	ailable		X	\$21.50	

Page 2 Cost + Page 1 Cost Total Amount Due

Submit this completed form and ONLY ONE PAYMENT METHOD (All cash or one team check or one credit card) per team payable to: Riley County Extension, 110 Courthouse Plaza Room B220, Manhattan, KS 66502

Questions? Call the extension office at 785-537-6350

For Office Use Only Person Paying:	Check # or Cash:	Amt Pd.:	Date Pd.:
------------------------------------	------------------	----------	-----------

K-State Research & Extension is committed to making its services, activities and programs accessible to all participants. If you have special requirements due to physical, vision, or hearing disability, or a dietary restriction please contact Ginny Barnard at ginnyb@ksu.edu or call 785-537-6350.

## **Alignment with Public Health Core Competencies**

Over the course of my field experience and thesis research, I was able to meet the core competencies of my public health education. The first core competency is biostatistics, and I was able to acquire a great deal of knowledge and experience relevant to this area through my research and time at the extension and research office. During the Walk Kansas program, we utilized a survey method at the conclusion of the program to collect information and compile the results for the group. I also analyzed the baseline demographic data and compiled the information to send to the state level department. My research in the nutrition and exercise field allowed for me to help design and test a question relevant to the area of public health, specifically sedentary behavior and potential compensatory behaviors in adults. My statistics knowledge increased exponentially as my mentors helped me understand appropriate use of measurements, data acquisition and the analysis of the data.

The second core competency is environmental health. In addition to the information that I acquired during my course work in the area, I was able to utilize this knowledge during my work with the gardening and nutrition education in the elementary schools. When we were preparing and harvesting our gardens, we talked about food safety and how to ensure that we cleaned and prepped our foods to minimize the risk of environmental hazards and adverse events.

Epidemiology is the third core competency, and I was given ample opportunities to increase my experience and understanding in this area. In order to do my background research for both my thesis and field experience, I spent a lot of time reading the epidemiological literature regarding these two areas. I was able to make inferences about the data and make assessments regarding the study quality, as well as its strengths and limitations. Since I was involved with the entirety of the data collection process with my thesis research, I gained experience in the appropriate informed consent process, as well as the maintenance and use of

epidemiological data. A significant portion of my thesis literature review was based upon the findings from large-scale epidemiology studies, and I used this information to help understand the importance of completing our study with an experimental design in order to see if changes were occurring on an individual or small group level.

The fourth core competency is health care administration, and this became a relevant topic during my time with the research and extension office. I was able to more fully understand the role that public health plays in the health of our country, and how healthcare and health services are also provided in community departments outside of a physician's office. Since we are all consumers of healthcare, it is important for public health professionals to understand the role that they play in promoting disease prevention and healthy lifestyles. I was certainly able to understand how the research and extension unit accomplishes this role in Riley County through their numerous community health education programs, as well as through programs like Walk Kansas.

The final core competency area is related to social and behavioral sciences. Successful completion of this competency requires that the ways in which behavioral factors impact the health of individuals and populations is understood. Throughout my field experience and in the research setting, this competency area played a significant role in my learning. In order for an individual to improve their health and decrease their risk of disease, it is imperative that they understand how their behaviors can positively or negatively affect their progress. A key role for my field experience was helping to give people opportunities and structure for successful behavior changes, either through a physical activity promotion program or through nutrition education. In order to be successful in this task, I had to refer back to my public health education and rely on the models and theories regarding behavior change and health interventions. For my

area of public health nutrition, I felt that this competency was where I gained the greatest deal of experience and understanding. Throughout the process, I learned that the goal of public health interventions and improvements in quality of life are incredibly complex. The best laid out programs can be meaningless if people don't have access to them or the desire to participate. As with each of the public health core competencies, understanding the facets that make up the social and behavioral sciences is key to being a successful public health professional and promoter.

### **Conclusion**

The education and experience that I gained through the public health program at Kansas State University has absolutely changed the way that I view the world. It has instilled in me a passion to continue research and work to improve the lives of those who need it most. Although I felt that I understood the context of public health when I began the program two years ago, I now reflect back and realize that many of the things that I believed to be true were, in fact, very far from it. I feel that this program has given me the tools to be a better researcher, public health professional and educated citizen. I am incredibly grateful for those who mentored me, worked with me, and encouraged me along the way. While this may be the closing of one chapter in my public health experience, I am confident that I have just begun to help advance the goals and mission of our profession.

## References

- Contento, I.R., Manning, A.D., & Shannon, B. (1992). Research perspective on school-based nutrition education. *Journal of Nutrition Education*, 24(5), 247-260.
- Estabrooks, P. A., Bradshaw, M., Dzewaltowski, D. A., & Smith-Ray, R. L. (2008). Determining the impact of Walk Kansas: applying a team-building approach to community physical activity promotion. *Annals of Behavioral medicine*, *36*(1), 1-12.
- Kahn, E. B., Ramsey, L. T., Brownson, R. C., Heath, G. W., Howze, E. H., Powell, K. E., Stone, E. J., Rajab, M. W., & Corso P. (2002). The effectiveness of interventions to increase physical activity: A systematic review. *American journal of preventative medicine*. 224s, 73-107.
- Lineberger, S. E., & Zajicek, J. M. (2000). School gardens: Can a hands-on teaching tool affect students' attitudes and behaviors regarding fruit and vegetables?. *HortTechnology*, 10(3), 593-597.
- McAleese, J. D., & Rankin, L. L. (2007). Garden-based nutrition education affects fruit and vegetable consumption in sixth-grade adolescents. *Journal of the American Dietetic Association*, 107(4), 662-665.
- Morris, J. L., & Zidenberg-Cherr, S. (2002). Garden-enhanced nutrition curriculum improves fourth-grade school children's knowledge of nutrition and preferences for some vegetables. *Journal of the American Dietetic Association*, 102(1), 91-93.
- Riley County Research and Extension. (2014). Riley County. Retrieved July 1, 2014, from www.riley.ksu.edu.
- Society for Nutrition Education. (2009). *State of Nutrition Education & Promotion for Children & Adolescents*. Indianapolis, IN.

## **Appendix – Riley County Walk Kansas Survey Results**

 Consider your experience in Walk Kansas 2014 and answer the following questions. As a result of this program, I feel motivated to follow physical activity recommendations.

#	Answer	Bar	Response	%
1	Strongly agree		22	26%
2	Agree		47	56%
3	Neither agree or disagree		14	17%
4	Disagree		1	1%
5	Strongly disagree		0	0%
	Total		84	

Statistic	Value
Min Value	1
Max Value	4
Mean	1.93
Variance	0.48
Standard Deviation	0.69
Total Responses	84

 $2. \ \ \, \text{During the 8 weeks of Walk Kansas, I reached the minimum goal for physical activity } -150 \, \text{minutes of moderate/vigorous activity per week.}$ 

#	Answer	Bar	Response	%
1	Yes		72	86%
2	No		12	14%
	Total		84	

Statistic	Value
Min Value	1
Max Value	2
Mean	1.14
Variance	0.12
Standard Deviation	0.35
Total Responses	84

 $3. \ \ \ \ \, \text{If you answered "yes" to the previous question, please indicate how confident you are in your ability to continue this amount of physical activity over the next 6 months.}$ 

#	Answer	Bar	Response	%
1	Completely confident		33	46%
2	Confident		30	42%
3	More often than not		8	11%
4	Somewhat confident		1	1%
5	Not confident		0	0%
	Total		72	

Statistic	Value
Min Value	1
Max Value	4
Mean	1.68
Variance	0.53
Standard Deviation	0.73
Total Responses	72

 $4. \;\;$  As a result of this program, I understand the need to break prolonged sitting and move several minutes every hour during the day.

#	Answer	Bar	Response	%
1	Strongly Agree		42	50%
2	Agree		35	42%
3	Neither Agree nor Disagree		5	6%
4	Disagree		2	2%
5	Strongly Disagree		0	0%
	Total		84	

Statistic	Value
Min Value	1
Max Value	4
Mean	1.61
Variance	0.51
Standard Deviation	0.71
Total Responses	84

## $5. \;\;$ As a result of this program, I learned that I should do strengthening exercises twice a week.

#	Answer	Bar	Response	%
1	Strongly agree		20	24%
2	Agree		34	41%
3	Neither agree or disagree		18	22%
4	Disagree		9	11%
5	Strongly disagree		1	1%
	Total		82	

Statistic	Value
Min Value	1
Max Value	5
Mean	2.23
Variance	0.97
Standard Deviation	0.99
Total Responses	82

## $6. \;\;$ As a result of this program I am more aware of healthy eating recommendations.

#	Answer	Bar	Response	%
1	Strongly agree		21	25%
2	Agree		43	52%
3	Neither Agree nor Disagree		15	18%
4	Disagree		3	4%
5	Strongly Disagree		1	1%
	Total		83	

Statistic	Value
Min Value	1
Max Value	5
Mean	2.04
Variance	0.69
Standard Deviation	0.83
Total Responses	83

## 7. During the 8 weeks of Walk Kansas I ate more fruits and/or vegetables.

#	Answer	Bar	Response	%
1	Yes		60	72%
2	No		23	28%
	Total		83	

Statistic	Value
Min Value	1
Max Value	2
Mean	1.28
Variance	0.20
Standard Deviation	0.45
Total Responses	83

# $8. \;\;$ If you answered yes to the previous question, indicate how confident you are that you will continue to eat this amount of fruits and/or vegetables over the next 6 months.

#	Answer	Bar	Response	%
1	Strongly agree		29	47%
2	Agree		25	40%
3	Neither Agree nor Disagree		6	10%
4	Disagree		2	3%
5	Strongly Disagree		0	0%
	Total		62	

Statistic	Value
Min Value	1
Max Value	4
Mean	1.69
Variance	0.61
Standard Deviation	0.78
Total Responses	62

 $9. \;$  As a result of this program I have adopted healthier lifestyle habits.

#	Answer	Bar	Response	%
1	Yes		64	79%
2	No		17	21%
	Total		81	

Statistic	Value
Min Value	1
Max Value	2
Mean	1.21
Variance	0.17
Standard Deviation	0.41
Total Responses	81

 $10. \ \$  If you experienced any physical or mental changes as a result of this program, check all that apply.

#	Answer	Bar	Response	%
1	Increased energy		39	59%
2	Increased endurance		23	35%
3	Increased muscle strength		24	36%
4	Increased flexibility		14	21%
5	Lower blood pressure		11	17%
6	Lower cholesterol		7	11%
7	Better attitude		41	62%
8	Better able to manage stress		15	23%
9	Improved sleep		22	33%
10	Decreased weight		18	27%

Statistic	Value
Min Value	1
Max Value	10
Total Responses	66

## $12. \ \ \, \text{Please identify the primary make-up of your team}.$

#	Answer	Bar	Response	%
1	Workplace		50	64%
2	Friends/family		26	33%
3	Neighbors		1	1%
4	Church or community group		1	1%
	Total		78	

Statistic	Value
Min Value	1
Max Value	4
Mean	1.40
Variance	0.35
Standard Deviation	0.59
Total Responses	78

## 15. Your age category -- please check one.

#	Answer	Bar	Response	%
1	17 and under		0	0%
2	18-34		18	22%
3	35-54		28	34%
4	55-74		31	37%
5	75 and over		6	7%
	Total		83	

Statistic	Value
Min Value	2
Max Value	5
Mean	3.30
Variance	0.80
Standard Deviation	0.89
Total Responses	83