

PHYSICAL ACTIVITY AND NUTRITION PROGRAMS AT THE KANSAS DEPARTMENT
OF HEALTH AND ENVIRONMENT

by

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Abstract

The Kansas Department of Health and Environment (KDHE) is a state level department concerned with protecting and improving the health and environment of all Kansas residents (Kansas Department of Health and Environment, 2011). This report presents the details of an internship completed at KDHE. Projects worked on during this internship include the Senior Farmer's Market Nutrition Program (SFMNP), a stair promotion program, and two literature searches.

The SFMNP is a federally funded program providing low-income seniors with funding to purchase fresh produce at local farmer's markets. The project consisted of updating the current system of certification and creating a system to recertify existing vendors. The "Take the Stairs" program was developed as a pilot study to develop, implement, and evaluate the feasibility of a stair promotion program in a state office building. Literature searches were conducted and annotated bibliographies were produced on pet ownership and physical activity and community-level, technology-based physical activity interventions. All projects were completed within the internship timeframe and provided valuable experience and insight into the state level public health field.

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Lastly I would like to thank my family and friends who have been a remarkable support system and sounding board throughout my educational career.

Chapter 1 - Introduction

Kansas Department of Health and Environment

The Kansas Department of Health and Environment (KDHE) is a state level department concerned with protecting and improving the health and environment of all Kansas residents (Kansas Department of Health and Environment, 2011). KDHE is directed by the Secretary and State Health Officer, Dr. Robert Moser, and is divided into four separate divisions. The four divisions are Administration-Office of the Secretary, Division of Public Health, Division of Health Care Finance and Division of Environment (Kansas Department of Health and Environment, 2011).

Division of Health

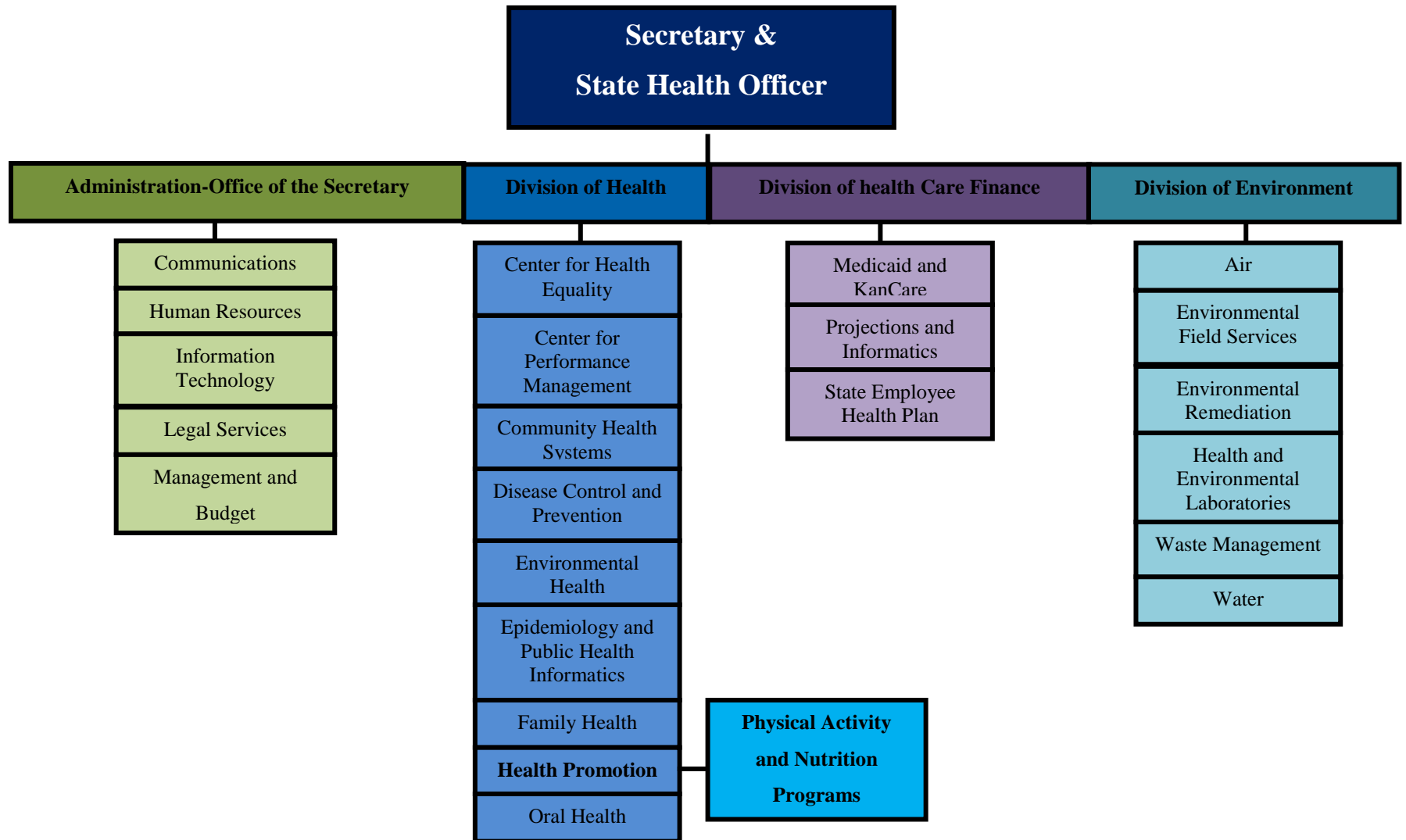
The Division of Health encompasses nine separate bureaus and is responsible for a large variety of tasks. This division oversees topic areas ranging from developing ways to provide communities with access to public health, primary care, and prevention services to managing the state civil registration system (births, deaths, marriages, divorces). Other tasks include investigating disease outbreaks and finding ways to prevent the spread of disease, licensing facilities that provide care to people (daycares, preschools, hospitals, foster homes, etc.), and educating the public on injury prevention and chronic diseases.

Bureau of Health Promotion

The Bureau of Health Promotion (BHP) aims to improve the quality of life and prevent chronic disease, injury, and premature death for all Kansas residents. This is done through partnerships that promote healthy behaviors, policies, and environmental changes. Specifically the BHP is responsible for functions related to reducing the preventable burden of chronic disease and injuries. Currently 75% of all health care expenditures in Kansas are a result of chronic disease and injuries are the leading cause of death in Kansas for individuals aged 1-44 (Kansas Department of Health and Environment, 2012).

The Bureau of Health Promotion consists of nine programs/sections covering a range of public health topics including: healthy communities, schools, tobacco prevention, physical activity and nutrition, injury prevention, and chronic disease prevention and early detection (Health Promotion, 2013).

Figure 1. KDHE Organizational Chart



Physical Activity and Nutrition Program

The Physical Activity Nutrition Program section aims to increase the knowledge, motivation, and opportunities of Kansas residents to encourage them to make healthier choices. The primary focus is on lifestyle choices around healthy eating and physical activity. This is accomplished through the promotion of programs supporting these healthy habits. Current projects include the Capital City Wellness Project, Senior Farmers Market Nutrition Program, Healthy Kansas Communities Toolkit, and the Capitol Midweek Farmer's Market.

Internship Overview

The internship consisted of a total of 240 on-site hours at the Kansas Department of Health and Environment in Topeka, KS. Under the guidance of Dr. Anthony Randles, I worked on projects for the Physical Activity and Nutrition Program. The internship began January 14th, 2013 and ended March 28th, 2013.

Four projects were completed throughout the course of the internship. The largest project was creating a system for recertification of vendors for the Senior Farmers' Market Nutrition Program. The second project was the development, implementation, and evaluation of a stair promotion program for the Curtis State Office Building. The last two projects involved a literature search and the creation of an annotated bibliography on separate topics. The topics were pet ownership and how it influences physical activity and community-level, technology-based physical activity interventions. The internship also provided the opportunity to attend various planning and strategy meetings for different sections within the Bureau of Health Promotion including: Spot the Salt campaign, cancer steering committee, funding opportunity announcements, and several webinar trainings.

Chapter 2 - Senior Farmers' Market Nutrition Program

Overview

The Senior Farmers' Market Nutrition Program (SFMNP) is a United States Department of Agriculture (USDA) funded program that is managed by the Kansas Department of Health and Environment. The SFMNP provides funding to low-income seniors in the State of Kansas to be used at local farmers' markets. There are currently 58 counties and approximately 5,500 low-income seniors participating in the program (See Figure 2. County Map). The amount of funding each senior receives is based on the amount of funding the program receives. In previous years, each eligible senior received ten \$3 checks per season. Seniors can use the checks to purchase fresh fruit, vegetables, and honey. All foods must be locally grown in Kansas or counties adjacent to the Kansas border and cannot be prepared beyond their natural state. Vendors can accept checks between May 1st, 2013 and October 15th, 2013.

Certification

As of 2012, there were 438 farmers participating as vendors for the SFMNP. Vendors who wish to be eligible to accept and deposit checks from the SFMNP must go through a certification process. Vendors interested in becoming certified set up a time to be trained by the physical activity and nutrition program coordinator. Training is conducted over the phone simultaneously with an online PowerPoint. The coordinator reads each slide verbatim and then directs the vendor to the online farmer's agreement form. After completion of the form, the vendor is mailed a packet with all their information. Vendors are required to recertify every three years to remain eligible to accept checks. This year, 2013, is the first year vendors are required to recertify, creating a need for a system to track recertification and creating the opportunity to update the current certification system.

The New System

An online training system was developed using the KS Train platform. I created two versions of the training PowerPoint. The original PowerPoint was plain black text on a white background. The online training version was separated into four modules to break up the

information and an assessment question was added at the end of each module. Each slide of the presentation included specific notes on how the online training should look, how the modules were separated, and placement of buttons for extra information. This version was sent to KS Train staff for creation of an online training. The second version of the PowerPoint was created to be placed on the website as a resource for vendors. This version did not include the assessment questions and was updated to be more engaging and not as text heavy.

The online medium provides the opportunity for more vendors to be trained without the time burden on KDHE staff and provides a better system for monitoring who has completed the training. For vendors without internet access or uncomfortable with the use of technology, a partnership with K-State Research and Extension was established to provide training at the county extension offices.

An information packet was sent to all vendors needing to recertify for 2013. The packet included a memo explaining that they need to recertify and explaining the new online system. Also included in the packet was an instruction sheet for setting up a KS Train account and how to access the online course. Instructions sheets were created to help those not as experienced with technology and included pictures of each step. The website was updated to include more resources for current and new vendors about the certification process. Copies of all resources and pictures of the changes to the website can be found in Appendix A.

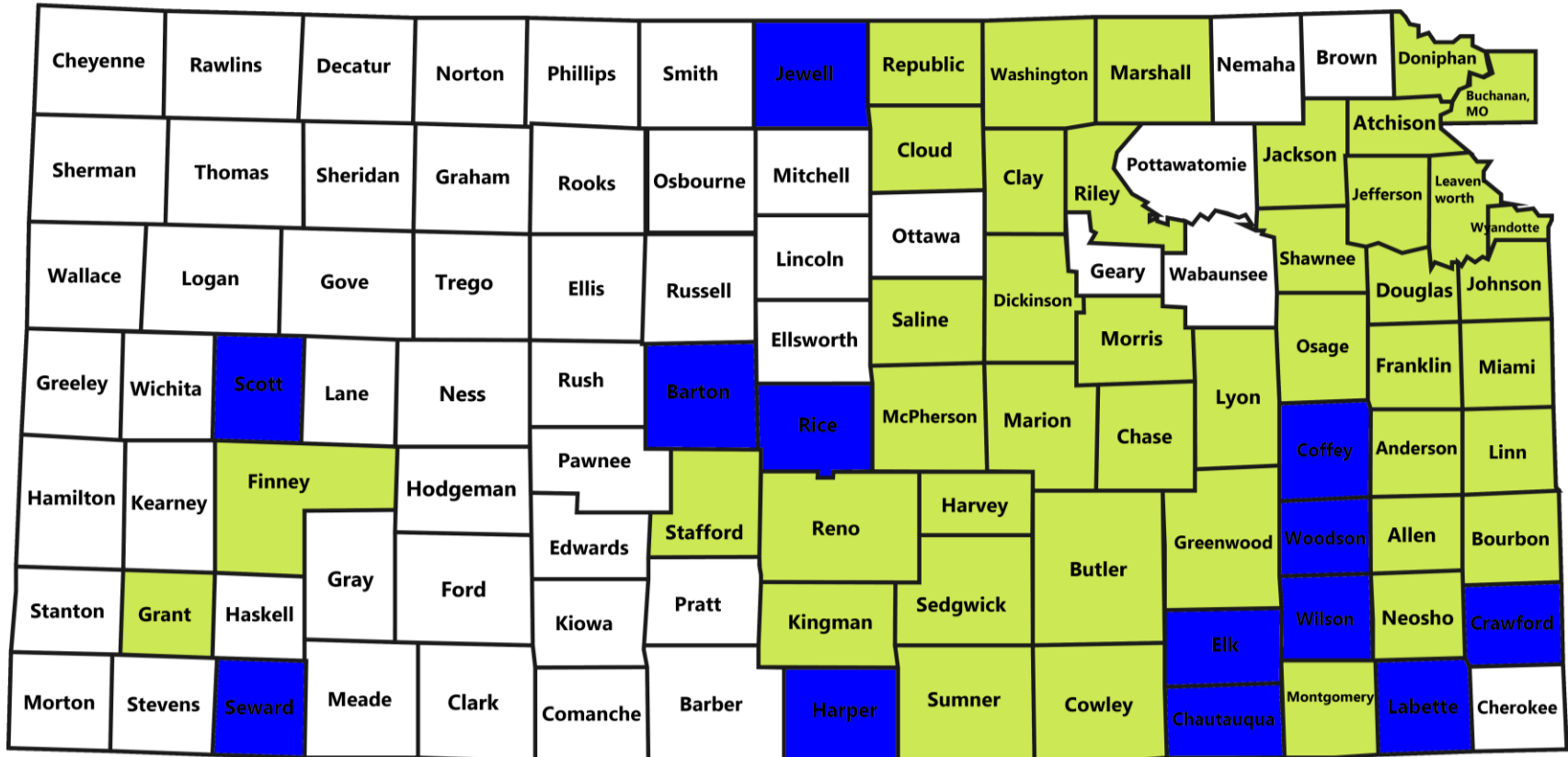
Research and Extension

To ensure all vendors have the resources necessary to become certified, the Kansas Department of Health and Environment partnered with K-State Research and Extension to provide the training at all county extension office locations. A memorandum of understanding was created between the two organizations. Each county office was contacted individually to identify one individual at the office who would take responsibility for the SFMNP training. This was generally the horticulture or agriculture agent at the office. Extension agents were mailed a packet containing a letter explaining the training process, an instruction sheet, and a copy of the training PowerPoint.

The method used for training at the Research and Extension office depends on the preference of the agent in charge of the training. Agents have the option to have the vendor complete the training online or they could print the PowerPoint out and go through it with the

vendor. If the training was completed offline, the farmer's agreement form must be printed, filled out and signed by the agent and then faxed or emailed to KDHE.

Figure 2. County Map



***Map shows all counties currently participating in the SFMNP.**

Green = Counties with vendors needing to be recertified in 2013. Blue = All other counties

Chapter 3 - Stair Promotion Program

Background

The Kansas Department of Health and Environment wanted to implement a take the stairs campaign in all of the state office buildings in downtown Topeka, KS. It was determined a short pilot study in one of the buildings would be a good way to develop, implement, and evaluate a program before taking it full scale in all the buildings.

The “Take the Stairs” prompts featured motivational messages adapted from the Centers for Disease Control and Prevention (CDC) program, *“Take the Stairs to Better Health.”* Additionally, motivational messages and email content was adapted from the Montclair Department of Health and Human Services *Take the Stairs: A Worksite Wellness Activity Toolkit*.

Implementation

The “Take the Stairs” campaign was a five-week program to encourage stair usage in the Curtis State Office Building. The program was offered to all departments in the building: Department of Health and Environment, Department of Administration, The Kansas Board of Regents, and the Department of Commerce.

In the first week of the program baseline data was collected on stair usage in the building. During weeks two through four stair prompt messages were posted near the elevators on each floor of the building. In week two an email was sent out to all personnel in the building introducing the program. In week three and four the weekly messages were included as part of the weekly newsletter, the “Friday Flash”, which is sent to all employees. In week five post-intervention stair usage was collected.

Evaluation

The stair promotion program was evaluated by comparing pre- and post-intervention stair usage. Stair usage was measured on February 26th, 2013 (pre-intervention) and again on March 27th, 2013 (post-intervention). Usage was recorded in each of the three stairwells of the building. Research assistants were placed on the main floor in each stair well during four separate time periods lasting twenty minutes each. The time periods were chosen to coincide with times people

were most likely to enter or leave the building (7:50-8:10am, 9:50-10:10am, 11:50-12:10pm, and 4:50-5:10pm). Researchers recorded sex and direction of use (entering, exiting) for all persons.

Results

Outside weather temperature was similar at baseline and follow-up, ranging from 32-40 degrees Fahrenheit each day. At baseline, the west side outer stairs leading to stairwell 1 were closed due to snow.

Overall results indicated that stair usage increased between the baseline and follow-up data collection points. An estimated 700 people work in the Curtis State Office building. Total stair usage at baseline was 280 people (40% of possible employees); total stair usage at follow-up was 335 people (47.9% of possible employees). Gender did not impact stair usage, the percent of people using the stairs identified as female ranged from 51.7% at baseline to 54.3% at follow-up. Figure 3 presents overall stair usage data. Stair usage does appear to differ on direction of use and stairwell. Approximately 64% of all people using the stairs at baseline and follow-up were exiting the stairwell. Figure 4 presents stair usage by gender and direction of use.

Looking at the results by stairwell shows that stairwell two, the main stairwell in the building, had the heaviest usage at baseline (83.2% of all people) and follow-up (68.6% of all people). Stair usage for stairwell two and three did not change significantly from baseline to follow-up. Stair usage for stairwell one increased significantly; however this was expected due to the closure of the outer entrance during baseline data collection. Figure 5 presents stair usage by stairwell.

The increase in overall stair usage can be accounted for by the increase in stair usage at stairwell one after the outside entrance reopened before the follow-up data collection. Based on stair usage of stair well two and three the “Take the Stairs” promotion did not have an influence on stair usage in the Curtis State Office Building.

Lessons Learned

There were many obstacles encountered during the development of this program. The biggest problems were time, determining what permissions were needed and who was needed to approve different aspects of the program. KDHE does not own the Curtis State Office Building and current building regulations prohibit attaching signs or posters to the building walls by any

method. To overcome this, easels were used to display the signs in the elevator lobby area of all floors. An additional easel was added to the main floor by the stair entrance. Also there are four separate agencies within the building. In order for all agencies to be included in the promotion, permission had to be received to send emails out to the employees of the other agencies.

I do not feel that the program was well implemented within the building. Due to regulations on sign placement, signs were not allowed to be placed next to the elevator buttons. Instead signs were placed across from the elevators and served more as a reminder that you should have taken the stairs as you exited the elevator than a prompt to choose the stairs before you enter the elevator. The emails about the program were incorporated into the Friday newsletter to keep from overloading employee inboxes. The message about the program might have been better received if it had been sent out in a separate message to employees and at the beginning of the week instead of at the end.

Future Directions

The Kansas Department of Health and Environment originally planned to extend this program to a full 12-week program and implement it in all downtown Topeka state office buildings. If they plan to implement this program despite the lack of change seen in the pilot study, I would recommend a few changes. First I would recommend that a better method is found for displaying the prompts so they are more visible prior to entrance on the elevator rather than as they are getting off the elevator. Second I would recommend that the weekly emails go out at the beginning of each week.

Figure 3. Overall Stair Usage

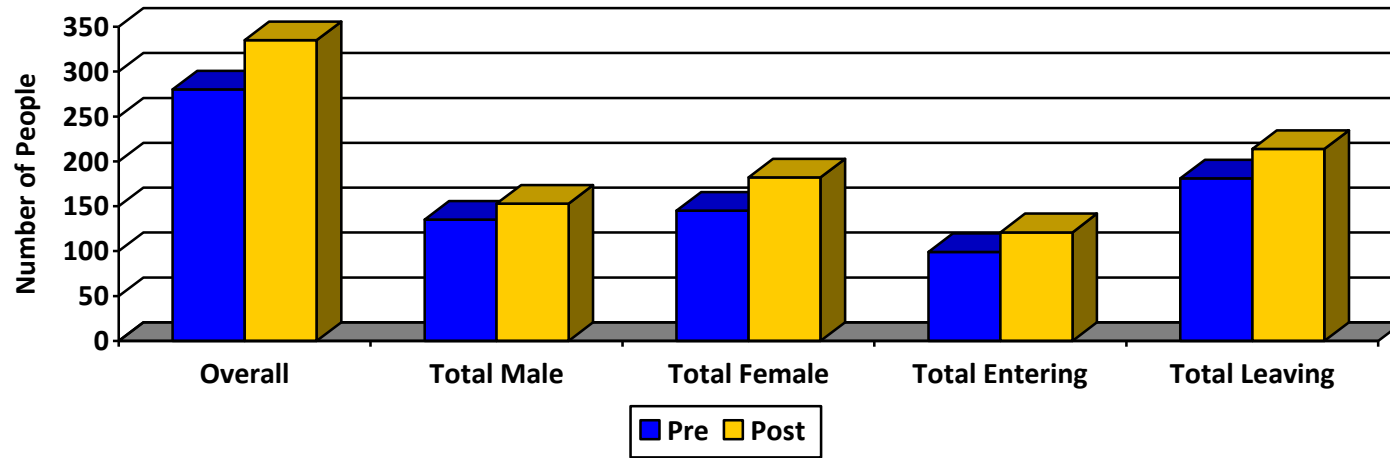


Figure 4. Stair Usage by Gender and Direction of Use

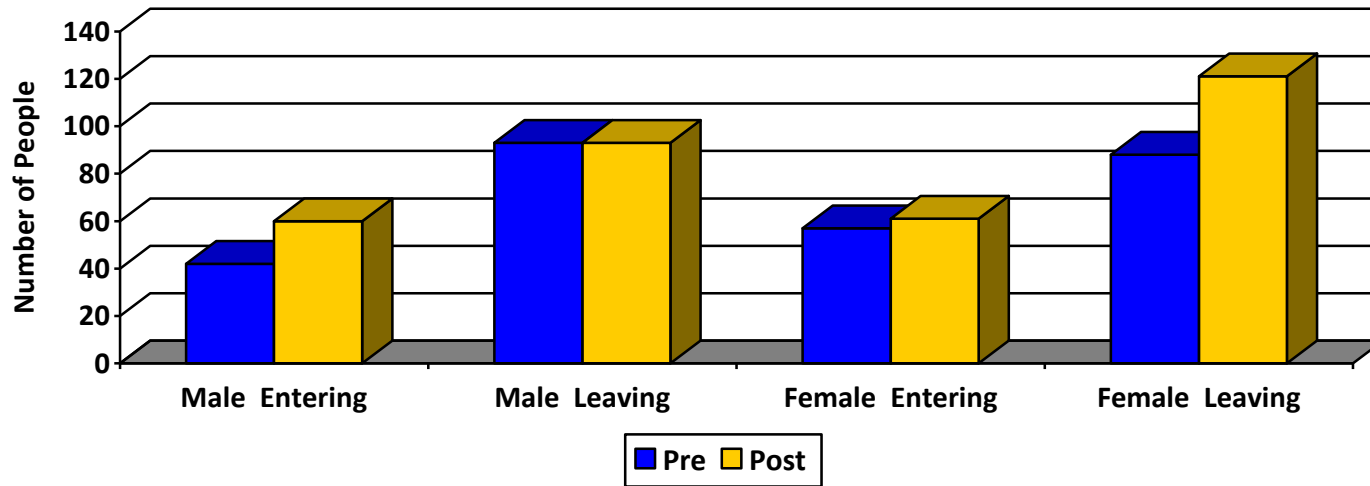
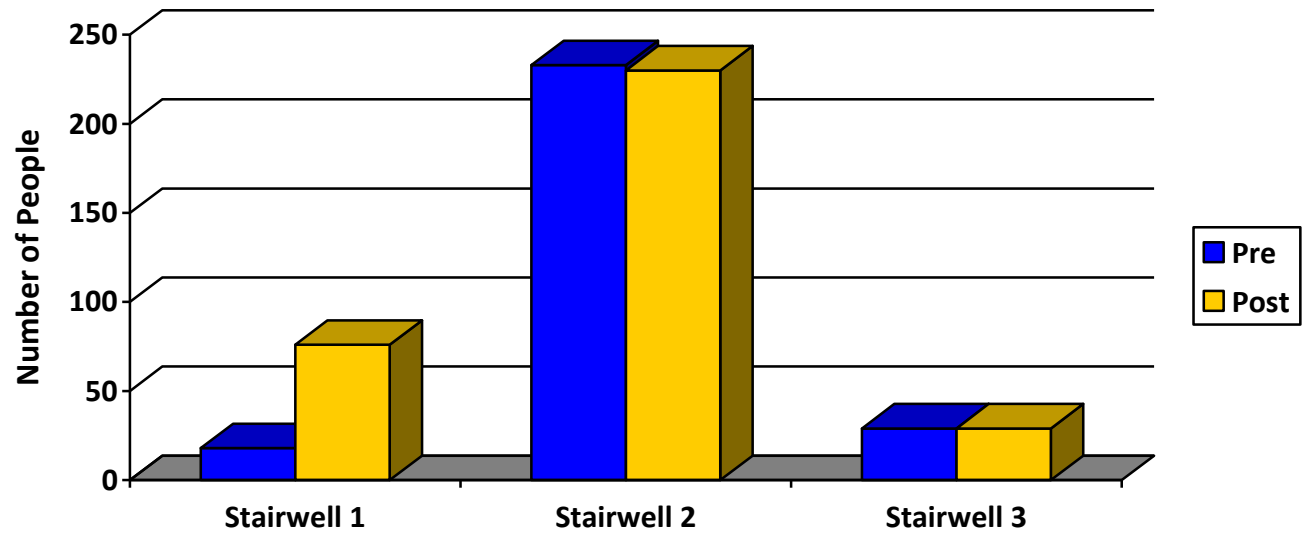


Figure 5. Stair Usage by Stairwell



Chapter 4 - Physical Activity and Pet Ownership

Methods

The aim of this project was to identify all research articles published between 2008 and 2013 linking pet ownership and physical activity; and to create an annotated bibliography of the literature. Searches were conducted in the following databases: Pubmed, Web of Science, PsychINFO, and ProQuest. Key words used in the searches were pet owner, pet ownership, physical activity, and exercise. A total of 3,179 articles were found, after reviewing all titles, abstracts and eliminating articles not meeting the inclusion criteria, 26 articles remained and were included in the annotated bibliography.

Annotated Bibliography

Winefield, H., Black, A., & Chur Hansen, A. (2008). Health effects of ownership of and attachment to companion animals in an older population. *International Journal of Behavioral Medicine*, 15(4), 303-310.

Focus was on measure of attachment. Findings suggest that pet ownership is not necessarily beneficial, whereas exercise and satisfying relationships with human support sources are reliably related to good health.

Knight, S., & Edwards, V. (2008). In the company of wolves: The physical, social, and psychological benefits of dog ownership. *Journal of Aging and Health*, 20(4), 437-455.

Focus group of only dog owners around beliefs and attitudes towards dog ownership. All participants agreed that having a dog was good for their health. Dog walking was seen as an invaluable form of exercise and owning a dog was associated with regular physical exercise. More than 90% reported walking their dogs once or twice a day, every day. Dogs were described as motivators for exercise. The obligation to walk the dog helped overcome barriers to exercise such as not feeling up to it. Participants reported walking with their dog usually for 1 hr or more in the mornings (Sample was recruited from people walking their dog at a park).

Cutt, H., Giles Corti, B., Wood, L., Knuiman, M., & Burke, V. (2008). Barriers and motivators for owners walking their dog: Results from qualitative research. *Health Promotion Journal of Australia, 19*(2), 118-124.

Focus group of dog walkers around attitudes and beliefs towards barriers and motivators of walking. Dog ownership provides motivation and encouragement to start walking and social support and companionship to maintain the exercise. People were more motivated to walk for their dog's health and well-being, than for their own. Owners were also motivated to walk by the social support provided by their dog to initiate and maintain walking. Perceived lack of accessible Public Open Spaces and dog-specific exercise areas were identified as major barriers to dog owners walking with their dog in this study.

Cutt, H., Knuiman, M., & Giles-Corti, B. (2008). Does getting a dog increase recreational walking? *International Journal of Behavioral Nutrition and Physical Activity, 5*, 17.

Longitudinal study suggests that dog acquisition leads to an increase in walking. Dog acquisition increased recreational walking by 31 minutes/ week (persisted after adjusting for baseline recreational walking and baseline factors associated with dog acquisition) Increased intention to walk mediated the relationship between dog acquisition and increased recreational walking. It appears dog owners may substitute dog walking for other types of physical activity. The long-term commitment of dog ownership plays a significant role in assisting owners to maintain their walking behavior.

Cutt, H., Giles-Corti, B., & Knuiman, M. (2008) Encouraging physical activity through dog walking: Why don't some owners walk their dog? *Preventive Medicine, 46*, 120-126.

Owners that walk with their dog are more likely to meet recommendations for PA. Up to 60% of dog owners do not walk with their dog. The odds of not walking with the dog was significantly higher in owners who did not perceive their dog to be a source of motivation to walk more and in those who perceived that the social support provided by their dog to

walk more was poor. Owners who did not walk with their dog were more likely to own a toy or a small sized dog rather than a medium or large sized dog, were relatively less attached to their dog and reported that their spouse/partner was the person who usually walked the dog. Owners who did not possess a positive subjective norm for walking with the dog daily or who perceived dog-related barriers might prevent them from walking with their dog daily remained at increased odds of not walking with their dog. Engaging veterinarians to encourage owners to walk with their dog could have positive outcomes for the concurrent pet–human obesity epidemic.

Nijland, M., Stam, F., & Seidell, J. (2009) Overweight in dogs, but not in cats, is related to overweight in their owners. *Public Health Nutrition*, 13(1), 102-106.

Demonstrated a positive relationship between the degree of overweight of dogs and the BMI of their owners that disappeared after correction for time spent walking the dog. The relationship between the weight of the dog and owner may indicate that owners might apply their personal attitudes and behavior to their pets, which is supported by the finding that the degree of overweight in dogs is positively related to the duration of ownership.

Salmon, J., Timperio, A., Chu, B., & Veitch, J. (2010). Dog ownership, dog walking, and children's and parents' physical activity. *Research Quarterly for Exercise and Sport*, 81(3), 264-271.

First study to look at children. Found dog ownership provides physical activity benefits for mothers and younger and older girls. Mothers and fathers who walk the dog as a family can improve physical activity levels. Promoting family dog walking may be a potential intervention strategy to increase physical activity in adults.

Peel, E., Douglas, M., Parry, O., & Lawton, J. (2010). Type 2 diabetes and dog walking: Patients' longitudinal perspectives about implementing and sustaining physical activity. *British Journal of General Practice*, 60, 570-577.

Qualitative study found walking, especially with a dog, is an achievable, and crucially, sustainable form of exercise for people with type 2 diabetes because it offers regular, routine activity and companionship.

Owen, C., Nightingale, C., Rudnicka, A., Ekelund, U., McMinn, A., van Sluijs, E.M.F.,... Whincup, P.H. (2010). Family dog ownership and levels of physical activity in childhood: Findings from the child heart and health study in England. *American Journal of Public Health, 100*(9), 1669-1671.

Children from households with a pet dog have higher levels of PA, measured objectively by accelerometry.

O'Haire, M. Companion animals and human health: Benefits, challenges, and the road ahead. (2010). *Journal of Veterinary Behavior, 5*, 226-234.

Focus was not on PA. Dogs provide relief if stress and anxiety and increased social support. Social support has been linked as a possible reason for increased walking in dog-owners.

Mathers, M., Canterford, L., Olds, T., Waters, E., & Wake, M. (2010). Pet ownership and adolescent health: Cross-sectional population study. *Journal of Paediatrics and Child Health, 46*(12), 729-735.

Neither owning a pet nor time spent caring for/playing with a pet appeared to be related to better adolescent health or well-being. Health outcomes, average daily physical activity level and BMI status were not associated merely with owning any pet or with having dog(s).

Mullersdorf, M., Granstrom, F., Sahlqvist, L., & Tillgren, P. (2010). Aspects of health, physical/leisure activities, work and socio-demographics associated with pet ownership in Sweden. *Scandinavian Journal of Public Health, 38*(1), 53-63.

Pet owners differ from non-pet-owners with regard to socio-demographics, health, physical/leisure activities, and aspects of work. Pet owners perceived their general health to be better than non-owners but had worse mental health and were more likely to suffer from pain in the neck, shoulders, and head. Pet owners were more physically active than non-owners and were more likely to choose leisure activities associated with the natural world (hunting, fishing...).

Johnson, R., & Meadows, R. (2010). Dog-walking: Motivation for adherence to a walking program. *Clinical Nursing Research, 19*(4), 387-402.

Feeling committed to an animal (even an animal that is not one's own) may be a motivator to engage in and adhere to a walking regimen. Weight loss can result from a dog walking regimen. This study was the first to look at using a loaner dog and would be difficult to reproduce in larger populations.

Gillum, R., & Obisesan, T. (2010). Living with companion animals, physical activity and mortality in a US national cohort. *International Journal of Environmental Research and Public Health, 7*(6), 2452-2459.

People living with a canine companion were more likely to be in the highest activity group and least likely to be in the no activity group, however frequency of Moderate/vigorous physical activity was no longer significantly associated with living with an animal after adjusting for age or multiple socio-demographic variables.

Cangelosi, P., & Sorrell, J. (2010). Walking for therapy with man's best friend. *Journal of Psychosocial Nursing, 48*(3), 19-23.

Read more like an opinion article. Human-animal bonds should be explored as cost-effective strategies for enhancing mental and physical health in older adults.

Toohey, A., & Rock, M. (2011). Unleashing their potential: A critical realist scoping review of the influence of dogs on physical activity for dog-owners and non-owners. *International Journal of Behavioral Nutrition and Physical Activity*, 8, 46.

Dog-owners are more likely than non-dog owners to meet physical activity recommendations. Dog -owners are often able to overcome personal barriers to walk their dog on a daily basis. Interventions may be able to increase the likelihood of non-owners meeting recommendations through "loaner dogs" and pairing neighbors with and without a dog to walk together. It is notable that the authors found loose and unattended dogs have been identified as a barrier to physical activity but only in ethnic-minority neighborhoods.

Sirard, J., Patnode, C., Hearst, M., & Laska, M. (2011). Dog ownership and adolescent physical activity. *American Journal of Preventive Medicine*, 40(3), 334-337.

Family dog ownership and adolescent total physical activity has a small but positive association as objectively measured by accelerometers. Dog ownership was not association with sedentary behaviors. More research is needed to determine causality. Do active families get dogs or do dogs make families active?

Rijken, M., & van Beck, S. (2011) About cats and dogs...reconsidering the relationship between pet ownership and health related outcomes in community-dwelling elderly. *Social Indicators Research*, 102(3), 373-388.

This study looked at an elderly population all with chronic illness or disability. They found dogs increased the chance of being classified as healthy active on the Short questionnaire to assess health enhancing physical activity. Cats decreased this chance.

McConnell, A., Brown, C., Shoda, T., Stayton, L., & Martin, C. (2011). Friends with benefits: On the positive consequences of pet ownership. *Journal of Personality and Social Psychology*, 101(6), 1239-1252.

Pet owners self-report greater levels of exercise and perceived physical fitness. This was measured by two likert scale questions and averaged.

McMinn, A.M., van Sluijs, E., Nightingale, C.M., Griffin, S.J., Cook, D.G., Owen, C.G., Ridnicka, A.R., & Whincup, P.H. (2011) Family and home correlates of children's physical activity in a multi-ethnic population: The cross-sectional child heart and health study in England (CHASE). *International Journal of Behavioral Nutrition and Physical Activity*, 8, 11.

Pet ownership was positively associated with physical activity. The cross sectional nature of the study does make it impossible to determine causality.

Lail, P., McCormack, G., & Rock, M. (2011). Does dog-ownership influence seasonal patterns of neighbourhood-based walking among adults? A longitudinal study. *BMC Public Health*, 11, 148.

Dog owners are more likely to be physically active than non-owners. Dog-owners are also more likely to be consistently active across the seasons. On average dog-owners walked for 30-minutes a day regardless of season.

Hoerster, K., Mayer, J.A., Sallis, J.F., Pizzi, N., Talley, S., Pichon, L.C., & Butler, D.A. (2011). Dog walking: Its association with physical activity guideline adherence and its correlates. *Preventive Medicine*, 52(1), 33-38.

Dog walking was significantly associated with meeting physical activity guidelines and accelerometry data shows dog walkers were significantly more likely to meet moderate to vigorous physical activity guideline. Dog encouragement for dog walking, dog-walking self-efficacy, and dog-walking obligation were the strongest correlates. One third of dog owners do not walk their dog and may be a good target for physical activity interventions

targeting Dog encouragement for dog walking, dog-walking self-efficacy, and dog-walking obligation.

Arhant-Sudhir, K., Arhant-Sudhir, R., & Sudhir, K. (2011) Pet ownership and cardiovascular risk reduction: Supporting evidence, conflicting data and underlying mechanisms. *Clinical and Experimental Pharmacology and Physiology*, 38, 734-738.

Overall pet ownership, specifically dog ownership, appears to be associated with increased physical activity. This is usually seen in the form of walking not for exercise. Still only a portion, approximately 30%, of dog owners walk their dog.

Westgarth, C., Liu, J., Heron, J., Ness, A., Bundred, P., Gaskell, R., . . . Dawson, S. (2012). Dog ownership during pregnancy, maternal activity, and obesity: A cross-sectional study. *PLoS ONE*, 7(2), e31315.

Dog ownership was associated with an increased likelihood of getting at least three hours of physical activity a week in pregnant women. Ownership was specifically associated with brisk walking and not any other physical activity.

Shibata, A., Oka, K., Inoue, S., Christian, H., Kitabatake, Y., & Shimomitsu, T. (2012). Physical activity of Japanese older adults who own and walk dogs. *American Journal of Preventive Medicine*, 43(4), 429-433.

Dog walkers have higher average minutes per week of moderate to vigorous physical activity and total physical activity. No differences were seen between non-dog walkers and non-dog owners.

Enmarker, I., Hellzen, O., Ekker, K., & Berg, A. (2012). Health in older cat and dog owners: The Nord-Trondelag Health Study (HUNT)-3 study. *Scandinavian Journal of Public Health*, 40(8), 718-724.

Dog owners had a higher frequency and duration of physical activity than cat owners or non-pet owners.

Conclusions

Few studies looked at overall pet ownership, the majority of all studies found for this search involved dog-owners. A limited number of studies found that cat ownership may be negatively associated with physical activity in older adults.

Overall the research indicates that dog ownership is positively associated with physical activity. Dog owners are more likely to meet physical activity recommendations, however some studies have found owners may substitute dog walking in place of other physical activity. For many owners the obligation they feel to walk their dog helps them to overcome barriers to walking such as weather or not feeling up to it. Many owners reported their dogs provide motivation and encouragement to walk and provide social support to maintain walking. There have been a few longitudinal studies that have shown dog owners maintain walking to meet recommendation across all seasons. One longitudinal study found that acquisition of a dog can lead to increases in physical activity.

Despite the findings that dog owners are more physically active, a large portion of dog owners do not walk their dog. Some studies estimate as many as 60% of dog owners do not walk their dog. Some owners do not perceive their dog as needing physical activity or do not see them as a source of motivation to walk. Dog owners who do not walk their dog are also more likely to own a small or toy-sized dog than a medium or large dog. Some studies have also shown non-dog walkers have less attachment to their dog or it is the responsibility of someone else in the family.

Lastly, research is emerging on the topic of loaner dogs. One study looked at the possibility of increasing physical activity in non-owners by allowing them to walk a dog not belonging to them. Results showed individuals developed a companionship with the dog and felt the obligation to walk the dog even though it did not belong to them. Another possibility for this area is to pair owners and non-owners in a neighborhood for walking together.

Dog ownership is a potential area for intervention to increase physical activity. Many factors go into the decision to own a dog and it will not be suitable for everyone. The focus should be to encourage current dog owners who do not walk with their dog to start a walking

program. Veterinarians could be used to talk to the owners about the importance for exercise for the pet; targeting the owners concern for the pet's health and wellbeing. Another potential avenue is to encourage family walks with the dog. Studies involving children are still fairly new but a few have shown family dog ownership is positively associated with physical activity in the child. Family walks are one way to increase physical activity for all family members.

Chapter 5 - Community-Level Technology-Based Physical Activity Interventions

Methods

The aim of this project was to identify all research articles published between 2006 and 2013 examining potential technology-based methods to encourage and/or measure physical activity in large populations. Searches were conducted in the following databases: Pubmed, Web of Science, PsychINFO, and ProQuest. Key words used in the searches were technology, physical activity, social media, and app. A total of 5,206 articles were found, after reviewing all titles, abstracts and eliminating articles not meeting the inclusion criteria, 15 articles remained and were included in the annotated bibliography.

Annotated Bibliography

Van Den Berg, M.H., Schoones, J.W., & Vliet Vlieland, T.P. (2007). Internet-based physical activity interventions: A systematic review of the literature. *Journal of Medical Internet Research*, 9(3), e26.

To date research in this area is limited and methodological quality differs greatly. There is some evidence that web-based interventions are more effective than a wait-list strategy.

Eakin, E.G., Mummery, K., Reeves, M.M., Lawler, S.P., Schofield, G., Marshall, A.J., & Brown, W.J. (2007). Correlates of pedometer use: Results from a community-based physical activity intervention trial (10,000 Steps Rockhampton). *International Journal of Behavioral Nutrition and Physical Activity*, 4, 31.

This study found that the use of pedometers as a part of a multi-strategy, community-based intervention only reaches a limited percentage of the population. Pedometer use was higher in women, older adults, obese people, and higher educated people. At the follow-up survey, of the people who reported wearing a pedometer during the last 18 months 82% were no longer wearing the device.

Vandelanotte, C., Spathonis, K.M., Eakin, E.G., & Owen, N. (2007). Website-delivered physical activity interventions: A review of the literature. *American Journal of Preventive Medicine*, 33(1), 54-64.

Research to this point is still in its early stages but shows promise. The studies looked at in this review show a small effect size that are short lived. It has been shown that interventions with greater than five communications (emails, discussion boards, and chat sessions) had a more positive change in physical activity. More research needs to be done to improve engagement and retention of participants.

Wanner, M., Martin-Diener, E., Braun-Fahrländer, C., Bauer, G., & Martin, B.W. (2009). Effectiveness of active-online, an individually tailored physical activity intervention, in a real-life setting: Randomized controlled trial. *Journal of Medical Internet Research*, 11(3), e23.

This study compared a standard web-based physical activity intervention with a tailored web-based intervention. There were no differences seen between groups, both the non-tailored and tailored intervention groups increased their self-reported physical activity over time. This was not confirmed by objective physical activity measures.

Ferney, S.L., Marshall, A.L., Eakin, E.G., & Owen, N. (2009). Randomized trial of a neighborhood environment-focused physical activity website intervention. *American Journal of Preventive Medicine*, 48(2), 144-150.

This study compared the use of a neighborhood environment-focused physical activity website to a motivational-information website. It found that a neighborhood environment-focused physical activity website significantly increased total physical activity suggesting this website was more effective than the generic website. The neighborhood website also had greater usage, being accessed nearly three times more. Website usage decreased over time as expected. Use of the neighborhood website

resulted in a 25% increase in the number of participants classified as sufficiently active, compared to 6% for the generic website.

LaPlante, C., & Peng, W. (2011). A systematic review of e-health interventions for physical activity: An analysis of study design, intervention characteristics, and outcomes. *Telemedicine and e-Health*, 17(7), 509-522.

The use of e-Health methods (websites, e-mails, offline computer-tailored interventions, digital games, and mobile phones) as a means to increase physical activity is increasing but evidence does not yet conclusively support it as an effective method. There is some evidence to indicate it is a promising area but more rigorous research in the area is needed.

Cavallo, D.N., Tate, D.F., Ries, A.V., Brown, J.D., DeVellis, R.F., & Ammerman, A.S. (2012). A social media-based physical activity intervention: A randomized controlled trial. *American Journal of Preventive Medicine*, 43(5), 527-532.

No increases in perceived social support or physical activity over time were found. Participant satisfaction with and use of the Facebook group may suggest that online social networks are a feasible platform for intervention delivery among young adult females. Studies including participants with a high baseline Facebook usage and actively promote online social network interaction may be more successful at encouraging the exchange of online social support.

Broekhuizen, K., Kroeze, W., van Poppel, M.N.M., Oenema, A., & Brug, J. (2012). A systematic review of randomized controlled trials on the effectiveness of computer-tailored physical activity and dietary behavior promotion programs: An update. *Annals of Behavioral Medicine*, 44, 259-286.

The majority of computer-tailored interventions for physical activity are guided by the Transtheoretical model and the Social Cognitive Theory. Most also provide tailored

feedback on self-reported behavior. Feedback was based on behavioral determinants (intention, motivation, stage of change, self-efficacy, skills) and given through an electronic feedback form (on-screen, email reports, CD-ROM, or mobile phone. Evidence supports the use of this method for physical activity change and promotion. However effect sizes were small and evidence was generally limited to short term effects.

Vandelanotte, C., Duncan, M.J., Plotnikoff, R.C., & Mummery, W.K.. (2012). Do participants' preferences for mode of delivery (text, video, or both) influence the effectiveness of a web-based physical activity intervention? *Journal of Medical Internet Research*, *14*(1), e37.

This study used a web-based, computer-tailored physical activity intervention previously shown to increase physical activity to test differences by mode of delivery (text, video, or combination). No differences were seen based on mode of delivery indicating it may not be crucial to accommodate participants based on their preferred method of delivery. The authors do recommend offering the participants a choice when possible as some studies have shown it to influence participant satisfaction levels.

West, J.H., Hall, P.C., Hanson, C.L., Barnes, M.D., Giraud-Carrier, C., & Barrett, J. (2012). There's an app for that: Content analysis of paid health and fitness apps. *Journal of Medical Internet Research*, *14*(3), e72.

There are many apps promoting health and disease prevention available, however there is a lack of theoretical basis in these apps. A majority of the apps are based on enabling factors (teaching skills, tracking progress, or recording behavior), few apps include reinforcing factors (encouragement, evaluation, and the opportunity to interact with others).

Kirwan, M., Duncan, M.J., Vandelanotte, C., & Mummery, W.K. (2012). Using smartphone technology to monitor physical activity in the 10,000 steps program: A matched case-control trial. *Journal of Medical Internet Research*, *14*(2), e55.

This study found that adding the use of a Smartphone app to a website-intervention increased the likelihood that participants would log their steps daily. Use of the app was also associated with an increased likelihood of logging greater than 10,000 steps each time. The addition of the app to the website-intervention may be a successful way to increase participant engagement in the program and therefore long term results.

Davies, C.A., Spence, J.C., Vandelanotte, C., Caperchione, C.M., & Mummery, W.K. (2012). Meta-analysis of internet-delivered interventions to increase physical activity levels. *International Journal of Behavioral Nutrition and Physical Activity*, 9, 52.

Internet-delivered interventions to change physical activity have been found to have a small but statistically significant impact. The effect size was similar to that seen in other mediated interventions (email and telephone) but smaller than that seen in face-to-face interventions. Many of the results were seen for short term interventions, therefore further research is needed to determine long term effects.

Silveira, P., Reve, E.V., Daniel, F., Casati, F., & de Bruin, E.D. (2012). Motivating and assisting physical exercise in independently living older adults: A pilot study. *International Journal of Medical Information*. Advanced online publication. Retrieved from <http://www.sciencedirect.com/science/article/pii/S1386505612002390>

This study looked at the feasibility of an iPad based physical training (Strength and balance) app for elderly adults living independently to encourage autonomous physical activity in the home. Researchers also looked at adherence to and effectiveness of the program. Results indicate that the app is a feasible way to increase physical activity, intention to use, motivation, perceived usefulness, and usability were all high.

Li, J.S., Barnett, T.A., Goodman, E., Wasserman, R.C., & Kemper, A.R.; on behalf of the American Heart Association Atherosclerosis, Hypertension and Obesity in the Young Committee of the Council on Cardiovascular Disease in the Young, Council on

Epidemiology and Prevention, and Council on Nutrition, Physical Activity and Metabolism. (2013). Approaches to the prevention and management of childhood obesity: The role of social networks and the use of social media and related electronic technologies. A scientific statement from the American Heart Association. *Circulation*, 127, 260-267.

This article focused more broadly on childhood obesity but found that there is encouraging evidence to support the potential for social media and technology as a component of obesity programs for children. There is however a great need for more research to optimize the technology and to determine if social media increases the effectiveness of the interventions or leads to greater sustainability. It will also be important to determine which components for the interventions are most successful.

Thackeray, R., Crookston, B.T., & West, J.H. (2013). Correlates of health-related social media use among adults. *Journal of Medical Internet Research*, 15(1), e21.

Social media is being used as a source for health information. Individuals are more likely to consume health information through this medium than to contribute to it. A few factors were identified to increase the likelihood of consulting online rankings (doctors, hospitals, treatments) and reviews and using social media for health-related activities: having a regular health care provider, having a chronic disease, and being younger in age.

Conclusions

Overall the research indicates that technology-based interventions at a community level is still fairly new. Website-based interventions show promise even though effect size is usually small and effects are generally short term. More research is needed to determine methods to increase participant engagement and increase sustainability. There is also a need to test these interventions in larger populations, and a wider range of sociodemographic characteristics. Despite the belief that these interventions are more cost effective, little research has been done to assess the cost effectiveness of web-based interventions.

Currently the main type of technology based intervention that could be implemented at a community level is web-based interventions. Technology is advancing for measurement devices such as apps for smart phones but it is still too new to be recommended at a community level.

Chapter 6 - Learning Objective

Learning objectives are statements about what an individual can expect to learn by the end of an experience. Four learning objectives were identified for my internship with the assistance of my internship coordinator and major professor. The specific activities and projects completed during the internship evolved and changed throughout its course but the original objectives were still fulfilled.

Objectives:

1. Apply knowledge to develop a training session.
2. Summarize information over topics relevant to public health.
3. Demonstrate effective written and oral communication.
4. Identify public health laws, regulations, & policies related to specific issues.

Objective one was accomplished through my work on the Senior Farmer's Market Nutrition Program. I was able to apply my knowledge not only to develop a training session but to completely update the training system to be more efficient and easy to use.

Objective two and three fit together well and were accomplished through many of the projects I worked on. The two literature searches are the best example of summarizing public health information and presenting it effectively in writing. I also accomplished these two objectives with my work on the stair promotion project. For this project I had to research and develop a program and then present my plan to the director of the Bureau of Health Promotion.

The last objective was not accomplished through any of the main projects I completed, but through the many smaller tasks I was assigned throughout my internship. The tasks involved researching physical activity and nutrition policies in the workplace. I was asked to look into how these policies were created and implemented. For this I found two worksite wellness policy toolkits, a guide to writing policies, and six examples of policies supporting physical activity from other states. I discovered during my research the KDHE has a wellness policy that my mentor was unaware of. The policy is very general and vague but supports general wellness of all employees.

Chapter 7 - Reflection

The Internship

Overall I feel that this internship was a valuable experience for me and gave me good insight into the field of public health at the state government level. My biggest challenge was to prioritize each project and ensure I had time to complete them all within the time frame of the internship. The Senior Farmers' Market Nutrition Program was the project that I enjoyed working on the most and was the highest priority to complete as quickly as possible. For this reason the other projects were pushed to a lower priority, one of them being the stair promotion program. The stair promotion program was difficult to complete within the timeframe of my internship. When I started to develop the program I was unfamiliar with the approval process and how long it would take.

The SFMNP provided me with a better understanding of all that it takes to run a program of this magnitude. I gained experience in creating documents and communications for various populations (vendors, research and extension agents, and press release), developing an online training, and directly communicating with people about the program. The "Take the Stairs" campaign was a good experience in navigating the approval process and red tape involved. Designing the program itself was similar to projects I have completed in my coursework.

Another valuable part of the internship was the opportunity to attend and participate in numerous meetings and webinars. The topics of the meetings included steering committee for cancer meetings, funding opportunity announcements, and workshop/conference planning. Attendance at the meetings gave me the opportunity to see how the various departments and agencies work together and the importance of collaboration. It was interesting for me to see how the different group dynamics work. Some of the groups had worked together before and were very efficient while others were very inefficient.

The Big Picture

The internship was a useful addition to the coursework I have completed. The coursework for the Master of Public Health program has given me a broad overview of public health and nutrition. The internship showed me how we take those topics and turn them into projects to help the populations in need. For example we are taught about the need to increase

access to fresh fruits and vegetable for low socioeconomic groups, the SFMNP showed me how programs can impact those groups.

One thing the internship has taught me that I could not have learned as easily in the class room is how much funding plays a role in public health. Funding has been covered in many of my classes but it has focused on including a budget or where the funding would come from. During the internship I was surprised by the number of projects that are developed or planned before funding is found or funding is lost half way through planning the project. In class we always design projects with unlimited budgets or under ideal conditions. It could be useful to design a project within a budget so we learn what the necessary costs are. It seems like employees spend a large percent of their time locating funding and less time on the issues the program address.

Conclusion

My internship with the Kansas Department of Health and Environment has introduced me to public health at the state level. It complemented the coursework I have taken and exposed me to new topics. Although I can see that there are many obstacles you have to overcome when you work at the state level (mainly funding and under-staffing), all the employees I worked with appear to enjoy their jobs and see them as worthwhile. Working at this level provides an opportunity to collaborate with many different agencies and departments and work together to impact the health of Kansas communities and the state.

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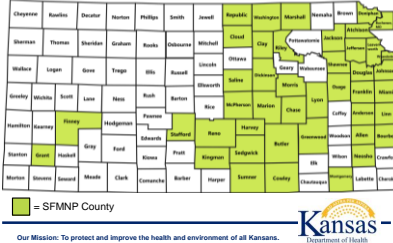



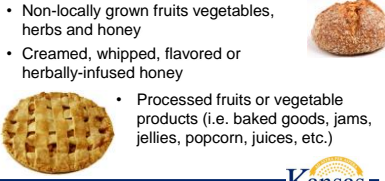

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Appendix A - Senior Farmers' Market Nutrition Program Materials

Updated Training Presentation

<h3>Senior Farmers' Market Nutrition Program (SFMNP)</h3>  <p>Our Mission: To protect and improve the health and environment of all Kansans.</p>	<h3>Training Sections</h3> <ol style="list-style-type: none"> 1. Program Overview 2. Food Choices 3. Coupons 4. Rights and Responsibilities <p>Our Mission: To protect and improve the health and environment of all Kansans.</p>	 <h3>Program Overview</h3> <p>This section will provide a description of the program, list program goals, counties served and vendor requirements.</p>
<h3>Program Description</h3> <ul style="list-style-type: none"> • U.S. Dept. of Agriculture (USDA) funded initiative • Serves approx. 5,500 low-income seniors • Current benefit \$30/senior (10 - \$3 checks) • Income guidelines by individual: <ul style="list-style-type: none"> – at or below 185% of the poverty level – \$1,680 per month or less – More than one individual per household can receive the benefit <p>Our Mission: To protect and improve the health and environment of all Kansans.</p>	<h3>Program Goals</h3> <ol style="list-style-type: none"> 1. Provide fresh, nutritious, unprepared, locally grown fruits, vegetables and herbs from farmers' markets, roadside stands and community-supported agriculture (CSA) programs to low income seniors 2. Increase domestic consumption of agricultural commodities 3. Develop or aid in development of new and additional farmers' markets, roadside stands and CSA programs  <p>Our Mission: To protect and improve the health and environment of all Kansans.</p>	<h3>Counties Served by SFMNP</h3>  <p>Legend: ■ = SFMNP County</p> <p>Our Mission: To protect and improve the health and environment of all Kansans.</p>
<h3>Farmer Requirements</h3> <ul style="list-style-type: none"> • Complete certification every 3 years • Farmer Agreement <ul style="list-style-type: none"> – submitted online or mailed – one per operation • Display SFMNP certified vendor poster at stall  <p>Our Mission: To protect and improve the health and environment of all Kansans.</p>	<h3>Vendors Agree to:</h3> <ul style="list-style-type: none"> • Provide information KDHE requests for periodic reports to USDA • Accept training on SFMNP procedures and train employees • Be monitored for compliance with SFMNP requirements <ul style="list-style-type: none"> – including both overt and covert monitoring <p>Our Mission: To protect and improve the health and environment of all Kansans.</p>	<h3>Vendors Agree to:</h3> <ul style="list-style-type: none"> • Be held accountable for their and their employees actions in the provision of eligible foods • Notify KDHE if an operation ceases prior to the end of the authorization period • Pay KDHE for any coupons transacted in violation of the Agreement <p>Our Mission: To protect and improve the health and environment of all Kansans.</p>
 <h3>Food Choices</h3> <p>This section will cover eligible and ineligible foods that can be purchased using the vouchers.</p> <p>Our Mission: To protect and improve the health and environment of all Kansans.</p>	<h3>Eligible Food Choices</h3> <ul style="list-style-type: none"> • Only fresh, nutritious unprepared, locally grown fruits, vegetables, herbs and honey for human consumption • Foods may not be prepared beyond their natural states except for their usual harvesting and cleaning processes • Locally grown = Grown in Kansas or in a county adjacent to Kansas' state lines if you are near the Kansas border  <p>Our Mission: To protect and improve the health and environment of all Kansans.</p>	<h3>Ineligible Food Choices</h3> <ul style="list-style-type: none"> • Grocery store purchases • Non-locally grown fruits, vegetables, herbs and honey • Creamed, whipped, flavored or herbally-infused honey • Processed fruits or vegetable products (i.e. baked goods, jams, jellies, popcorn, juices, etc.)  <p>Our Mission: To protect and improve the health and environment of all Kansans.</p>
<h3>Ineligible Food Choices</h3> <ul style="list-style-type: none"> • Dried fruits or vegetables, prunes (dried plums), raisins (dried grapes), sun-dried tomatoes and dried chili peppers • Potted fruit or vegetable plants, potted or dried herbs, wild rice, nuts • Maple syrup, cider, seeds, eggs, meat, cheese and seafood <p>Our Mission: To protect and improve the health and environment of all Kansans.</p>	<h3>Coupons</h3> <p>This section covers rules and regulations for accepting and redeeming coupons.</p> <p>Our Mission: To protect and improve the health and environment of all Kansans.</p>	<h3>Accepting Coupons</h3> <ul style="list-style-type: none"> • Coupons can be accepted from seniors May 1 - October 15 • November 1 is the deadline to redeem coupons • Stamp every check with your vendor ID • Make sure every check is signed by the senior  <p>Our Mission: To protect and improve the health and environment of all Kansans.</p>

<h3 style="text-align: center;">Accepting Coupons</h3> <ul style="list-style-type: none"> • Farmers cannot: <ul style="list-style-type: none"> • Collect sales tax on SFMNP coupon purchases • Seek restitution from SFMNP participants for coupons not paid • Exchange coupons for cash • Cash coupons accepted by a non-certified farmer • Change, credit and/or refunds will not be issued on items purchased with SFMNP coupons <p style="text-align: right;"></p> <p style="font-size: small;">Our Mission: To protect and improve the health and environment of all Kansans.</p>	<h3 style="text-align: center;">Redeeming Coupons</h3> <p>Checks may be deposited at any financial institution</p> <p>Vendor Number/Stamp</p>  <p>Participant or Proxy Signature</p> <p style="text-align: right;"></p> <p style="font-size: small;">Our Mission: To protect and improve the health and environment of all Kansans.</p>	<h3 style="text-align: center;">Redeeming Coupons</h3> <p>Coupons void if:</p> <ul style="list-style-type: none"> • Number is missing, unreadable or inappropriately entered • Signature is missing • Failed to endorse coupon • Deposited after November 1st  <p style="text-align: right;"></p> <p style="font-size: small;">Our Mission: To protect and improve the health and environment of all Kansans.</p>
<h3 style="text-align: center;">Redeeming Coupons</h3> <ul style="list-style-type: none"> • Coupons may be resubmitted for payment if the farmer signature or certification number can be properly and legally corrected • KDHE may deny payment for improperly redeemed coupons and may require refunds <p style="text-align: right;"></p> <p style="font-size: small;">Our Mission: To protect and improve the health and environment of all Kansans.</p>	<h3 style="text-align: center;">Rights and Responsibilities</h3>  <p style="text-align: center;">This section covers your legal rights and responsibilities including violations, sanctions, appeals, nondiscrimination and civil rights compliance.</p> <p style="text-align: right;"></p> <p style="font-size: small;">Our Mission: To protect and improve the health and environment of all Kansans.</p>	<h3 style="text-align: center;">Minor Violations</h3> <ul style="list-style-type: none"> • Noncompliance with SFMNP rules and procedures • Refusal to accept valid SFMNP coupons for eligible products • Failure to comply with inspections • Participating in abusive or discriminatory practices • Charging for items not received • Accepting coupons after Oct. 15, 2012 <p style="text-align: right;"></p> <p style="font-size: small;">Our Mission: To protect and improve the health and environment of all Kansans.</p>
<h3 style="text-align: center;">Sanctions for Minor Violations</h3> <ul style="list-style-type: none"> • 1st and 2nd Violation = Warning letters • 3rd Violation (regardless of when 1st or 2nd violations occurred) = Suspension from the program followed by disqualification for the remainder of the current year if the violation is not successfully challenged by the farmer. <p style="text-align: right;"></p> <p style="font-size: small;">Our Mission: To protect and improve the health and environment of all Kansans.</p>	<h3 style="text-align: center;">Major Violations</h3> <ul style="list-style-type: none"> • Accepting SFMNP coupons for non-locally grown products • Exchanging ineligible products for coupons • Accepting SFMNP coupons in exchange for cash • Cashing SFMNP coupons for a non-certified farmer • Giving change <p style="text-align: right;"></p> <p style="font-size: small;">Our Mission: To protect and improve the health and environment of all Kansans.</p>	<h3 style="text-align: center;">Sanction for Major Violation</h3> <ul style="list-style-type: none"> • 1st Violation – Immediate suspension from the program followed by disqualification for the remainder of the current year if the violation is not successfully challenged by the farmer <p style="text-align: right;"></p> <p style="font-size: small;">Our Mission: To protect and improve the health and environment of all Kansans.</p>
<h3 style="text-align: center;">Fraud or engaging in other illegal activity</h3> <p>A farmer who commits fraud or engages in other illegal activity is liable to prosecution under applicable Federal, State or local laws</p> <ul style="list-style-type: none"> • 1st Violation - Disqualification without reinstatement and liable to prosecution under applicable Federal, State or local laws <p style="text-align: right;"></p> <p style="font-size: small;">Our Mission: To protect and improve the health and environment of all Kansans.</p>	<h3 style="text-align: center;">Suspensions</h3> <p>Suspension period is 30 days effective from date of certified mail notification</p> <ul style="list-style-type: none"> – During this time farmer may appeal suspension notice – Farmer's SFMNP number is temporarily disabled – Must refrain from participating in SFMNP – If incident leading to suspension is successfully challenged by farmer, suspension is immediately lifted – If no appeal is made, automatic disqualification <p style="text-align: right;"></p> <p style="font-size: small;">Our Mission: To protect and improve the health and environment of all Kansans.</p>	<h3 style="text-align: center;">Disqualification</h3> <ul style="list-style-type: none"> • Disqualification follows the suspension period • If disqualified: <ul style="list-style-type: none"> – Cannot continue participating in the program – Return farmer ID stall sign to KDHE within 30 days of receipt of disqualification notice – Failure to comply may compromise future participation in the program – SFMNP number is permanently disabled <p style="text-align: right;"></p> <p style="font-size: small;">Our Mission: To protect and improve the health and environment of all Kansans.</p>
<h3 style="text-align: center;">After Disqualification</h3> <ul style="list-style-type: none"> • If farmer wishes to continue to participate in the program, he / she must attend a training session the next year • Farmer can re-enroll as a certified farmer • If re-certified, he / she is on probationary status for one full SFMNP season • He / she will receive either an overt or covert on-site monitoring investigation during the year <p style="text-align: right;"></p> <p style="font-size: small;">Our Mission: To protect and improve the health and environment of all Kansans.</p>	<h3 style="text-align: center;">Appeals</h3> <p>If making an appeal to a suspension or disqualification:</p> <ul style="list-style-type: none"> – Written request for administrative appeal to KDHE – May appeal the denial to participate in SFMNP and an action imposing a sanction – Appeal must be within 30 days of date of receipt of certified mail notification <p style="text-align: right;"></p> <p style="font-size: small;">Our Mission: To protect and improve the health and environment of all Kansans.</p>	<h3 style="text-align: center;">Appeals Process</h3> <p>KDHE will set date and location for hearing 15 days after appeal request</p> <ul style="list-style-type: none"> – Farmer will receive written notice of the time and place at least 30 days prior to the hearing – Farmer has one opportunity to reschedule the hearing date – Farmer can examine, prior to and during the decision, the document and records that support the decision under appeal <p style="text-align: right;"></p> <p style="font-size: small;">Our Mission: To protect and improve the health and environment of all Kansans.</p>

<h3>Appeals Process</h3> <p>At a minimum, the farmer or his / her representative will have the opportunity to:</p> <ul style="list-style-type: none"> – Present his / her case – Question or disprove testimony or evidence, including confronting and cross-examining adverse witnesses – Be represented by counsel – Bring witnesses – Review case record prior to the hearing – Submit evidence to establish all pertinent facts and circumstances in the case  <p><small>Our Mission: To protect and improve the health and environment of all Kansans.</small></p>	<h3>Appeals Process</h3> <p>Advance arguments without undue interference</p> <ul style="list-style-type: none"> – An adverse action, at KDHE’s option, may be postponed until a decision in the appeal is rendered – A postponement is appropriate where KDHE finds participants could be unduly inconvenienced by the adverse action – KDHE may determine other relevant criteria to be considered in deciding whether or not to postpone an adverse action  <p><small>Our Mission: To protect and improve the health and environment of all Kansans.</small></p>	<h3>Appeals Process</h3> <ul style="list-style-type: none"> • KDHE will provide farmer written notification of adverse action, cause(s) for action, effective date of action and an opportunity for a fair hearing • Notification will be provided 15 days before effective date of the action • Hearing official will be an impartial decision maker • Decision of official is given to farmer 15 days after date of hearing or within 60 days from date of receipt of request for a hearing by KDHE • All records of hearing and decision are available for public inspection for 3 years  <p><small>Our Mission: To protect and improve the health and environment of all Kansans.</small></p>
<h3>Appeals Process</h3> <ul style="list-style-type: none"> • If dissatisfied with hearing decision, farmer may appeal to KDHE for further state level review of decisions and a possible rehearing • Appeal must be made within 15 days of contested decision of previous hearing • Same procedures outlined in previous appeals slide are followed • If a farmer appeals an adverse action (and is permitted to continue in the SFMNP while the appeal is pending) he / she will continue to be responsible for compliance with terms of the written Agreement  <p><small>Our Mission: To protect and improve the health and environment of all Kansans.</small></p>	<h3>Due Process</h3> <ul style="list-style-type: none"> • State of Kansas will follow Administrative Procedure Act (KSA Chapter 77) to allow for due process to SFMNP local agencies, SFMNP certified farmers and SFMNP participants • Expiration of Agreement with farmer and claims actions under the SFMNP rules and regulations are not appealable  <p><small>Our Mission: To protect and improve the health and environment of all Kansans.</small></p>	<h3>Nondiscrimination</h3> <p>As a recipient of federal funding, markets and farmers must adhere to the federal regulations for nondiscrimination.</p> <p>USDA-FNS discrimination statement: “In accordance with Federal law and U.S. Department of Agriculture policy, this institution is prohibited from discriminating on the basis of race, color, national origin, sex, age, or disability. To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 1400 Independence Avenue, SW, Washington, D.C. 20250-9410 or call (202) 720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.”</p>  <p><small>Our Mission: To protect and improve the health and environment of all Kansans.</small></p>
<h3>Nondiscrimination</h3> <ul style="list-style-type: none"> • May not refuse to accept properly presented coupons in exchange for eligible foods • Maintain nondiscriminatory sales transaction procedures • Eligible foods will be of equal quality and cost • Must offer SFMNP same courtesies and equal treatment as you would to other customers  <p><small>Our Mission: To protect and improve the health and environment of all Kansans.</small></p>	<h3>Filing Discrimination Complaints</h3> <p>Anyone may file a complaint of discrimination</p> <ul style="list-style-type: none"> – orally, written or anonymously <p>Individuals seeking to file discrimination complaints may file them either with Kansas Department of Agriculture (KDA) or directly through USDA per the contact information on the previous slide.</p>  <p><small>Our Mission: To protect and improve the health and environment of all Kansans.</small></p>	<h3>Civil Rights Compliance</h3> <p>KDHE warrants and assures compliance with:</p> <ul style="list-style-type: none"> – Title VI of the Civil Rights Act of 1964 – Title IX of the Education Amendments of 1972 – Section 504 of Rehabilitation Act of 1973 – Age Discrimination Act of 1975 – Americans with Disabilities Act of 1990  <p><small>Our Mission: To protect and improve the health and environment of all Kansans.</small></p>
<h3>Civil Rights Compliance</h3> <p>KDHE warrants and assures:</p> <ul style="list-style-type: none"> – No person shall be excluded from participation in, denied benefits of or otherwise be subjected to discrimination under any program or activity for which the agency receives federal financial assistance – KDHE will comply with all local, State and Federal statutes regarding civil rights laws and equal opportunity employment  <p><small>Our Mission: To protect and improve the health and environment of all Kansans.</small></p>	<h3>Things to Remember:</h3> <ul style="list-style-type: none"> ▪ Only sell eligible foods ▪ Only sell during dates indicated on the checks (May 1- October 15) ▪ Stamp every check with your vendor ID ▪ Make sure every check is signed by the senior ▪ Deposit the checks to your bank by November 1   <p><small>Our Mission: To protect and improve the health and environment of all Kansans.</small></p>	<p>Thank you for completing the training. Please fill out the Farmer Agreement at: www.kdheks.gov/sfmnp</p> <p>Remember to indicate how many ID stall signs you would like on the agreement.</p>  <p><small>Our Mission: To protect and improve the health and environment of all Kansans.</small></p>
<h3>Have questions? Let us know.</h3> <p>Contact Information: Anthony Randles, MPH, PhD Kansas Department of Health and Environment arandles@kdheks.gov 785-296-8060 1000 SW Jackson, Suite 230 Topeka, KS 66612 www.kdheks.gov/sfmnp</p>   <p><small>Our Mission: To protect and improve the health and environment of all Kansans.</small></p>		

Online Training Quiz Questions

1. Vendors/Farmers must recertify every year?

- True
- False

Answer: False certification lasts for three years.

2. Which of the following is not an eligible food choice?

- Honey
- Tomatoes
- Raisins
- Oranges

Answer: Raisins

3. As the vendor, I can collect sales tax on SFMNP coupon purchases?

- True
- False

Answer: False

4. What will result from your first minor violation?

- Immediate suspension from the program
- Disqualification for the remainder of the current year
- A warning letter
- Disqualification without reinstatement

Answer: A warning letter

Changes to the website.

Vendor Training

[Vendor Training PowerPoint - PDF Version](#)

[Vendor Rules and Procedures](#)

[Farmer Agreement Form](#)

To become a Certified SFMNP Vendor, contact Anthony Randles 785-296-8060.

Before:

Vendor Training

2013 Course Material

- [Memo to Vendors](#)
- [How to set up a TRAIN account](#)
- [How to access the SFMNP course](#)
- [Vendor Training PowerPoint - PDF Version](#)
- [Vendor Rules and Procedures](#)
- [K-State Research and Extension Contact Information](#)

Certification/Recertification

- Step 1: [Online Training](#)
- Step 2: [Farmer Agreement Form](#)

To become a Certified SFMNP Vendor complete the online training and submit a Farmers Agreement Form.

For questions contact Anthony Randles 785-296-8060

After:

Memo

To: K-State Research & Extension Horticulture/Agriculture Educators

From: Anthony Randles, Coordinator, Kansas Senior Farmers' Market Nutrition Program (SFMNP)

Subject: Senior Farmers' Market Nutrition Program Farmer Training Materials

The Senior Farmers' Market Nutrition Program (SFMNP), managed by the Kansas Department of Health and Environment, provides checks to low-income seniors to purchase fresh fruits, vegetables and honey from farmers' markets and roadside stands between May 1 and October 15. We were allocated approximately \$188,000 for 2013 by the USDA for direct food benefits to approximately 5,545 seniors in Kansas.

Please find enclosed the instructions for the online SFMNP training, presentation slides, sign-in sheets and vender criteria for the trainings for local farmers who want to participate. The training lasts approximately 30 minutes. Participating farmers would need to sign-in and complete the online training to be eligible to complete the farmer agreement form located on the website: www.kdheks.gov/sfmnp.

Farmers certifying for the first time will be sent an information packet, including their stall posters and stamps, after completing the training. Farmers recertifying do not need an information packet after completing the training.

The presentation slides, farmers' agreement form and memo indicating online options for receiving the training are all available on the website: www.kdheks.gov/sfmnp.

Thank you for your support of this program. If you have any questions, please contact me at 785-296-8059 or arandles@kdheks.gov.

TO: Kansas Farmers in the following counties:

Allen, Anderson, Atchison, Bourbon, Buchanan (MO), Butler, Chase, Clay, Cloud, Cowley, Dickinson, Doniphan, Douglas, Finney, Franklin, Grant, Greenwood, Harvey, Jackson, Jefferson, Johnson, Kingman, Leavenworth, Linn, Lyon, Marion, Marshall, McPherson, Miami, Montgomery, Morris, Neosho, Osage, Reno, Republic, Riley, Saline, Sedgwick, Shawnee, Stafford, Summer, Washington and Wyandotte

FROM: Anthony Randles, Coordinator, Kansas Senior Farmers' Market Nutrition Program (SFMNP)

DATE:

SUBJECT: 2013 Senior Farmers' Market Nutrition Program (SFMNP) Recertification

You will have the option of attending a mandatory recertification training for the 2013 SFMNP by visiting your local extension office or completing the training online. The 30 minute training sessions will begin on March 1 and must be completed before you begin accepting SFMNP checks. Recertification is required for all vendors that want to accept checks from seniors participating in the SFMNP. Certification will be valid for 3 years.

To become recertified to accept SFMNP checks, you must:

- 1) Attend a Certification Training online or through your local extension office.**
- 2) Complete the Farmers' agreement located on the website: www.kdheks.gov/sfmnp**

To complete the training online please go to the website: www.kdheks.gov/sfmnp and follow the link to Vendor Training for training instructions. You will be required to create a profile for our online training program before you can access the training.

To complete the training through your local extension office, contact them directly to set up an appointment. For a list of locations and contact information, go to the website or contact me.

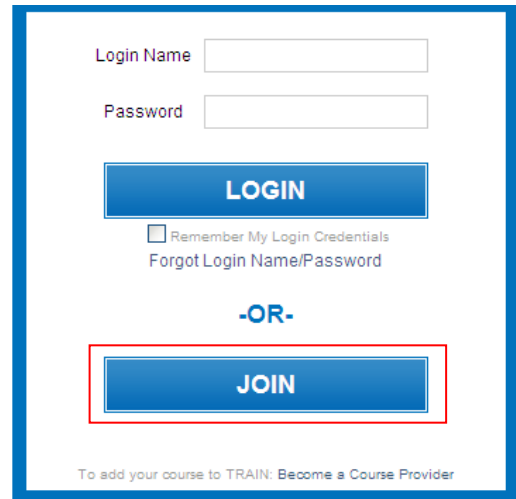
If you have any addition questions, please contact me at arandles@kdheks.gov or 785-296-8059.

Thank you!

How to set up a learner account on KS-TRAIN

(if you do not have an account)

1. Point your browser to <http://ks.train.org>
2. Click on the “JOIN” button in the left hand margin.
3. Complete the online registration form to set up your account. Choose a login ID and password that are easy to remember, write this information down and keep it in a safe place. You should receive an email welcoming you to TRAIN.



Online Registration

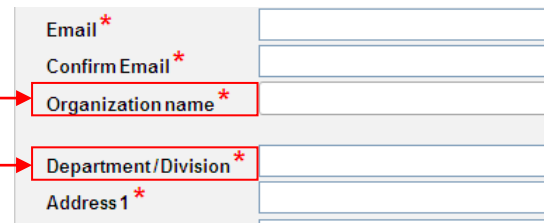
Step 1: Agree to TRAIN Policies.

Step 2: Fill in required Fields.

-In the Organization name field type KDHE


-In the Department/Division field type SFMNP

KDHE
SFMNP

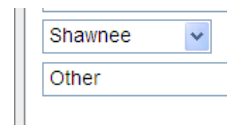


Step 3: Select State Portal No

Select the state or territory in which you work, study, or reside - or select "International".

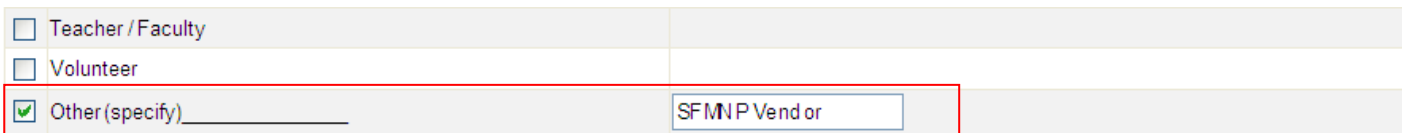


Step 4: Select Region, County, and Homeland Security Discipline



**For Homeland Security
Discipline select other**

Step 5: Select Professional Roles: Select other and type SFMNP Vendor in the space



Step 6: Select Work Settings: Select other and type Farming in the space



Step 7: Demographic information is Optional

Step 8: Professional License Number: Select No

Congratulations you have created your account!

Hello, John

Your NEW ACCOUNT has been created.
Click on Continue button to register for your course.

Continue

How to access the SFMNP course



Check the compatibility of your computer for taking online courses; select the **Help** button in the TRAIN Navigation Taskbar; in the left hand menu click the **Test Your Environment** link, **Run Test Button**. All of the checkmarks must be **green**. If there are any **red** links, click the link and follow the prompts.

Course Name: Kansas Senior Farmers' Market Nutrition Program (SFMNP)

1. Login to your KS-TRAIN account.
2. On the right hand side of the homepage add the course number to the 'Keyword or Course ID' field. Click the Search (magnifying glass) button.

Course Number: 1042307

3. Click the course title to view the 'Course Detail' page for important information including checking the compatibility of your computer for taking this online course.

\$	Title	Type	Sponsor/Officer
	Kansas Senior Farmers' Market Nutrition Program (SFMNP) (1042307)	Course	KDHE: Bureau of Health Promotio

20 rows per page Filter * A B C D E F G H I J K L M N O P Q R S T U V W X Y Z [/

Displaying page 1 of 1, ite

4. Select the 'Registration' tab and the 'Launch' button.

Kansas Senior Farmers' Market Nutrition Program (SFMNP) (1042307)

Course Details Contacts **Registration** Reviews

Course ID: 1042307

Course Details Contacts Registration Reviews

To launch this course, please click on the 'Launch' button.
Note that this course will be added to 'My Learning' after you click the button.

5. To navigate the course use the blue arrows in the upper right hand corner of the page.

KS-TRAIN login/password
questions:
helpdesk@kdheks.gov
or
785-296-5655



Course content questions:
Anthony Randles
arandles@kdheks.gov
785-296-8060

To withdraw from the course please log into TRAIN, click the 'My Learning' link, the 'M' to the right of the course title and then Withdraw

KANSAS SENIOR FARMERS MARKET NUTRITION PROGRAM
MEMORANDUM OF UNDERSTANDING
FARMER RECERTIFICATION AGREEMENT

This Memorandum of Understanding (“MOU”) is made effective this ____ day of _____, 2013, by and between the Secretary of the Kansas Department of Health and Environment (“KDHE”), and the Kansas State University Research and Extension (“KSU”), all of whom may collectively hereinafter be referred to as the “parties”.

WHEREAS, KDHE is a recipient of federal funds from the United States Department of Agriculture pertaining to the Senior Farmers Market Nutrition Program (“SFMNP”);

WHEREAS, the SFMNP regulations require KDHE to provide training/information to farmers who desire to participate in the SFMNP;

WHEREAS, KSU is willing to assist KDHE in providing such trainings and /or information pursuant to the terms and conditions herein.

NOW, THEREFORE, pursuant to the terms and conditions set forth herein, KDHE and KSU agree as follows:

1. KDHE Obligations: A representative from the SFMNP will contact each county/district office in the 43 county service area to discuss/explain the program, obtain written approval from the county/district office to conduct the SFMNP training, identify a contact person for the training, explain the use of the training materials, scheduling appointments, time commitment, and obtain necessary qualifying signatures. KDHE shall provide each K-State Research and Extension office in the 43 county service area: (1) a link to the online training module; (2) a supply of Farmer Information Packets and Roadside Stand Information Packets (additional copies available upon request); and (3) a Compiled Summary of Questions and Answers.
2. K-State Research and Extension Obligations: K-State Research and Extension will support this 2013 SFMNP MOU by hosting SFMNP training sessions in its county district offices.

SEEN AND AGREED:

Kansas Department of Health & Environment

K-State Research and Extension

By: _____

By: _____

, Secretary

, Associate Director

Kansas Department of Health and Environment

Extension and Applied Research

Date _____

By: _____

, Asst Vice President/ Director Vice President for Research

Date: _____

FOR IMMEDIATE RELEASE: February 19, 2013

Contact: Anthony Randles
Program Manager, Kansas Physical Activity and Nutrition Program
785-296-8060
arandles@kdheks.gov
www.kdheks.gov

KDHE Launches 2013 Kansas Senior Farmers' Market Nutrition Program
Helping Low-Income Seniors Access Fresh Fruits and Vegetables

TOPEKA, Kan. - The Kansas Senior Farmers' Market Nutrition Program (SFMNP) provides low-income seniors with \$30 of benefits to purchase fresh, unprocessed, locally grown fruits, vegetables, herbs and honey. A limited number of eligible seniors will receive checks to use at local farmers markets between May 1 and October 15, 2013. The Kansas Department of Health and Environment is currently collaborating with Kansas State Research and Extension to identify and certify eligible farmers. Any Kansas farmer wishing to participate in the program must become certified.

Farmers living in the following counties will be eligible to participate: Allen, Anderson, Atchison, Bourbon, Butler, Chase, Clay, Cloud, Cowley, Dickinson, Doniphan, Douglas, Finney, Franklin, Grant, Greenwood, Harvey, Jackson, Jefferson, Johnson, Leavenworth, Linn, Lyon, Marion, McPherson, Miami, Montgomery, Morris, Neosho, Osage, Reno, Republic, Riley, Saline, Sedgwick, Shawnee, Stafford, Sumner, Washington and Wyandotte.

To become certified to accept SFMNP checks, farmers must:

- 1) Attend Certification Training:** online or through a local extension office (Beginning March 1).
- 2) Complete the Farmers' agreement:** located on the website www.kdheks.gov/sfmnp

To complete the training online farmers should visit the website: www.kdheks.gov/sfmnp and follow the link to Vendor Training for training instructions. Farmers will be required to create a profile for the online training program before they can access the training.

To complete the training through a local extension office, farmers should contact the extension office directly to set up an appointment. A list of locations and contact information is included on the SFMNP website.

SFMNP is a USDA program coordinated by the Kansas Department of Health and Environment in collaboration with the Kansas Department for Children and Families, Kansas Area Agencies on Aging, Kansas Department of Agriculture, Kansas State Research and Extension, and Kansas Rural Center. No one will be discriminated against on the basis of race, color, national origin, sex or disability.

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KDHE's mission is to protect and improve the health and environment of all Kansans.

Through education, direct services and the assessment of data and trends, coupled with policy development and enforcement, KDHE will improve health and quality of life.

We prevent illness, injuries and foster a safe and sustainable environment for the people of Kansas.

Appendix B - Stair Promotion Program Materials

Email Messages

Email 1:

Goal: To Introduce the “Take the Stairs” Campaign to employees.

KDHE's Bureau of Health Promotion has started a project in the Curtis State Office Building that we hope can be implemented in other office buildings at a date in the near future. The announcement below is for those individuals who would be able to take the stairs in lieu of the elevator. Stay tuned for updates.

This week marks the start of the KDHE “Take the Stairs” campaign encouraging you to choose the stairs instead of the elevator.

Take the first step!

By making small changes in your daily routine like taking the stairs or walking at work you can start living a more active, healthy life. Each time you take the stairs or go for a walk you are making a decision to be active.

Stair climbing and other small bursts of physical activity at work can accumulate across the course of the day, making a significant contribution to the recommended daily amount of 30 minutes (or more) of daily physical activity.



Email 2:

Goal: To promote awareness of the “Take the Stairs” Initiative and encourage employee participation by promoting health benefits.

Bureau of Health Promotion

Take the Stairs!

Take small steps to help make health a priority. Small changes make a big difference over time! Incorporate the stairs (or walking) into activities you would be doing anyway. If you need to go to a different floor, use the stairs. Take the long way to the restroom and take a flight each way. Studies have shown that people are most likely to stick to exercise when it is part of their daily lives. Get started today!



Along with its benefits to the heart, walking:

- improves circulation
- helps breathing
- combats depression
- bolsters the immune system
- helps prevent osteoporosis
- helps prevent and control diabetes

Email 3:

Goal: To promote awareness of the “Take the Stairs” Initiative and encourage employees to increase physical activity during the day.

Bureau of Health Promotion

Take the Stairs!

Don't waste time waiting for the elevator, use the stairs! Challenge yourself to take the stairs all day today. If it is not possible to use the stairs, challenge yourself to pick two new ways this week to be active and increase your physical activity during the work day:



- Walk with a co-worker on your break
- Stand and/or stretch while talking on the phone
- Rather than using the phone or email, walk down the hall to speak with a co-worker
- Walk around your building, stretch your muscles
- Park a few blocks from your work or in the farthest parking spot and walk the rest of the way
- Walk to lunch or meetings downtown

Prompts





**Go green
in your
daily
routine**



**No time for
activity?
Your
opportunity
is now.**



**Take the
stairs for a
better today
and a
healthier
tomorrow**



**Governor's
Weight Loss
Challenge**

**Does Your
Team take
the
stairs?**



**Sneak
activity
into your
daily
routine**



**Small steps
make a big
difference**



Stair Usage Data

Table A.1 Overall Stair Usage Counts

	Overall	Total Male	Total Female	Total Entering	Total Leaving
Pre	280	135	145	99	181
Post	335	153	182	121	214

Table A.2 Stair Usage Counts by Gender and Direction of Use

	Male Entering	Male Leaving	Female Entering	Female Leaving
Pre	42	93	57	88
Post	60	93	61	121

Table A.3 Stair Usage by Stairwell

	Stairwell 1	Stairwell 2	Stairwell 3
Pre	18	233	29
Post	76	230	29