

USE OF THE COMMUNITY READINESS MODEL
TO EVALUATE COUNTY LEVEL OBESITY
PREVENTION INTERVENTIONS

By

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Title of Study: USE OF THE COMMUNITY READINESS MODEL TO EVALUATE
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Abstract: The Tri-Ethnic Center's Community Readiness Model (CRM) was used in a longitudinal study to assess the impact of a community-based obesity prevention intervention on the readiness of county residents to address healthy eating and active living issues in 21 Oklahoma counties. Readiness was assessed for counties funded by Oklahoma's Tobacco Settlement Endowment Trust (TSET). The 9 stages of readiness range from *No Awareness* (1) to *Community Ownership* (9). Readiness is influenced by six dimensions including: 1) Existing efforts, 2) Community knowledge of the efforts, 3) Leadership, 4) Community climate, 5) Knowledge about the consequences, and 6) Resources available. The 6 key informants in each county resided there and were knowledgeable of the county but not directly involved in the efforts. The survey was composed of a series of standardized questions addressing each dimension. Pre-intervention stages were assessed in Fall 2011. County based coalitions used the findings to develop stage appropriate strategies and develop action plans focusing on the lowest scoring dimensions over a 3-year period. Post-intervention assessments were conducted in Fall 2014. Pre-intervention stages ranged from 1 (*no awareness*) to 3 (*vague awareness*), with an overall readiness of 2 (*denial/resistance*) across all counties. The post-intervention stages ranged from 2 (*resistance/denial*) to 5 (*preparation*), with an overall readiness of 3 (*vague awareness*) across all counties. Sixteen of the twenty one counties increased readiness, 3 counties had no change, and 1 county regressed. One county dropped out of the project. While all six dimensions were significant contributors to the overall readiness score ($p \leq 0.05$), the strongest driver was seen in dimension A: community efforts which explained 81% of the variance in the total score. To examine the strategies used to increase readiness, the three dimensions with the lowest baseline scores were examined (Dimensions A: County efforts, D: County Climate and E: Knowledge of Consequences). Work plans including monthly briefing reports and emerging themes were used to highlight specific strategies. The approaches were aligned with the suggestions outlined in the Tri-Ethnic Center's CRM Handbook. Healthcare professionals planning nutrition and physical activity interventions should consider using the CRA as a tool to assess the readiness of county residents to assure strategies are at the appropriate level and intensity. The model was also useful in measuring incremental progress in addressing nutritional and physical activity issues within counties.

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CHAPTER I

INTRODUCTION

Oklahoma's health status continues to decline and residents have numerous risk factors for chronic disease including Type 2 diabetes, cancer, and stroke (United Health Foundation, 2014). One of the main risk factors for these diseases include obesity, and two-thirds of Oklahomans are overweight or obese (Oklahoma State Health Department, 2015). There is an increased emphasis on focusing on prevention of obesity to reduce the rates of chronic disease and other obesity related ailments. Oklahoma has developed several initiatives to tackle the obesity epidemic. Previous prevention programs may have failed to deliver positive outcomes because they were too sophisticated or advanced for the target audience. One method aiding in matching strategies to the level of community members is the Community Readiness Model (CRM). The CRM is a process used to assess the readiness of a community and an innovative method to develop stage-appropriate prevention strategies (Plested, 1998). The Tobacco Settlement Endowment Trust (TSET) is one entity that partnered with the Oklahoma State Department of Health to increase access to healthy food and opportunities for active living. In 2011, they funded select county coalitions to facilitate a readiness assessment using the CRM to evaluate how ready county residents were to make nutrition- and physical activity-related changes within their county (Tobacco Settlement Endowment Trust, 2011).

The purpose of this study was to evaluate the impact of community-based obesity prevention interventions on the readiness of county residents to address healthy eating and active living issues. This project explored changes in readiness when strategies and methods matched to dimensions were used in obesity prevention programs. By looking at pre and post county readiness assessment scores, the dimension that drove overall readiness was determined. In addition, looking at specific activities that were conducted in counties that experienced significant positive change, successful strategies were identified.

Not only will this study be useful for county program coordinators to understand how to plan successful interventions in the future, but it also highlighted communities' feelings and knowledge about obesity, healthy eating and active living issues. It will help to identify barriers and give community members a voice so professionals can tailor their programs to different cultural and individual beliefs, since every community is unique in their own way.

The findings can be used by other counties or communities with similar characteristics and readiness levels as examples of techniques that may be successful in their obesity prevention programs. Programs and efforts used by communities that successfully increased the community readiness will be catalogued.

Research Question

The research questions answered are as follows: 1) Can grant efforts increase readiness in communities? 2) What dimensions drive the greatest changes in overall

scores? 3) What kinds of strategies are used by communities that increase readiness the most?

Objectives

Objective 1: Compare pre-post survey data to identify the change in readiness scores in 21 counties.

Objective 2: Identify the dimensions that drive the most changes in overall scores.

Objective 3: Describe interventions that have been conducted in counties with greatest change in community readiness levels and look closer at what specific strategies those counties used.

CHAPTER II

REVIEW OF LITERATURE

Obesity: A Complex Health Epidemic

Obesity is considered a national health epidemic and a concern that is being widely addressed in the nation. The terms “overweight” and “obese” are used to describe individuals with weight ranges that increase their risk for health problems, especially chronic diseases (CDC, 2012). The Center for Disease Control (CDC) describes obesity as a weight higher than what is considered healthy for a given height and Body Mass Index (BMI) is used as the main screening tool for determining overweight or obesity. A BMI of 30 or higher falls within the obese range and is correlated with various metabolic and disease outcomes (Steinberger et al., 2005). It is estimated that roughly one-third of U.S. adults are obese in America. That is, 78.6 million people at risk for developing obesity related disorders including heart disease, stroke, and type 2 diabetes.

The United States is one of the most obese nations in the world and the higher rates of obese individuals are seen in the Southern and Midwestern states (State of Obesity, 2015). The state of Oklahoma’s health status ranks far below the other states (United Health Foundation, 2014). Many Oklahomans have multiple risk factors for chronic disease. Two-thirds of Oklahomans are overweight or obese, which places Oklahoma as the 6th most obese state in the US (Oklahoma State

Health Department, 2015). Along with obesity, Oklahoma also ranks 7th in the nation for physical inactivity and 8th for Type 2 Diabetes rates (Healthy Americans, 2013).

Chronic diseases are the leading cause of death and disability in the nation and include conditions such as heart disease, cancer, diabetes, and obesity (CDC, 2012). These diseases are the most costly and preventable of all health problems. As of 2012, half of all US adults had one or more chronic health conditions and one of four adults had two or more chronic health conditions (Ward, et al. 2012). Many chronic diseases could be prevented or lessened through simple lifestyle changes. Eliminating three main risk factors including poor diet, inactivity, and smoking could prevent 80% of heart disease and stroke, 80% of type 2 diabetes and 40% of cancer (Spring, 2012). Obesity is one of the main risk factors for developing chronic disease and is thought to be the most preventable risk factor (CDC, 2012).

Obesity is not caused by one risk factor alone, but by a variety of interrelated factors (CDC, 2014). Weight gain essentially occurs when there is a lack of caloric balance, for example when one eats too much and concurrently gets too little physical activity (CDC, 2011). However, calorie balance is complex and there are many factors that complicate this delicate balance. For example, societal and community influences play major roles in the rise of obesity rates (CDC, 2014). In many communities there is lack of access to healthy and affordable foods, especially in rural, minority and low income communities (CDC, 2014). Fast food restaurants and corner stores flood these communities and often sell food that is higher in calories, fats and sugars at lower prices than healthier choices (CDC, 2010). Food access is not simply a health issue but also a community development issue (American Planning Association, 2012). For this reason,

access to healthy, affordable, and culturally appropriate food is a key component to a healthy and stable community.

Along with accessibility and quality of foods, many communities are structured in ways that make it difficult or unsafe to be physically active. Access to parks and recreation centers are especially lacking in the same rural, minority, and low income communities (Papas et al., 2007). In Oklahoma, 45.7% of the population resides in rural counties (US Census Bureau, 2011). There are often few safe routes for active transport to school and facilities that do offer physical activity opportunities are usually priced too high to be accessible to everyone (White House Task Force on Childhood Obesity Report to the President, 2010). These factors may contribute to the high incidence of obesity and because obesity is such a multifaceted issue, there is no magic bullet for prevention. This makes it one of the most difficult health epidemics to tackle.

The prediction of health for Americans in the next twenty years can take two very different paths. If obesity rates continue on their current track, it's estimated that 44% of adults in every state will struggle with obesity and may exceed 60% in some of the southern states (Healthy Americans, 2012). In addition, the number of new cases of type 2 diabetes, coronary heart disease and hypertension could increase 10 times before 2020, and may double again by 2030 (Healthy Americans, 2012). In Oklahoma heart disease, cancer, stroke and diabetes account for 82,000 hospital stays costing over \$3 billion dollars each year (TSET Program Guidelines Manual, 2015). But, if we could lower obesity trends by reducing the average BMI by only 5 percent in each state, we could prevent millions of Americans from developing serious health problems and save billions of dollars in health care costs (Trust for America's Health, 2014).

Obesity Prevention

While some chronic diseases are influenced by genetics, most can be attributed to modifiable lifestyle factors that can be reduced through healthy eating and active living (TSET Program Guidelines Manual, 2015). One of these risk factors is overweight and obesity, however obesity prevention is not the responsibility of one single individual, but of many entities working together. The Social Ecological Model (SEM) is a theoretical framework that is used to help understand the factors that influence health and wellness and obesity differences at varying levels targeting individuals, groups, and populations (CDC, 2015). The different levels include individuals, interpersonal, institutions and organizations, community, structures and systems. Explanations of these levels are outlined in Table 1.

Table 1. Social Ecological Model Framework	
Layer	Explanation
Individual	The primary layer of the SEM represents the individual which is ultimately affected by all other levels of the SEM. Individual level factors influencing health include behaviors, knowledge and beliefs.
Interpersonal	The next layer in the SEM represents individuals' interactions with one another, or relationships shared within social networks such as families, peer groups, and friend-based social networks.
Institutions and Organizations	This level represents policies and rules specific to assemblies of individuals and their relationships. Examples include schools, religious or faith-based institutions, and the workplace.
Community	Communities can be described as a larger construct that is comprised of the three smaller layers of the SEM. Communities are made up of individuals who participate in interpersonal relationships within various groups of organizations. Communities may be defined geographically, politically, culturally, or by other common characteristics.
Structures and Systems	This last layer of the SEM represents the local, state, and federal structures and systems which affect the built environment surrounding communities.
(CDC, 2015)	

The CDC has recommendations for the different levels to help lower the risk and promote change (Keener, 2009). For example, the outermost Structure and Systems layer includes the federal government, who is responsible for implementing initiatives such as Michelle Obama's Let's Move! Program, and the states can administer programs that provide local fruits and vegetables to schools and low-income communities (CDC, 2010). Interpersonal and institution are important for education. At the same time, individuals are responsible for making the personal choice to be active and eat a balanced meal to their own extent possible. The community level of the SEM is one of the most important layers because they provide the support and resources to make necessary changes. Without a strong community foundation that includes programs or resources, individuals who want to make health changes will remain stagnant and not grow.

Millions of dollars are allocated towards prevention programs, because of the high health care costs of obesity related illnesses and their increasing prevalence. It is thought that if we invest in the prevention of disease versus the treatment of disease, the result would mean significant savings in U.S. health care costs (Wolf, 1998). Currently, there has not been a strong enough community focus on prevention to provide the potential influence on obesity. A growing number of studies are demonstrating the positive returns that many strategies and programs can deliver for improving health (Healthy Americans, 2012).

Many times program directors who are in charge of large grants face barriers and difficulty in implementing policies and practices to address obesity because often times the programs are too sophisticated for both the individual and the community at large. An important aspect of addressing obesity is assessing the target community to learn

what barriers residents face. For example, Head Start, the largest federally funded early childhood education program in the country, conducted a survey in 2010 to help parents of pre-school aged children identify barriers to healthy eating in order to plan an after-school education program (Hughes et al., 2010). This assessment helped parents to identify key obstacles as lack of time, money, and knowledge. Also, sometimes parents had cultural beliefs that were not in line with preventing obesity, such as the belief that heavier children are healthy and not at risk for obesity related illnesses. By identifying some of these barriers it helped the program directors tailor their interventions to be more successful for the head start community.

Oklahoma's Obesity Prevention Programs

Oklahoma's obesity problem has received significant attention from leaders and program planners. There have been multiple initiatives that are geared towards preventing obesity and increasing health across the state of Oklahoma. One of the first efforts in the state to address obesity began in 2004 when the State Department of Health received a grant from the Centers for Disease Control & Prevention (CDC, 2010). This money helped to launch the Get Fit Eat Smart OK: Oklahoma Physical Activity and Nutrition State Plan (Strong and Healthy Oklahoma, 2009). The idea behind the plan was to emphasize healthy living in school classrooms, communities at large and within the worksites, but unfortunately funding was not continued and the program was discontinued.

The Strong and Healthy Oklahoma (SHO) Initiative was the next program that launched in 2007. SHO was a collaboration between government, state and private sectors to help promote healthy eating and physical activity (Oklahoma State Department

of Health, 2012). In 2009, the Oklahoma State Health Department launched the Oklahoma Health Improvement Plan (Oklahoma State Department of Health, 2009). This plan was written to improve health outcomes by addressing children and health of families, tobacco use prevention, and targeted obesity-related behaviors. Like many other projects, funds were not continued to implement the plan. In 2011, SHO was redirected and re-named the Center for the Promotion of Wellness. The program successfully influenced children and families across the state through school programs. OSDH also started the Coordinated Approach to Child Health (CATCH), which brings nutrition education into the classroom.

Another entity that has been very influential is the Oklahoma State University Cooperative Extension which started the Eagle Adventure, which are targeted towards Native American children across the state. The OSU Cooperative Extension involves county educators and state specialists who develop evidence-based programs to aid in local issues, encourage leadership and oversee resources (Oklahoma Cooperative Extension Services, 2015). The Farm to You program was another initiative that reaches all school-aged children in Oklahoma. The objectives of this programs are to educate kids about farms providing foods for good health, how to use food labels to make healthy choices, the importance of physical activity and personal hygiene to good health, how to improve health behaviors, and increase knowledge among parents, school personnel and community members about the importance of teaching children healthy habits (Farm to You, n.d.). The Eagle Adventure Program was created to improve the nutritional health of youth at risk for developing type 2 diabetes (Eagle Adventure, 2015). This program uses the CDC's Eagle Books to tie together traditions of Native American storytelling

with positive nutrition and physical activity messages. This agenda provides hope to Native American youth that they can prevent diabetes and make successful changes through a program that is culturally relevant and aligns with their culture and beliefs.

In 2010, the Oklahoma Tobacco Settlement Endowment Trust (TSET) created a strategic plan to address nutrition and fitness environments in counties across the state to address the issue of obesity. Oklahoma is a pioneer state that has placed funds derived from the tobacco companies Master Settlement Agreement (MSA) into a trust fund that is secured by a constitutional amendment (Tobacco Settlement Endowment Trust, n.d.). The MSA funds and the earnings from grants and programs are entirely reserved for improving the overall health of the state, not only in tobacco cessation but in obesity prevention as well. The initiative was broken down into different sections including infrastructure, community grants, and developing momentum across the state. In 2011 TSET then partnered with the Oklahoma State Department of Health to provide funding to eligible counties that applied for grants to help tackle the obesity issues in their area (Tobacco Settlement Endowment Trust, n.d.). As of April 2015, the fund is reported to have generated earnings of over \$53 million (Bisbee, 2015).

From the earnings in 2011, the Communities of Excellence in Physical Activity and Nutrition (CX-PAN) was established to institute nutrition and physical activity related policies in schools, businesses, afterschool, and communities that will improve environments and ultimately the health status for individuals across the state. This was achieved by assessing access to healthy food and opportunities for physical activity. The CX-PAN grant provides the local counties with needed resources to help develop comprehensive and environmentally focused policy. The policies emphasize five

evidence-based areas of practice. They consist of improving access to healthy, safe, and affordable foods and beverages, reducing access to high calorie and low nutrient foods and beverages, increasing awareness about the importance of healthy eating and active living to prevent obesity, encouraging physical activity, and decreasing sedentary lifestyles (CXPAN Nutrition and Fitness Program, 2014). In addition to the policies, the development of vital social capital assets is created to sustain a climate for social norm related to nutrition and physical activity.

Even with the multiple efforts that have been directed to this long-standing issue, there still has been no great improvement in the level of physical activity and quality of diet in Oklahomans. One possibility could be that the current efforts are too sophisticated and not at an appropriate readiness level for some of these communities to make a long lasting change. It is important for decision makers to understand the willingness of residents to engage in healthy eating habits and opportunities to be physically active to help assure the success of the initiatives. This concept can be used to guide strategies that are appropriately matched to the readiness level of county residents.

Community Readiness

Community readiness is how willing and prepared a group of people are to address an issue (Plested et al., 2006). Readiness can range from none at all, meaning the community has never even heard of the issue in question, to already having successful programs in place. An understanding of community readiness allows an intervention or strategy to be tailored to what the community is willing to accept and extent of their involvement. Readiness can vary across different segments of the community. For

example, some groups that are immediately affected by the issue may be more ready to deal with it than others. By taking small steps forward and setting goals that do not stretch beyond their current ability and understanding of the issue, steady progress and changes can be made. Community readiness is issue specific, meaning a community can be ready to address one issue while being at the earliest stages of readiness compared to another. For example, a community can be at a high level of readiness to address smoking issues but at a low level to address alcoholism within the same community. This provides an accurate assessment of not only overall community readiness, but where the community is on various elements of readiness.

The Tri-Ethnic Center for Prevention Research at Colorado State University developed a Community Readiness Model (CRM) that identifies the dimensions and levels of readiness based on the Transtheoretical Model (TTM), which is the gold standard of measuring stages of change in health practices. The TTM emphasizes the role of motivation, and helps better understand behavior change related to the attainment of healthy lifestyles (Prochaska, 1992). The main concept of the TTM uses the individual's emotional, cognitive and behavioral processes to make a change and the same concept can be projected on a community level with the CRM.

Readiness is impacted by six dimensions (Plested et al., 2006). They include: 1) *Community efforts*- to what extent are there efforts, programs, and policies that address the issue?, 2) *Community knowledge of the efforts*- to what extent do community members know about local efforts and their effectiveness, and are the efforts accessible to all segments of the community?, 3) *Leadership*- community residents' beliefs related to level of support by appointed leaders and influential community members, 4) *Community*

climate- prevailing attitudes of community members toward the issue such as helplessness or responsibility and empowerment, 5) *Community knowledge of the issue*- the community members' knowledge about the causes of the issue, consequences, and how it impacts the community, 6) *Resources available to support prevention efforts & policy change*- the extent to which community members know about local resources to support efforts such as people, money, time, space, etc. Based on the strengths and weaknesses of each of these dimensions a community is described as being in one of nine levels of readiness to address an issue (Plested et al., 2006). The readiness levels and a brief description can be seen in Table 2.

Table 2. Community Readiness Levels and Descriptions	
Level	Description
1. <i>No awareness</i>	No knowledge of the problem within the community because the behavior or issue is normative and accepted.
2. <i>Denial/resistance</i>	Exists when the community believes the problem does not exist locally or is impossible to change.
3. <i>Vague awareness</i>	Knows that a problem exists, but there is no motivation by leadership or community members to do anything.
4. <i>Preplanning</i>	When interested leaders have been identified but there is no focus or detailed efforts.
5. <i>Preparation</i>	Describes communities where leaders are beginning to focus on details of program implementation.
6. <i>Initiation</i>	Indicates leaders have been trained and have enough information to justify efforts and gain modest involvement of community members.
7. <i>Stabilization</i>	Describes communities where programs are being implemented by trained and experienced leaders with support of community decision-makers but no formal evaluation efforts exist.
8. <i>Confirmation/expansion</i>	A stage where programs have become standard practice and there is support to expand or improve efforts, healthful eating and active living are accepted as social norms, and data is being collected to evaluate

	outcomes.
9. <i>High level of community ownership</i>	When community leaders are highly trained, decision makers are supportive and the community is highly involved and holds programs accountable for outcomes, and assessment and evaluation of programs are the norm.

Community Readiness Handbook (Plested et al., 2006)

The Community Readiness Model was developed to meet not only researcher needs, but also to aid program planners in creating successful intervention programs (Oetting, 1995). Over the past few decades it has been discovered that efforts by local people have the greatest impact on local problems and changing local norms. Feedback and input from the community members help reveal what their needs are and how ready they are to make a change. Once this is known, programs can be better developed, implemented and sustained for longer.

Improving the readiness of a community takes planning and consideration. To be successful, any effort toward making change within a community must begin with strategies appropriate to the stage of readiness beginning with the lowest scoring dimensions (Plested, 2006). The amount of time to move to a higher stage can vary by appropriateness of efforts, intensity and by events that change people's view about the issue. To advance readiness all dimensions must be at about the same level. Efforts should first be focused on dimensions with the lowest scores using appropriate strategies. Low scores indicate "No awareness" and signify the community at large does not recognize the issue as a localized problem. In addition, the intensity level of the intervention or strategy should be consistent with, or lower than, the score for that

dimension. High community readiness leads to policies that favor access to healthy food and opportunity for physical activity.

There are multiple benefits to using the community readiness model. One of them is that it addresses multiple dimensions of a community and not a single aspect. It identifies weaknesses, strengths and obstacles that a community might face when trying to make changes. It matches strategies to readiness levels and works within the culture of the community. Stage matched goals and example strategies for increasing readiness are outlined in the Community Readiness Handbook and are listed in table 3.

Table 3. Goals And General Strategies Appropriate For Each Stage		
Stage	Description	Goal
1. No Awareness	The community/leaders do not generally recognize a problem. "It's just the way things are." Community climate may encourage the behavior although the behavior may be expected of one group and not another.	Raise awareness of the issue <ul style="list-style-type: none"> • Make one-on-one visits with community leaders/members. • Visit existing small groups to inform them of the issue. • Make one-on-one phone calls to friends and supporters.
2. Denial / Resistance	There is little recognition that this might be a local problem. If there is some idea that it is a local problem, there is a feeling that nothing needs to be done about it locally. "It's not our problem." "It's just those people who do that." "We can't do anything about it." Community climate tends to be passive or guarded.	Raise awareness that the problem or issue exists in this community <ul style="list-style-type: none"> • Continue one-on-one visits • Discuss descriptive local incidents related to the issue. • Engage local educational/health outreach with flyers, posters, or brochures. • Prepare and submit articles for church bulletins, local newsletters, club newsletters, etc.
3. Vague Awareness	There is a general feeling among some in the community that there is a local problem and that something ought to be done about it, but there is no immediate motivation to do anything. There may be stories or anecdotes about the problem, but ideas about why the problem	Raise awareness that the community can do something <ul style="list-style-type: none"> • Get on the agendas and present information at local community events. • Post flyers, posters, and billboards. Begin to initiate your own events (pot lucks, potlatches, etc.) and use those

	occurs and who has the problem tend to be stereotyped and/or vague. No identifiable leadership exists or leadership lacks motivation for dealing with this problem. Community climate does not serve to motivate leaders.	opportunities to present information on the issue. <ul style="list-style-type: none"> • Conduct local surveys and interviews with community people by phone or door-to-door. • Publish newspaper editorials and articles with general information and local implications.
4. Preplanning	There is clear recognition on the part of at least some that there is a local problem and that something should be done about it. There are identifiable leaders, and there may even be a committee, but efforts are not focused or detailed. There is discussion but no real planning of actions to address the problem. Community climate is beginning to acknowledge the necessity of dealing with the problem.	Raise awareness with concrete ideas to combat condition <ul style="list-style-type: none"> • Introduce information about the issue through presentations and media. • Visit and invest community leaders in the cause. • Review existing efforts in community (curriculum, programs, activities, etc.) to determine who the target populations are and consider the degree of success of the efforts. • Conduct local focus groups to discuss issues and develop strategies. • Increase media exposure through radio and television public service announcements.
5. Preparation	Planning is going on and focuses on practical details. There is general information about local problems and about the pros and cons of prevention activities, actions or policies, but it may not be based on formally collected data. Leadership is active and energetic. Decisions are being made about what will be done and who will do it. Resources (people, money, time, space, etc.) are being actively sought or have been committed. Community climate offers at least modest support of efforts.	Gather existing information with which to plan strategies <ul style="list-style-type: none"> • Conduct school drug and alcohol surveys. • Conduct community surveys. • Sponsor a community picnic to kick off the effort. • Conduct public forums to develop strategies from the grassroots level. • Utilize key leaders and influential people to speak to groups and participate in local radio and television shows. • Plan how to evaluate the success of your efforts.
6. Initiation	Enough information is available to justify efforts (activities,	Provide community-specific information

	actions or policies). An activity or action has been started and is underway, but it is still viewed as a new effort. Staff is in training or has just finished training. There may be great enthusiasm among the leaders because limitations and problems have not yet been experienced. Community climate can vary, but there is usually no active resistance, (except, possibly, from a small group of extremists), and there is often a modest involvement of community members in the efforts.	<ul style="list-style-type: none"> • Conduct in-service training on Community Readiness for professionals and paraprofessionals. • Plan publicity efforts associated with start-up of activity or efforts. • Attend meetings to provide updates on progress of the effort. • Conduct consumer interviews to identify service gaps, improve existing services and identify key places to post information. • Begin library or Internet search for additional resources and potential funding. • Begin some basic evaluation efforts.
7. Stabilization	One or two programs or activities are running, supported by administrators or community decision-makers. Programs, activities or policies are viewed as stable. Staff are usually trained and experienced. There is little perceived need for change or expansion. Limitations may be known, but there is no in-depth evaluation of effectiveness nor is there a sense that any recognized limitations suggest an immediate need for change. Community climate generally supports what is occurring.	<p>Stabilize efforts and programs</p> <ul style="list-style-type: none"> • Plan community events to maintain support for the issue. • Conduct training for community professionals. • Conduct training for community members. • Conduct quarterly meetings to review progress, modify strategies. • Hold recognition events for local supporters or volunteers. • Prepare and submit newspaper articles detailing progress and future plans. • Begin networking among service providers and community systems.
8. Confirmation / Expansion	There are standard efforts (activities and policies) in place and authorities or community decision-makers support expanding or improving efforts. Community members appear comfortable in utilizing efforts. Original efforts have been evaluated and modified and new efforts are being planned or tried	<p>Expand and enhance services</p> <ul style="list-style-type: none"> • Formalize the networking with qualified service agreements. • Prepare a community risk assessment profile. • Publish a localized program services directory. • Maintain a comprehensive database available to the public. • Develop a local speaker's

	in order to reach more people, those more at risk, or different demographic groups. Resources for new efforts are being sought or committed. Data are regularly obtained on extent of local problems and efforts are made to assess risk factors and causes of the problem.	bureau. <ul style="list-style-type: none"> • Initiate policy change through support of local city officials. • Conduct media outreach on specific data trends related to the issue. • Utilize evaluation data to modify efforts.
9. High Level of Community Ownership	Detailed and sophisticated knowledge of prevalence, risk factors and causes of the problem exists. Some efforts may be aimed at general populations while others are targeted at specific risk factors and/or high-risk groups. Highly trained staff are running programs or activities, leaders are supportive, and community involvement is high. Effective evaluation is used to test and modify programs, policies or activities. Although community climate is fundamentally supportive, ideally community members should continue to hold programs accountable.”	Maintain momentum and continue growth. <ul style="list-style-type: none"> • Maintain local business community support and solicit financial support from them. • Diversify funding resources. • Continue more advanced training of professionals and paraprofessionals. • Continue re-assessment of issue and progress made. • Utilize external evaluation and use feedback for program modification. • Track outcome data for use with future grant requests. • Continue progress reports for benefit of community leaders and local sponsorship. At this level the community has ownership of the efforts and will invest themselves in maintaining the efforts.

Community Readiness: A Handbook for Successful Change (Plested et al., 2005)

Previous Research Using the CRM

The CRM has been used in many past community research studies. It has been used in drug and alcohol use (Jumper-Thurman, 2001), research about cancer prevention (Lawsin, 2006), and was also used in obesity prevention (Findholt, 2007). It was first developed for alcohol and drug prevention, but brought attention to how versatile and informative the tool could be for community projects (Oetting, 1995). One study looked into the readiness in an Alaskan village because of the high rates of drinking and

mortality due to accidents (Jumper-Thurman, 2000). The community was able to move from the “no awareness” stage at baseline to the “preparation” stage by using the CRM Handbook’s stage matched strategies. This prompted a lot of behavior change in the community including individuals pursuing treatment, support groups, and different sobriety activities to unite the community (Jumper-Thurman, 2000).

Another application of the CRM was with cancer awareness in select Native American tribes (Jumper-Thurman, 2001). Because of the high rates of mortality attributed to cancer in this community, they used the Tri-Ethnic Center’s CRM to analyze the tribal member’s attitudes and identify barriers that they faced in terms of health care to make progress. The tribes started at the low stage of “no awareness.” By using the CRM scores, they were able to increase the interest of tribe members to educate about health and cancer and recognize barriers to continue to make changes within the tribe (Jumper-Thurman, 2001).

The CRM has also been used in the past to initiate childhood obesity programs (Findholt, 2007). The model was utilized to engage community members in developing strategies to increase a rural county in Oregon’s level of readiness and to gather qualitative data on community strengths and barriers that could facilitate or hinder the development of an obesity prevention program. They followed the CRM protocol and found the model easy to use and effective when planning nutrition and physical activity interventions. After conducting the assessment they found that the county was at the first level of readiness indicating “no awareness.” The respondents were in agreement concerning the low level and reported that many community members accepted unhealthy food choices and inactivity in the children, with the thought that they would

eventually change their behaviors with maturation. Researchers described the findings as being helpful and readiness as being issue-specific, meaning that a community can be at a high level of readiness to deal with one problem and a low level of readiness for another problem. They also found that conducting the interviews gave community members a sense of pride since they were the ones knowledgeable of the issues. It gave them a sense of togetherness since they were all willing to be a part of the initiative. The assessment led the building of a coalition that would prevent childhood obesity and draw awareness to the importance of healthy eating and physical activity in children.

There are many reasons why the CRM is used in research. It is an effective and easy-to-use tool that encourages the recognition of an issue within the community. In addition, it measures readiness levels on multiple dimensions to help identify initial efforts and identifies weaknesses, strengths and obstacles that community members may have in making a change. In addition, the model gives the community a strong sense of ownership so strategies work within the community's culture and will be long lasting and sustainable. The CRM also uses local leaders and resources which builds more rapport within the community instead of relying on outside opinions. Change can be complex, but the model simplifies the process into easy steps that make it less challenging (Plested et al., 2005).

To address an issue as complex as obesity, program leaders and practitioners often need to use multiple strategies (Silwa et al., 2011). Through evaluating readiness, communities are able to successfully design programs and execute interventions appropriate for the corresponding community (Silwa et al., 2011). One study looked at twenty-six communities that were selected after applying for a childhood obesity grant.

The study included three intervention communities that would receive financial assistance and support to conduct the interventions and then three control communities which would receive a stipend and training succeeding the study. The final communities consisted of six groups that used the CRM and by being able to use the tool, they were able to lower the cost of travel and reduce the frequency of on-site visits (Silwa et al., 2011). The researchers, consultants, and evaluators from this study all supported the use of the CRM and made positive reports about using the tool. They also reported that using the CRM to assess community readiness provided insights into the strengths and weaknesses of a community. Identifying the strengths and weaknesses can enhance or hold back the development of health programs and change in a community. The CRM is an important tool for addressing issues such as obesity in underserved communities because it provides a framework for level of the community.

Gap in Research

There is not a lot of research describing the specific strategies and events that were used to increase the readiness of specific communities. The Tri-Ethnic Center's Handbook helps to determine which of the dimensions to address first, but in the literature they don't describe how the lower dimensions were addressed. There is also little literature of conducting a follow-up community readiness assessment to analyze how a community changed or utilized their baseline scores to increase readiness.

The purpose of this study was to fill the gap in research and evaluate the impact of community-based obesity prevention interventions on the readiness of county residents to address healthy eating and active living issues. This project investigated changes in readiness when strategies and methods were matched to dimensions. In addition,

successful strategies were identified by looking at specific activities that were conducted in select counties.

CHAPTER III

METHODS

The methodology for this study followed the protocol described in the Tri Ethnic Center's Community Readiness Handbook (Plested et al., 2006). This study used a pre-post design addressing each of the six dimensions outlined and was completed by 6-10 key informants in each of 21 Oklahoma counties involved with the Tobacco Settlement Endowment Trust (TSET) Communities of Excellence in Physical Activity and Nutrition (CX-PAN). Pre-intervention stages were assessed in Fall 2011 and the findings were used by funded coalitions to develop stage-appropriate strategies and interventions that measured different dimensions and readiness to change within the county. The post assessment was conducted in the Fall of 2014.

Counties

In both time periods the sampling populations included residents of counties receiving grants from the Tobacco Settlement Endowment Trust (TSET) Communities of Excellence in Physical Activity and Nutrition (CX-PAN). Grant coordinators were asked to identify 6-10 key informants per county resulting in a convenience sample of 126 (pre n=89; post n=126). Names and contact information of suggested key informants were reported to researchers using the form provided in Appendix A. Key informants

were individuals who were knowledgeable of the county and were connected to the issues of healthy eating and physical activity in schools, community at large, and worksites. Sources of potential informants included principals, health care workers, CEOs of businesses, church leaders, youth group directors, etc. Informants were not directly involved in the grant efforts but resided in the county. The study was reviewed and approved by the Oklahoma State University Institutional Review Board (see Appendix B) prior to data collection.

Survey Construct

The surveys were composed of a series of questions designed to assess each of the six dimensions outlined in the handbook (see Appendix C). They were conducted via electronic surveys or through phone interviews, based on the key informant's preference. Both methods used an identical format to deliver the questions. Each survey took approximately 30-60 minutes to complete. Informants were assured that no direct information would be shared with grant coordinators and no information was asked that could trace answers back to a specific key informant.

Scoring

Graduate Research Assistants were contracted to serve as scorers and completed a training session on how to accurately and consistently score the surveys to establish inter rater reliability. The training consisted of a background of the CRM, time to practice scoring a survey, and discussion about how to be dependable in scoring the surveys. To score a survey, first the entire survey was read to get a feel for the conversation. The scorer then re-read each dimension and used the respective anchored rating scale (see Appendix D) to identify the dimension score. This is accomplished by comparing the

anchor statements to the informant's response. If the community exceeds the first statement, the anchors are read subsequently until an anchor is reached that has not been achieved. The previous anchor is the score for that dimension because a community must achieve what is reflected in the anchor statement (Plested et al., 2006).

Two scorers independently scored each survey and provided a numerical score for each dimension using anchored rating scales according to the handbook protocol. After individually scoring their randomly assigned surveys they then met to compare and discuss scores to reach a consensus on what the score should be and assign a final score for each dimension. After a consensus score was agreed upon for each dimension score, an overall score for the county was calculated by averaging the dimension scores. Each scorer met with three other scorers to develop agreement among scorers.

Once all the post assessment scores were established, they were compared with baseline assessment scores by calculating the difference in overall readiness. The subsequent data was used to determine if 1) there were changes in the overall scores varied by county, 2) if a particular dimension drove the change of overall county readiness scores, 3) the dimensions and counties with most change to represent best practices.

Dimension Selection

Following the scoring process, the average dimensions of readiness that changed the greatest were extracted from the data set. The three dimensions that stood out as being most pivotal were county efforts (dimension A), county climate (dimension D), and knowledge about the consequences (dimension E). Dimension A was selected because it experienced the most change and was noteworthy. Dimensions D and E were selected

because according to the handbook, the best practice is to identify the lowest dimension first to be primary focus for planning and interventions (Plested et al., 2006). For Dimension A, Choctaw and Johnston Counties had the greatest change ($\Delta=4$); for Dimension D, Logan and Okmulgee Counties experienced the greatest change ($\Delta=3$); and for Dimension E, Bryan and Jackson Counties were seen to have the most change ($\Delta=3$). TSET requires counties applying for a grant to have a population of at least 15,000 (TSET,n.d.). If it is lower, counties must form a consortium to meet the requirement. A consortium is a union of multiple organizations, in this case multiple counties, that unite to have a larger representation and can be better represented or served collectively. Both Johnston and Choctaw were part of separate consortiums. Descriptions of the counties are defined in Table 4.

Table 4. Description of Counties based on 2013 Census data				
County Name	Population	Urban/Rural	Location in state	Largest City
Bryan	42,416	Rural	South East	Durant
Choctaw	15,205	Rural	South East	Hugo
Jackson	26,446	Rural	Southwest Corner	Altus
Johnston	10,957	Rural	South Central	Tishomingo
Logan	41,848	Urban	Central	Guthrie
Okmulgee	40,069	Urban	East	Okmulgee

(US Census Bureau Quick Facts, 2013)

Informational Sources

To examine activities and efforts to increase readiness, monthly briefings and annual reports that were completed by county coalitions were examined. The purpose of monthly briefings was to document progress and report on grantee outcomes using

measures of progress outlined by CX-PAN's Program Guidelines Manual (TSET Communities of Excellence Program Guidelines, 2012). The different events that took place, types of media and communication that were used, and activities that were executed were reviewed to see if they may have increased awareness or readiness to make changes in healthy eating and physical activity. The items that measure progress are outlined in Table 5.

Table 5: Grantee Outcomes and Measures of Progress	
Program Management and Staff Development	<ul style="list-style-type: none"> • Identify and hire staff with the appropriate competencies • Assure staff participation in site visits trainings, meetings, and conferences
Collaboration and Communication with Partners	<ul style="list-style-type: none"> • Expand nutrition and fitness coalition to include a broad range of partners • Regularly convene coalition members to ensure full participation to develop strategic plan
Training and Technical Assistance	<ul style="list-style-type: none"> • Assure training technical assistance and consultation is provided to partners • Assess the need for training on a regular basis
Strategic Planning	<ul style="list-style-type: none"> • Develop a plan for the implementation phase • Update the plan annually
Surveillance and Evaluation	<ul style="list-style-type: none"> • Participate with the external evaluator in all evaluation activities • Develop logic models • Use community assessment to inform interventions • Collect baseline data
Communications	<ul style="list-style-type: none"> • Communicate environmental and policy change strategies • Share successes and lessons learned with stakeholders, policy makers and media
Community Interventions	<ul style="list-style-type: none"> • Engage in limited community interventions during start-up phase

(TSET Communities of Excellence Program Guidelines, 2012)

All of the measures from Monthly Briefings from October 2012-October 2014 were examined. The grant started in July 2011 and the planning phase continued through September 30th, 2012. The baseline Community Readiness Assessment was completed in October 2011 and was used in the planning phase. Implementation year 1 of the grant started October 1, 2012 so efforts and activities of interest were included from October 2012 through the second round of data collection.

Along with monthly briefings, annual reports were also used to inspect the different strategies and actions used by the coalitions. The purpose of annual reports was also to demonstrate progress made toward community indicators and grantee outcomes. Annual reports from years 2 and 3 were reviewed. No annual report was done for the first year of implementation since it only included 6 months of the reporting period.

Emerging themes from the key informant survey responses were also used to highlight the county readiness level. No direct information could be shared from the surveys because of the guarantee that quotes would not be used to the key informants so emerging themes were selected from the post intervention surveys to understand similarities and shared thoughts among the participants in that county. Themes that shared a common thread were pulled out and compiled to cluster statements that were conceptually similar within the counties.

Analysis

Statistical analyses were performed using the Statistical Package for Social Sciences (SPSS) software version 22.0 with statistical significance set at $p < 0.05$ for

reassessment. A paired t-test was used to examine change in readiness dimension and overall readiness score within participating counties from baseline (2011) to reassessment (2014). Mean readiness scores were computed and aggregated to the county level for both baselines and reassessment. Calculations were completed using scores to the nearest tenth, and then rounded to the lowest whole number for reporting purposes (Plested, 2006). A regression analysis was conducted for post data to determine which dimension was the best predictor of the overall readiness score.

CHAPTER IV

FINDINGS AND DISCUSSION

Results

Multiple data sources were used to investigate pre-post survey data and describe interventions that have been presented to increase readiness levels in the counties. To examine pre-post survey data, a change score was calculated using the difference of scores from 2011 to 2014. Findings are outlined in Table 6.

Table 6. Community Readiness Assessment Findings Compared

County	Dimension A Community Efforts		Dimension B Community Knowledge of Efforts		Dimension C Leadership		Dimension D Community Climate		Dimension E Knowledge Of Issue		Dimension F Available Resources		Overall Readiness Score		Δ
	2011	2014	2011	2014	2011	2014	2011	2014	2011	2014	2011	2014	2011	2014	
Atoka	4	6	1	5	4	4	2	4	1	4	3	5	2	5	3
Beckham	2	5	1	3	2	2	1	3	2	4	2	3	2	3	1
Bryan	3	5	2	3	2	2	1	3	1	4	3	4	2	3	1
Caddo	3	4	3	2	3	2	2	3	3	3	2	2	2	3	1
Carter	4	7	2	4	3	4	2	3	3	4	2	4	3	4	1
Choctaw	2	6	2	3	2	3	1	3	2	4	1	4	2	4	2
Cleveland	5	6	4	3	3	3	2	3	1	3	2	3	3	3	0
Coal	2	4	1	2	1	1	1	2	2	3	2	3	1	3	2
Comanche	6	7	3	4	3	4	2	3	2	4	4	4	3	4	1
Jackson	4	5	2	2	1	2	2	3	1	4	1	3	2	3	1
Johnston	2	6	2	3	2	3	2	3	1	4	2	3	2	3	1
Kiowa	3	5	3	3	3	2	2	3	3	4	2	3	2	3	1
Logan	5	7	3	3	2	4	1	4	2	4	2	5	2	5	3
Love	2	--	2	--	2	--	2	--	1	--	2	--	2	--	-
Marshall	--	6	--	3	--	4	--	2	--	4	--	4	--	4	-
McCurtain	5	5	3	3	4	2	2	2	2	2	4	1	3	2	-1
Muskogee	5	6	3	2	4	3	2	3	2	3	4	4	3	4	1
Oklahoma	4	7	2	3	4	5	3	3	3	3	3	3	3	4	1
Okmulgee	5	7	3	4	2	5	1	4	2	3	3	4	3	4	1
Pushmataha	6	4	3	2	4	3	2	2	2	4	2	2	3	3	0
Roger Mills	2	3	1	2	1	2	1	2	1	3	1	2	1	2	1
Tulsa	4	5	2	3	3	1	3	3	2	3	2	2	3	3	0
Initiative \bar{x}	3.7	5.5	2.2	2.9	2.6	3.0	1.7	2.9	1.8	3.5	2.3	3.3	2.3	3.4	

The paired sample t-test was conducted to compare the sample at baseline and second round of data collection. Different key informants were used in 2011 and 2014; because if key informants are the same both times then the entire community readiness is not valid since the informants are already knowledgeable about the process (Plested, 2006). On average, all the dimensions except leadership increased significantly. A summary of the t-test findings can be seen in Table 7.

Table 7: Comparison of dimension and scores				
	2011	2014	p-value	N
	$\bar{x} \pm S.D$	$\bar{x} \pm S.D$		
Dimension A: Existing Efforts	3.79 ± 1.4	5.53 ± 1.21	<0.001	19
Dimension B: Knowledge of Efforts	2.32 ± 0.89	2.95 ± 0.85	0.042	19
Dimension C: Leadership	2.63 ± 1.07	2.95 ± 1.13	0.268	19
Dimension D: Climate	1.69 ± 0.58	2.95 ± 0.62	<0.001	19
Dimension E: Knowledge of Consequences	1.9 ± 0.74	3.53 ± 0.61	<0.001	19
Dimension F: Resources	2.37 ± 0.96	3.26 ± 1.05	.009	19
Overall Score	2.37 ± 0.67	3.42 ± 0.84	<0.001	19

Stepwise, linear multiple regression was used to assess which dimension was the best predictor of the overall community readiness score in 2014 (See Table 8). While all six dimensions were significant contributors to the overall readiness score ($p \leq 0.05$), the strongest driver was seen in dimension A: community efforts which explained 81% of the variance in the total score. Next came Resources at 11.5%, then the rest at increasingly smaller amounts.

Table 8. Regression of dimension scores on total scores in 2014					
Model	Variables Entered	R	R Square	Adjusted R Square	Std. Error
1	2014 Existing Efforts	.900 ^a	.811	.800	1.98060
2	2014 Resources	.962 ^b	.926	.916	1.27954
3	2014 Knowledge	.981 ^c	.962	.954	.94849
4	2014 Leadership	.991 ^d	.983	.978	.66195
5	2015 Consequence	.997 ^e	.994	.992	.39975
6	2014 Climate	1.000 ^f	1.000	1.000	.00000

To examine the strategies used to increase Dimensions A: County efforts, D: County Climate and E: Knowledge of Consequences, work plans were examined including monthly briefing reports and annual assessments. The strategies used in the counties that were thought to increase readiness from 2011 to 2014 are summarized in Table 9.

Table 9. Monthly Briefing and Annual Report Findings	
Dimension A: County Efforts	
Choctaw	<u>Visit existing small groups to inform them of the issue</u> <ul style="list-style-type: none"> • Make one-on-one phone calls to friends and supporters of the coalition and county members. • Building relationships with local businesses and local worksite wellness programs <u>Raise awareness of the issue</u> <ul style="list-style-type: none"> • Healthy Eating/Active Living at County Fair: Presentations on eating less, My Plate, and recommendations on exercise. • Media including healthy ads, featured articles, and press releases in local newspaper.
Johnston	<u>Raise awareness that the problem or issue exists in this community</u> <ul style="list-style-type: none"> • Local Health Fairs- Displays of sugary drinks, fats and portion control. • Fun-runs • County Parade: health promotion table • County Health Fair • Kids Health Fair: To provide information and resources to students about physical activity and nutrition.

	<ul style="list-style-type: none"> • Fall Carnival: To promote eating healthy and being physically activity <p><u>Continue one-on-one visits</u></p> <ul style="list-style-type: none"> • Worksite wellness: Educate employees about healthy lifestyles. • Teacher In-services- To educate teachers on the smart snacks how healthy minds increase academic achievement <p><u>Discuss descriptive local incidents related to the issue</u></p> <ul style="list-style-type: none"> • News articles: Healthy lifestyles highlighted <p><u>Engage local educational/health outreach with flyers, posters, or brochures</u></p> <ul style="list-style-type: none"> • Headstart Enrollment Presentation- To educate parents on the benefits of healthy eating and physical activity. • School Exercise week <p><u>Prepare and submit articles for local bulletins</u></p> <ul style="list-style-type: none"> • Ads in paper: nutrition and physical activity • Healthy eating tips
Dimension D: County Climate	
Logan	<p><u>Visit existing small groups to inform them of the issue</u></p> <ul style="list-style-type: none"> • Farm to you- Create a partnership with Public Schools. • Community Baby Shower- Educate new moms on healthy eating and active living <p><u>Raise awareness of the issue</u></p> <ul style="list-style-type: none"> • Media- Newsletter, Ads, TV, website news page, press release, social media articles, Billboards, tv stories • County Free Fair- Set up a table to discuss wellness across the county/ build coalition members. • Fun Runs • Health Fair • Bike to Work Events • Community Triathlon <p><u>Make one-on-one visits with community leaders/members</u></p> <ul style="list-style-type: none"> • Food School- Talk about new USDA guidelines and encourage food service staff to get involved in school wellness
Okmulgee	<p><u>Raise awareness of the issue</u></p> <ul style="list-style-type: none"> • Media- Press releases, news articles, website, radio, social media • Health Fair • Fun Run in the Park • Chili Fest • Praise at the park • Community gardens

	<p><u>Make one-on-one visits with community leaders/members</u></p> <ul style="list-style-type: none"> • Rotary presentation <p><u>Visit existing small groups to inform them of the issue</u></p> <ul style="list-style-type: none"> • Presentations at schools for teachers, parents and students • Literacy night at schools • East Central Electric Annual Meeting- gain attention to eating better • Citizens Bank presentation <p><u>Make one-on-one phone calls to friends and supporters</u></p> <ul style="list-style-type: none"> • Resource Lunch- Let community know of all the resources available in the county
Dimension E: Knowledge About the Consequences	
Bryan	<p><u>Raise awareness of the issue</u></p> <ul style="list-style-type: none"> • Media- News articles in local paper, local radio station • Local Benefits: to provide information • Health Fair: to provide info and education • Family Fun Fitness Day: increase community awareness • National Physical Activity Month Awareness Events • Social Media: Nutrition Tips, Fitness Tips, Healthy Recipes and other healthy messages each day. • Southeastern Homecoming Tailgating Event: provide info to the community <p><u>Make one-on-one visits with community leaders/members</u></p> <ul style="list-style-type: none"> • Chamber of Commerce Meet and Greet <p><u>Visit existing small groups to inform them of the issue</u></p> <ul style="list-style-type: none"> • Wellness Committee Meeting-Video Conference: To provide information on employee wellness • Provided education to Circle of Families Support Group • Educational Presentations to hospital staff <p><u>Make one-on-one phone calls to friends and supporters.</u></p> <ul style="list-style-type: none"> • Collaborations with students and parents.
Jackson	<p><u>Raise awareness of the issue</u></p> <ul style="list-style-type: none"> • Media- News article local paper, local radio station. • Worldwide Day of Play at School: encourage and educate children about importance of playing outdoors. • County Wide BMI Project: Collect info on obesity rates and assess knowledge • County Fair: Booth to provide information <p><u>Make one-on-one visits with community leaders/members</u></p> <ul style="list-style-type: none"> • Public Schools Parent/Teacher Meeting: Child nutrition Director reviewed obesity stats and awareness.

	<p><u>Visit existing small groups to inform them of the issue</u></p> <ul style="list-style-type: none"> • Youth Services-provide youth access to community organization opportunities and resources. • County Health Department Healthy Lunch Club: Nutrition education for staff • Employee Wellness Seminar: bring worksite wellness information to businesses across Jackson County.
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The 2014 county readiness assessment emerging themes were also extracted to help highlight resident's attitudes and to further assess their knowledge of the consequences of unhealthy eating and inactivity. Findings are outlined in Table 10.

Table 10. 2014 County Readiness Assessment Emerging Themes		
Dimension A: Efforts		
County	Stage	Themes from Interviews
Choctaw	6	<ul style="list-style-type: none"> • Most know about efforts and can describe many different ones, but not everyone is able to access them (esp. the elderly). There are good programs for children in the local schools and for pregnant women. • Efforts work best when there is community support and when leaders show true concern, also when there is an education piece to support the efforts. • Efforts could be improved by targeting entire families and getting their buy-in, adding an education piece, and by increasing awareness. • Some think there are new efforts being started, but they don't know much about them.
Johnston	6	<ul style="list-style-type: none"> • Most residents know there are efforts in the county promoting healthy living, and they can describe a few of these efforts. • Most residents have access to the programs, although they may be more geared towards children of school age, older generations, the urban population (opposed to rural families), middle class (cost of gym memberships), and those of the Chickasaw Tribe. • Programs could be improved by increasing awareness, support from local organizations, more health promotion in organizations, low cost (if any) fees, and offering them at convenient times. • Most are not aware of any new efforts happening,

		except the promotion of gardening and gardening classes in the school system.
Dimension D: Climate (attitudes)		
County	Stage	Themes from Interviews
Logan	4	<ul style="list-style-type: none"> • Most residents think healthy eating and active living are important; but most are not acting on that belief and are choosing to ignore it. • County residents want to have better access to healthier foods and opportunities to be physically active. • Most feel that the primary obstacles are: access to healthy food, knowledge deficits, and thinking the healthy options are limited. They also feel they don't have access to physical activity and that it is expensive to be active and join gyms.
Okmulgee	4	<ul style="list-style-type: none"> • Healthy eating and active living are important to most county residents, but some think that they are issues that do not affect them. • Most of the county residents want to have better access to healthier foods and opportunities to be physically active, and a lot more people are interested in healthy foods and more people are walking, running and getting active. • Primary obstacles to healthy living include: Funding, education, communication, and attitude of the general society.
Dimension E: Knowledge about the health consequences		
County	Stage	Themes from Interviews
Bryan	4	<ul style="list-style-type: none"> • Most residents know some about the health consequences of unhealthy eating and inactivity, but aren't motivated or feel capable of making changes. • Most think that unhealthy eating and physical inactivity are a problem in the county. • Although residents appear to have multiple information resources, they are not clear about how to make changes.
Jackson	4	<ul style="list-style-type: none"> • Residents know some about the health consequences of unhealthy eating and physical inactivity (mainly through media education). • Most residents think that unhealthy living is a problem in the county, but they think the consequences won't happen to them. There appears to be a wide range of

		<p>knowledge in the county- a few would say that they know how to prevent disease, while others would say there is no connection to healthy living and diseases (cancer, diabetes, heart disease).</p> <ul style="list-style-type: none"> • Information is available at wellness centers, health departments, and doctor's offices, schools, in the media, radio ads, and newspapers.
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Discussion

The three dimensions in 2011 that stood out were County efforts (dimension A), County climate (dimension D); and knowledge about the issue (dimension E), suggesting a primary focus for the CX-PAN county efforts. According to the handbook, the lowest dimensions should be identified first (Plested et al, 2006). Dimension D and E were the lowest in 2011, while Dimension A had the most significant change.

Based on the t-test findings, all the Dimensions except Leadership increased significantly. This may be attributed to fact that leadership within the county did not change during the data collection and because the counties did not focus their efforts on that specific dimension. Both the average overall scores and the average total scores increased significantly. Both of these were to be expected because the individual dimensions increased.

In 2014, Dimension A: County Efforts, was the best predictor of the overall scores for the counties. The dimension addresses the question; to what extent are there efforts, programs and policies that address healthy eating and active living? The findings suggest that stage matched strategies can be used in the county aimed at increasing efforts supportive of nutrition and active living behaviors that can potentially improve the health status of residents in Oklahoma. Because the counties focused primarily on efforts for the previous 5 years, the fact that it was able to predict the total score was note-worthy.

When using the CRM, the statistical analyses are not used to figure out which dimension should be the focus of efforts, instead the lowest dimensions are the ones that need to be worked on. In this study that meant climate and knowledge of the consequences.

The Tri-Ethnic Center has outlined effective strategies that are matched to each stage of readiness (Plested, et al., 2006). They are useful in making progress toward increasing community readiness and promoting change in behaviors. Strategies listed in the Handbook for stage 1 “no awareness”, include: one-on-one visits with community leaders/members and visiting small groups to inform them of the issue. Strategies for stage 2 “denial/resistance”, include: continue one-on-one visits and encourage groups previously assisted to help in the efforts. It also suggests using local incidents related to the issue and involving local outreach programs to aid in the efforts. Strategies for stage 3 “vague awareness”, consist of: present information at local community events and use flyers, posters, and billboards to start your own events such as health fairs, fun runs, and other intimate events. It is important to use those opportunities to present information on the issue in an easy manner and not overload information. The data that was collected was used to outline the progress of the counties interventions across the funding period, and highlight strategies that were successful in increasing readiness.

Knowing the types of programs and efforts that promoted an increase in the three pivotal dimensions will provide a basis for recommendations to other counties who wish to increase readiness. For Dimension A, both Choctaw and Johnston counties started at a readiness level of 2 and increased to a 6. Like the handbook suggested, both counties included small group visits with schools and businesses and utilized media articles that describe local issues (Plested, 2006). Other efforts included local newsletters and

community groups to increase the importance of healthy eating and active living. They also conducted fun activities such as health fairs and fun runs to share information about programs in a fun fashion. This shines a positive and fun light on the issue and doesn't overload the individual with too much information. They also used media avenues such as articles and ads in local newspapers to personalize the information and show the local prevalence that is happening in their county currently. From the emerging themes, most of the county members know there are efforts being conducted, but few can describe them. They also mentioned that the programs could be improved by increasing awareness of the programs. These strategies were appropriate for the county's readiness level and could be attributed to why they had the greatest change in Dimension A out of all 21 counties.

Dimension D included Logan and Okmulgee counties who started at a readiness level of 1 and increased to a 4. The handbook suggests making one-on-one visits with community leaders/members and establishing small groups to inform them of the issue (Plested, 2006). These counties put on Fun Runs to target at risk groups, and created partnerships with public schools, businesses, and older adult groups. The counties put on smaller more intimate events like a Community Baby Shower to educate new moms on healthy eating and active living, and "Resource Lunches" to let community know of all the nutrition and physical activity resources available in the county. These events are small and intimate and build rapport within the subgroups of the community. By making the events fun and not bombarding community members with an overload of information, they leave with a good relationship and will be more likely to make small changes. They both formed partnerships with schools and hosted events at the schools

to increase involvement within the community. These counties used these strategies to change county climate and move away from encouraging unhealthy eating and inactivity. They tried to increase awareness and change the attitudes and the thoughts about access to healthy foods and opportunities for physical activity. Based on the emerging themes for Dimension D, many of the county residents think that healthy eating and physical activity are important, but they don't know where to start to make a change. They want to have better access to healthy foods and opportunities for physical activity but they have barriers to making the change. This shows that the attitudes and beliefs of the residents are in line with making positive changes; the community just has to address some of the barriers and issues to making a change. These strategies were at the appropriate level and not too advanced for the county residents which may attribute to the pronounced change in this dimension.

Dimension E included Bryan and Jackson counties. Both of these counties started at a 1 in this dimension and increased to a readiness level of 4. For "no awareness", the handbook suggests making small one-on-one visits with community leaders/members, visit existing and established small groups to inform them of the issue. Most residents know some about the health consequences of unhealthy eating and inactivity, but aren't motivated or feel capable of making changes. Although residents appear to have multiple information resources, they are not clear about how to make changes. These counties used strategies such as Media- News articles in local paper, local radio station and health fairs to increase the knowledge about consequences of unhealthy eating and inactivity. More fun events were aimed at families to share information about the consequences of eating poorly and physical inactivity. Fairs, tailgating and walk-

around events with handouts and prizes are useful because they can talk to professionals in a one-on-one environment without a lot of pressure or stress. They also collaborated with parents, students, worksites and other entities that are influential in their community to use the leaders as advocates to help spread the message of health. The emerging themes for this dimension revealed that county residents know some about what happens if you eat poorly and are inactive, but they are not motivated or feel capable of making a change. There is a wide range of knowledge in the community and there are a few informational resources that are available, however they are vague and not readily available to all groups. These strategies were at the appropriate level for the county and therefore experienced the greatest change in this particular dimension.

Any effort geared toward making successful and lasting changes within a community must include appropriate approaches that are matched to the stage of readiness beginning with the lowest dimension scores (Plested, 2006). Efforts should first be focused on dimensions with the lowest scores first because the community at large does not recognize the issue as a problem. Many of the efforts and strategies that are suggested by the handbook are very similar for the first three dimensions to make small, incremental changes. However, once the community moves into the higher levels of readiness the efforts become more advanced and introduce policy writing. The three vital dimensions discussed were selected based on their low baseline scores (Dimensions D and E) or due to the greatest change (Dimension A). The counties that were highlighted experienced the greatest change within the dimensions, but all stayed between levels 1 through 4. Based on the monthly reports and the key informant responses, they used appropriate strategies that met the community members at their own

level. They made use of the Tri-Ethnic Center's Handbook design to effectively plan activities, events, information, and change the attitudes of residents.

It is important to note that change is not stagnant and the community must adapt their strategies as they make progress. Conducting a county readiness assessment is helpful to assess where the community stands prior to initiating a program or passing a policy, however it is important that the community re-assesses or identifies their progress to grow with the evolution.

The amount of time to move a county to a higher stage greatly depends on the appropriateness of the efforts, intensity and by the community's attitude toward the issue. In addition, the intensity level of the intervention or strategy should be consistent with, or lower than, the score for that dimension (Plested, 2006). The counties under investigation in this study used the appropriate efforts, and were at a low enough level of intensity to resonate with county members and not be overwhelming.

This research helped fill the gap by describing the specific stage-matched strategies and events that were used to increase the readiness of actual communities. The study discussed how to address the lower dimensions and gave example of stage appropriate activities, methods, and events that increased readiness.

Assumptions and Limitations

In research, it is critical to identify potential limitations that may bias the findings. The first limitation to consider is that, due to time constraints, electronic surveys were used to collect data as opposed to one-on-one telephone interviews which can potentially provide more in depth responses; however, using electronic surveys minimizes error in

transcription and influences from the interviewer on the key informants. Another limitation could be a potential gap in knowledge of the key informants. Many of the key informants would only discuss nutrition related issues or physical activity, but often times not both. While both issues could have been asked separately, the survey is long and separating them would have doubled the length creating a greater burden on the respondents. Thus, both nutrition and physical activity were asked together. The study design focused on multiple counties and how specific dimensions were addressed rather than 1 county across dimensions. This limited the ability to ascertain how or if focusing efforts on the lower scoring dimension may impact other dimensions.

Assumptions include 1. the sample was representative of the entire county area; 2. key informants answered truthfully and honestly; and, 3. the electronic survey provided the same results as personal interviews. Also, based on training it was assumed that the scores were accurate.

Implications for Practitioners

For other community nutrition programs planning to improve healthy eating and active living through grants, using the Community Readiness Model seems to be very beneficial and effective. By following the Tri-Ethnic Center's Handbook protocol, beneficial insights of the community can be gained and the intervention or program can be catered to the specific community to increase the likelihood of success. It seems that the feedback of community members is critical when planning obesity prevention programs since each community is unique and at varying levels of readiness. Past literature utilizing the CRM is increasingly showing promise and effectiveness in obesity-related efforts. Healthcare professionals planning nutrition and physical activity

interventions should consider using the CRA as a tool to assess the readiness of county residents to assure strategies are at the appropriate level and intensity. The model was also useful in measuring incremental progress in addressing nutritional and physical activity issues within counties. Areas of future research may include looking to see if there is an inverse association with readiness level and obesity rates in communities. Another idea is to compare and contrast communities with a lot of change versus communities with little change and outline the “do’s” and “don’ts” of obesity prevention programs.

Conclusion

The purpose of this study was to make use of the community readiness model to gauge the impact of community-based obesity prevention efforts to address healthy eating and active living issues. This assessment explored how readiness can change when strategies and methods are matched to dimensions. By comparing pre-post survey data to identify the change in readiness scores in 21 counties, identifying the dimensions that drove the most changes in overall scores, and describing interventions/strategies that have been conducted in counties with greatest change in community readiness levels, all of the objectives of the study were met. The communities did increase readiness on average and a dimension that drove overall readiness was determined. In addition, looking at specific activities that were conducted in counties that experienced significant positive change, successful strategies were identified.

This study helps to further validate the CRM as an effective tool when planning obesity prevention programs and understand how to advocate for communities to plan

successful interventions that are tailored to different cultural beliefs. These strategies fit the community readiness model and are vital when trying to make community-wide changes.

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APPENDICES

Appendix A: Key Informant Selection Form

County Readiness Assessment, Fall 2014

KEY INFORMANT FORM

County _____

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Please submit the above information to Natasha Paz by **OCTOBER 10, 2014**.

Appendix B: IRB Approval Form

Oklahoma State University Institutional Review Board

Date: Wednesday, June 11, 2014 Protocol Expires: 6/10/2017
IRB Application No: HE1138
Proposal Title: Evaluation of the TSET Nutrition and Fitness Initiative (NFI)

Reviewed and
Processed as: Exempt
Continuation

Status Recommended by Reviewer(s): **Approved**

Principal
Investigator(s):

Deana Hildebrand
315 HES
Stillwater, OK 74078
Kevin Fink
180 Colvin Center
Stillwater, OK 74078

Nancy Belts
301 HS
Stillwater, OK 74078

Christi Erwin
301 HS
Stillwater, OK 74078

Approvals are valid until the given expiration date, after which time a request for continuation must be submitted. Any modifications to the research project approved by the IRB must be submitted for approval with the advisor's signature. The IRB office MUST be notified in writing when a project is complete. Approved projects are subject to monitoring by the IRB. Expedited and exempt projects may be reviewed by the full Institutional Review Board.

- ☒ The final versions of any printed recruitment, consent and assent documents bearing the IRB approval stamp are attached to this letter. These are the versions that must be used during the study.

Signature: 
Sheila Kennison, Chair, Institutional Review Board

Wednesday, June 11, 2014
Date

Appendix C: Survey

Default Question Block

TSET Communities of Excellence in Physical Activity and Nutrition County Readiness Assessment Survey Fall 2014

Note to the person answering the questions:

The purpose of the survey is to learn about the knowledge and attitudes people living in your county have about healthy eating and active living (being physically active).

The information you share will **not** be associated with your name or given to anyone who knows you. The information will be combined with information provided with other county residents who agreed to answer the questions. The combined information will be used to help county leaders better understand the knowledge and attitudes of county residents regarding availability of healthful foods and opportunities for active living.

Q1A. Using a scale from 1-10, how much of a concern is unhealthy eating to the people who live in your county with 1 being “not a concern at all” and 10 being “a very great concern?”

	1	2	3	4	5	6	7	8	9	10
Unhealthy Eating Concern										

Please explain why you chose that number.

--

Q1B. Using a scale from 1-10, how much of a concern is inactivity to the people who live in your county with 1 being “not a concern at all” and 10 being “a very great concern?”

	1	2	3	4	5	6	7	8	9	10
Inactivity										

Please explain why you chose that number.

Dimensions A & B: Community Efforts and Community Knowledge of Efforts (programs and activities)

The first set of questions is about your opinion of how much people in your county know about current programs and activities that help them eat healthy and be physically active.

Q2. Are there programs or activities in your county that promote healthy eating? Active living?

- ☐ Yes
- ☐ No

Q3. Can you please describe efforts to promote healthy eating and active living in your county?

Q4. How long have these efforts been going on?

Q5. What groups or groups of people do these efforts serve?

(For example, individuals of a certain age group, ethnicity, income level, geographic region etc.)

Q6. Are there groups of people in the county who don't have access to or can't use the programs? *(For example, individuals of a certain age group, ethnicity, income level, geographic region)*

- ☐ Yes
- ☐ No

Q7. In your opinion, what makes these programs work best for people?

Q8. In your opinion, how could the programs be improved?

Q9. Do you know if anyone is evaluating (testing) the programs to know how they well they do or don't work?

- ☐ Yes
- ☐ No

Q9A. On a scale of 1 to 10, how formal is the evaluation (with 1 being "not at all" and 10 being "very formal")?

	1	2	3	4	5	6	7	8	9	10
How formal is the evaluation of the programs										

Q9B. Are the evaluation results being used to make changes in the programs or to start new ones?

- ☐ Yes
- ☐ No

Q10. Are you aware of any new or additional plans for programs in your county that will help people eat healthy and/or be active?

- ☐ Yes
- ☐ No

Please explain your answer.

Q11. Using your best estimate, approximately how many people in the county know about the efforts to help people eat healthy and be active? Would you say none, a few, some, or most?

(Do not include those directly involved in planning or implementing efforts addressing healthy eating and active living.)

- ☐ None
- ☐ Little
- ☐ Some
- ☐ Most

Please explain why you chose this answer.

Q12. What do these individuals know about these programs or activities?

(For example, can they identify specific programs, do they know the purpose of the programs, who they are targeted to, how well the programs work?)

Q13. Is there information available to people in the county about the programs? What are some examples of the information?

(Examples of information include pamphlets, bulletins, posted notices, meetings, information about where to buy healthful, affordable foods and safe places to be physically active, etc.)

Q14. When county residents get the information do they check out what is being advertised?

- ☐ Yes
- ☐ No

Dimension C: Leadership

The next three questions are about your opinion of what leaders in the county think about healthy eating and active living. Leaders are those who could make changes and those who have influence in the county.

Q15. Do county leaders believe that the foods people eat and their level of active living are issues that need to be addressed in your county?

- ☐ Yes
- ☐ No

If so, please explain which leaders believe that it is?

(Position titles only, no names please.)

Q16. How are the leaders involved in efforts regarding this issue? For example, do they just talk about it or are they more actively involved?

(Are they involved in a county, do they speak out publicly, have they allocated resources, such as land, money, and time).

Q17. In your opinion, would the leaders support additional efforts?

- ☐ Yes
- ☐ No

If so, how might they do that?

Dimension D: County Climate

County climate is the attitude of most county residents toward eating healthy and being physically active. In your opinion, do county residents feel like there is something they can do, or do they feel like there is nothing they can do to make healthier choices?

Q18. Is healthy eating and active living important to county residents?

- ☐ Yes
- ☐ No

Please explain why it is or is not important.

Q19. Do the county residents want to have better access to healthier foods and opportunities to be physically active?

- ☐ Yes
- ☐ No

If yes, how might they show this support?

(For example, would they share ideas with others, speak at public meetings, organize groups of people to do work, etc.?)

Q20. Are there ever any times when county residents might think that unhealthy eating and inactivity are okay?

- ☐ Yes
- ☐ No

Please give an example.

Q21. In your opinion, what are the primary obstacles in your county for making healthier food available and increasing opportunities for being physically active?

Dimension E: Knowledge about the Issue

The next four questions are asking your opinion of what county residents know about the consequences of unhealthy eating and being inactive?

Q22. How much do county residents know about the health consequences of unhealthy eating and being inactive?

- ☐ They know nothing
- ☐ They know a little
- ☐ They know some
- ☐ They know a lot

Please explain why you chose that answer.

Q23. Based on what you know, do county residents think that unhealthy eating and not being active are a problem in your county?

- ☐ Yes
- ☐ No

Please explain your answer.

Q24. What type of information is available in your county about this issue? *(For example, newspaper articles, brochures, posters)*

Q25. Are there local data resources, such as county or state health reports, about how unhealthy eating and inactivity affect the residents in your county?

- ☐ Yes
- ☐ No

If so, how do people obtain this information?

Dimension F: Resources

Resources are the people, time, money and space available to support healthy eating and active living.

Q26. To your knowledge, are there any resources available in your county?

- ☐ Yes
- ☐ No

Q27. Where does the money come from in your county to fund efforts to help people eat healthier and have an active life?

Q28. Do a lot of people in the county work on these efforts?

- ☐ Yes
- ☐ No

Please give an example

Q29. On a scale from 1 to 10, what is the level of expertise and training among those working on this issue (with 1 being “very low” and 10 being “very high”)?

	1	2	3	4	5	6	7	8	9	10
Level of expertise and training										

Please explain why you didn’t choose a higher or lower number.

Q30. Besides money, what other resources are CURRENTLY BEING USED to address healthy eating and active living in the county?

(For example, space, volunteers, experts on the issue)

Q31. What resources MIGHT BE AVAILABLE BUT ARE NOT BEING USED to address healthy eating and active living in the county (For example, space, volunteers, financial donations from organizations, experts on the issue)?

Is anyone in the county looking into using these resources to address this issue?

Q32. Is anyone in the county looking into using these resources to address this issue?

☒ Yes

☒ No

Please explain why you think that is.

Q33. Would residents and leaders in the county support using these resources to promote healthy eating and active living?

☒ Yes

☐ No

Please explain why or why not.

About you

The following information will not be shared with anyone in your county. All information collected in the county will be combined for reporting.

Q33. Gender.

Q34. What is your work title? (For example, self-employed, schoolprincipal, retired, business owner, health-care provider, etc.)

Q35. What is your race or ethnicity?

- ☒ White/Caucasian
- ☐ Hispanic/Latino/Chicano
- ☐ American Indian/Alaska Native
- ☐ African American
- ☐ Asian/Pacific Islander
- ☐ Other

Q36. What is your age range?

- ☐ 19-24
- ☐ 25-34
- ☐ 35-44
- ☐ 45-54
- ☐ 55-64
- ☐ 65 and above

Q37. What county do you live in?

Q37. How long have you lived in this county?

What is your name?

What is your job title?

Appendix D: Anchored Rating Scales

Anchored Rating Scale for Scoring

Dimension A - Existing Community Efforts

1. No awareness of the need for efforts to address the issue.
2. No efforts addressing the issue.
3. A few individuals recognize the need to initiate some type of effort, but there is no immediate motivation to do anything.
4. Some community members have met and have begun a discussion of developing community efforts.
5. Efforts (programs/activities) are being planned.
6. Efforts (programs/activities) have been implemented.
7. Efforts (programs/activities) have been running for several years.
8. Several different programs, activities and policies are in place, covering different age groups and reaching a wide range of people. New efforts are being developed based on evaluation data.
9. Evaluation plans are routinely used to test effectiveness of many different efforts, and the results are being used to make changes and improvements.

Anchored Rating Scale for Scoring

Dimension B – Community Knowledge of the Efforts

1. Community has no knowledge of the need for efforts addressing the issue.
2. Community had no knowledge about the efforts addressing the issue.
3. A few members of the community have heard about efforts, but the extent of their knowledge is limited.
4. Some members of the community know about local efforts.
5. Members of the community have basic knowledge about local efforts (e.g., purpose).
6. An increasing number of community members have knowledge of local efforts and are trying to increase the knowledge of the general community about these efforts.
7. There is evidence that the community has specific knowledge of local efforts including contact persons, training of staff, clients involved, etc.
8. There is considerable community knowledge about different community efforts, as well as the level of program effectiveness.
9. Community has knowledge of program evaluation data on how well the different local efforts are working and their benefits and limitations.

Anchored Rating Scale for Scoring

Dimension C – Leadership (includes appointed leaders & influential community members)

1. Leadership has no recognition of the issue.
2. Leadership believes that this is not an issue in their community.
3. Leaders recognize the need to do something regarding the issue.
4. Leaders are trying to get something started.
5. Leaders are part of a committee or group that addresses this issue.
6. Leaders are active and supportive of the implementation of efforts.
7. Leaders are supportive of continuing basic efforts through active participation in the expansion/improvement.
8. Leaders are supportive of expanding/improving efforts through active participation in the expansion/improvement.
9. Leaders are continually reviewing evaluation results of the efforts and are modifying support accordingly.

Anchored Rating Scale for Scoring

Dimension D – Community Climate

1. The prevailing attitude is that it's not considered, unnoticed or overlooked within the community. "It's just not our concern."
2. The prevailing attitude is "There's nothing we can do," or "Only 'those' people do that," or "We don't think it should change."
3. Community climate is neutral, disinterested, or believes that the issue does not affect the community as a whole.
4. The attitude in the community is now beginning to reflect interest in the issue. "We have to do something, but we don't know what to do."
5. The attitude in the community is "we are concerned about this," and community members are beginning to reflect modest support for efforts.
6. The attitude in the community is "This is our responsibility," and is now beginning to reflect modest involvement in efforts.
7. The majority of the community generally supports programs, activities, or policies. "We have taken responsibility."
8. Some community members or groups may challenge specific programs, but the community in general is strongly supportive of the need for efforts. Participation level is high. "We need to keep up on this issue and make sure what we are doing is effective."
9. All major segments of the community are highly supportive, and community members are actively involved in evaluations and improving efforts and demand accountability.

Anchored Rating Scale for Scoring

Dimension E – Community Knowledge About The Issue

1. Not viewed as an issue.
2. No knowledge about the issue
3. A few in the community have some knowledge about the issue.
4. Some community members recognize the signs and symptoms of this issue, but information is lacking.
5. Community members know that the signs and symptoms of this issue occur locally, and general information is available.
6. A majority of community members know the signs and symptoms of the issue and that it occurs locally, and local data are available.
7. Community members have knowledge of, and access to, detailed information about local prevalence.
8. Community members have knowledge about prevalence, causes, risk factors, and consequences.
9. Community members have detailed information about the issue as well as information about the effectiveness of local programs.

Anchored Rating Scale for Scoring

Dimension F – Resources Related to the Issue

(people, money, time, space, etc.)

1. There is no awareness of the need for resources to deal with this issue.
2. There are no resources available for dealing with the issue.
3. The community is not sure what it would take, (or where the resources would come from) to initiate efforts.
4. The community has individuals, organizations, and/or space available that could be used as resources.
5. Some members of the community are looking into the available resources.
6. Resources have been obtained and/or allocated for this issue.
7. A considerable part of support of on-going efforts is from local sources that are expected to provide continuous support. Community members and leaders are beginning to look at continuing efforts by accessing additional resources.
8. Diversified resources and funds are secured and efforts are expected to be ongoing. There is additional support for further efforts.
9. There is continuous and secure support for programs and activities, evaluation is routinely expected and completed, and there are substantial resources for trying new efforts.

VITA

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