

Qualitative methods as tools for community health assessment

by

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B.S., University of Oklahoma, 2003

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AN ABSTRACT OF A DISSERTATION

submitted in partial fulfillment of the requirements for the degree

DOCTOR OF PHILOSOPHY

Department of Kinesiology  
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## **Abstract**

Children in the U.S. are not getting enough physical activity, which disproportionately affects the 20% of those growing up in rural communities (Troiano et. al., 2008, Brownson et al., 2000; Martin et al., 2005; Fan et al., 2014). Rural population health researchers have attempted to examine communities as social ecological systems impacting the health of all youth living with the community. However, there is lack of effective tools to understand whole-of-community systems and current practices nested within. And the lack of effective tools may contribute to a lack of effective rural population health interventions. Whole-of-community systems and population health researchers and practitioners need tools that can assess local social structure and processes in rapid manner at minimal costs and by people living within the communities who have limited training. Therefore, the purpose of this dissertation is to examine the utility of drawing on qualitative methods as tools for locally driving community population health assessment and intervention planning.

Chapter two provides a review of current health promotion research terminology. Health promotion terms identified included membership components such as multisector, multiorganization, and constituency; and community group identification terms such as partnership, collaborative, and coalition. While these words are different, they are all used to describe the same concept, a community group as a vehicle to impacting population health. Findings demonstrated that community population health research falls victim to the jangle fallacy, where different vocabulary is use for the same construct or the same vocabulary is used for different constructs. The danger in the jangle fallacy is it prevents researchers from effectively communicating findings. Chapter two is a scoping review with searches in PubMed, PsycINFO, and Google Scholar databases for articles published 2002 through December 2018

using search terms: health, multisector, collaboration, organization, and sector. The search included grey papers from conferences and group collaborations, online tools, and book chapters to ensure thorough representation. Chapter two fills a gap in the population health literature as a review and analysis of the terms.

Chapters three and four focus on the utility of two qualitative assessment tools for community health assessment and planning of whole-of-community health improvement interventions targeting youth population PA improvement. Rural youth assessment methods and investigations are described using data collected in a community (Midwest, KS) in Fall 2018-Spring 2019. The two phases complemented each other for this dissertation but could be implemented independently from one another. Chapter three focuses on the first phase, identifying youth physical activity settings using photovoice. Photovoice empowers participants to engage in documentary photography to share their experiences regarding specific topics. Photovoice is effective with many diverse populations, including lower-income/minority adults and youth, and promotes participant ownership of the research (Kramer et al., 2013; Yi-Frazier et al., 2015). Chapter three models the feasibility of photovoice to document the physical activity behavior settings as part of the local community action process and identifies rural behavior settings for physical activity from the perspective of fourth through sixth graders in November 2018 in Midwest, Kansas. The photovoice process described includes identifying the setting, a novel learning activity, focus groups, analysis, and culturally contextualizing the findings. The physical activity behavior settings identified by fourth- sixth graders included: organized youth sport, 4-H and scouting organizations, church, school, and home. Chapter four focuses on a mini-ethnographic case study of one of the locations identified by youth using photovoice, the local 4H club. Mini-ethnographic case study methods were used to assess the current routines and

organizational structure. Mini-ethnographic case studies provide a way to study culture while benefitting from the reasonable timeframe and minimal costs of a case study. Chapter four describes community leader-friendly protocols for writing a mini-ethnographic case study report and features a report for the Midwest 4H Club. The protocols of using mini-ethnographic case study methods to examine routine and organizational structure include: selecting a setting, making contacts, observations, interviews, reviewing additional sources, transcription, analysis, and writing a report. A mini-ethnographic case study report was produced and discussed as a tool for communities to complete their own assessments.

In conclusion, this dissertation examines the utility of qualitative methods as tools to improve communities' ability to investigate and plan for interventions targeting positive changes to whole-of-community population health. This dissertation focused on youth population health physical activity improvement and community assessment tools to efficiently and effectively collect community asset-based investigation information for health promotion intervention planning. Future steps include examining the use of these tools on whole-of-community population health intervention implementation and effectiveness.

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Chapter two provides a review of current health promotion research terminology. Health promotion terms identified included membership components such as multisector, multiorganization, and constituency; and, community group identification terms such as partnership, collaborative, and coalition. While these words are different, they are all used to describe the same concept, a community group as a vehicle to impacting population health. Findings demonstrated that community population health research falls victim to the jangle fallacy, where different vocabulary is use for the same construct or the same vocabulary is used for different constructs. The danger in the jangle fallacy is it prevents researchers from effectively communicating findings. Chapter two is a scoping review with searches in PubMed, PsycINFO, and Google Scholar databases for articles published 2002 through December 2018

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In conclusion, this dissertation examines the utility of qualitative methods as tools to improve communities' ability to investigate and plan for interventions targeting positive changes to whole-of-community population health. This dissertation focused on youth population health physical activity improvement and community assessment tools to efficiently and effectively collect community asset-based investigation information for health promotion intervention planning. Future steps include examining the use of these tools on whole-of-community population health intervention implementation and effectiveness.

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## **Chapter 1 - Dissertation introduction**

Children in the U.S. are not getting enough daily physical activity (Troiano et al., 2008; Friel et al., 2020). Lack of physical activity is particularly problematic for the 20% of youth growing up in rural U.S. towns (Brownson et al., 2000; Martin et al., 2005; Fan et al., 2014). Youth living in rural areas in the U.S. are more likely than youth living in suburban and urban areas to be overweight due to lack of physical activity (Ogden et al., 2018; Lutfiyya et al., 2007). Being overweight in childhood is linked to adult obesity and health conditions such as heart disease and cancer (Anderson and Durstine, 2019; Powell et al., 2018; Weihrauch-Blüher et al., 2019). Rural population health researchers have examined communities as social ecological systems impacting the health of all youth living with the community. However, there is a lack of effective tools to understand whole-of-community systems and the current practices nested within these systems.

Assessment is one of the basic functions of public health (CDC, n.d.; Pennel, Burdine, et al. 2017; Eight Investments That Work for Physical Activity, n.d.; Pennel et al. 2016; Institute of Medicine, 2002). Community Health Assessments (CHA) evaluate the needs and assets for community health improvement. Assessments to improve community health benefit from a systems approach. A systems approach acknowledges a community is a complex and dynamic system and a community intervention is nested with the community's larger complex systems (Trickett et al. 2011; Pennel, Burdine, et al. 2017; NACCHO, n.d.; Hawe 2015; Golden et al. 2015).

When taking a systems level approach to assessment, the basic environmental asset assessment framework highlights the importance of primacy to be placed on setting identification and a protocol for collecting routine and structural data by examining the places and who

controls those places. Health changes are produced by increasing settings and impacting the settings. Setting identification leads to inquiry into that setting's environmental needs and assets, including policy, social/ cultural, information available and dissemination, and the physical environment (Springer and Evans, 2016). To influence a complex system, community health improvement facilitators need to understand what the organizations are and the assets of those settings.

Qualitative methods provide an opportunity to empower the community, examine the culture, and explore phenomenon on a deeper level (Kirk et al., 2017; Pennel, McLeroy, et al., 2017). Community health systems researchers and population health practitioners need tools that can assess local social structure and processes rapidly at minimal costs and by people living within the communities who have limited training. Specifically, to answer the questions: 1) What settings available and important to the community? and 2) What is the culture of those settings?

Photovoice is a methodology initially suggested by Wang and Burris (Wang and Burris 1997) in which participants photograph their everyday reality to teach, influence policy, and empower participants to create change in their communities. Photovoice includes several distinct steps to identify settings. Currently, photovoice is used primarily in health to assess built environments (Hennessy et al. 2010; Findholt et al. 2011; Belon et al. 2014; Gullón et al. 2019; Walia and Leipert 2012). However, photovoice methods visual and place-based components (Wang 2006) theoretically would allow for identification of settings available and important to the community.

According to a systems approach to health assessment, once settings are identified assessment tools are needed to understand the culture of the settings. Mini-ethnographic case studies have been used in the medical field and market research to understand cultural norms,

values, and roles through the perspectives of a population in a short period, often weeks to months (Fusch et al., 2017). Mini-ethnographic case studies provide a way to study the components and interactions of a setting while benefitting from the reasonable timeframe and minimal costs of a case study.

The purpose of this dissertation was to examine the utility of drawing on qualitative methods as tools for locally driven community population health assessment and intervention planning. This dissertation comprises a series of chapters that seek to describe systems-based tools to assess local social structure and processes in rapid manner at minimal costs and by people living within the communities who have limited training.

Uniform language and terms are important to community health practitioners' and researchers' ability to assess, plan, and communicate results. Specifically, a popular strategy to improve population health is to foster collaboration among organizations by creating a workgroup of organizational representatives. A gap in the literature exists such that there is no consensus on a term to describe this group-based community improvement approach. Chapter two examines terms that represent a group of agencies working together to achieve population health improvement by analyzing the variability of terms used in the current literature. A scoping review was conducted with searches in PubMed, PsycINFO, and Google Scholar databases for articles published 2002 through December 2018 using search terms: health, multisector, collaboration, organization, and sector. The search included grey papers from conferences and group collaborations, online tools, and book chapters to ensure thorough representation. Terms included membership components terms such as multisector, multiorganization and constituency; and, community group identification terms such as partnership, collaborative, and coalition.

Chapters three and four focus on the utility of two qualitative assessment tools for community health assessment and planning of whole-of-community health improvement interventions targeting youth population PA improvement. Rural youth assessment methods and investigations are described using data collected in Midwest, KS in Fall 2018-Spring 2019. The two phases complemented each other for this dissertation but could be implemented independently from one another.

Chapter three used the strengths of photovoice methods, including observation, interviews, and document analysis. Photovoice is a method where participants use photography to share their knowledge regarding a specific topic. Photovoice is effective with many diverse populations, including lower-income/minority adults and youth, and promotes participant ownership of the research (Kramer et al., 2013; Yi-Frazier et al., 2015). Applications of assessments include writing Community Health Needs Assessments (CHNA) and other CHAs as the first step in community health improvement interventions. The two objectives were: 1) to describe community leader-friendly protocols for writing a mini-ethnographic case study report and 2) create a report for one popular youth organization in a rural community.

Chapter three used the strengths of mini-ethnographic case studies, including observation, interviews, and document analysis to create a community assessment. Mini-ethnographic case studies provide a way to study culture while benefitting from the reasonable timeframe and minimal costs of a case study. By telling the story of one youth organization in a rural town club's story, we highlighted the use of the mini-ethnographic case study report process as an investigative tool for rural communities. The two objectives were: 1) to describe community leader-friendly protocols for writing a mini-ethnographic case study report and 2) create a report for one popular youth organization in a rural community.

This dissertation examines the utility of qualitative methods as tools to improve communities' ability to investigate and plan for interventions targeting positive changes to whole-of-community population health. This dissertation focused on rural youth population health physical activity improvement and community assessment tools to efficiently and effectively collect community asset-based investigation information for health promotion intervention planning.

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## **Chapter 2 - Partnership, collaboration, coalition: a scoping review of the muddled lexicon of population health**

### **Introduction**

Driven by policy and funding, collaborations of organizations as an intervention to improve the health of a community as tripled since 2010 (Erickson et al., 2017). As these groups have grown rapidly, researchers have attempted to describe these relationships; however, the unique combination of stakeholders and the rapid growth has resulted in inconsistent and grappling language. Current literature is ambiguous on what forms a community group as a vehicle for population health improvement. Population health community groups are focused on whole populations as opposed to individual level health monitoring. Groups focused on population health improvements are unified by geospatial areas (i.e., neighborhoods, towns, counties, states), goals, desired outcomes, and resource sharing (i.e., grants). The use of synonyms and competing definitions poses a problem for both researchers and community members attempting to follow best practices. As Hayes & Dunn (1999) observed when defining *population health*, the ‘evolutionary nature’ of academic knowledge and individual communities creating practice and policy rapidly at the same time creates confusion regarding terminology (Dunn & Hayes, 1999).

Community population health addresses the health outcomes of a group of individuals by systematically examining the current social practices and structure (including social determinants and policy) in the context of space and time (Hayes & Dunn, 1998; D. Kindig & Stoddart, 2003). Both create change and tap into a community’s social capital multisector groups combine resources. Social networks are improved by shared norms and lexicon (Szreter & Woolcock,

2004). However, this is particularly a challenge of groups composed of representatives from multiple sectors.

Research on community groups targeting population health improvement is overly complicated by jingle-jangle fallacies. Traditionally, jingle-jangle fallacies have been used to describe confusion between concepts and the naming of measurements; however, the application lies in the ambiguity between vocabulary and concepts in population health need a discerning investigation. The jingle fallacy describes the assumption that two different concepts are the same because they bear the same name. Population health improvements require relationship between medical professionals, civil servants, academics, and business people (D. A. Kindig & Isham, 2014). Each sector has a unique culture, expectations for collaboration, and context associated with a word. The jangle fallacy occurs when there is an assumption that different vocabulary implies that the concepts are different (Kelley, 1927; Marsh, 1994; Marsh et al., 2018). In population health research collaboration, coalition, partnership, alliances, committees, and hubs are all seemingly used to describe community organizations working together. If they are being used synonymously practice and research communication could be made more effective by the adoption of a single term. If they are different terms with different application efficiency would be improved by defining terms.

The creation of terms happens at both the knowledge and action level and to prevent confusion and to move the field forward these discrepancies need to be mediated. Popularity, context, and etymology are used to examine the current language being used to describe a community group. This review aims to clarify the current terms used to describe a community group as a vehicle to population health improvement.

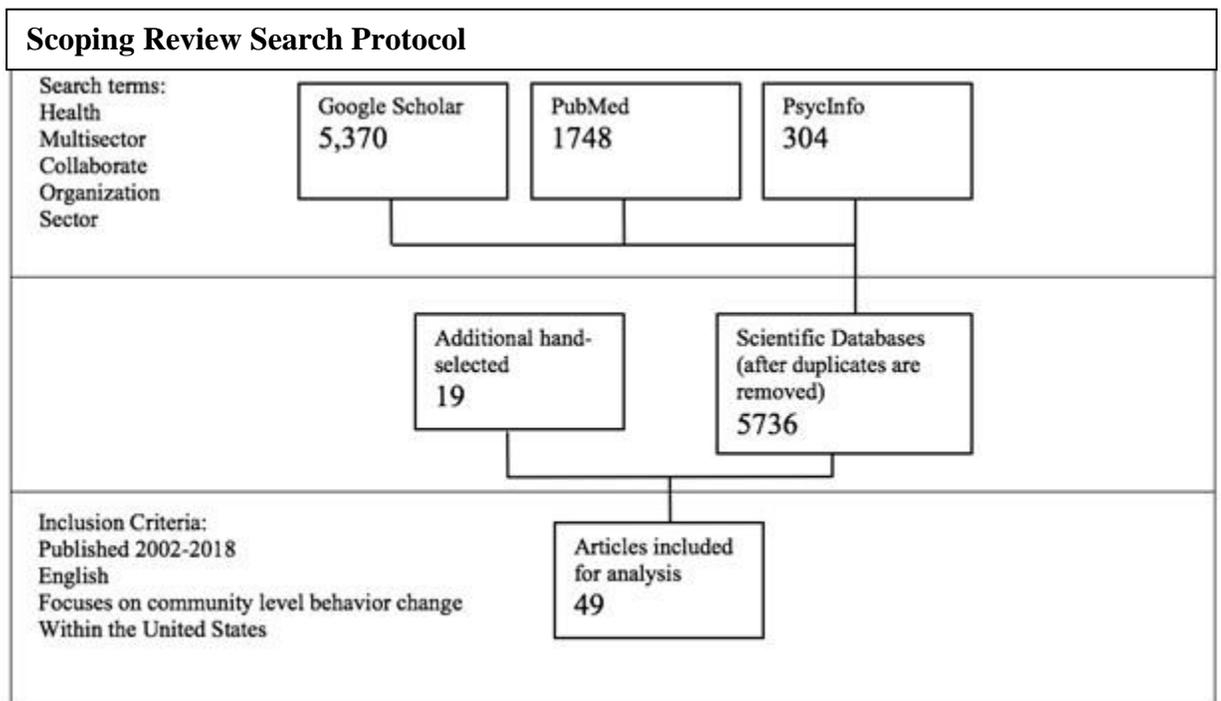
## Methods

### Data sources

This scoping review includes original studies, literature reviews, articles describing the development of community tools, grey papers from conferences and group collaborations, online tools, and book chapters to incorporate the expanding research on group community-based research. Scoping review methodology allows access to the most inclusive information currently available and facilitates the ad hoc nature of identifying terminology (Arksey & O'Malley, 2005; Armstrong, Hall, Doyle, & Waters, 2011; Shankardass, Solar, Murphy, Greaves, & O'Campo, 2012). Literature focusing on multi-stakeholders working together on community-level public health outcomes published in the last 15 years and printed in English were included in the review.

### Study selection

A database search included the search terms: *health, multisector, collaborate, organization, and sector*. We identified 5,370 articles and book chapters using Google Scholar; a PubMed search resulted in 1748 peer-reviewed articles, and PsycInfo search resulted in 304 articles. The team hand-selected 19 more articles, book chapters, grey papers, and websites. The search generated a list of 5755 articles. Investigators read through abstracts to gain additional information and to determine the articles' ability to answer the research question. Due to time constraints, a deadline of two months was placed on reading articles, chapters, and papers. The team identified 49 original studies, literature reviews, articles describing the development of community tools, grey papers from conferences and group collaborations, online tools, and book chapters that addressed community groups working together to create community-level behavior change (Figure 1).



**Figure 2-1: Scoping review search protocol**

### **Data extraction**

Identifying terms using inductive methods is a strength of scoping reviews (Arksey & O'Malley, 2005; Armstrong et al., 2011). Investigators charted data from the literature in an Excel spreadsheet. Charting included: *authors; year of publication; study location; size of community; study population; aims of the study; and, results*. Any absences in data were noted in the spreadsheet. The charted information was analyzed by content and context. A coding method was developed based on the chart and articles were reread and recoded with the following guide terms: *organization; sector; collaboration; partnership; and, coalition*. Upon completion of coding, results were converted to a narrative format.

## Results

### Key themes identified

Codes included six subthemes: *partnership*, *collaboration*, *coalition*, *multisector*, *multiorganization*, and *constituency groups*. The function of the subtheme terms determined two over-arching themes or categories: *community group identification* and *community group membership components*. *Community group identification* refers to the way researchers label the relationship of integrated agencies. Within *community group identification* there are three terms prominently used in the literature: *partnership*, *collaboration*, and *coalition*. These three words are used synonymously to describe community groups working together to improve population health. The second category, *community group membership components*, addresses the contents of community groups. The diversity of the key players of these groups are described as *multisector* and *multiorganizational*. Partnership, collaboration, and coalition are being used as synonyms, but their origins suggest three different terms. Likewise, some researchers are drawing a distinction between multisector and multiorganizational (Arista, Vue, Byun, Choi, & Chin, 2017; Fratantuono & Sarcone, 2017; Hargreaves et al., 2017; Hawe, 2015; Hearld & Alexander, 2018; Leppin et al., 2018; Siegel, Erickson, Milstein, & Pritchard, 2018) while others are not (Economos & Blondin, 2014; Woulfe, Oliver, Zahner, & Siemering, 2010) creating confusion and inefficiency in communicating community health interventions. The indistinctness of both categories throughout the research could be contributing to confusion and inefficiency in policy, research, and practice. Understanding the past and current meanings and usage of these terms will lead to future efficiency.

### Community group identification

#### Partnership

Partnership was the most popular term used in the literature reviewed appearing in 41 of the 49 articles reviewed. Partnership is used as an alternative to or as a description of collaborations or coalitions (Alexander, Comfort, Weiner, & Bogue, 2001; Bailey, 2010; Barnidge, Brownson, Baker, & Shetty, 2010; DeSalvo, O’Carroll, Koo, Auerbach, & Monroe, 2016; Emerson & Nabatchi, 2015; Erickson et al., 2017; Gauthier–September, 2006; Gunderson, Magnan, & Baci, 2018; Kenny et al., 2013; Kottke, Stiefel, & Pronk, 2016; Kramer et al., 2005; Martin-Misener et al., 2012; Rauhaus, 2015; Towe et al., 2016; Woulfe et al., 2010). The following quote is representative of the use of partnership as a synonym for collaboration, “While progress in cross-sector collaboration has been made in recent years, we need to ensure that more partnerships can reach their full potential” (Emerson & Nabatchi, 2015). In context, partnership appears to be an umbrella term for collaborations and coalitions. Looking at popularity and context, partnership is an appropriate label for integrated agencies working together; however, examining the word's etymology calls this decision into question.

The term, partnership, is used to identify two or more parts of a whole. In population health, the parts are the integrated agencies and the whole of the parts is the group working towards a health outcome (Willis, Greene, & Riley, 2017). While the goals of a population health-oriented community group may be the same, the outcomes desired by each organization may be different. A community group may be focused on improving the health of their community; however, the school district may want to implement a bicycle education and safety program, the city may desire improved sidewalk connectivity, and the food bank may want onsite nutrition education programs. In this case the group is working on a united goal, but partnership may not be the best description if their implementation is conducted in a silo way. The origin of the word helps to explain the utility in describing the relationship of two groups

working together on a single health-related goal. Most commonly, partnership relates directly to business and the word is used throughout industry to define a legal relationship (Colaner, Imanaka, & Prussia, 2018). The versatility of partnership makes it an appropriate word to describe two or more entities working on the goals of population health but may not be specific enough to address the needs of community groups improving health. Additionally, using a term culturally associated with business may be further promoting the idea that reproducing business practices is the recipe for success in collaborative interventions. Partnerships formed through the volunteer efforts of community members have unique qualities that may justify more specific terminology.

### **Collaborative**

Collaboration or collaborative were used in 28 of the 49 articles to describe the voluntary partnership of community members to improve population health. Half of the articles using collaboration or collaborative were published after 2017 suggesting a trend towards popularity of the term. Literature using the term collaboration focused on the self-help potential of the group (Alexander et al., 2001; Bryson, Crosby, & Stone, 2006; de Montigny, Desjardins, & Bouchard, 2019; Emerson & Nabatchi, 2015; Flanagan, n.d.; Gunderson et al., 2018; Hearld & Alexander, 2018; Khayatzadeh-Mahani, Labonté, Ruckert, & de Leeuw, 2019; Kottke et al., 2016; Leppin et al., 2018; Martin-Misener et al., 2012; Lemaat et al., 2019; Towe et al., 2016; Woulfe et al., 2010; CDC, n.d.). Historically, collaboration is a term adopted by volunteer and grassroots groups (Hearld, Alexander, Wolf, & Shi, 2019; Kamiya, Röscheisen, & Winograd, 1996). Collaboration originates from the Latin word *collaborare*. *Collaborare* translates to work together or to cooperate. In the literature, groups identifying as a collaboration focused on the group working together to utilize community assets to meet their community-generated needs.

Additionally, literature using the terms collaborative or collaboration emphasizes the role of individual community members, in contrast to focusing on the contributions of whole sectors or organizations (Alexander et al., 2001; Bryson et al., 2006; Emerson & Nabatchi, 2015; Kottke et al., 2016; Towe et al., 2016; Wolff et al., n.d.; CDC, n.d.). The term collaborative is growing in popularity and the context of the use in integrated agency research was consistent with the word's etymology.

### **Coalition**

The term coalition appeared in 16 of the 49 articles reviewed. Throughout the literature, the term coalition never appeared in isolation; it was always used in conjunction with partnership (Arista et al., 2017; Kramer et al., 2005; Plough & Chandra, 2015; Sallis et al., 2006; “What Does a Population Health Integrator Do? - Improving Population Health,” n.d.). A coalition is a political-in-nature partnership between different sectors of a community that works together toward mutually beneficial outcomes (Community Tool Box, n.d.; DiClemente, Crosby, & Kegler, 2009). The term is associated with political groups and movements working towards social justice. Notably, coalitions are described as groups making progress on action items (How Multi-Sector Health Partnerships Evolve - RWJF, n.d.; Woulfe et al., 2010). This less popular term showed alignment contextually in the reviewed literature and etymologically. Only articles using coalition referenced community wellness groups explicitly being political in nature. Groups identifying as coalitions often work towards policy change and have politicians and legal experts as members.

### **Ambiguity of terms in literature**

The terms partnership, collaboration, and coalition were present throughout the literature (Figure 2). It is most common for collaboration or coalition to be defined as a kind of partnership

(n=27), followed by one term to be used (n= 17), but rarely were collaboration and coalition used in the same article. An exception to this was Wolff et al. (2017) in which the authors consistently listed all three together without explicitly drawing a distinction between the three. A distinction between group goals could define the difference between collaboration and coalition; however, this application is found in only a few articles. The University of Kansas Community Tool Box, a collaboration is noted as two or more organizations working together over a duration of time on multiple issues; while a coalition is defined as two or more organizations working together over typically a shorter time period on one specific goal or narrow set of goals. Chrisman et al. (2002) draws a distinction between network, collaboration, and coalition measured by the complexity of the group. Siegel et al. (2018) defines the difference between coalition and collaboration as the difference between facilitating specific behaviors and working to improve quality and access to healthcare. A consistent and standardized distinction between coalition and collaborative is not present. In the reviewed literature, researchers and communities are not drawing distinctions between the terms, but instead the terms are used synonymously.

Popular Terms to Identify Community Groups		
Partnership	Collaborative	Coalition
<ul style="list-style-type: none"> <li>• <b>Business</b> and the used throughout industry to define a legal relationship</li> <li>• Described collaborations, coalitions, and relationships of community members</li> <li>• Umbrella term for collaborations and coalitions</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Volunteer</b> and grassroots group</li> <li>• A focus of the group was to utilize community assets to meet their community-generated needs</li> <li>• Valued the role of individual community members, in contrast to focusing on the contributions of whole sectors or organizations</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Political</b> groups and movements working towards social justice</li> <li>• Political-in-nature partnership between different sectors of a community that works together toward mutually beneficial outcomes</li> </ul>

**Figure 2-2. Popular terms to identify community groups**

The most popular terms to describe work done by two or more separate entities working towards a common goal in the population health literature are *collaborations*, *partnerships*, and *coalitions*. Miscellaneous terms present but were not significantly represented beyond a sentence or two included: alliances, committees, and hubs. In a more exhaustive search, other words may emerge. While there is evidence that some researchers define the difference in these terms by complexity, the bulk of the literature reviewed did not confirm this was an adopted notion. Instead, there were more indicators of the interchangeability of collaboration, coalition, and partnerships through the literature. Using the words interchangeably complicates the lexicon and impacts policy, research, and practice.

**Community group membership components**

In the literature, multisector and multiorganization were descriptive terms describing the heterogeneity of community collaborations. The third component present were constituency groups. Constituency groups were not as prominent in the literature and were not the focus of any of the reviewed literature; however, they are an important element of the community member component.

**Sector**

Sector refers to the category of service, funding source, primary goal, and organizational structure (Roussos & Fawcett, 2000). Sectors present in the literature included 20 categories of services working together to improve community population health. These 20 categories fell into 4 groupings: health, education, community, and finance (Table 1).

<b>Components of a Group Community Collaboration</b>			
	<b>Sector category of service, funding source, primary goal, and</b>	<b>Organization a specific group of people with a structure representing a sector</b>	<b>Constituency Group community members not expressly representing an organization.</b>

	<b>organizational structure</b>		
<b>Health</b>	<b>Social Services</b>	Homeless shelter Senior centers Fire Departments Food Banks Shelters	Advocates Seniors Consumers
	<b>Public Health</b>	Health department CDC	Health advocates People with health conditions
	<b>Health care delivery</b>	Hospital Family practice Free clinics	Health advocates People with health conditions
	<b>Government/elected officials</b>	State legislature City council County commission	Policy makers
	<b>Mental health/Behavioral</b>	Behavioral health department Disability groups	Health advocates People with disabilities People with health diagnoses
<b>Education</b>	<b>Childhood &amp; Education</b>	School district Childcare providers Head Start 4H Scouting groups Youth sports Parks and Recreation	Youth Parents Staff
	<b>Clientele outreach</b>	Food Banks Shelters Extension office	Advocates Consumers Extension agents
	<b>Academia/research</b>	Colleges Universities Extension office	Professors Students Staff Extension agents
<b>Community</b>	<b>Community or neighborhood</b>	Shelters	Grandparents SES of household
	<b>Community planning/transportation</b>	City planning commission	City staff Consumers
	<b>Housing/economic development</b>	Tenant organizations Landlord organizations	Renters Homeowners

	<b>Faith-based</b>	Church Synagogue Mosque	Faith-based community members
	<b>Law/ law enforcement</b>	Police department	Police Staff Professors
	<b>Media</b>	Newspaper Local or area television company	Staff Consumers Professors
	<b>Union</b>	Trade and education unions	Union officers Union members
	<b>Agriculture</b>	Extension office	Farmers Extension agent
<b>Legal &amp; Financial</b>	<b>Legal affairs</b>	Law firms Advocacy and Rights groups	Lawyers Professors Advocates
	<b>Health Insurance</b>	Insurance companies	Uninsured community members
	<b>Business</b>	Local businesses Chamber of Commerce Corporations	Area (downtown) business associations
	<b>Philanthropy</b>	United Way	Philanthropists Staff Consumers

**Table 2-1. Components of a group community collaboration**

***Health***

The most common sectors discussed in the reviewed literature were health sectors. The sectors discussed were: Public Health (Brewster, Kunkel, Straker, & Curry, 2018; DeSalvo et al., 2016; Erickson et al., 2017; Esparza & Velasquez, 2014; Gauthier–September, 2006; Koo, O’Carroll, Harris, & DeSalvo, 2016; Mahmood, Morreale, & Barry, 2015; Woulfe et al., 2010), Health care delivery (DeSalvo et al., 2016; Erickson et al., 2017; Gauthier–September, 2006; Woulfe et al., 2010), Government/ elected officials (Bryson et al., 2006; DeSalvo et al., 2016; Erickson et al., 2017; Woulfe et al., 2010), Social Services (Bryson et al., 2006; Erickson et al., 2017; Rauhaus, 2015), and Mental health/ Behavioral (Erickson et al., 2017). The health sectors provide resources of health expertise and are intimate with the health outcomes the community collaboration is working towards accomplishing. These sectors include health care and public

health, two of the integral triple aim agencies. Leadership roles tend to be taken by members representing these health-related sectors.

### ***Education***

Education sectors include: Clientele outreach (Brewster et al., 2018; Rauhaus, 2015), Childhood Education (Erickson et al., 2017; Woulfe et al., 2010), schools, and academia/ research. The education sectors often provide experience with data collection and educational pedagogy (Erickson et al., 2017).

### ***Community***

Community sectors have resources to understand the culture of a community. Community sectors include: Community or neighborhood, Community planning/ transportation, Housing/ economic development (Erickson et al., 2017; Koo et al., 2016; Woulfe et al., 2010), Faith-based (Brewster et al., 2018; Erickson et al., 2017; Gunderson et al., 2018), Law enforcement, Union (Erickson et al., 2017), and Agriculture (Woulfe et al., 2010). Community sectors are less homogeneous than the other sectors but represent the assets that are likely to be unique to each community. These assets will also improve the likelihood of the group's goals being met.

### ***Financial***

Sectors that contribute financial and legal technical assistance form the financial sectors. The financial sectors include: Legal affairs (Rauhaus, 2015), Philanthropy (Bryson et al., 2006; Erickson et al., 2017; Roussos & Fawcett, 2000; Woulfe et al., 2010), Business (Erickson et al., 2017), and Health insurance (Bryson et al., 2006; Erickson et al., 2017; Woulfe et al., 2010). The financial sectors assist in provide the resource of wealth.

### ***Organization***

The term multiorganization is used to address a specific group of people with a structure representing a sector (Rauhaus, 2015). An additional term used synonymously with multiorganization was multi-stakeholder (Hilton & Wageman, 2016). More than one organization can represent a sector in a collaborative. While examples of sectors are commonly present in the literature, examples of organizations are often not given. Organizations represented in literature include local hospital, school districts, childcare providers, Head Start, behavioral health departments, faith-based community, homeless shelters, tenant organizations, and senior citizen centers (Flanagan, n.d.; Roundtable on Population Health Improvement, Board on Population Health and Public Health Practice, Health and Medicine Division, & National Academies of Sciences, Engineering, and Medicine, 2017). The most common organizations consistently discussed in the literature are the local public health department and the local hospital(s) (Kottke et al., 2016; Plough & Chandra, 2015; Sallis et al., 2006; "What Does a Population Health Integrator Do? - Improving Population Health," n.d.; CDC, n.d.; Wolff et al., n.d.). Organizations representing sectors and interest groups can combine forces to achieve health goals.

### **Constituency Groups**

In addition to individuals representing organizations, collaboratives also include community members (Bryson et al., 2006; Gauthier–September, 2006; Roussos & Fawcett, 2000). Community members represent constituency groups. These groups can be defined geospatially (neighborhood, street, rural) or socio-culturally (age, economic status, race, ability, family structure). These individuals do not necessarily have the structural resources of an organization but may provide the resource of a complex social network. A strong interconnectedness with people in the community is valuable social resource. This social

resource can strengthen the groups message and increase access to resources. Individuals representing constituency groups had much less of a presence in the research, but they are important partners (Bailey, 2010). Representation of constituency groups provides a voice to the community and the resource of social networking to the community collaborative.

## **Discussion**

This scoping review has revealed the complexity of population health lexicon identified by Dunn and Hayes (1999) continues to plague communication. The way that population health practice, policy and developing language unfolds across spaces creates difficulty in communication and can be an indicator to relational power. Academics and community members bring multiple perspectives and vocabulary to interventions that may be happening at the same time or before information is disseminated. The growing popularity of community-based models has created an emerging vocabulary that has yet to be well defined. The relationships in a community groups are a complex merging of people from different constituency groups, organizations, and sectors. Competing beliefs and vocabulary can emerge in these complex relationships. Navigating through these differences is eased with consistency in norms and language. This review brings clarity of terms to help communities work more efficiently and aide in researchers communicating more effectively. Two categories of vocabulary identified are *community group identification* and *community group membership components*; however, these two categories do not encompass all the potentially important vocabulary. Future studies could be completed to create a more comprehensive tool for communities.

Partnership is a broad term to describe a cooperative effort. A collaborative is a cooperative effort with the spirit of belonging and teamwork (DiClemente et al., 2009). Community group collaborative speaks to the concept of groups specific to the whole of

community setting. Throughout the literature community organizations working together are described as a self-help strategy for communities to help themselves (Bryson et al., 2006; DeSalvo et al., 2016; Hilton & Wageman, 2016; Rauhaus, 2015; Wolff et al., n.d.; Woulfe et al., 2010). Community group is an umbrella term that captures these unique relationships.

We assessed terms for community group identification based on popularity, context, and etymology. In terms of popularity, partnership was the most referenced term. However, in context partnership was often used in conjunction with the other terms. The most pronounced distinction between partnership, collaboration, and coalition are the context and etymology of the terms. The origins of the words represent the diverse groups working together in a community to improve health outcomes: business, social service, and political. The influence that business language on community population health is evident in the literature and can be explained by the power the business sector holds through fiscal resources in community group collaborations.

While community group collaborative is the most appropriate term and equitable for communications within groups the other terms may still serve a purpose. The heterogeneous nature of community groups may call for the use of multiple terms to aid in communication within groups; however, a limited use of synonymous terms, especially in communications and publications will result in less confusion.

### **Multisector, multiorganization, and constituency groups**

Sectors tend to transcend the uniqueness of communities while organizations tend to be more specific to a setting. Unlike sectors, organizations are not uniformly described across location and disciplines. Organizations can serve communities at all levels of government. Communities interact with various organizations in various ways resulting in no two community partnerships looking the same (Erickson et al., 2017). One community may have a YMCA while

another community may have a Boys and Girls Club, a third may have both, and a fourth has neither.

Absent from the literature were optimal quantities of sectors and organizations. One approach is to say this only needs to be addressed at the community level. Each community group collaborative is different in characteristics and no two collaboratives look the same (Brewster et al., 2018). Community variations in strengths, needs, and goals may need to be matched to unique saturation of representation of sectors, organizations, and constituency groups. Two communities may have multiple colleges and universities with interests and resources to benefit the community group collaborative. Each of the institutes may have a representative that helps the group. Another community may have more than one representative from the same university involved. For example, faculty from the public health department and the economics department may be involved assisting in different capacities. Finally, a community may have no college or university actively engaged with the community, so there is not representation from either on that community group collaborative. The number of organizations representing a sector changes the network and the social dynamics of the group. The literature would benefit from further addressing the number of competitive and symbiotic relationships within a community group collaborative and the impact the make-up of the group has on task completion and outcome effectiveness. Future research should address these inconsistencies to aid communities in building and maintaining community groups.

This review has defined current terms used in population health literature. These terms represent two components of community groups: *community group identification* and *community group membership components*. Given the unique grassroots and action-oriented nature of community population health research, we recommend future research look beyond these

components to further define community population health lexicon. While partnership, collaborations (collaboratives), or coalition may best describe how a specific community group working on health outcomes may function conceptually they are the same thing. Population health researcher are using all of them to describe community groups. Similarly, multi-sector and multi-organization are words that technically have two separate yet nested meanings, however they are being used synonymously in population health communication. These terms are falling victim to the jangle fallacy. The danger in the jangle fallacy is it could prevent researchers from communicating findings.

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# **Chapter 3 - Youth physical activity settings in one rural town: a photovoice assessment**

## **Introduction**

A large percentage of youth are not meeting U.S. physical activity guidelines of at least sixty minutes of moderate to vigorous physical activity per day (Troiano et al., 2008; Friel et al., 2020; Piercy et al., 2018). Lack of youth physical activity is a risk factor for obesity and numerous conditions including heart disease and cancer (Anderson and Durstine, 2019; Powell et al., 2018; Weihrauch-Blüher et al., 2019). Youth living in rural areas in the U.S. are more likely to be overweight, which may be due to lack of opportunity for physical activity, access to medical care, and limited food choices (Ogden et al., 2018; Lutfiyya et al., 2007; Probst et al., 2018). One strategy public health professionals use is to provide opportunities in the places kids learn, live, and play. Rural youth settings receive less attention from researchers than suburban and urban areas (Yousefian et al., 2009; Trivedi et al., 2015). Researchers and community leaders need low-cost ways to assess settings for physical activity promotion that may be unique to rural communities.

## **Community health improvement process**

A core strategy of public health practice is following a community health improvement process (CDC, n.d.; Pennel et al., 2017; NACCHO, n.d.; Pennel et al., 2016; Institute of Medicine, 2002). There are several community health models including Planned Approach to Community Health (PATCH), Assessment Protocol for Excellence in Public Health (APEXH), and more commonly used now Mobilizing for Action through Planning and Partnership (MAPP) (Erwin and Brownson, 2017; Pennel et al., 2017; Kreuter, 1992; CDC, n.d.; NACCHO, n.d.). MAPP involves identification of key strategies to improve health on the community level. The

MAPP phases inform the Community Health Assessment (CHA) process. The MAPP phases includes six phases: organizing and partnership development, developing a shared community view of the current community and future goals, collecting and analyzing data, identification of strategic issues, formulating goals and collecting strategies to help meet goals, and is where strategies are put into action (CDC, n.d.).

### **Community health assessment**

A key step in the community improvement process is community health assessment (CHA) (Kirk et al., 2017; Institute of Medicine, 2002). The CHA prioritizes health needs, identifying available resources, engaging the community, and developing strategies. Community Health Assessment in the form of a Community Health Needs Assessment (CHNA) is required by the 2010 Affordable Care Act (ACA) for non-profit hospitals. Tying CHNAs to funding has increased the spread of communities conducting CHNAs. In compliance with ACA, Non-profit hospitals must complete a CHNA every three years and adopt implementation strategies to improve community health (IRS, 2020). Additionally, CHNA's must include how data was collected. Non-profit hospitals choose their own assessments but the government mandates community participation. Hospitals struggle with identifying and using assessments with a community participation focus (Pennel et al., 2015; Beatty et al., 2015). CHNAs provide an opportunity to create sustainable change but the current existing practices are not effectively assessing communities and, by not using community focused methods, may be causing more harm and alienation of communities over time (Kirk, 2016). Assessment tools are needed to provide an opportunity to increase community participation and help meet the IRS requirement. These tools should be leader-friendly with clear protocols, inexpensive, and require limited training.

## **Assets and needs**

Identifying health needs and assets are the primary objectives of CHAs. Needs refers to areas for health improvement. However, overly focusing on needs result in a deficit-based approach. In a deficit-based approach, the focus turns to people and resources outside of the community to fill the deficit through funding and technical assistance (Villanueva et al., 2016; Kretzman and McKnight, 1993). Asset-based approaches target community resources such as civic organizations, commerce institutions, religious organizations, hospitals, schools, financial, and the natural environment (Springer and Evans, 2016; Flora and Gillespie, 2009). Although asset-based approaches create innovative, sustainable solutions that empower the community, particularly disenfranchised populations (Kretzman and McKnight, 1993; Christens and Inzeo, 2015), there is a gap in the literature on how to effectively identify assets in a systematic way.

## **Assessing community assets through a community system setting approach**

Identifying the assets of a community can be framed under a community systems approach. A community is more than the sum of its parts, the interactions between organizations, resources, physical and social environments, and built environment are constantly in flux. Assessment tools are needed to aid community practitioners in mapping the complex and dynamic, ever-changing, relationships in communities.

To map a community following a system approach, basic environmental asset assessment framework for health promotion planning starts with identifying settings (Springer and Evans, 2016). Settings are the geographic places in a community with a socially arranged program of action. A behavior setting is the theoretical concept explaining individuals are influenced by their environment to behave in certain ways. The education an individual received in a previous setting does not influence their behavior as much as the social norms of the current setting.

Community behavior settings are unique to each setting in variety, quantity, and arrangement. (Barker and Gump, 1964). Setting identification leads to inquiry into that settings assets including: policy, social/ cultural, information available and dissemination, and the physical environment. The basic environmental asset assessment framework highlights the importance for primacy to be placed on setting identification. Tools are needed to identify settings and understand interactions between the settings. Strengths of qualitative methods include identification of community-driven settings, complex interactions, dynamics, emerging local phenomenon, as well as the potential for empowering the community (Kirk et al., 2017). Specifically, photovoice is a method in which a facilitator asks participants to use photography and stories about their photos to identify and represent issues of importance. Photovoice provides an opportunity for community-driven setting mapping.

### **Photovoice**

Photovoice is a participatory method first developed and used in 1992 with rural women in China using documentary photography principals to understand the way they viewed their environment (Hergenrather et al., 2009; Wang, 1999; Wang and Burris, 1997). A visual representation enables researchers to have a greater understanding of the issue under study. According to this approach, participants share photographs in a group setting through a facilitator-guided focus group discussion about the key photographs selected by individuals in the group and how to share information with policy-makers (Wang, 1999). The use of photovoice helps to inform appropriate intervention or action on health and social problems (Nykiforuk et al., 2011). Several researchers have used photovoice to examine the barriers and facilitators to physical activity in the built environment. These studies of both rural and urban areas have identified cracks in sidewalks, public parks, and opportunities for active

transportation (Hennessy et al., 2010; Findholt et al., 2011; Belon et al., 2014; Gullón et al., 2019; Walia and Leipert, 2012). Colón-Ramos (2017) demonstrated the effectiveness of using photovoice to engage mothers who had recently migrated to the US in mapping the settings they get food in their community.

Photovoice provides an opportunity to visually portray experiences. Reading and writing skills are not a prerequisite making photovoice accessible with many diverse populations, including children (Kramer et al., 2013; Necheles et al., 2007; Padgett et al., 2013). Using photovoice with youth populations has elicited perspectives relevant and specific to the child's point of view on a variety of topics, including food experiences and experiences with play and school (Genuis et al., 2015; Nykiforuk et al., 2011; Walia and Leipert, 2012).

### **Purpose**

The purposes of this study were twofold: (1) to describe and illustrate the feasibility of a protocol for CHA using photovoice that engages youth living in the community in the community health improvement process and (2) to illustrate the utility of the protocol by conducting a CHA in a rural town targeting public health problem of youth physical activity. The protocol was implemented with fourth through sixth graders in November 2018 in school time. A school lesson was developed that utilizing the state and local teaching standards to teach photovoice procedures to fourth through sixth graders and collect data quickly within the setting of their regularly scheduled physical education class. The photovoice procedures included choosing devices, a photovoice lesson, and six focus groups. Applications of assessments include writing CHNAs and other CHAs as the first step in community health improvement interventions.

## **Methods**

### **Community, School and Children Participants**

The present study selected a community (Midwest, Kansas) to represent a Great Plains rural community. Midwest, Kansas is a rural area in northeastern Kansas. In a geographical area of one square mile resides 1,344 residents with a median age of 38.3 years old (Census, n.d.). The Department of Education National Center of Educational Statistics classifies community locales based on population (City, Suburban, Town, and Rural) and in the case of the rural populations (Town, Rural) distance from a metro area. Midwest is classified as a rural area (population less than 2,500) and distant from area an urbanized area (more than 5 miles for a rural area and more than 10 miles for a town (population greater than 2,500 but less than 10,000) (National Center for Educational Statistics, n.d.)

Midwest serves as a setting that is representative of rural Kansas rural area. According to RWJF county health rankings, Midwest's county, mirrors the Kansas state averages for premature death, obesity, and physical inactivity (County Health Rankings & Roadmaps, n.d.).

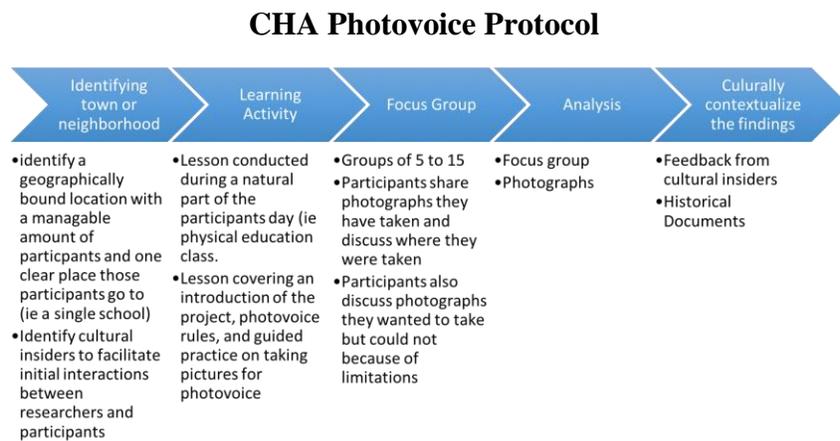
In addition to Midwest being an exemplar Great Plains rural town, Midwest was also the setting of Roger Barker's groundbreaking community research where the community was directly observed from 1947 through 1972. This research resulted in numerous theoretical contributions to community and behavior setting research using the pseudonym, "Midwest, Kansas."

Midwest has one elementary school that serves 228 students in preschool through sixth grade. The elementary school is 94% white; 60% economically disadvantaged; and, 26% of the students are identified with disabilities. Inclusion criteria included males and females that were current students of one of six sixth, fifth, or sixth grade physical education classes.

In Fall 2018, the team recruited participants from grades fourth through sixth Physical Education classes in Midwest, Kansas, a rural town with one elementary school. The Institutional Review Board at Kansas State University approved all procedures in Fall 2018. Consent forms were collected from the physical education teacher and the student participants.

### CHA photovoice protocol procedure

The objective is to describe and illustrate the feasibility of a protocol for CHA using photovoice that engages youth living in the community in the community health improvement process. The CHA photovoice protocol followed modified photovoice methods. In a study of 31 photovoice studies, Hergenrather (2009) identified ten components of photovoice. To make photovoice more accessible to use, these ten steps commonly found in photovoice studies were condensed into five steps: **identify an area** (*identification of community issue, participant recruitment*), **learning activity** (*photovoice training, camera distribution and instruction, identification of photo assignments*), **focus group** (*photo assignment discussion*), **transcription and analysis** (*data analysis*), and **culturally contextualize findings** (Figure 1).



**Figure 3-1: CHA photovoice protocol**

## **CHA photovoice protocol theoretical rationale**

From a systems-based approach, history is an asset and provides an opportunity to understand the dynamic nature of settings. Community interventions are located within and affected by history (Trickett et al., 2011). By contextualized the findings in history, the CHA provides an opportunity to better understand the settings within larger systems.

In addition to the protocol steps above, the remaining standard components of photovoice, *identification of influential advocates*, *presentation of photovoice findings* *creation of plans of action for change*, are not applicable to steps within of the realm of this CHA. Identify an area refers to the community identified should be a geographically bound location with a manageable number of participants. Geographically bound refers to using a community that has a clear stopping and starting boundary of the geographically located social system. Examples of geographically bounded areas include city, town, township, county, neighborhood, district, parish, burrow, or zip code. Identify an area also includes recruiting participants and choosing a meeting place. The learning activity consists of an introduction of the project, photovoice rules, and guided practice on taking pictures for photovoice. Focus groups give participants an opportunity to share and discuss photographs. Focus groups of five to fifteen participants allow the participants to share and interact with each other. Focus groups also give participants an opportunity to share information they were not able to communicate through photographs due to the time restriction or the subject matter. Focus groups should be recorded. Transcription refers to typing the focus group discussions verbatim. Analysis is accomplished through codifying the photographs and the transcript. Codifying is pictures and quotes are grouped into like categories. Later, during subsequent readings, those examples and quotes are identified that exemplified those categories. Lastly, culturally contextualizing findings is experts,

community insider and participants, reviewing the findings. If the experts do not agree with the findings, ask for clarifications and reanalyze the data. Historical documents should also be used to aid in understanding the dynamics. The age of the documents will vary based on access and availability.

### **CHA for Midwest Kansas Procedures**

To illustrate the utility of the protocol we followed the CHA photovoice protocol to conduct a CHA in a rural town targeting public health problem of youth physical activity.

#### **Data collection**

Data was collected in November 2018. Six focus groups consisting of two to ten students were conducted by physical education class. Classes were grouped by grade and homeroom. During the focus groups, students presented their photographs answer the question, “Where are you physically active?”

#### **Analysis**

All focus groups were audio-recorded and transcribed verbatim. Transcripts and were analyzed using in-vivo coding. In-vivo coding assigns a label to a particular selection of data using a word or group of words taken directly from the data as a descriptor (Saldaña, 2015). Transcripts were read through to identify codes and then categories. Later, during subsequent readings, those examples and quotes were identified that exemplified those categories. The coding frame included exemplary quotes for the most common themes that were subsequently extracted. Throughout the process, information was cross-checked with participants. The results were compiled in a table.

Texts with Roger Barker's initial published data were used to construct a table and definitions of settings as defined by his research to provide historical data to compare to photovoice collected data.

## **Results**

### **Rural community classification**

The town center is a square with storefronts with large glass windows and red brick buildings, including the county courthouse. Midwest is the county seat, but it is not the largest of the twelve townships covering 557 square miles that make up the county. The commute to work for the average Midwest resident is 24.2 miles. Two cities are in this radius, both with over 98,000 residents, are easily accessible to the people of Midwest, and a metropolitan city is 45 miles away; however, there is no public transportation available in Midwest or to the surrounding areas.

### **CHA photovoice protocol feasibility**

The following is a narrative to describe and illustrate the feasibility of a protocol for CHA using photovoice that engages youth living in the community in the community health improvement process.

#### **Collaborating with a local lead**

Elementary school physical education classes were chosen to recruit and incorporate a photovoice assessment naturally into the participants' day. Initially, the physical education teacher was not returning our emails or phone calls. The value of relationships, especially for rural community assessments, became clear when we sent an email to the physical education teacher with the name of a mutual acquaintance (with permission of the acquaintance) and received a positive email within minutes. The physical education teacher was an invaluable

facilitator throughout the experience including providing equipment and confirming the results were consistent with his experiences as a Physical Education teacher and resident of the community. Most importantly, he provided access to his six thirty-minute fourth-sixth grade physical education classes for the lesson and then two weeks later the focus groups.

### **Teaching a photovoice assignment as a class lesson**

The physical education teacher was so accommodating because we provided a lesson plan with content that met state standards he is required to teach. A thirty-minute lesson occurred over the class time of each of the six physical education classes. The lesson consisted of three sections the P.E. teacher provided introductions and the photovoice researcher introduced the project to the class. The photovoice researcher facilitated a discussion of why physical activity is important and the students brainstormed examples of "physical activity places." The students yelled out places such as "home", "basketball," "dance", and "marathon club."

In the second part of the lesson, students paired up and practiced taking pictures of each other engaging in physical activity. The P.E. teacher made equipment (basketballs and hoops, hula hoops, volleyballs, racquets, scarves, rubber balls) available to the students. For the final portion of the lesson, the students shared their pictures. Students' photographs taken during the guided practice activity were chosen to highlight photography ethics: be respectful of the community, make sure they are safe, and get permission from subjects present in a photograph. The students were given their two-week assignment to take pictures to answer the question of, "Where are you physically active?"

### **Devices**

Devices included such handheld items such as tablets and smartphones. Traditionally, cameras are used as recording devices for photovoice research. Children are becoming less

familiar with cameras and increasingly have experience and access to phones and tablets. A pre-study focus group of five elementary teachers confirmed the students' devices (smartphones, tablets) to be the best choice for data collection.

In the introduction, the students shared the photography devices which were available to them. iPods were available to be checked out to the students to increase participation. Nine families chose to use the research iPods instead of their own devices. Providing devices increased opportunities for youth to participate. Participants emailed and displayed photographs from their personal and checked out devices during the focus groups.

Teaching participants to use cameras is a step in photovoice methods; however, the participants had no problems using handheld devices to take pictures. Instructing the participants on taking pictures would have resulted in a loss of rapport.

### **Focus groups with youth**

The participants discussed their photographs in their own words. To build rapport and encourage participation the focus groups were not overly structured. The group including the researcher sat in a circle on the floor. This was a comfortable way for the fourth-sixth graders to sit in a group and share their photographs. The group was recorded on a device behind the researcher. The students one at a time would show their pictures. The question prompt asked was, "tell me about this picture." Often one participant's picture and story would spark another participant's story. The researcher would prompt the students with a follow up question if the participants did not share the following details: location, frequency, and name of leaders/ and organizations. The focus groups provided an opportunity for the participants to share settings not in photographs because of time. For example, one participant said, "I would have tried to get pictures of girl scouts, but we have not had any meetings lately." A couple students forgot to

email or bring their pictures, despite the physical education teacher’s reminders, however the youth contributed to the focus group.

**CHA for youth physical activity in Midwest, Kansas**

The CHA photovoice protocol was utilized to conduct an assessment in Midwest, Kansas to identify settings youth were physically active to targeting public health problem of youth physical activity.

Twelve fourth graders, fifteen fifth graders, and six sixth graders from six Physical Education classes participated in the photovoice CHA in Midwest.

As shown in Table 1, the settings identified by Roger Barker in the early 1950s, and the settings identified by fourth through sixth graders in 2018 are very similar. Barker identified ten varieties of behavior settings in Midwest, Kansas, from July 1, 1951 to June 30, 1952. Varieties and the eighteen settings represented in the varieties were compared to settings currently in Midwest to utilize the asset of history and understand the community dynamics. The physical activities settings identified by the youth of Midwest were represented by four categories of organization: organized youth sport, 4-H and scouting organizations, church, and school. Surprisingly, two separate settings not formally associated with organizations emerged; the elementary youth in 2018 presented photographs depicting of hunting, fishing and shooting sports and home settings.

<b>Comparison of Settings Identified in 1951 and 2018</b>			
	Barker’s varieties that involved grade school recreation/ current identified themes	Places identified by Barker 1951-1952	Places identified by 4 <sup>th</sup> -6 <sup>th</sup> graders 2018 with quotations
			Boys’ basketball practice

Organized Youth Sports	Indoor Athletic Contests/ Organized Sport	Grade School Boys' Basketball Practice	<i>and that is me playing basketball</i> Boys' basketball game
		Grade school boys' intramural basketball	Not identified
		Grade school basketball program; in town	Girls' basketball practice; in town <i>When we had a basketball game and then basketball practice</i>
		Grade school basketball program; out of town	Girls' basketball game; out of town <i>Well we only play in [REDACTED] but everyone just goes to [REDACTED]</i>
		Grade school boys' basketball tournament	Not identified
			Coed volleyball camp at high school <i>I did volleyball camp in the summer.</i>
		Coed wrestling <i>Me, wrestling and when we were in and my dad he is the coach when we were he was explaining things and my dad took a picture. I can find it on here...</i>	
	Out-of-Door Athletic Contests/ Organized Sport	Grade school Boys' town baseball game; in town	Boys' baseball game <i>Baseball for us</i>
			Boys' baseball practice
			Boys' baseball tournament; out of town <i>Yeah baseball. We actually had a tournament a couple weeks ago it was in Topeka and we had another one a long time ago</i>
		Girls' softball <i>I play softball</i>	
	Girls' softball practice		

			<i>I also thought of another thing, softball practice</i>
			Football practice <i>I practice football here in town...</i>
			Football game <i>but we play in [REDACTED]...</i>
	Ballet Classes/ Organized sport	Ballet classes	Dance classes <i>This is my dance studio.</i>
4-H and Scouting	Circuses and Carnivals/ no corresponding theme identified	Boy Scout district circus at capital city	Carnival <i>I did go to [REDACTED] Kansas it is pretty much 5 hours away and there is a carnival.</i>
		4H Club: Carnival	
	Recreational Meetings without Refreshments/ 4H and scouting organizations	Boy Scout Troup regular meeting	Not identified
		Brownies' regular meeting	Girl Scouts <i>They are actually in girl scouts with me. I would have tried to get pictures of girl scouts but he haven't had any meetings lately.</i>
		4-H Club regular meeting	4-H Club regular meeting <i>In 4H we have recreation and I am the officer in charge of recreation</i>
	Skating Party/ 4H and scouting organizations	4-H Club skating party	4-H project meetings <i>Uh photography, crafts crocheting classes, and then hunting and archery, bucket calf, crafts and I want to do photography</i>
			Not identified
	Swimming Party/ 4H and scouting organizations		Trampoline park <i>Here is some of my friends at Sky Zone in [REDACTED]</i>
		Boy scouts, swim at Longmont pool	Not identified
			Girl Scouts, swim at water park <i>And after we get once we are done selling all the stuff we uh we do things like one time we went horse back riding one time we went bowling we went to a water park</i>

Church	Church Worship Services/ Church	Several churches listed (recreation time not noted)	Churches <i>Well I go there every single weekend and sometimes and once a week I go and we go outside and we also ride on hayrides and we do other stuff we do tag and running and exercising</i>
School	School Classroom Recreation/ School	4 <sup>th</sup> Grade Recreation	4 <sup>th</sup> Grade Physical Education classes <i>I am active at school at recess. PE and I am too active at my house.</i>
			Recess
			School clubs
	School Classroom Recreation/ School Open Spaces/ School	5 <sup>th</sup> Grade Recreation	5 <sup>th</sup> Grade Physical Education classes <i>There is just the gym.</i>
			Recess
			School clubs
6 <sup>th</sup> Grade Recreation Primary school playground	6 <sup>th</sup> Grade Physical Education classes <i>That is basically it. Recess and gym.</i>		
	Recess <i>This is 4 square.</i>		
	School clubs		

**Table 3-1: Comparison of Settings Identified in 1951 and 2018**

**Organized youth sport**

Seventeen participants discussed sports throughout the photovoice activity and the six focus groups. Organized youth sport settings identified were boys’ basketball practice, boys’ basketball game, girls’ basketball practice (Figure 2), girls’ basketball game basketball, boys’ practice football, boys’ football game, boys’ baseball practice, boys’ baseball game, boys’ baseball tournament, girls’ softball practice, girls’ softball game, coed volleyball, and coed wrestling (Figure 3), and dance classes. None of the organized youth sport settings identified by Barker specified girls but Barker labeled basketball and baseball settings as “boys.” New settings in 2018 not identified by Barker included: girls’ basketball practice, girls’ basketball game basketball, boys' practice football, boys’ football game, boys’ baseball practice, boys’ baseball tournament, girls’ softball practice, girls’ softball game, coed volleyball, and coed wrestling.



**Figure 3-2. Basketball practice**



**Figure 3-3. Wrestling practice**

The participants discussed the seasonality of youth sports in Midwest. Only baseball, softball, and dance classes occurred in the more than two seasons throughout the year. Teams formed Midwest as well as surrounding towns. Most often, the participants discussed practicing in Midwest and competing in another town. The town's population constrained how many teams could form to compete against each other, so teams were often formed and practiced in Midwest

but competed in games with teams from surrounding teams. However, this varied by the sport and the level of competitiveness of the league. For example, one female participant reported playing softball in a nearby town, but she played primarily in Midwest during basketball season.

A few participants discussed many sports. One 5th grade girl said, "I do horseback riding once a week, and then I do basketball. Um later, I am going to do volleyball." The rest of her focus group did not share the same schedule. Many of her group reflected little to no organized sports participation.

#### **4-H and scouting youth organizations**

In focus groups, participants identified 4-H club meetings, 4-H carnival, 4-H project meetings, Girl Scouts meetings, and Girl Scout trips to swim. Twelve participants discussed attending 4-H making 4-H the most popular physical activity setting for the fourth through sixth graders in Midwest. 4-H became a setting the participants discussed paired with home animal care. For example, a 5th-grade a participant shared a picture of her working with her calf (Figure 4). 4-H and scouting settings paired up with the settings identified by Barker with one major exception, none of the participants identified Boy Scouts as an important setting.



**Figure 3-4. Animal care at home**  
**Church**

Participants discussed church worship services/ youth groups in three of the focus groups. Church attendance was the one organization that was consistently located in Midwest. One participant reported, "...I go there every single weekend and sometimes and once a week I go, and we go outside... we do tag and running and exercising..." The diversity of the church varied by Christian denominations. Barker also noted several different churches. The youth in 2018, rarely named their church but instead would say "my church" and give a description of the location.

### **School**

The participants in this CHA identified more settings than were identified in the early 1950's. Recess was the only school physical activity settings listed in both time periods. Notably, structured settings of school clubs and physical education class were only identified in 2018. Participants eagerly shared photographs of several popular clubs featuring arts, music, and science. The club most notably with a physical activity component was a school-sponsored

marathon club. At the marathon club, the students walked laps outside of the school before school.

Two participants took photographs of recess. One student reported, "I am active at school at recess, P.E., and I am too active at my house." (Figure 5) One twenty-minute recess is built into the students' school day. The students took pictures of foursquare and reported that it was a preferred recess activity.



**Figure 3-5. Recess**

### **Hunting and shooting sports**

The youth reported hunting with family and friends. The participants spoke very enthusiastically about hunting. Shooting as a sport, specifically archery, was a popular topic amongst the focus groups. One-fourth grader stated, "I shoot. There are shooting competitions in town." The participants also identified fishing as a physical activity setting, especially for those who lived outside of town. One fifth-grade participant shared, "Um, we actually live in a campsite for now because we are building our new house, and I get to walk around the campsite,

and there is a pond right next to it, so I get to well we go catch fish..." He and his peers identified the walk to fish as a physical activity setting.

### **Home**

In focus groups, participants shared pictures they had taken at their homes or their grandparents' homes. The photographs showed participants: practicing volleyball without a net next to a family pond; juggling a soccer ball next to a barbed-wire fence (Figure 6); riding a bike down a dirt and gravel path (Figure 7); and, having a footrace in the middle of the road in a housing development without sidewalks or curbs. Besides sports skills, chores like stacking/loading wood played a part in physical activity at home.



**Figure 3-6. Riding bike at home**



**Figure 3-7. Playing soccer at home**

The home is the place where participants care for animals. "Wrestling with", walking, and caring for pets and livestock were important physical activity settings to the CHA participants. A 4th grader explained his chore "...some of the calves. We have them up on the hill. Some of them die when it is too cold. So I have to drive them back to the gate." Other daily chores included collecting eggs from chicken coops, carrying water, and feeding horses, cattle, and chickens.

## **Discussion**

This study described a protocol for CHA using photovoice that engages youth living in the community in the community health improvement process and illustrated use of the protocol a rural town targeting public health problem of youth physical activity.

### **Description and feasibility of the protocol**

The CHA photovoice protocol can be conducted inexpensively in a reasonable amount of time, making it a good choice for conducting community research. Photovoice methods provided an opportunity to identify settings in a community. The protocol provided a high interest way for youth to map assets without the need for reading and writing. The goal of this protocol was not just to get data from the outspoken members of the community, but we wanted to hear from youth since the question was about youth activity settings.

### **Photovoice**

In 2012, Walia and Leipert (Walia and Leipert, 2012) used photovoice to identify facilitators and barriers to physical activity for rural youth, ages 13-18 years-old, and concluded that photovoice was an effective tool for communities to use to assess youth physical activity (Walia and Leipert, 2012). The youth participants in the current CHA photovoice project are

fourth through sixth graders, 8–13-year-olds. Age was not a barrier to participation and the youth followed directions, photographed settings, and participated in the focus groups.

Youth voices are key in mapping a community's assets; however, literacy, interest, and attention are all barriers to investigations with youth participants. The CHA photovoice protocol did not require the ability to read or write from the participants. Photovoice promotes participant ownership of the research and empowers participants (Kramer et al., 2013; Yi-Frazier et al., 2015). Additionally, photovoice helps youth understand their perspective is important and that they are capable of being agents of change. Throughout the CHA, youth were engaged and express excitement towards being partners in science. Similarly, Strack et al. (2004) suggested photovoice help youth understand how they can inform change and builds competency. Specifically, hands-on activities, like our lesson, build competency in group work and photography. Photovoice provides for researchers and community facilitators to partner with youth to collect data to improve community health.

The photovoice methods suggested by Wang and Burris (Wang and Burris, 1997) included several distinct steps outlining participant and policy-maker recruitment and data collection. The goal of our protocol development was to stay in the tradition of photovoice methods but develop and test a thoughtful protocol for CHA using photovoice that engages youth living in the community in the community health improvement process. We condensed the steps to make them more accessible to community facilitators. The unique photovoice technique we used to identify behavior settings included five steps: identification of town; a learning activity; focus groups; analysis; and culturally contextualizing the findings.

## **CHA of the youth public health physical activity assets in Midwest, Kansas**

Our objective was to illustrate the utility of the photovoice protocol by conducting a CHA in a rural town targeting public health problem of youth physical activity. We were able to successfully identify physical activity settings emerging important to the fourth-sixth graders of Midwest, Kansas were: home, hunting, fishing, and shooting sports, organized youth sport, 4-H club, church and school.

### **Home**

The home setting lacked insight into community organizations working with the community to increase physical activity. However, the photographs showed unique environments where rural youth are physically active such as in fields, near ponds, and on dirt roads.

Participants also discussed chores associated with home such as animal care and stacking/loading wood. Current research suggests even when controlled for race, education, and income youth in rural areas report less leisure physical activity (Roemmich et al., 2018; Patterson et al., 2004; Wilcox et al., 2000). Roemmich and colleagues concluded, based on park usage, lack of leisure physical activity puts rural youth at increased risk to be overweight and obese (Roemmich et al., 2018). However, in this study youth self-reported leisure physical activity but also physically active chores and utility tasks. Occupational physical activity in adults has been studied for a century (Paffenbarger et al., 2001). This line of research shows a positive relationship between physical activity demands of a job and an individual's health. With a whole body of research on adults there is a lack of research on rural youth and chore and utility physical activity. In the current study, youth reported chores including the care of animals and hunting activities. Future research should explore the presence and health impact of these activities on rural youth.

### **Hunting, fishing and shooting sports**

Hunting and shooting sports emerged as a very important activity. The data collection occurred during the beginning of furbearer hunting and trapping, crow, pheasant and quail, prairie chicken, most migratory bird seasons; and, the middle of squirrel, elk, deer, and turkey seasons. The timing is noteworthy because it may have been a factor in the enthusiasm.

Settings for these activities varied. Hunting and fishing were discussed as both a setting of physical activity and a source of nutrition. Hunting, fishing, and shooting sports are currently lacking in community population health research but were very important to the fourth through sixth graders of Midwest, Kansas. Community population health research may benefit by examining the role of hunting, fishing, and shooting sports on physical activity, nutrition, and other health factors, particularly in rural communities.

### **Comparison to Barker**

The ability to compare current settings to settings from seventy years ago, suggests the youth organizational settings have a long tradition in Midwest. Target a setting for community health improvement is likely a good investment because the setting is not likely to disappear. The role of gender and structure were notably different over time in Midwest. Opportunities for girls, especially present in organized youth sports, increased from eight settings to seventeen settings. Sturm (2005) compiled trend data and concluded while childhood obesity rates (the data on physical activity levels in children started the 1980s and is sparse) have increased the number of organizational settings have also increased suggesting that children having less time for unstructured play as they spend more time in structured settings. Similarly, this study found an increase in the number of youth organized settings in Midwest. Increasing youth structured

settings in a community as a health improvement strategy targeting physical activity may decrease youth physical activity.

### **School, youth sports, church, scouting & 4-H**

The goal of using photovoice as a CHA was to identify setting with Midwest, Kansas where youth are physically active. We were able to identify organized youth sports clubs, 4-H and Girl Scouts, church, and school. The popularity of 4-H club as a setting important to over a third of the group suggests by targeting it for community health improvement the most youth will be impacted.

### **Limitations**

Two weeks in November 2018 may not have captured behavioral settings that were temporal (i.e., spring and summer youth sports or once a month meetings) and may have overrepresented hunting. Also, basketball and wrestling (winter sports in Kansas) dominated the sports photographs. While the focus groups were able to mitigate this limitation somewhat and provide additional critical information taking samples throughout the year or adding an examination of social media posts would strengthen the use of photovoice to examine behavior settings.

We identified a cultural insider, along with empowering the youth participants, to partner with in the photovoice CHA protocol, to mitigate the limitation of being cultural outsiders. Having an insider make the initial introductions sped up the process. Initial contact with the physical education teacher was made through email; however, the physical education teacher was not responsive until a community insider was identified and, with the insider's approval, his name was used.

Lastly, though generalizability was not a primary goal of this study. This study was conducted in one community which effects the generalizability.

## **Conclusion**

The purposes of this study were twofold: (1) to describe and illustrate the feasibility of a protocol for CHA using photovoice that engages youth living in the community in the community health improvement process and (2) to illustrate the utility of the protocol by conducting a CHA in a rural town targeting public health problem of youth physical activity.

We described and illustrated the feasibility of a protocol for CHA using photovoice that engages youth living in the community in the community health improvement process.

Photovoice methods provided an effective and efficient way to collect data about youth physical behavior settings. The protocols of using photovoice methods to identify settings includes selecting a setting, a learning activity, focus groups, transcription, analysis, and culturally contextualizing the findings provided an opportunity to learn about physical activity in a small rural town. Future steps include examining the use of these procedures on population health intervention implementation and effectiveness.

We illustrated the utility of the protocol by conducting a CHA in a rural town targeting public health problem of youth physical activity. The photovoice CHA protocol facilitated youth-driven community asset mapping. The youth identified organizational settings such as organized youth sport, 4-H and Girl Scouts, school, and church. Additionally, the youth identified other settings such as home and hunting. The youth identified the local 4-H Club as the community organizational setting attended by the most participants. Future studies should identify further CHA protocols to implement community health improvement strategies within the local 4-H club.

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# **Chapter 4 - Rural 4-H mini-ethnographic case study report: a model for community health assessments**

## **Introduction**

Children in the U.S. are not getting enough daily physical activity (Troiano et al., 2008; Friel et al., 2020). Lack of physical activity is particularly problematic for the 20% of youth growing up in rural communities (Brownson et al., 2000; Martin et al., 2005; Fan et al., 2014). Lack of opportunities for physical activity, limited food choices, and less access to health insurance and healthcare are likely contributors to youth living in rural areas being more likely obesity than their urban counterparts (Probst et al., 2018; Lutfiyya et al., 2007). Childhood obesity is linked to health issues, such as heart disease and cancer, in adulthood (Anderson and Durstine, 2019; Powell et al., 2018; Weihrauch-Blüher et al., 2019). Solutions to improve health for rural youth should be multi-sectorial, a collaboration between the community, health care, and public health (Probst et al., 2018). There is a lack of effective tools to understand community systems and the current practices nested within these systems. The lack of effective tools designed to address these rural systems likely contribute to the presence of adequate health interventions. The over-arching goal of this study is to examine assessment tools rural communities may utilize to address youth health.

## **Community health improvement process**

In public health, a core strategy is following a community health improvement process (Kirk et al., 2017; Institute of Medicine, 2002). A key component is collaboration. There are several public health models to facilitate collaboration throughout the assessment process including Planned Approach to Community Health (PATCH), Assessment Protocol for Excellence in Public Health (APEXH), and the currently most used model Mobilizing for Action

Through Planning and Partnerships (MAPP) (Erwin and Brownson, 2017; Pennel, Burdine, et al., 2017; Kreuter, 1992; CDC, n.d.; NACCHO, n.d.). MAPP is a community-driven strategic planning process involved in the identification of fundamental strategies at the community level (CDC, n.d.; Erwin and Brownson 2017; Pennel, McLeroy, et al. 2017).

## **Community health assessment**

Community health assessment is a continuous process that occurs throughout the community health improvement process. (CDC, n.d.; Institute of Medicine, 2002; NACCHO, n.d.). The CHA process prioritizes health needs, identifies available resources, engages the community, and develops strategies.

One specific kind of CHA known as a Community Health Needs Assessment (CHNA). The CHNA has gained popularity because of a requirement for non-profit hospitals in the 2010 Affordable Care Act (ACA). In compliance with ACA, non-profit hospitals must complete a CHNA every three years, engage the community, and adopt implementation strategies (IRS, 2020). However, at some hospital members fail to include community members. Pennel et al (Pennel et al., 2015) reported only 6.3% of Texas CHNAs engaged the community at a moderate or extensive level, and 18% had no community participation. Similarly, Beatty et al (2015) reported 18% of Missouri CHNAs had no community collaboration. By excluding community members, the task of defining the community's needs and assets accurately is difficult. Currently, hospitals are failing to include the community because they may lack assessment tools with clear protocols that include training materials. With the addition of assessment tools hospitals will be more equipped to provide an opportunity to increase community participation and meet the IRS requirements.

### **Assets and needs**

Specifically, CHA is a process of identifying health needs and assets (Springer and Evans, 2016). Identifying needs help set a goal for health outcome improvement. However, a deficit-based intervention will result if researchers focus on needs without the inclusion of assets being accessed. Deficit-based interventions are intervention focused on needs or problems. In a deficit-based intervention, outsiders' funding and technical assistance become the solution (Villanueva et al., 2016; Kretzman and McKnight, 1993). Deficit-based practices do not represent the community in its entirety and by taking a negative approach may be causing more harm and alienation of communities over time (Kirk et al., 2017).

The alternative is to consider each community has needs and possesses unique resources and cultural values, assets (Flora and Arnold, 2012; Emery and Flora, 2006; Peterson et al., n.d.). Assets include civic organizations, commerce institutions, religious organizations, hospitals, schools, and the natural environment (Springer and Evans, 2016; Flora and Gillespie, 2009). Additionally, asset-based investigation creates innovative solutions that empower the community, particularly those who have traditionally felt disenfranchised (Kretzman and McKnight, 1993; Christens and Inzeo, 2015). Assessment tools are needed to generate data to inform the outcome goals and provide knowledge of the community resources. A systems level asset assessment considers existing physical, social, and policy infrastructure (Trickett et al., 2011).

Communities are complex and dynamic systems making systems thinking necessary for community assessment. The system consists of people, organizations, resources, physical and social environments, built infrastructure, and the economy (NACCHO, n.d.). A community intervention needs to be nested and continuously interacting with the community's larger complex systems (Trickett et al. 2011; Pennel, Burdine, et al. 2017; NACCHO, n.d.). Individual

level approaches address components with little concern for the relationships resulting in the system self-correcting itself. To address the health of the complex system of community, the focus on assessments and subsequent interventions must shift from individual level to community level (Trickett et al. 2011).

The International Society for Physical Activity and Health recommends a systems-based approach to assessments where the process includes practitioners surveying the system, mapping key players, and identifying points to disrupt the system (*Eight Investments That Work for Physical Activity*, n.d.). Qualitative methods provide in depth information that help identify key payers, answer why a phenomenon is occurring, and engage the community to generate answers that are novel to the researchers. (Kirk et al., 2017).

### **Mini-ethnographic case study**

A mini-ethnographic case study is a qualitative approach consisting of a combination of ethnographic methods and case study methods. Ethnography methodology addresses complex and embedded questions in multiple systems. Such questions may identify participants when the participants, sectors, or stakeholders are not known and clarifies the range of settings where the situation occurs (Fusch et al., 2017). A classic ethnographic study can take years for the research team to be embedded in the community and collect comprehensive cultural data; however, the research is bound by the time and setting of a case study design.

Mini-ethnographic case studies have been conducted since the 1970s by education scholars to examine the organizational structure of educational settings (Rhoads, 1995). In this tradition, the purpose of scientific research is to uncover sociocultural knowledge about an unfamiliar or little-known group and patterns (Averill, 2006). Currently, mini-ethnographic case study methods are not embraced by community health researchers, but the potential to provide

information saturation in a bound and manageable time period and setting makes the methods a desirable option.

## **Purpose**

The purpose of the present study is to examine the potential strengths of mini-ethnographic case studies, including observation, interviews, and document analysis to create a more complete community assessment. Applications of assessments include writing CHNAs and other CHAs as the first step in community health improvement interventions. By telling the story of one youth organization in a rural town club's story, this study will highlight the use of the mini-ethnographic case study report process as an investigative tool for rural communities. The main objectives of this paper are twofold: (1) to describe and illustrate the feasibility of a protocol for CHA using mini-ethnographic case study methods that engage youth living in the community in the community health improvement process and (2) to illustrate the utility of a mini-ethnographic case study report as a CHA in one popular youth organization in a rural community targeting physical activity.

## **Methods**

In Fall 2018, participants from Midwest, Kansas were recruited. Consent forms were collected from youth, parent and organization leader participants. The Institutional Review Board at Kansas State University approved all procedures in Fall 2018.

The protocols used to examine routine and organizational structure include: selecting a setting, making contacts, observations, interviews, reviewing additional sources, transcription, analysis, and writing a report. Member checking refers to confirming findings and analysis with participants. Member checking is an important component throughout the many steps. Reflexivity or reflecting on the researcher's role is also important throughout all stages.

## Selecting a setting

The first step in selecting a setting, includes selecting the community (county, city, town, neighborhood). Midwest, KS was chosen for this study. Midwest, Kansas is a small town in northeast Kansas located in a geographical area of one square mile is comprised of approximately 1,344 residents with a median age of 38.3 years old (Midwest City, Kansas, n.d.). Midwest has one big neighborhood around the town square. There are no curbs or sidewalks, only green lawns that stretch out to the asphalt of the street. The town center is picturesque small-town beauty with a square with storefronts with large glass windows and red brick buildings, including the county courthouse. Although Midwest is the county seat, it is not the largest of the twelve townships covering 557 square miles that make up the county. The Casey's General Store (chain gas station) is always full of people. In the morning, gentlemen are visible through the window congregating and drinking coffee; elementary school kids want to discuss Casey's; and at meetings someone is always drinking a soda out of a Casey's cup.

Most Midwest residents work out of town. The commute to work for the average Midwest resident is 24.2 miles which would get someone from Midwest to the neighboring cities. The cities, both with over 98,000 residents, are easily accessible to the people of Midwest, and a metropolitan area is 45 miles away; however, there is no public transportation available in Midwest or to the surrounding areas.

Like many small towns in Kansas, Midwest is not a very diverse community. According to the 2019 census, the population is 94.6% white alone, 0% Black alone, .6% American Indian alone, 0% Asian alone, 1% another race alone, and 3.8% two or more races (Census, n.d.). One of the unique parts of Midwest is a small section of town the locals call "Old Town." The ten buildings of various ages were moved to the site starting in 1970. The oldest structure is a bridge

from 1875. Prairie grassland surrounds the area, and the buildings are full of donated artifacts maintained by two local historical societies. Old Town was a frequent note of conversation with the residents of Midwest. With a blacksmith shop, a general store, a jail, a chapel, a windmill, and a school, this small Kansas town is a place that is a step back in time. The research and genealogy library keeps Midwest connected to its past.

Midwest serves as a setting that is representative of rural Kansas towns. About one in four Kansans live in a rural town similar to Midwest. According to RWJF county health rankings, the county mirrors the Kansas state averages for premature death, adult obesity, and physical inactivity (County Health Rankings & Roadmaps, n.d.). Midwest's proximity to urban centers is unique, but in many ways, it is a typical Kansas town with typical Kansas health challenges.

The second step focused on identifying a number of possible organizational settings. The organizational setting should be meaningful and feasible. Meaningful settings community members view as popular, important, or novel. Feasible settings take into consideration cost, access, and timing. Once the town of Midwest was identified, the organizational setting needed to be identified.

The organizational setting was determined by a pre-study consisting of elementary-aged youth using photovoice methods to communicate physical activity promoting settings in their community. Photovoice was used as a way of identifying a meaningful organizational setting for the youth of Midwest. The unique photovoice technique used to identify behavior settings included five steps: identification of town; a learning activity; focus groups; analysis; and culturally contextualizing the findings. Popular settings included organized youth sport, school, church, and 4-H. Organized youth sports are seasonal, making them less feasible for this study.

Also, organized youth sport and church were divided up across multiple settings. 4-H was very popular, and most participants attended the same club. In addition to the 4-H club setting being identified, participants through the photovoice process also discussed the physical activity opportunities from animal care or shooting sports related to involvement with 4-H. After the Midwest 4-H club was identified, key members of the club needed to be identified.

### **Making contacts**

The next step of making contacts involved reaching out to key members of the organization. The Midwest 4-H contacts included two 4-H Research and Extension staff members. In January 2019, the two staff members were emailed using contacts available on the county 4-H website. The email included: the IRB approval number, what participation would include, and an introduction.

### **Observations**

Data collection of the Midwest 4-H club took place from February 2019 to April 2019. Overt observations of club meetings were conducted. Observations of the Midwest 4-H club meeting were conducted from a centralized seat towards the back at a table with participants of the meetings. Before observations began the county 4-H agent introduced the study and encouraged participation in the interview process.

Direct observations are a common technique in both ethnographies and case studies (Fusch et al., 2017). In direct observation, the researcher observes and interacts to learn about the group or setting. Two club meetings, each lasting about one and a half hours, were observed. The meetings were observed in their entirety. Observations began when participants started to arrive and ended when the last participants left to capture the informal interactions of the group and how space was transformed to accommodate the group. Extensive notes were recorded during

the meeting, and journaling followed each meeting. Drawings of the space were completed. The notes were observational, capturing the sights and sounds of the meeting. Informal conversations and non-verbal communication were documented in the observation notes. Notes were organized by time.

### **Reflective journal**

A reflective journal was used to take methodological, theoretical, and personal notes. Reflective journals help the researcher understand their personal bias and perceptions of the culture through writing personal thoughts regarding the field work. The reflective journal was used to reflect on my positionality, the ways in which my identities effect my biases and understanding. The reflective journal was kept separate from the observation notes and was used for personal processing and inform conversations with mentors. The reflective journal provided an opportunity to process my personal connection to rural life and specifically rural health. Also, I spent time reconciling my own past experiences with 4-H with the current study. Journaling occurred before and after time with participants. The journal also provided an opportunity to reflect on these procedures.

### **Interviews**

During the introduction, every family was asked to participate in interviews, and then were asked individually after the meeting. Participants actively recruited others in the club meeting. Having insiders help recruit for interviews made a difference and was an effective strategy. In total, interviews were conducted with 10 of the 33 members of the 4-H club with their parents, the Extension office 4-H coordinator, and the extension office 4-H agent. The group leader provided me with information through emails and the club meeting agenda.

Interviews were conducted with six families. At least one parent was present and the 4-H youth. Two families had more than one parent present, and three families had more than one 4-H youth in their family. The interviews were semi-structured and used an interview guide of eight questions (Figure 1). The semi-structured interviews with the two Research and Extension office staff were conducted together. The interview guide was specific to their roles as organizational leaders.

**Interview Guide**

Questions for families:

1. Tell me about yourself?
2. Tell me about where this group meets?
3. I am interested in knowing who is in the group and your relationship with each other?
4. How does this group fit into the town of Midwest?
5. What is the history of the group?
6. What is a typical meeting like?
7. Tell me about other people and organizations your group works with?
8. Is there anything you feel would be important for me to know that we did not discuss?

Questions for Staff:

1. Tell me about yourself?
2. When I interviewed families, the ebb and flow of leaders, both youth and adults, kept coming up. Can you tell me more about this from your perspective?
3. How do you communicate with leaders?
4. Tell me about where this group meets?
5. What is the history of the group?
6. Tell me about other people?
7. What role do health and physical activity play in 4-H?
  - a. What role do you think health and physical activity should or should not play in 4-H?
8. Is there anything you feel would be important for me to know that we did not discuss?

**Figure 4-1. Interview guide**

## **Websites and social media**

Some phone calls occurred, email was the preferred communication between participants and the researcher. Emails were filed and analyzed with the other data. Documents such as meeting agendas were collected. Finally, websites and social media pages associated with the club were examined at multiple points, including before and after the observations. The websites and social media helped provide additional information about the club events and activities outside the observations.

## **Transcription and analysis**

All interviews were audio-recorded and transcribed verbatim. Transcripts were sent to participants so changes could be made by participants if needed. Transcripts were analyzed using traditional in-vivo coding as a coding method. In-vivo coding assigns a label to a particular selection of data using a word or group of words taken directly from the data as a descriptor (Saldaña, 2015). Transcripts were read through to identify codes and then categories. Later, during subsequent readings, those examples and quotes were identified that exemplified those categories. The coding frame included exemplary quotes for the most common themes that were subsequently extracted. Throughout the process, information was cross-checked with participants. The results were communicated through narrative.

Based on analysis of data, a composite narrative with insights into the current routines and physical activity was generated and themes related to understanding the organizational structure of the Midwest 4-H Club to understand further how sustainable health-promoting changes can be made internal key players, leadership transitions, the homogeneity of this group, and relationships with other organizations.

## The report

A summary was generated from the results focusing on building on routine and organizational structure practices to improve opportunities for physical activity. During this process, focus remained on an asset-based mindset. The report is compiled on a form (Figure 2).

<p style="text-align: center;"><b>Mini-Ethnographic Case Study Report</b></p> <p>Thank you _____ for your partnership in this project.</p> <p>Reporter's name</p> <p>Reporter's contact information</p> <p>Strengths: <i>List strengths observed and generated from the interviews. Be cautious of using quotes that individuals do not want disseminated.</i></p> <p>Goal: <i>Write the goal in a succinct manor.</i></p> <p>Research components: <i>List steps taken to collect data</i></p> <p>Action items: <i>List 3-5 items based on the data that will help meet the goal.</i></p> <p>Cost: <i>Be upfront about any foreseen cost.</i></p> <p>Summary:</p>
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**Figure 4-2. Mini-ethnographic case study report format**

## **Positionality and reflexivity**

Experiences, education, biases, and assumptions are important to the credibility of the research topic, choice of methodology, interactions with participants and the way data are collected, analyzed, and interpreted.

I spent my childhood and young adulthood in central Oklahoma and spent summers with my grandparents in a small town in western Oklahoma. A nostalgia and sentimentality were present the first time I drove into town on the two-lane highway and saw the red brick courthouse and small local grocery store. Culturally understanding small town practices added to my respect for the participants and helped build rapport with the participants. Throughout this study I remained critically aware of my own subjectivity. The reflexive journal provided an opportunity to be cognizant of those feelings.

Living and raising a family in the neighboring town helped me establish connections within the town. Knowing insiders to the Midwest community facilitated recruitment of participants. My sons' biology teacher used to coach at the high school. While I had no personal connections to the participants, many of the participants work, shop, and attend events in my town.

The 4-H Research and Extension staff and 4-H families responded favorably to knowing my experiences with being a former 4-H parent, a former employee of a neighboring county Research and Extension, and being a paid judge for a neighboring county's 4-H fair for the last decade. By disclosing this to the participants and being cognizant of personal lenses, I could access and interpret the experiences of others (Fields and Kafai 2009). The positions of extension employee and parent appeared to help with rapport with participants and informed interview questions.

## Results

### History

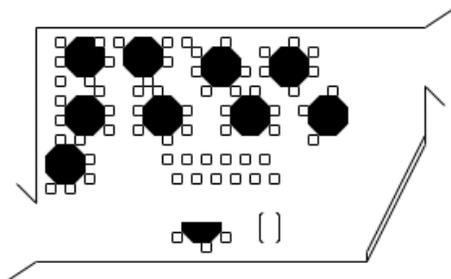
During the interviews with long-time members, a reoccurring topic was that the Midwest 4-H club used to have its own space/ meeting room. The room was used as a meeting space, but it also was the club's museum. Participants discussed that the walls housed awards, certificates, photographs, and newspaper clippings. The room was a space everyone was proud of and helped the youth understand their history. The club lost access to the room because it belonged to the school, and the school needed the space for their art program. Now the club is more nomadic, mostly meeting in the multipurpose room of the high school. One parent said that one of the artifacts on the wall of the prior space was the actual ceremonial induction certificate. He said he thinks the certificate was dated 1959 but is not for sure "since that room was taken away, we don't have that history." That certificate, along with the other historical treasures, got packed up.

The history of the current club goes back to when the now high school senior members got inducted when they were seven. A small group has stayed over the years as others have dropped out and more have joined. 4-H members can join after they turn seven and may not stay in 4-H past their 19th birthday. 4-H members are usually 2nd through 12th graders. So there is a never-ending cycle, but the oldest members tend to set the atmosphere. One mom simply answered that the club had been around "at least 15 years" based on that was the longest she personally knew a family that was involved (and her family joined after the club lost their room). Another mom said, "I don't know much about the history we have only been in 4-H for 3 years." The Midwest 4-H club is constant cycling, and the club's culture is largely based on current members and their parents.

## Schedule of meeting

The following section is a composite narrative of a Midwest 4-H Club meeting based on two observed club meetings, interviews, and the meeting agendas. Traditionally composite narratives are used in qualitative sociological research to combine the voices of several interviews into one voice to tell a story. A primary strength of composite narratives is informing future research (Willis 2018; Creese et al. 2021). We used several sources to tell the story of an event. The challenge when using a composite narrative is to convey an accurate story; however, the club tightly followed a routine, so the meetings' format was the same, but the information shared and presentations varied.

The meetings were held in the "multipurpose room" of the high school. The room was a long 50 x 30 brick room with blue trim and beams with pictures and awards from the high school, primarily sports, on the walls and nearly covering the trim. Two tables came together to form nine octagonal tables with blue plastic chairs. At the front of the room were two rows of six plastic chairs and a table with a small American flag on a stand on it. There was also an easel with a notepad. The last details made it clear this space was used often as a cafeteria. There was a MyPlate poster on the wall and a long countertop with a metal curtain behind it. The 4-H group used the countertop to line up food as members arrived. Examples of food items included gallons of milk, crackers, grapes, and homemade baked goods (See Figure 3).



**Figure 4-3. Diagram of 4-H club meeting space**

Before 7:00 P.M.

As families came in, they greeted each other, and the room was abuzz with social interaction. Both of their parents accompanied most 4-H members. When a new family arrived, the adult leader greeted them and gave them an overview of the meeting. Adults sat at the tables, and youth sat in the lined-up chairs. The adults sat in family units and shared tables with people they seemed very social and familiar with. The youth sat in groups by age and gender. For example, there was a group of fourth-grade boys that all sat together. The exception to this was siblings too young to be members, and a new member sat at the tables with parents. One youth carried in a water bottle, and several youth and adults had Dr. Pepper cans or bottles. Three teenaged officers sat at a table at the front of the room. On their table was a stack of binders and a small American flag.

7:08 P.M.

Call to order

The meeting was called to order by the President. The noisy room immediately silenced, and if anyone was milling around, they sat down.

Pledges

The group stood faced the small American flag and a youth lead the group in the Pledge of Allegiance. The group remained standing and recited the 4-H pledge. They put their hands on their heads, "I pledge my head to clearer thinking," They put their hands on their hearts, "my heart to greater loyalty," They outstretched their hands with the palm facing up, "my hands to larger service," Then their hands went behind their backs, "and my health to better living, for my club, my community, my country, and my world." The leader then prompted the group to say the 4-H motto. In unison, everyone said, "To make the best better." and sat down.

### Song

Two youth approached the front and asked the group to stand again for a song. They asked if there were any birthdays for the month, and the group sang Happy Birthday to those members.

The group sat down again.

7:11 P.M.

### Roll call

The vice president asked the group to stand when their name was called. This meeting's roll call question was, "What is your favorite school subject?" There were several members absent, but the thirteen members present as their names were called said, "lunch," "band," "ag," "math," "recess," "English," and "It has to be P.E.!" The vice president marked members present on a spreadsheet, and after the last name, she reminded the group, "During roll call, make sure you are standing and using complete sentences."

7:16 P.M.

### Visitors

The youth visiting the group was invited to the front of the room and was asked to share her name, age, and projects she was interested in joining. The whole room clapped.

7:22 P.M.

The Clover Buds, youth aged 5 and 6, were dismissed to another room with a father. Clover Buds is a pre-4-H program where the youth learn about projects, play games, and do arts and crafts.

### Reading of the minutes

The secretary read the minutes from the last meeting while a couple of members began to fidget. The secretary asked for corrections, a vote was taken to approve the minutes, and it was stated that the minutes would be published in the newspaper.

7:24 P.M.

#### Communications

The treasure gave a report of the club's finances. The historian discussed the importance of taking pictures with assistance from her mom, who spoke up from the table. At this time, the meeting for the first time was dominated by adult voices. The adult club leader shared essential upcoming action items and deadlines. The adult project leaders also made announcements about project meetings and activities.

7:29 P.M.

#### Old business

While it was a separate agenda item, old business and the adult reports ran together as people, mainly adults, got out their calendars and reviewed upcoming important dates.

7:41 P.M.

#### New business

The younger kids were fidgeting now consisted of touching each other and kicking and swinging empty bottles while the older kids whispered amongst themselves. The President tried to regain forum with a strike of her gavel and moving on to new business. As the room silences, the sounds of the Clover Buds moving around quickly and giggling can be heard are audible from the other room. A couple of kids were prompted by their parents to present on a community service project. A vote was taken to participate in the project. An upcoming carnival was

discussed. A motion was made and seconded. The President asked all in favor to stand. After a vote was taken, the members sat back down.

7:56 P.M.

The Clover Buds returned and piled onto their parents' laps.

Awards and Ribbons

Regional Club Day Winners were announced, and ribbons were handed out.

8:10 P.M.

Project talks

A goat stand and goat grooming and care items were brought to the front of the room. In the goat stand was a cardboard goat. On the easel note pad was written, "Goat Show Prep and Showmanship." Two goat project members in collared shirts explained and acted out goat care while two of the officers were there to assist them and hand them items. The project members discussed training, leading, washing, and toe trimming as their parents took photographs from the tables. The other members showed interest, but a couple also fought against wriggling and yawning. Three parents were on their phones and one was visibly playing Candy Crush.

8:25 P.M.

Meeting adjournment

A motion was made for adjournment. The motion was seconded. The President asked all in favor to put chairs back where they go.

8:27 P.M.

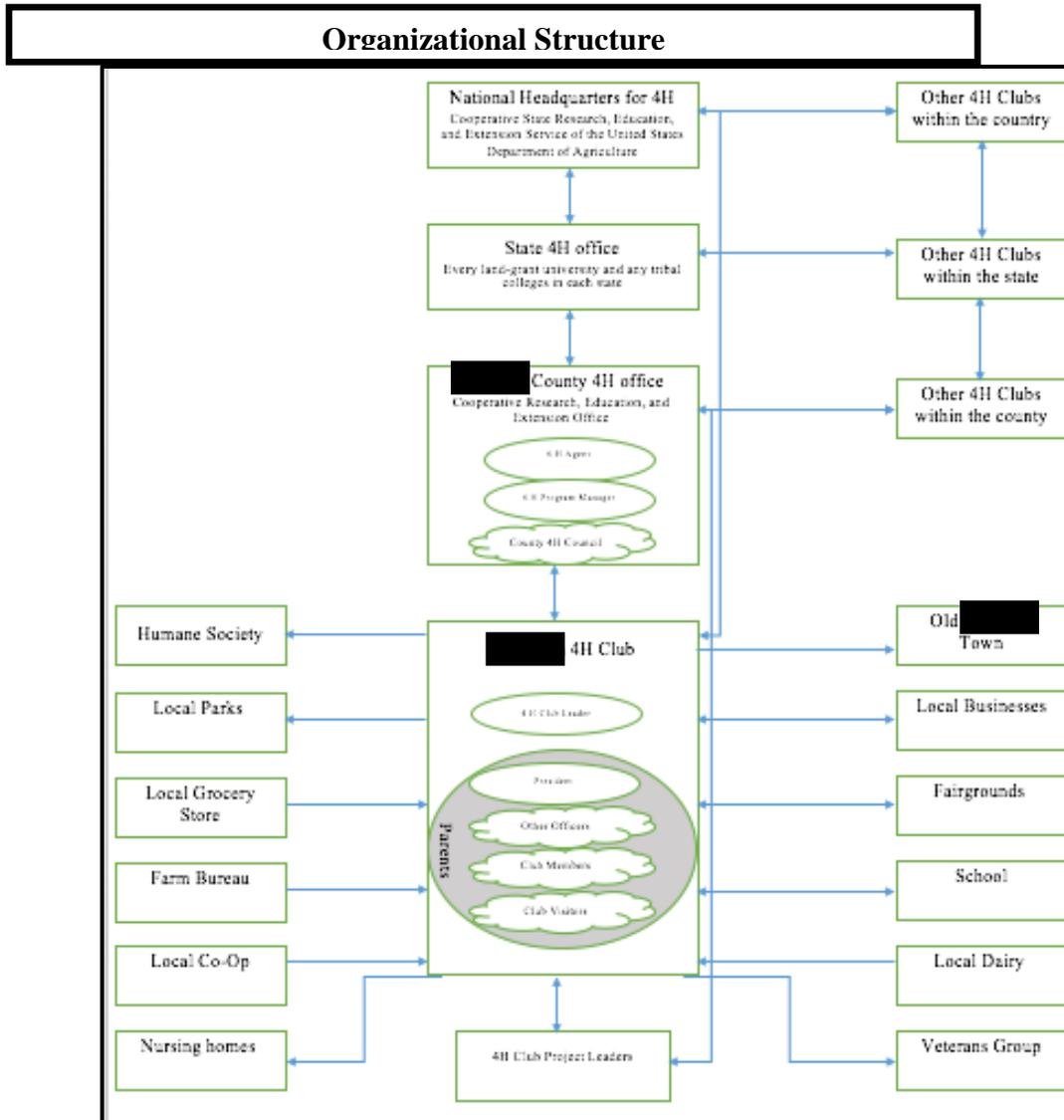
After the meeting, the members milled around and ate the snacks that were on the counter. The socialization was quieter than before the meeting as especially youth enjoyed refreshments. Families slowly left, and the space was completely cleared out by 8:30. However, in the parking

lot, teenagers loitered, elementary students ran about, and parents continued to have conversations for another 10 minutes.

The President summed it up best during her interview, "We try to run it where we have the pledge and motto. And then run through all the reports of the officers. Then we read the minutes. We have the community leader report and then we have old business, new business, project leader report, and then the program. We encourage all the kids to do a project talk at every meeting."

### **Organizational structure**

The organizational structure of the Midwest 4-H club starts with the nationally organized 4-H program where by-laws and structure are handed down; however, the club level has much leeway to put their own "local flavor" on the culture of their club. Families have a choice in the club they choose to join (they are not geographically assigned like a local school). The local clubs have relationships with outside organizations (Figure 4). These organizations influence on and are influenced by the local 4-H club.



**Figure 4-4. 4-H organizational structure**

**Internal organization**

**Projects**

In addition, to monthly club meetings, 4-H attends 4-H project meetings. These meetings occur anywhere from once a month to once a year. Project meetings are run by an adult project leader. The leader usually has expertise in the area through their own experiences with 4-H, education, and occupation. Project meetings can include members from multiple clubs in the county, especially if there is low enrollment in a project.

4-H projects include beef, bucket calf, citizenship, clothing & textiles, communications, dairy cattle, dog care & training, energy management, entomology, environmental science, family studies, fiber arts, food & nutrition, geology, dairy goat, meat goat, health and wellness, home environment, horse, leadership, performing arts, pets, photography, plant science, poultry, rabbits, reading, self-determined (which can include many areas of study), sheep, shooting sports, space tech, swine, visual arts, wildlife, and woodworking (K-State Research and Extension, n.d.). The Midwest 4-H club members are enrolled in a fraction of these projects, with most enrolled in an animal project. One family discussed their experiences with joining projects, "It took much researching what to do as far as the projects, that type of thing. 'Cause in our club, well, we have two other horse people, right? But there wasn't at the time really any cattle people in our club, so it made it kind of hard. We really had to kind of figure some things out on our own. And everybody was real helpful if we'd ask and everything. But there wasn't really a specific direction that said you need to do this, this and this, or whatever. So we ended up... We took her and her calf to several other shows."

When families are starting 4-H, they start with one project and add projects later, "To figure out the record book and everything. It's kinda overwhelming. But we did go to classes to learn about the record book in more specific detail. I'm trying to think what else. We went to a couple, like a family orientation night and different things, but yeah." According to the county 4-H website, there are no rules on how many projects a 4-Her can join but beginning members may want to limit their projects to one or two the first year, and older 4-H members should keep in mind the time commit of projects and their other school and work obligations (K-State Research and Extension, n.d.).

### ***Health and wellness***

Families reported physical activity opportunities during livestock projects. One dad recounted the first time his son baled hay he wondrously asked, "Dad, why does God make this so hard?" Other families reflected on the physical activity of working with horses, goats, and cattle.

Health and wellness is a state 4-H project offering encompassing bicycling, first aid, personal fitness, and physical outdoor activities (hiking/ backpacking). The following is the Health and Wellness project description by the state 4-H office:

*Health, exercise and recreation are vital parts of our daily lives. Youth can focus on physical activity, healthy eating, exercise, sports and recreation or first aid in relation to any of the other phases. (K-State Research and Extension, n.d.)*

However, the county 4-H program assistant reported that they had no enrollment in this project. The county agent followed up, "Again, it's somewhat the name. And so, Health and Wellness is a state name, right?... When I was a kid, it was recreation. And so, as a club project, the club I grew up in frequently took recreation as a club project." The name and lack of promotion contributed to no enrollment.

### **Relationship with the community and other organizations**

All participants in their interviews proudly discussed community service being a tenet of 4-H. The club had a solid mutual relationship with the local school system. They also all consistently named the businesses their club has a relationship with. These relationships with local businesses including having parents who provided resources from their business to the club and businesses that have a mutually beneficial relationship. Lastly, from the interviews, emerged the theme of community service as a form of physical activity.

### ***Community service***

Community service projects promote "good citizenship and leadership". The Midwest 4-H Club members reported cleaning (picking up trash and doing light landscaping) up Old Town and local parks throughout the year, caroling in the town square during the holidays, hosting a Veteran's Day breakfast, volunteering at nursing homes and the humane society, and cleaning up the fairgrounds. Community service was sometimes performed as part of a project meeting, but more often was completed as a whole club or combined effort with other clubs. One participant commented on not only the citizenship benefit but the leadership and public relations benefit, "So people notice that, even if they don't know anything else about 4-H. They notice kids out planting flowers, or cleaning up the park, or that kind of thing."

### ***The local school***

The club meets at the high school. They do not pay to rent the space, so they are occasionally displaced by a school event. The elementary through high schools are the primary way the club promotes new members. The club enters a float in the homecoming parade each year. For the positive benefits, the school offers the club completes community service projects like cleaning up the grounds. Both organizations benefit from the club's participation in the school-sponsored carnival. The club donates prizes and food and runs several of the carnival game booths the club is able to use this event to make new organizational connections and recruit new members.

### ***Local businesses***

When the club cannot meet at the school, local business, like a local dairy, offer to host the club's meeting. Many of the club's business relationships are formed because a parent or former 4-H member holds a leadership position there. This is especially true of the local farm co-

op and dairy. The Farm Bureau is a big supporter financial supporter of the livestock sale and once a year hosts an event with pizza and door prizes to celebrate the 4-H youth. The grocery store in town donates food to the club's concession stand fundraiser. The club thanks downtown businesses for their contributions to the town once a year with a cookie delivery as one parent described, "We had kids just here the other day that delivered a cookie plate. Last thing we need, but they walked doing it, and they were walking all over downtown and just thanking people for what they were doing. So you're getting some physical exercise there."

### *Service as physical activity*

The members are learning to give back to and work with their community; these relationships also help promote the club and ensure they have resources, lastly the projects are seen as health promotion of mind and body. The idea of service as physical activity came up throughout the interviews from grounds maintenance to caroling to deliveries. "Community service activities. When they're doing that they might be planting flowers, picking up sticks at the fairgrounds or in parks or the historical town down here. Just different things like that. So they are up and moving."

## **Discussion**

Assessment of health needs and assets has become the standard best practice promoted by NACCHO, AHA, and Public Health Accreditation Board in the United States (Springer and Evans, 2016; CDC, n.d.; Pennel et al., 2016; Pennel, Burdine, et al., 2017; NACCHO, n.d.). However, practitioners struggle with community collaboration, and traditional approaches ignore the system and expect interventions to work in isolation (NACCHO, n.d.). The emphasis on individual level quantitative approaches ignores the fact that an intervention is a dynamic system nested in a complex social system called a community. Health is embedded into the community.

Local conditions, community history, relationships amongst organizations, and local resources should be considered to examine the system (Trickett et al., 2011).

CHAs and, more specifically, CHNAs provide an opportunity to create sustainable change. However, the current existing practices are not providing all the information necessary and may be causing more harm and alienation of communities over time (Kirk et al., 2017). The process includes organizing the planning process and developing a partnership, but planning tools, especially those taking a systems approach, are lacking (NACCHO, n.d.). Tools that are systems based include setting identification and inquiry into settings environmental needs and assets, including policy, social/ cultural, information available and dissemination, and the physical environment (Springer and Evans, 2016).

In their community health assessment, the International Society for Physical Activity and Health recommends the following steps: reflect and strategize; identify and engage stakeholders; define the community; collect and analyze data; prioritize community health issues; document and communicate results; plan implementation strategies, and evaluate progress (ISPAH, n.d.). However, hospitals and public health professionals fail to accomplish these steps and, more importantly, create sustainable change because they look at an incomplete picture. Qualitative methods provide an opportunity to empower the community, examine the culture, and explore phenomenon on a deeper level (Kirk et al., 2017; Trickett et al., 2011).

### **Mini-ethnographic case study report**

Specifically, mini-ethnographic case study methods inform the process of a mini-ethnographic case study report. A Mini-ethnographic case study is a design that can be conducted inexpensively in a reasonable amount of time, making it a good choice for conducting community research. Currently qualitative methods are primarily being used by consultants to

assess interventions as opposed to assess the community to inform interventions (Gruber et al., 2019; Pennel et al., 2015). Mini-ethnographic case studies are a tool combining observation and interview that local health professionals can use with limited resources to understand their community's needs and assets. A mini-ethnographic case study report facilitates the communication of asset-based, setting-level, cultural data.

A mini-ethnographic case study report protocol consists of selecting a setting, making contacts, observations, interviews, reviewing additional sources, transcription, analysis, and writing a report. The phases for the protocol are described in Table 1.

<b>Mini-Ethnographic Case Study Report Protocol</b>	
<b>Phase</b>	<b>Key Points</b>
<b>Selecting a setting</b>	Identify a geographically bound location with a manageable number of participants and one clear place those participants go to (i.e., a single school).  The setting should be meaningful and feasible.
<b>Making contacts</b>	Identify cultural insiders to facilitate initial interactions between researchers and participants.  Make participants research partners.
<b>Observations</b>	If participants are comfortable with it, use recording devices.  The use of both field notes and a reflective journal will enhance data collection.

<b>Interviews</b>	<p>If participants are comfortable with it, use recording devices.</p> <p>A diverse group of interviewees will enhance the data.</p> <p>Create an interview guide.</p>
<b>Websites and social media</b>	<p>Use websites to collect initial information.</p> <p>Websites and social media can help triangulate data.</p>
<b>Transcripts and analysis</b>	<p>Audio-record interviews and transcribe word for word. If possible, video record to capture non-verbal communication.</p> <p>Send transcripts to participants to read and make changes.</p> <p>Situate findings in the history of the community.</p>
<b>The Report</b>	<p>Be cautious using quotes that would be identifiable.</p> <p>The report is the communication of the results and a discussion about opportunities for incremental change.</p>

**Table 4-1. Mini-ethnographic case study protocol**

Focus groups are within the mini-ethnographic case study methods; however, they were not used in this study. Disadvantages to focus groups include group think and group dynamics controlling the information being shared (Sim and Waterfield, 2019). Identifying the organizational structure including the dynamics is key outcome. Participants may not be as forthcoming while participating in a focus group with other members of the organization. There was more confidence in the consistency of the club meetings because many of the interviewees

separately shared consistent information. Interviews allow for more open and honest discord about internal and external organizational relationships. Interviews also allow the opportunity to understand if there are consistent understandings of routine and organizational structure.

### **Writing the report**

The report consists of general information and six sections. The first item on the report is a modifiable statement, "Thank you (name of organizations) for your partnership in this project." Instead of simply listing the organization's name, this line allows thanking the group for their partnership. The reporter should then provide contact information. The strengths section should include three to five strengths generated from the interviews, and observations are highlighted. The second section is an opportunity to write the goal of the mini-ethnographic case study. The third section, research components, is a place to list the steps of data collection and data analysis. The fourth step, action items, lists three-five action items further discussed in the last section, summary, to help the group meet their goal. If there are any costs (financial, time) to the action items, they are listed under the fifth section, costs. Finally, a summary no longer than three pages should be attached that provides more detailed information about the action items. The report is the communication of the results and a discussion about opportunities for incremental change.

A report for the Midwest 4-H Club was completed (Figure 5). Midwest 4-H club has opportunities for physical activity built into their current routines and organizational structure. The assets that the club is the club's current pledge and motto, club practices, and project format and options. Also, the support of the nation and state offices and local businesses and groups.

The local club is in an excellent position to increase physical activity opportunities increasing the likelihood that youth in their organization will meet the 2018 Physical Activity

Guidelines for Americans guidelines of at least sixty minutes of moderate to vigorous physical activity per day (Piercy et al., 2018).

Other researchers have identified 4-H as a place to increase physical activity opportunities for rural youth. As we found, other researchers have noted the popularity and infrastructure 4-H provides to increase physical activity for rural youth (Walia and Leipert, 2012; Paxton et al., 2004; Balis and Harden, 2019). Additionally, Walia and Leipert (2012) noted that 4-H clubs were a great place to provide rural youth with physical activity because of the resources to facilitate outdoor adventure and the opportunities to share physical activity with positive volunteer and family role models.

### **Strengths and limitations**

This study is focuses on one setting. The singular setting brings generalizability into question. However, we were able to demonstrate that routine and organizational structure data could be collected in a couple of months to devise a plan of action for increasing physical activity. Also, we were able to contribute to the body of rural 4-H club physical activity literature by documenting the routines and organizational structure of this specific 4-H Club. Future studies should reproduce this protocol in other settings.

Traditionally, ethnography studies require at least 18 months and can include years of data collection, and case studies tend to have a level of detail novice researchers find overwhelming. While using mini-ethnographic case study methods was a pragmatic decision, the fear was it would limit the quality of the study. However, it became a strength to illustrate the feasibility for communities to use it as a model for collecting their data. By having a method bound by time and space, community researchers assess an environment in a reasonable amount of time to understand the assets of their community to complement a needs assessment.

Representation is a strength of using mini-ethnographic case study methods. The goal of this study was not just to get data from the outspoken members of the organization. The county 4-H agent is undeniably what a coalition would describe as a “key player”. During his interview, he said, "Hopefully, recreation is happening, where they're doing that at each club meeting." Traditionally, this quote is incorporated into a report that 4-H Club Meetings include recreation; however, the addition of the family interviews and the observations revealed recreation was not occurring at the club meetings.

Studying a community as an outsider creates limitations of access and ethics. To limit the effects, I used journaling to be reflexive throughout the process and not place my subjectivities on the community. Triangulation of data and member checking also were used to reduce the effects of subjectivities. Another strategy utilized was working directly with community insiders at the Cooperative Extension office.

The adult leader of the 4-H club was resistance to being part of this study. She was very suspicious of any recording devices being present. She voiced concerns about the use of recording devices. I agreed not to record the meetings in any way, which put extra pressure on me to generate thorough field notes. Her reluctance limited the observations and may have also limited the number of interviews completed. The club met at the local dairy and she denied access to that meeting. The enthusiasm from the extension staff and others in the group helped mitigate her limiting of access.

Some of the most significant barriers to building rapport faced were education level and not being a Midwest resident. While building rapport with the 4-H members and their families, it was common to exchange pleasantries with members of the group before and after meetings.

These relationships made it natural to member check and ask for clarifications with ease throughout the process.

## **Conclusion**

This study utilizes mini-ethnographic case study methods as one effective strategy to community collaboration approaches to community health assessments. Mini-ethnographic case study methods were used to assess the current routines and organizational structure of the Midwest 4-H Club. Mini-ethnographic case studies provide a way to study culture while benefitting from the reasonable timeframe and minimal costs of a case study. This study has described community leader-friendly protocols for writing a mini-ethnographic case study report and featured a report for the Midwest 4-H Club. The protocols of using mini-ethnographic case study methods to examine routine and organizational structure include: selecting a setting, making contacts, observations, interviews, reviewing additional sources, transcription, analysis, and writing a report. Future steps include examining the use of these procedures on whole-of-community population health intervention implementation and effectiveness.

## **Mini-Ethnographic Case Study Report**

Thank you, [REDACTED], for your partnership in this project.

Carrie Mershon  
[cmershon@ksu.edu](mailto:cmershon@ksu.edu)

### **Strengths:**

- Health is a central aspect of the culture as reflected in the 4-H pledge
- Routines are very well established and predictable even with the transitions of members
- Positive routine events are occurring like standing for certain procedures, including to address the group even for roll call or to denote a vote
- Animal projects including physical activity as a "natural piece of the program"

### **Goal:**

To increase healthy outcomes, primarily around physical activity.

Research components:

- Website analysis
- Observations (1/2019, 3/2019)
- Interviews

Action items:

- Create opportunities for physical activity during the meetings
  - Active participation
  - Adding a recreation leader and recreation to every meeting
- Development and promotion of a county health and wellness project

Projected Cost:

- \$0

Summary:

#### **4-Hs**

4-H stands for: Head, Heart, Hands, and Health.

The club is wearing T-shirts promoting health and pledging their "health to better living." The culture of health already exists in this group and yet there are more opportunities to promote health for "[their] club, [their] community, [their] country, and [their] world. Also, there is an openness to change and improvement as articulated in the 4-H motto, "To make the best better!"

The national, state, and county 4-H offices promote health as a part of regular meetings and projects as evidenced by the existence of recreational officers and the health and wellness project.

#### **Inserting PA into routines**

In addition to the culture of the 4-H club, the routines are very well established and predictable even with the transitions of members. Throughout the interviews, participants from 2nd grade through adulthood consistently listed the events of a Midwest Club meeting in the same order. These events were also observed exactly how they were described by the members and parents. Within the current routine, positive things were occurring like standing for certain procedures, including to address the group even for roll call or to denote a vote. Increasing

opportunities to stand would be a subtle change that would not only give an opportunity for movement but may reduce the feet shuffling and off task movements observed during the meeting.

A potentially significant opportunity for change would be adding a recreation leader to facilitate games before, during, and/ or after the meeting. The 4-H agent has the relationship and standing in the group to promote this change to the club leader and club youth officers. During his interview he said, "I think that whole social aspect of the club meeting, recreation, song, pledges, refreshments, that whole aspect should be about a third of the meeting. So in an hour-long meeting, that should be 20 minutes, all of those components. So yeah, 10 minutes of recreation is probably a pretty good goal, I would say. And I would agree, that that is... We try to emphasize all pieces of the club meeting, and they choose to implement that however... That's our motto, or our slogan." The club members consistently did not mention recreation in their interviews and when directly asked, weren't aware that recreation officers lead recreation activities in other clubs. This addition is an incremental opportunity for physical activity. Culturally, it is an opportunity to move physical activity to the forefront, paving the way for increased interest in physical activity during project meetings.

### **Health Project**

Livestock projects are by far the most popular projects chosen by the Midwest 4-H Club, and while the clubs do not focus on physical activity, all interviewed point out the physical activity opportunities they present. The county 4-H agent illustrated this, "I would say that we're not purposeful in that, as [county 4-H program assistant] alluded to. We don't really emphasize it, but I think it's just a natural piece of the program." Animal projects including physical activity as a "natural piece of the program" is a positive but to build on that encouraging the Health and Wellness project, a project devoted to explicitly teaching about and promoting health behaviors could provide additional opportunities.

In addition to the club not having a Health and Wellness project leader or any of the members interviewed knowing it was an available project, other limitation to the Health and Wellness project according to the County 4-H staff are the name change in the last couple decades and that while the other projects have hands-on products to display at the county and state fairs the Health and Wellness project is a poster display. Even with these limitations, the 4-H program assistant said, "I think it's a project that could take off with the right volunteer leadership. But it's like in any project. The ebb and flow, if you don't have the right leadership, or the right, fair atmosphere, or a fair display, or something like that, then it's not well-known." She went on to say, "And we don't emphasize club projects as much now, and when I was in 4-H Health and Safety, I don't know whether they told you that, were required projects. You sign up, Health and Safety were on everybody's list. Her belief that promotion, visibility, and identifying a strong and influential leader was a way to encourage the Health and Wellness project was insightful. The project would also present at at least one club a meeting exposing and influencing all of the club members to increased opportunities for physical activity

**Figure 4-5. Completed mini-ethnographic case study report**

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## **Dissertation Conclusion**

The purpose of this dissertation was to examine the utility of qualitative methods as tools to improve communities' ability to investigate and plan for interventions targeting positive changes to whole-of-community population health. Throughout this dissertation, qualitative methodologies were incorporated into a blending of social ecological systems, population health community improvement, and physical activity behavioral science literature. The merging of this academic literature was a strategic decision to solve the problem of a lack of leader-friendly community health assessment (CHA) tools.

Chapter two incorporated scoping review methods to review terms used in community group collaborations. Scoping reviews have the benefits of inductive inquiry and using literature outside of peer-reviewed published articles. Inductive inquiry allowed for the evolution of terms studied. Terms were not presumed but were systematically identified. The literature generated by communities was examined alongside peer-reviewed articles to understand the grassroots efforts and academic efforts. I assessed terms for community group identification based on popularity, context, and etymology. In terms of popularity, partnership was the most referenced term. However, in context, partnership was often used in conjunction with the other terms. The most pronounced distinction between partnership, collaboration, and coalition are the terms' context and etymology. While partnership, collaborations (collaboratives), or coalition may best describe how a specific community group working on health outcomes may function conceptually, they are the same. Population health researchers are using all of them to describe community groups. Similarly, multi-sector and multi-organization are words that technically have two separate yet nested meanings. However, they are being used synonymously in population health

communication. These terms are falling victim to the jangle fallacy. The danger in the jangle fallacy is that it could prevent researchers from communicating findings.

In Chapter three, photovoice methods were used to map youth physical activity settings. Photovoice is a qualitative method used to study settings in physical activity literature. Photovoice researchers have focused on identifying the barriers and strengths of the built environment. Fourth, fifth, and sixth graders from six Physical Education classes from a rural elementary school participated. The photovoice procedures included: selecting a setting, a learning activity, focus groups, transcription, analysis, and culturally contextualizing the findings. Four categories of organizational setting were significant to the participants: organized sport, 4-H and scouting organizations, school, and church. Finally, hunting and shooting sports in home settings and organized settings emerged as significant to rural youth. These settings were compared to physical activity settings of elementary-aged youth in the same town in the 1950s. The level of data provided by Barker and the current research confirms that the settings still exist but do not provide insight into how the culture and structure of those settings have morphed over time. Photovoice methods provided an effective and efficient way to engage elementary-aged youth in mapping youth physical behavior settings.

In Chapter four, mini-ethnographic case study methods were utilized in an in-depth cultural study of the routines and organizational structure of the 4-H club. The local 4-H Club was one of the settings identified using photovoice by the participants in Chapter three. The protocols used to examine routine and organizational structure include: selecting a setting, making contacts, observations, interviews, reviewing additional sources, transcription, analysis, and writing a report. A mini-ethnographic case study assessment of a rural 4-H club results uncovered existing but neglected strengths and opportunities to increase physical activity.

Strengths included a value of health (i.e., health is in the 4-H pledge), active responses are built into existing routines (i.e., standing during role call and voting), and animal projects include physical activity. Action items to increase opportunities for physical activity included more active responses and movement during the meetings, electing a recreation leader to lead recreation time before or after each meeting, and promoting a health and wellness project. A Mini-ethnographic case study is a design that can be conducted inexpensively in a reasonable amount of time, making it a good choice for conducting community research. Mini-ethnographic case study methods were expanded upon to create a mini-ethnographic case study report, a document a community health practitioner could use as part of a CHA.

The future steps for this line of research are to train community leaders on incorporating photovoice and mini-ethnographic case study report protocols into their communities' community health assessments. The additions of these protocols provide methods to identify settings and the structure of those settings. The protocols add easy to follow and quick to implement qualitative methods to existing practices. Lastly, the protocols are written to document a community's unique and dynamic qualities. As this research continues, I am excited to explore the effectiveness of these protocols on strategic planning, specifically on incremental changes to existing settings and sustainability.

The hybrid approach to this dissertation consisting of qualitative methodologies being applied based on social ecological systems, population health community improvement, and physical activity behavioral science literature posed both benefits and challenges. The benefits were studying several disciplines and taking a "best-of" approach to search for solutions. The challenges were in the initial justification of a novel approach. Traditional individual health strategies have led to siloed approaches, alienation of community members, and unsustainable

outcomes. Solutions to addressing a community as a dynamic system were found in community psychology, specifically behavior settings and historical perspective.

The theoretical concept of behavior settings, from the field of community psychology informed a systems-level approach. A behavior setting is a theoretical concept explaining that a social and physical environment is a system with individual behaviors nested within. For example, the chairs in a classroom communicate that the acceptable behavior is to sit. Identification of existing settings and their structure and routines provides an opportunity to make strategic changes. Qualitative methods allow a researcher to identify and study behavior settings without making outsider assumptions or limiting community members' responses.

Another asset within a dynamic community social structure revealed through a historical lens. History has been overlooked in community improvement; however, examining the history of a community allows trends to be understood and informs how stable a practice or belief is in a community. In Midwest, Kansas, most physical activity settings dated back at least seven decades. Qualitative methods are a way to access history that is inaccessible to outsiders. This dissertation benefitted from published data and interviews and focus groups with townspeople. In most cases, towns do not have published data from ecological labs in operation for thirty years, making the words of the community members that much more critical.

This dissertation is qualitative, and yet it lacks many of the hallmarks of a traditional qualitative dissertation. For example, blending the studies with health promotion and physical activity behavioral science practices resulted in headings that called for thoughtful communication choices. In qualitative research, narrative often blurs the lines between introduction, methods, results, and discussion; however, maintaining borders to those sections was important to communicating to an applied health audience. The epistemology of realism and

the theoretical perspectives of critical realism, structuration, and life course informed this dissertation, and yet I decided to focus on the methodology and methods. This decision to modify traditionally qualitative communication came about knowing the audience were positivists who had never questioned their epistemology, so a conversation about epistemology and theoretical perspective would muddle communication, not, as it does in qualitative communication, grounded it.

From a Kinesiology natural science method perspective, this dissertation lacks a hypothesis, testing that hypothesis, and a thorough comparison of existing literature. This dissertation sought to investigate the settings and history of a community to provide data for strategic community health improvement instead of investigating physical activity levels, applying an intervention, and evaluating changes to physical activity levels. This juxtaposition of purpose created a barrier; however, the two approaches have the same goal and overarching question. The challenge of communication is a persistent issue without a fully satisfying solution; however, while the approach will benefit from some refinement, the simplified communication of methods as tools may improve health promotion and strategic planning in health improvement from a systems-based approach.

In conclusion, this dissertation fits into a larger effort to improve community health through systems-based processes. I clarified terms representing a group of agencies working together to achieve population health improvement by analyzing the variability of terms used in the current literature. I suggested the term *community group collaborative* and defined the components to improve the efficiency and effectiveness of population health improvement. I also developed and implemented two community health assessment protocols designed to map youth activity settings then examine the settings' routines and organizational structures. These two

protocols are designed to complement a wide range of data collection methods for community health assessments. All three studies provide solutions to amplify the sustainability of health improvement strategies by taking a system-based approach focusing on the assets of history and settings.

## Appendix A - Photovoice lesson plan

<b>Lesson Title: Photovoice: Identifying my Physical Activity Places</b>	
<b>Content Standard</b>  <b>Alignment:</b>	<p>Standard 3: The student participates regularly in physical activity.</p> <p>Standard 5: The student exhibits responsible personal and social behavior that respects self and others in physical activity setting.</p> <p>Standard 6: The student values physical activity for health, enjoyment, challenge, self-expression, and/or social interaction.</p>
<p><b>Lesson Objectives/Instructional Outcomes:</b> <i>(Framework Domain 1c: Setting Instructional Goals)</i></p> <p>Photovoice is a technique where students can increase their value, awareness, and communication regarding physical activity. In addition to understanding if/ how they are meeting physical activity guidelines, this photovoice lesson strengthens students’ positive relationships with physical activity and the community, develops family-community dialogue, gives participants a “voice”, facilitates awareness of physical activity places, stimulates creativity, and improves self-efficacy.</p>	
<p><b>Relationship to Unit Structure:</b> <i>(Framework Domain 1e: Designing Coherent Instruction)</i></p> <p>NA</p>	
<p><b>Instructional Materials/Resources:</b> <i>(Framework Domain 1d: Demonstrating Knowledge of Resources)</i></p> <p>IPods</p> <p>Sports equipment</p>	
<p><b>Methods and Instructional Strategies</b></p> <p><i>(Framework Domain 1a: Demonstrating Knowledge of Content and Pedagogy)</i></p>	
<p><b>Anticipated Student Misconceptions:</b></p> <p>Places to be physically active only include gyms or fields.</p>	
<p><b>Concept Prerequisites:</b></p> <p>The students should be aware of the PA recommendation of 60 minutes of physical activity each day.</p> <p>PA can be a lot of different activities.</p>	
<b>Introduction-</b>	

<p><b>Anticipatory Set:</b></p> <p><b>10 min:</b> Introduce myself and the project. Warm-up activity to get started thinking about physical activity in their lives. Form a circle. Act out your favorite physical activity.</p> <p>One at a time tell: Your name; the group will guess your activity; and the place you like to do that activity.</p>	
<p><b>Instructional Activities:</b></p> <p>Includes questioning techniques, grouping strategies, pedagogical approaches.</p>	<p>Introduce the project, survey the group about technology they use, and introduce iPods.</p> <p><b>10 min:</b> Picture Etiquette: Explain that this activity helps kids to identify their roles as photographers in their community. Teach these three principles: be respectful of the community, make sure they're safe, and get permission from people they want to photograph. Tell kids that being a responsible photographer means that you know when to take photos and when not to take them. This is called ethics. Explain each rule briefly and ask the kids if they have other rules they want to add to the list.</p> <p><b>1. 15 min</b> Profile Portraits: Help the kids feel comfortable behind and in front of the camera by having them practice physical activity photography. Break groups into pairs. One person will be the photographer, the other the subject. The photographer will take three photos physical activity photos of the subject. Then the students will switch roles.</p> <p><b>Time Permitting:</b> Photowalk: The group will walk with adults in a specified area (playground) on a Photo Walk to take photos of places where they are physical active.</p> <p>Ask the kids to take at least 3 photos to answer the question while on their walk: Where are kids being physically active or where do you like to be physically active?</p>
<p><b>Wrap Up-Synthesis/Closure:</b></p>	<p>Share photos and brainstorm ideas of places.</p>
<p><b>Differentiation According to Student Needs:</b> (Framework Domain</p>	

<p><i>1b: Demonstrating Knowledge of Students)</i></p> <p>Address diverse student needs including students with an IEP or 504, cultural linguistic needs.</p>	
<p><b>Assessment (Formative and Summative):</b> <i>(Framework Domain 1f: Assessing Student Learning)</i></p> <p>Two weeks later, the students will share their pictures and tell their stories of where and how they are physically active throughout the week.</p>	