The Health Educator's Role in the Implementation of Community Transformation Work in Rural Illinois

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This dissertation is dedicated to my husband, Larry, and my two daughters, Payton and Maya. Without their love and support, this work would not have been possible. I hope my work can inspire my daughters to be future leaders of change for the good of people and communities.

I also dedicate this dissertation to my parents, Edward and Patricia. I know that they would have been so proud of this accomplishment. They gave me the solid foundation I needed to get here.

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LIST OF ABBREVIATIONS

AAHE	American Association of Health Education
ASPPH	Association of Schools and Programs of Public Health
CDC	Centers for Disease Control and Prevention
CHES	Certified Health Education Specialist
CPPW	Communities Putting Prevention to Work
CTW	Community Transformation Work
FTE	Full Time Employee
IDPH	Illinois Department of Public Health
IPHA	Illinois Public Health Association
IPLAN	Illinois Project for Local Needs Assessment
IRB	Institutional Review Board
LHD	Local Health Department
MCHES	Master Certified Health Education Specialist
MPH	Masters in Public Health
NACCHO	National Association of County and City Health Officials
NCHEC	National Commission for Health Education Credentialing
NPS	National Prevention Strategy
ACA	Patient Protection and Affordable Care Act
PSE	Policy, Systems, and Environmental
SOPHE	Society of Public Health Educators
WCH	We Choose Health
WHO	World Health Organization

Summary

According to the Centers for Disease Control and Prevention (CDC) (2012), "chronic diseases – such as heart disease, stroke, cancer, diabetes, and arthritis – are among the most common, costly, and preventable of all health problems in the U.S" (p. 1). Rural communities have seen even higher rates of chronic disease and are faced with unique challenges related to their environments. Increasingly, activities to address chronic disease are focused on community transformation and are aimed at the complex interaction between individuals, communities, and environments in a social-ecological approach to health education. Community transformation work (CTW) is defined as implementing strategies that modify the environment to make healthy choices practical and available to all community members through policy, system, and environmental changes. These activities are evident by movements such as the National Prevention Strategy (NPS) and CDC's Healthy Communities Initiative. Some rural local health departments (LHDs) have received funding for CTW, but it was unclear how implementation was occurring and who at the LHD was leading implementation efforts. This study utilized a qualitative exploratory multiple case study approach to understand the roles of health education and health educators in CTW in rural Illinois.

It was found that health educators are leading CTW at rural LHDs. CTW is a shift from the traditional individual based health education work they have done in the past, but falls in line with the seven areas of responsibility for health education specialists. The focus now with CTW is on organizations and broader community change, rather than individual change. This shift towards a more policy focus in health education is also evident in rural LHDs because that is what new grants are calling for, but not all the health educators felt ready or prepared to do this work. However, because of their diverse set of skills, traits, knowledge, and experience working

in the community, they were able to rise to the occasion. More training and education in health policy and leadership in health education and promotion preparation programs may be a solution to getting practitioners better prepared to do CTW. Key leadership skills and traits are needed by practitioners to carry out CTW, including flexibility, a strong passion for this work, and interest in helping their communities be healthy. LHDs consider a thorough knowledge and understanding of the community and close collaboration with community partners to be the most important assets for successful CTW in a rural setting. More training and attention should be given to developing partners and coalitions to support rural LHD CTW.

The issue of resources, specifically funding to support staff time, continues to be an issue and is nothing new to rural LHDs. While the leadership role of health education in the context of implementing CTW at rural LHDs is valued, their day-to-day efforts are not always sustainable. Extramural funding most often pays for this work. Without stable funding, the episodic nature of their work may continue, which in turn, may undermine efforts to reduce chronic disease. Rural LHDs may benefit from a regional approach to CTW to ensure sustained funding and resources. In addition, changes at the state or national level could be made to create a more sustainable, fluid approach to funding health education and promotion, which are at the core of CTW.

I. BACKGROUND AND PROBLEM STATEMENT

A. Background and Context

According to the Centers for Disease Control and Prevention (CDC), chronic diseases – such as heart disease, stroke, cancer, diabetes, and arthritis – are among the most common, costly, and preventable of all health problems in the U.S. (CDC, 2012). They account for at least 70% of deaths in the United States. Rural communities have seen even higher rates of chronic disease and are faced with unique challenges related to their environment. Rural residence in the U.S. is linked to increased risk of type 2 diabetes, obesity, poor oral health, suicide, and tobacco use (Gamm, Hutchison, Bellamy, & Dabney, 2002). The physical arrangement of the rural environment is more spread out and often isolated, making access to services and healthy living options difficult. In addition, rural communities are faced with an aging population, lower socioeconomic status, and higher concentrations of ethnic and racial minorities, which puts them at risk for negative health outcomes (Crosby, Wendel, Vanderpool, & Casey, 2012).

With decades of research, public health has made strides in developing interventions to reduce chronic disease by changing social, economic, and cultural landscapes, yet the problems still persist (Rivera & Birnbaum, 2010). Increasingly, activities to address chronic disease are focused on the complex interaction between individuals, communities, and environments in a social-ecological approach to health education (McLeroy, Bibeau, Steckler, & Glanz, 1988; Stokols, 1992; Stokols, 1996). These activities are evident in movements such as the National Prevention Strategy (NPS) and CDC's Healthy Communities Initiative. These movements aim to reduce the leading causes of death and disability through policy, program, and evidence-based systems approaches for improving health and wellness (National Prevention Council, 2012). Social-ecological approaches recognize that risk factors such as lack of physical activity, poor

diet, alcohol abuse, and tobacco use that contribute to the development of chronic diseases are outcomes of a complex social system (Flaman, Plotnikoff, Nykiforuk, & Raine,2011; Rivera & Birnbaum, 2010). Social-ecological models have long been recommended to guide public health practice (McLeroy, et al., 1988). However, it is unclear how much such recommendations have been utilized and implemented in health education practice. (Lieberman, Golden, & Earp, 2013).

National strategies such as the NPS call for an increased recognition of the advantages of using a policy, systems, and environmental approach (PSE) in conjunction with individual-based strategies in efforts to improve community health and individual outcomes; evidence shows that individual-based strategies alone have not succeeded in decreasing the burden of chronic disease (Fielding, 2013). Community transformation work (CTW) is defined as implementing strategies that modify the environment to make healthy choices practical and available to all community members through PSE changes. PSE change is rooted in the public health population approach to prevention and community health improvement. Policy change refers to a rule, guideline, agreement, instruction, statement, or course of action that is designed to influence or determine other decisions, actions, or behaviors, over time to achieve a desired outcome or goal. Examples in this context include the passage of a state law that requires a minimum number minutes of daily physical education in public schools or banning the use of trans fats in foods. Systems interventions are changes that impact all elements of an organization, institution, or system (Anderson, Scrimshaw, Fullilove, & Fielding, 2003). This could include a shift in the way that an institution or a community makes decisions about policies, programs, and the allocation of its resources. Environmental changes are those made to the physical environment such as installing bike signage or making roads and streets more accessible to walking or biking.

Frieden (2010), proposes a 5-tier pyramid to describe the level of impact of different types of public health interventions and provide a framework for how to think about PSE change in the context of community health improvement (see page 33). To maximize impact, a focus must be towards changing the context with strategies designed to make individual default decisions healthy or making the healthy choice the easy choice. These are exactly the types of outcomes that are the focus of policy, systems and environmental change.

Creating infrastructures to make the healthy choices possible is likely to make a significant difference in health outcomes in rural areas (Barnidge, et al., 2013). However, much of the evidence to date on environmental and policy change related to physical activity and healthy eating comes from suburban and urban areas. More studies concerning how this work is being implemented in rural areas with emphasis on understanding barriers and facilitators are needed. To date, most rural health studies have focused on health service access, rather than population-based prevention strategies. This may be because the primary emphasis in rural areas has been on clinical care and access to services and creating policies in these areas (Hartely, 2004). Yet, many of the major public health problems faced in rural areas, as noted above, are not likely to respond to increased access to clinical care. Phillips and McLeroy (2003), suggest that rather than focus on clinical access there is a need for a population based focus to address major chronic disease issues in rural communities. A survey by Gamm , Hutchinson, Dabney, and Dorsey (2003) may point to a change in focus in rural areas with respondents ranking chronic diseases such as diabetes, mental health, oral health, and tobacco use as serious and priority concerns. It is unclear how rural communities, including rural local health departments (LHDs), are addressing chronic disease apart from clinical care. The case for how population-

based policy work as employed through CTW is implemented in rural areas needs further exploration.

As community needs are changing, there are increasing calls for a shift in priorities, and the role of public health practitioners is evolving. According to Woodard (2004), "there is evidence that both practitioners and organizations are questioning what their role is in fostering and doing effective health education, and what conditions are necessary to do so" (p.1) . Effective dissemination for evidence-based approaches to health education and promotion and disease prevention are essential to combat the significant economic, social and illness burden of chronic disease (Robinson, Driedger, Elliott, & Eyles,2006). For replication purposes, it is important not only to understand if the outcomes were achieved, but what strategies were used to achieve success. PSE change is often lumped together as a strategy focus, but it does, in fact, refer to many types of interventions. The level at which policy versus system change versus environmental change are successfully implemented may vary due to local conditions as well as the capability and experience of the practitioners involved in the effort. However, much of the literature is focused on outcomes, with little emphasis on how an approach was implemented and why a program was or was not successful (Saunders, Evans, Joshi, 2005).

At this time, funding streams from the national movements are supporting work at the local and state level. LHDs are being provided this funding to lead this work with community partners and coalitions. While the evidence based strategies have been laid out, it is not clear how LHDs are implementing this work, who is leading the implementation, and what factors influence implementation at this level.

In concert with this call for community transformation through PSE change, there is also a call for increasing the capacity of the public health workforce to do this work. Decreased

funding and resources for public health increases the demands on the existing workforce and requires capacity building and mobilization efforts (Barry, 2008). With national and state funding for CTW, LHDs have the potential to play a major role in alleviating the burden of chronic disease; however, these additional responsibilities require changes in infrastructure, priorities, and competency. Taken together, reduced resources, competing priorities and long-standing workforce issues are putting a tremendous amount of pressure on LHDs (Prentice & Flores, 2007). According to Maylahn, Fleming, and Birkhead (2013):

> The number of people at risk for chronic diseases is increasing, and methods for reducing risk and promoting health are becoming more complex. Demands of changing political and social environments, as well as economic and demographic trends, are forcing state and LHDs to reassess what is most important and make judicious resource allocation choices that will yield the greatest gains. Health departments cannot afford to squander time and resources on ineffective programs and policies; to maintain their relevance, they must adopt a public health agenda that is responsive to community needs and grounded in science (p. 1).

Some state and LHDs have received prevention funding through Community Transformation Grants from the CDC to address population-based chronic disease strategies with community-based coalitions. However, it has been found that many LHDs often do not have a well-developed infrastructure to address chronic disease at the population level (Prentice & Flores, 2007). Thus, it is unclear how prepared LHDs are for this work and how this work is actually getting done. They go on to point out that a major factor that has been essential to build chronic disease prevention capacity at LHDs is committed leadership (Prentice & Flores, 2007).

At a LHD, population-based the health educator is often responsible for primary prevention efforts. At the local level, health educators have the potential to lead change in this area by the resurgence of the social-ecological model through PSE change and the availability of new prevention funding streams at the national and state level. According to the American Association for Health Education (AAHE) (2012), health education and promotion is defined as, "any planned combination of educational, political, environmental, regulatory, or organizational mechanism that support actions and conditions of living conductive to the health of individuals, groups, and communities" (p. 19). The World Health Organization (WHO) expanded this definition to include the concepts of enabling people and communities to increase control over the social and environmental determinants of health that influence health choices and impact health outcomes (WHO, 2009). In the simplest terms, health educators help people and communities to improve their health and increase their control over health outcomes. It is a multidisciplinary field in which responsibilities vary from providing face-to-face education to individuals to developing and working with community partners on strategic policies for health education.

For many years, health education programs have focused on individual behavior change, assuming that if you teach people what will make them healthy, they will be able to do it. Being healthy is not just shaped by individual choices but is also shaped by the policies and environments around individuals (Cook County Communities Putting Prevention to Work (CPPW), 2010; Green & Krueter, 1990). Health educators have done well addressing individual and group behavior change, but health education practice is changing in response to emerging research that calls for a focus on strategies to address the underlying determinants of health (Fielding, 2013). CTW is an example of such a strategy. Public health educators are uniquely

positioned to undertake and lead these strategies because of their understanding and specialization in changing health behavior (Lieberman, et al., 2013). However, it is unclear if they are prepared for this new challenge and focus.

B. Problem Statement

CTW has emerged as a promising strategy to reduce chronic disease and create healthier communities. It has a foundation in systems thinking which encourages understanding how factors influence one another within a whole, such as how the environment and policy influence individual behavior and health outcomes (Senge, 1993). The passage of the Patient Protection and Affordable Care Act (ACA) increased the emphasis on prevention and led to the development of the NPS and subsequent national prevention funding for community transformation at the local and state level (National Prevention Council, 2012). In calling for a population-based focus to address the major underlying health issues in the United States, the NPS acknowledges that, in isolation, individual behavior change strategies have not been enough to lessen the overall burden of chronic disease. LHDs, with help from their community coalition partners, have opportunities to lead these efforts with the availability of Community Transformation Grant funding streams. LHDs have implemented some PSE change, most notably through tobacco prevention and control activities which have helped to reduce tobacco use significantly in the last 20 years (CDC, 2013). However, little is known about LHD implementation of PSE change strategies in the broader context of chronic disease prevention.

As core members of the public health workforce, health educators are increasingly being called on to assume leadership positions and have the opportunity to create visibility for their profession as a network of change agents for community transformation to create healthy

communities (Wright, et al., 2003). For CTW to succeed, health educators have to capitalize on these national initiatives and build their capacity as change leaders.

It is unclear if LHDs are prepared and capable to meet these new challenges. Many LHD practitioners may have had a traditional focus on individual health behavior change and may find this shift in focus to PSE change strategies unfamiliar. At this time, there is little literature on how local community transformation is being implemented, how the work is getting done, and by whom; there are even fewer reports on how smaller rural LHDs are engaged and implementing this work. Lieberman, et al., 2013, reflected upon this, saying "the public health literature has increasingly called on practitioners to target the contexts in which people live as a means of improving population health, yet models describing the scope, design, implementation, and effectiveness of such efforts remain limited" (p. 521).

For community transformation to succeed, organizations and practitioners must know and understand what factors effect implementation and what is needed for successful implementation. The role of health education in implementing PSE change strategies in rural communities is not well-defined. LHDs in rural areas may require guidance as they develop and implement strategies to support CTW through health education. Understanding the role of health education role and the factors that effect this role may help to build the case for improving LHD capacity in health education, including developing leadership skills, and building support for a shared vision that health education can support.

To address this problem, this study explored the role of health educators in CTW implementation through PSE change strategies by three rural LHDs. In addition, the study looked at organizational constructs that affect the role of the health educator in implementation including organizational structure, culture, resources, and practitioner capacity.

C. Study Questions

The primary goal of this exploratory study was to understand the role of health education and health educators in CTW implementation through PSE change strategies by rural LHDs. To address this goal, it was important to explore not only what the practitioners are doing in regards to implementation, but also the major organizational and practitioner level constructs that may influence their role(s) in implementation. This is discussed in detail in the conceptual framework section II b. The main study questions were:

1. How are health educators involved in CTW implementation through PSE change strategies at rural LHDs?
    a. How is CTW organized and managed at the rural LHD?
    b. What is the role of the health educator in CTW at rural LHD?
    c. How do organizational factors affect the role of the health educator in CTW implementation at rural LHDs?

D. Leadership Implications

The PSE change strategies used in CTW fall in line with systems thinking, which has been identified as a key public health leadership skill (Wright, et al., 2003). In order to address the complex problem of chronic disease, public health strategies must be multi-focused and address factors at all levels – from the individual to the environment to policies in the community. Senge (1993), defines systems thinking as "a conceptual framework to make patterns clearer and to help us see how to change them effectively" (p. 87). The specific strategies in CTW take a systems view, but in order to effectively implement those strategies, leaders in public health must do so as well. Practitioners and public health leaders must understand all of the parts or factors related to implementation of initiatives, how they are

connected, how they influence one another, and then plan for the implications of their interaction (Leischow & Milstein, 2006). In this context, factors should include practitioner competency, organizational culture, and community partnerships.

With the movement towards a systems view, there has been a renewed attention to the preparation and training of the public health workforce including leadership development (Wright, et al., 2003). As a core member of the public health workforce, health educators are increasingly being called upon to assume leadership positions and have the opportunity to create visibility for the profession as a network of change agents for healthy communities (Wright, et al., 2003). The field of health education cannot rely solely on individual behavior change programs. They must move from making pamphlets to making broader policies that improve public health.(Dilley, Reuer, Colman, & Norman, 2009). According to Fielding (2013), "Health educators are uniquely positioned to effectively engage essential partners, shape information for policy makers, leverage the evidence base to implement effective interventions and maximize beneficial health outcomes, and add to the evidence base" (p. 514).

The potential to impact population health and create healthier communities will be greatly improved if there is a solid understanding of health education practice and organizational support for such practice. Understanding the practice of CTW may help guide LHDs on how to build capacity for their current and future health education interventions to address key areas such as chronic disease prevention. This understanding may also can strengthen their capacity to support and deliver several of the 10 essential public health services, including:

- Inform, educate, and empower people about health issues;
- Mobilize community partnerships to identify and solve health problems;
- Develop policies and plans that support individual and community health efforts;

- Ensure a competent public health and personal care workforce; and
- Evaluate the effectiveness, accessibility, and quality of personal and population-based health services.

(Gebbie, Rosenstock, & Hernandez, 2003)

II. CONCEPTUAL AND ANALYTICAL FRAMEWORK

This chapter has two major sections. Section (A.) consists of the literature review, while Section (B.) describes the initial proposed conceptual model. The literature review and conceptual model provide the context in which the study questions and design were developed.

A. Literature Review

1. Introduction

This chapter presents a literature review to facilitate the development of a conceptual model for understanding the role of the health educator in CTW and the factors that may affect their role(s) at a LHD to implement CTW. The literature is focused on the following areas:

- Health Education Profession:
    - Defining health education
    - Understanding Health Educator
- Healthy Communities and Community Transformation Movement
- Theoretical Foundation for CTW
- Local Health Departments:
    - Structure and organizational capacity
    - Health education at LHD
    - Rural health and rural LHDs
    - Significance of Community coalitions

These areas serve as starting points for proposing a conceptual model for this study. The conceptual model can help to illustrate major themes found in the literature and help to address the study questions (Tashakkori & Teddlie, 2009).

2. Defining Health Education

The definition of health education and promotion and its role in public health has evolved over time. One of the first and most well-known definitions of health education promotion came from the first international meeting on health promotion led by the WHO in 1986. The Ottawa Charter (1986), developed at that conference states:

> Health education and promotion is the process of enabling people to increase control over, and to improve, their health. To reach a state of complete physical, mental and social well-being, an individual or group must be able to identify and to realize aspirations, to satisfy needs, and to change or cope with the environment. Health is, therefore, seen as a resource for everyday life, not the objective of living. Health is a positive concept emphasizing social and personal resources, as well as physical capacities. Therefore, health education is not just the responsibility of the health sector, but goes beyond healthy life-styles to well-being. (p. 1)

To strengthen this definition, WHO identified key action areas including: build healthy public policy, create supportive environments, strengthen community actions, develop personal skills, and reorient health services. A few other definitions of health education and promotion were identified, one from the editor of the American Journal of Health Promotion, Michael O'Donnell (2009), and another from the 2011 Joint Committee on Health Education and Promotion Terminology. O'Donnell (2009) defines health education and promotion as the "art and science of helping people discover the synergies between their core passions and optimal health, enhancing their motivations to strive for optimal health, and supporting their lifestyle to move toward a state of optimal health" (p. iv). While this definition focuses on the individual, AAHEs definition focuses on other factors and the process of health education. AAHE defines health

education and promotion as, “any planned combination of educational, political, environmental, regulatory, or organizational mechanism that support actions and conditions of living conductive to the health of individuals, groups, and communities” (p. 19).

In 1998, 2005, and 2009, the WHO updated its definition to include the concepts of enabling people and communities to increase control over the social and environmental determinants of health that influence health choices and impact health outcomes (WHO, 2009). The AAHE definition, which is the most recent of those reviewed, and the various WHO updates demonstrate the evolution of health education. In essence, these newer definitions summarize the evolution of health education from an emphasis on individual behavior to a greater focus on system level and societal level factors, often referred to as the social determinants of health (McIntyre, 1991). Stokols (1992) writes:

> There has been a tremendous growth in health promotion research and practice. This growth has been accompanied by a qualitative shift in emphasis from individually oriented analyses of health behavior to those that encompass environmentally based as well as behaviorally focused strategies of health promotion. (p.6)

Richard, Gauvin, and Raine (2011), describe the disappointment in a focus on solely individual behavior change in health education that converged to a new way of thinking. This new thinking included the evolution of health education towards interventions addressing not only individual behaviors and their cognitive determinants but also the multiple settings and social contexts that shape behaviors, including larger social and cultural dimensions. The field of health education continues to evolve, drawing upon the knowledge and theories of diverse disciplines as well as emerging health needs and their underlying determinants, see Table I (Smith, Tang, & Nutbeam, 2006).

3. Understanding the Health Educator

According to the U.S. Department of Labor (2012), more than 60,000 health educators are employed in the United States, and employment rates are expected to increase by 18% through the year 2018. The growing demand for health educators is largely driven by expectations that health education can minimize health problems and mitigate rising health care costs (Doyle, Caro, Lysoby, Auld, Smith, & Muenzen, 2012). Often, a health educator focuses on individual or group level behavior change rather performing the expanded focus which encompasses skills such as advocacy, systems change, and leading community collaborations. Doyle et al., (2012) completed a national health educator job analysis, in which health educators were interviewed and surveyed regarding knowledge and practice of important competencies. It notes how health education has evolved both in knowledge, competencies, and scope of work.

Several major organizations support health education professionals through research, evidence based practice, and professional development. Those include Society for Public Health Education (SOPHE), National Commission for Health Education Credentialing (NCHEC), and the National Association of County and City Health Officials (NACCHO). SOPHEs website reads, "for more than 60 years, SOPHE has served as an independent professional association represented by a diverse membership of nearly 4,000 health education professionals and students throughout the United States and 25 international countries" (about section, para 1). NCHEC has taken the lead in developing competencies in the field of health education and have operationalized competency through certification, the Certified Health Education Specialist (CHES) and most recently in 2011 making available a Masters Certification in Health Education Specialist (MCHES). NCHEC reports that today there are more than 9,000 individuals who hold current CHES and/or MCHES designation.

According Birkhead, Davies, Miner, Lemmings, and Koo (2008), health education was the first population-based profession to develop competencies. These have gone on to be used in accreditation, certification, and other quality assurance systems for more than 20 years. The development of the competencies in health education date back to the 1970s. (Cleary, 1995). Competencies help to inform the development of professional standards and help assure quality as well as substantiate health education as a specific field of practice (Battel-Kirk, Barry, Taub, & Lysoby, 2009).

NCHEC has taken the lead developing competencies into certification standards, specifically the Certified Health Education Specialist (CHES) and the Masters Certified Health Education Specialist (MCHES) designations. NCHEC reports that today there are more than 9,000 individuals who hold current CHES and/or MCHES designation. NCHEC has established the seven areas of responsibility for their certified health education specialist (CHES) and master certified health education specialist (MCHES) designations. Each designation contains a comprehensive set of competencies and sub-competencies which define the roles of CHESs and MCHESs practitioners. In 2010, NCHEC reviewed and updated the seven areas of responsibility include:

1. Assess Individual and Community Needs for Health Education
2. Plan Health Education
3. Implement Health Education
4. Conduct Evaluation and Research Related to Health Education
5. Administer and Manage Health Education

6. Serve as a Health Education Resource Person
7. Communicate and Advocate for Health and Health Education

(Whitehall, 2010)

Several of these core competencies include sub-competencies specifically related to CTW through PSE change[1]:

- COMPETENCY 1.4: Examine Relationships Among Behavioral, Environmental and Genetic Factors That Enhance or Compromise Health and
- COMPETENCY 2.1: Involve Priority Populations and Other Stakeholders in the Planning Process
- COMPETENCY 2.5 Address Factors that Affect Implementation
- COMPETENCY 5.2 Obtain Acceptance and Support for Programs
- COMPETENCY 5.3: Demonstrate Leadership
- COMPETENCY 5.5: Facilitate Partnerships in Support of Health Education
- COMPETENCY 7.3 Deliver Messages Using a Variety of Strategies, Methods, and Techniques
- COMPETENCY 7.4: Engage in Health Education Advocacy
- COMPETENCY 7.5: Influence Policy to Promote Health

(Whitehall, 2010)

These competencies support the role of health educators in carrying out and leading CTW. However, the extent to which these competencies are utilized is not clear and work towards defining the exact skills and competencies necessary for current and future health education practice continues. In 2012, they released comments specific to health education to

[1] See Appendix G for full list of responsibilities and competencies.

address the Association of Schools and Programs of Public Health (ASPPH) draft Critical Components Elements of an Undergraduate Major in Public Health. The taskforce recommends skillset developments related to leadership, teamwork, organizational dynamics, systems thinking, and population-based public health (National Implementation Task Force on Accreditation in Health Education, 2012).

On a global level, the necessity for international collaboration to identify, agree, and establish core competencies for health education practice has received attention (Allegrante, et al., 2009; Wilson, Dennis, Gambescia, Chen, & Lysoby 2012). Competencies can help guide capacity building. Battel-Kirt, et al. (2009) contended that to advance the quality of practice in health education and promotion it is important to develop consensus on the core competencies in health education. Capacity building for health education and promotion is thus key to supporting the development and implementation of policy and best practice which are essential to the future growth and development of health education (Barry, 2008).

Capacity not only refers to individual characteristics such as knowledge, but to what comprises the relationship between the individual and the working environment, including his/her employer/organization. Capacity has been further defined in health education by Hawe, Noort, King, and Jordens (1997) as, "an approach to the development of sustainable skills, organizational structures, resources, and commitment to health improvement in health and sectors, to prolong and multiply health gains many times over" (p. 29). Thus, building capacity means building the qualities and skills of the individual, but also shaping the organization and social environment within which the individual will act (McLean, Feather, & Butler-Jones, 2011).Barry (2008) presents a capacity wheel comprised of eight domains for health education and promotion: 1) policies and plans for health education and promotion priorities; 2) leadership

and expertise; 3) joined-up government; 4) program delivery structures and mechanisms; 5) partnerships; 6) professional development; 7) performance monitoring; and 8) sustainable financing (Barry, 2008). He contends that investment in these areas is essential to effectiveness and sustainability in health education. Similar recommendations on assessing capacity are also found in the work of Woodard (2004), who propose a checklist for assessing the elements of health education capacity including individual, organizational, and environmental levels. The primary components include knowledge, skills, commitment, and resources at individual level. On the organizational level, capacity is focused on the areas of commitment, structure, resources, and culture. At this time, it is unclear how health education programs are investing in these areas; this was further explored in the current study.

The call for more population-based approaches in health education initiatives has put new demands on those in the field, who in practice may be accustomed to individualized interventions versus population-focused interventions. With the growing demands towards PSE change and funding streams support for PSE change, health educators have to be ready to move with this trend and become effective and useful instruments of social change. (Glanz, Rimer, & Viswanath, 2008). In order for health educators to continue to be relevant change agents, as noted by Breton, Richard, and Gagnon (2007), the new public health perspective urges a return to an agenda centered on the modification of the determinants of health, with a special emphasis on public policies. However, this new perspective with a policy focus may lead to less interest in traditional individual based health education.

According to Green (2001), "health promotion needs to be pursued not as a reductionist exercise in changing individual behavior, but as an empowering process of giving people and populations greater control over the determinants of their health"(p.166). Some health educators

in the field have embraced the change. However, others in the field report feeling a little uneasy about how to do this type of work and move beyond the individual-based interventions and programming that has been a focus of their practice. The theories that ground these ideas are not new, and many health educators have been calling for more population-based work for quite some time. While this broader approach is receiving growing support in the public health field as evidenced by national funding priorities, the translation into practice is unclear.

For health educators to lead PSE change, they need specific knowledge, a systems thinking lens, leadership skills and collaboration skills to build partners – and organization support for their role leading PSE change (CPPW, 2012). Capacity building in these areas is necessary for successful implementation of the PSE change approach. Woodhouse and his colleagues, (2010) in their study of a crosswalk of public health and health education competencies, found that the areas of systems thinking and leadership were among the top gaps between health education and public health. (Woodhouse Auld, Miner, Alley, Lysoby, & Livingood, 2010). So the question remains, how can health educators be supported to better develop the skills necessary to be effective change agents? With the growing support for an ecological and PSE change focus in health education, a variety of questions have emerged. How is the PSE change focus being implemented on the local level? How is local implementation documented? What (new) roles have been assigned to health educators? Is there evidence of capacity expansion of individual practitioners and their home organizations? Is there documented organizational support at the LHD level for sustainable health education through PSE change?

4. Healthy Communities and Community Transformation Movement

At the Sixth Global Conference on Health Promotion, known as the Bangkok Charter, the need for political advocacy, investment in strategies and infrastructure that address the

determinants of health, regulatory interventions, and building health education and promotion capacity and partnerships were recognized as critical for dealing with the current global health challenges (Smith et al., 2006; WHO, 2009). These recommendations for change in the public health practice of health education have been evident in several movements over the last 20 years including the Canadian Healthy Cities Movement in the early 1990s; the CDC Racial and Ethnic Approaches to Community Health (REACH) Program began in 1999; CDC's Steps program, part of the Healthy Communities movement, that started in 2003; and most recently. The Community Transformation Initiatives such as CPPW, a program of the Healthy Communities Initiative (CDC, 2013; Nichols, Ussery-Hall, Griffin-Blake, & Easton, 2012; Roberston & Minkler, 1994). According to the CDC, "the Healthy Communities Program is engaging communities and collaborating with national networks to focus on chronic disease prevention. Communities are working to change the places and organizations that touch people's lives every day – schools, work sites, health care sites, and other community settings – to turn the tide on the national epidemic of chronic diseases" (CDC, 2013, add text per APA citation rules for direct quotes).The *Healthy People* Initiative also supports a health education focus. According to Green and Allegrante (2011), the most recent iteration, Healthy People 2020, places greater emphasis on the social determinants of health. This emphasis requires intersectoral action and is congruent with the previously discussed efforts.

The National Prevention and Health Promotion Strategy, released in 2011, also emphasizes health education. NPS factsheet (2011) writes:

> The National Prevention and Health Promotion Strategy is a comprehensive plan that will help increase the number of Americans who are healthy at every stage of life. Created by the National Prevention, Health Promotion, and Public Health Council in consultation

> with the public and an Advisory Group of outside experts, the Strategy recognizes that good health comes not just from receiving quality medical care but from stopping disease before it starts. Good health also comes from clean air and water, safe outdoor spaces for physical activity, safe worksites, healthy foods, violence-free environments and healthy homes. Prevention should be woven into all aspects of our lives, including where and how we live, learn, work and play. Everyone – businesses, educators, health care institutions, government, communities and every single American – has a role in creating a healthier nation. (p. 1)

The key concepts in the healthy community's movement and the NPS are grounded in the belief that PSE change is required to create sustainable changes in communities and, further, that in order to increase health behaviors, strategies need to ensure that the healthy choice is the easy choice. According to Cook County CPPW fact sheet on PSE:

> Policy, systems and environmental change is a way of modifying the environment to make healthy choices practical and available to all community members. By changing laws and shaping physical landscapes, a big impact can be made with little time and resources. By changing policies, systems and/or environments, communities can help tackle health issues like obesity, diabetes, cancer and other chronic diseases (p. 1).

Where you live, work, and play affects the ability to make healthy choices. Examples of PSE changes include a smoke-free campus policy, adding fruits and vegetables to the a la carte options in a school, implementing a healthy vending policy in the workplace, a municipal planning process to ensure better pedestrian and bicycle access to main roads and parks, and supporting residents to plant community gardens in vacant lots.

Health educators are often charged with the enormous and daunting task of creating and maintaining healthy communities. However, by taking small steps aimed at incremental PSE changes there is the possibility to see positive gradual influence on the quality and health of communities (Stokols, 1992). The theoretical foundation for health education in creating healthy communities is discussed next.

5. Theoretical Foundations for Community Transformation Work

Public health, along with health education, is a multi-disciplinary field that draws on various theories and models. According to Crosby and Noar (2010), the challenges of health education demand greater attention to developing theories that reflect the reality of broad influences on health behavior. Further theories should be rooted in practice, be broad in scope and be easily available to practitioner. (Crosby & Noar, 2010).

The definition of health education has evolved and so has the theories upon with it draws from. The Victorian Health Promotion Foundation (2006) summarizes the models used in health education and promotion over the years as outlined in Table I.

Table I. - Evolution of Health Education and Promotion Models (Victorian Health Promotion Foundation, 2006)

The biomedical model of health (pre-1970s):

- focuses on risk behaviors and healthy lifestyles
- emphasizes health education – changing knowledge, attitudes and skills
- focuses on individual responsibility
- treats people in isolation of their environments

The social model of health (from 1970s onwards):

- addresses the broader determinants of health
- involves intersectoral collaboration
- acts to reduce social inequities
- empowers individuals and communities
- acts to enable access to health care

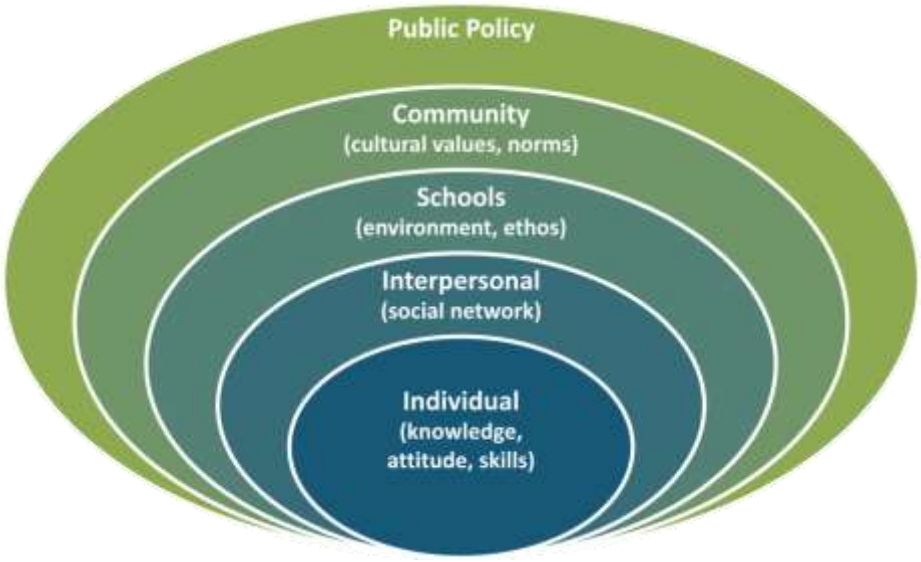
The ecological model of health (from late 1970s onwards):

- acknowledges the reciprocal relationship between health-related behaviors and the environments in which people live, work and play (behavior does not occur in a vacuum)
- considers the environment is made up of different subsystems – micro, meso, exo and macro
- emphases the relationships and dependencies between these subsystems is comprehensive and multi-faceted, using a shared framework for change at individual and environmental levels

Over time, the fields of health education and promotion has moved beyond an individual focus (Glanz et al, 2008). The social-ecological model has provided key guidance. This model describes the multi-dimensional approach required to improve health outcomes in communities. As shown in Figure 1, it contends that an interwoven (reciprocal) relationship exists between the individual, interpersonal relationships, organizations, their environment, community, and public policy. The most effective health education approach is a combination of efforts at all levels (McLeroy et al.,1988; Green, Richard, & Potvin, 1996; Richard, Potvin, Kishchuk, Prlic, & Green, 1996). Green and Krueter (1990) argue that is it not just individual behavior, but the more

pervasive conditions in which people live, work, play, and it is those determinants that are most important for health education to address.

Figure 1. – Social-Ecological Model (McLeroy et al.,1988)



The social-ecological model is rooted in systems thinking. A system can be defined as a comparatively bounded structure consisting of interacting, interrelated, or interdependent elements that form a whole (Susser and Susser, 1996). Systems thinking argues that the only way to fully understand a thing or an occurrence is to understand the parts in relation to the whole. Thus, systems thinking, which is the process of understanding how things influence one another within a whole, is central to ecological models (Senge, 1993). The social-ecological model allows us to view a community as situated within a complex system. Examples of systems are health systems, education systems, food systems, and economic systems (Susser & Susser, 1996). In health education, the social-ecological model can be used to identify high impact

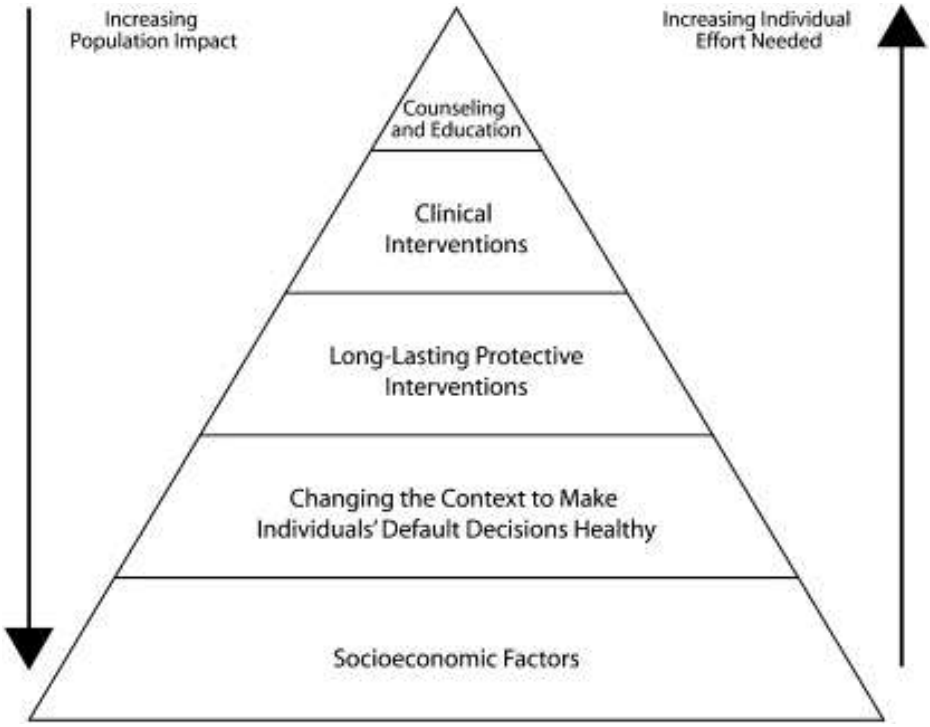
leverage points and intermediaries within organizations that can facilitate the successful implementation of health promoting interventions, combining person-focused and environmentally-based components within comprehensive health education programs, and measuring the scope and sustainability of outcomes over prolonged periods (Stokols, 1996). In following the social-ecological model, public health strategies address multiple levels of the social world with a continuum of activities that are developmentally appropriate and conducted across the lifespan. This approach is more likely to sustain prevention efforts over time than any single intervention (CDC, 2009).

While the importance of a multi-level approach has recognized, the extent to which it guides actual practice remains unclear and there is a gap between evidence-based best practice recommendations and what is typically seen in practice and policy (Best, et al., 2003). Best (2011), goes on to suggest that it would take a significant shift in how health education thinks and works. Health education must look to issues related to partnerships, both traditional and non-traditional, networks, leadership, organizational culture and capacity, and integrated strategic communications (Best & Holmes, 2010). These constructs will help to shape and focus the current study to understand health educator role in CTW.

Another model that has recently emerged in health education came in 2010 from Dr. Frieden, Director of the CDC. He proposed a 5-tier pyramid that describes the level of impact of different types of public health interventions and provides a framework to think about how to improve health that ultimately supports a PSE change focus. He points out that all of these levels can have a health benefit but if we want the largest impact for the population, we need to focus on the bottom levels of the pyramid. According to Frieden, focusing towards the bottom of the pyramid can change the context in which strategies are designed to make healthy decisions the

default for individuals or, in other words, making the healthy choice the easy choice. Interventions directed towards factors at the bottom of the pyramid necessarily focus on PSE change. Frieden's model reinforces the direction and shift in health education evident in the NPS and Community Transformation Initiative from CDC. Funding streams in health education are supporting this shift. (Frieden, 2010)

Figure 2. – Factors that Affect Health (Frieden, 2010) *reprinted with permission, see Appendix*



The shifting federal focus has forced state and local shifts as well, since the federal perspective also drives funding opportunities. The 2010 passage of the ACA brought new funding opportunities with initiatives such as CPPW and Community Transformation for Healthier Communities (CDC, 2011), and development of the NPS. The focus on population-level change has historical precedent in public health. For example, it has been shown that

increasing cigarette tax result in lower rates smoking by influencing more quit attempts by smokers and less young people starting to smoke (Wasserman Manning, Newhouse, and Winkler, 1991). This shift has also been noted in a 2012 article by Nicolas et al, which looked at the Steps to Healthier US program shift from individual interventions to PSE change, noting how the shift came about and the challenges that were experienced (Nicolas, Ussery-Hall, Griffin-Blake, and Easton 2012). It is still unknown how this shift is translating into current practice; further investigation is needed to assess the capacity of public health professionals and local organizations, including as LHDs, to develop and effectively implement PSE change work.

6. Local Health Department: Structure and Organizational Capacity

NACCHO is the leading organization that provides support for LHDs across the US. A LHD is an organization charged with leading improvements in the health and well-being of local communities. NACCHO (2005) defines the role of the LHD to "protect and improve community well-being by preventing disease, illness and injury and impacting social, economic and environmental factors fundamental to excellent health. The LHD is the foundation of the local public health system that comprises public- and private-sector health care providers, academia, business, the media, and other local and state governmental entities" (p. 2).

Each year, NACCHO conducts a survey of LHDs to compile a profile of current information about the people, resources, and work of LHDs in the United States. In 2010, it was found that 4,900 health educators were employed at U. S. LDHs and that 3% of the total LHD workforce were classified as health educators (NACCHO, 2011). Between 2008-2010, there was an 11% increase in the number of health educators employed at LHDs. This is counter to the overall LHD workforce trend during the time period; during that same time period NACCHO estimated that 29,000 LHD jobs were eliminated (either via layoff or attrition).

The NACCHO survey also collected information on workforce development and training. According to the report, nearly all LHDs reported having written position descriptions for all (84%) or some (13%) of their staff members. Most LHDs conduct formal staff performance evaluations (67%) and assess staff training needs (63%) for all of their staff members. Approximately half of LHDs have developed training plans for all of their staff and 38% have developed training plans for some of their staff. However, data was not reported by specific job categories and the extent to which health educators were engaged in this needs assessment.

An article by Allegrante and colleagues suggested that the current public health workforce, including public health educators, is not prepared to meet the practice challenges of the new century and fundamental shifts that are occurring. LHDs are not keeping their staff current with changes in public health practice and necessary continuing education needs (Allegrante, Moon, Auld, & Gebbie 2001).

In reviewing the NACCHO Profile Reports, the extent of health education programming at the local level shows that clinical services such as immunizations, communicable disease surveillance, and tuberculosis screening and environmental health surveillance and food service inspection dominate LHD activities and services provided. In was unclear how much population health education activities were completed. The report did note that population nutrition and tobacco services were done by the majority of LHDs, but those were not defined clearly (NACCHO, 2011). In an article by Allegrante, et al. (2001), it is recognized that many reports have underscored the critical role that the public health education workforce plays in improving public health.

The 2010 NACCHO report also discussed policy and advocacy related activities at LHDs. According to the report, more than 80% of all LHDs communicated with legislators and

other policymakers regarding proposed legislation, regulations, and ordinances. Other policymaking and advocacy activities included participating on a board or advisory panel (67%), preparing issue briefs (58%), presenting public testimony (53%), and providing technical assistance (49%) (NACCHO, 2011). The leading policy related activities addressed tobacco use, the environment, and health care access. It was unclear who among the LHD workforce were engage in policy level work and policy efforts were more common at larger health departments. As policy efforts were not uniform across LHDs, this study sought to better understand policy-related practices at LHDs including staffing. With policy work one of the key components of PSE change work, the discovery that it is not fully understood at LHDs helped to shaped the development of this study.

LHD capacity for population-based prevention rests upon the capacity of the organization as well as the skills and abilities of individual practitioners. An LHD performance study by Erwin (2008) stated "the most common findings related to LHD size, jurisdictional size, and funding: LHDs with larger staffs, serving populations of more than 50,000 persons, and with higher funding per capita were more often higher performing. Other notable characteristics of higher-performing LHDs included greater community interaction, having a director with higher academic degrees, and leadership functioning within a management team" (p. e10). Jacobs, Dodson, Baker, Deshpande, and Brownson (2010), looked at evidence-based chronic disease prevention in LHDs and found that employees reported higher scores for organizational barriers than for personal barriers. Organizational barriers included inadequate funding; lack of incentives for implementation; an organizational culture that does not support creative thinking and new ideas; and not viewing chronic disease prevention as a high priority. A different study noted similar organizational issues and concluded that LHD structural capacity and overall

performance was associated with whether or not chronic disease programs that address obesity prevention and diabetes screening were present (Zhang, et al., 2010). Another study by Cilenti, Brownson, Umble, Erwin, and Summers, (2012) focused on the factors that made LHDs successful at the use of evidence-based prevention. Those factors that contributed to success included the establishment of strong relationships and good communication channels with academic partners, and strong leadership engagement. These findings support a further look at factors related to organizational support such as culture and capacity (structures and resources), and how this translates into evidence-based prevention work, including the work through PSE change.

According to Meyer, Davis, and Mays (2012), little emphasis has been placed on defining or measuring the capacity of the public health system. Often, the emphasis placed on performance measures ignores the systematic issues within the organization which include processes such as capacity and implementation which are necessary components to understand performance. Meyer et al. (2012), also assert that capacity measures must be assessed at different levels of the system (individual, organization, system), be multidimensional, and must encompass the processes, knowledge, and resources of a public health system. They developed eight core areas of capacity for public health organizations:

1. Fiscal and Economic Resources
2. Workforce and Human Resources
3. Physical Infrastructure
4. Inter-Organizational Relations
5. Informational Resources
6. System Boundaries and Size

7. Governance and Decision making Structure

8. Organizational Culture

Meyer et al. (2012) concede that more work is needed in this area and charge public health to further develop measures to assess capacity. As funding streams and resources are more strained, it is important to develop a better understanding of the role of organizational capacity in performance and, based on those findings, develop a strategy to build capacity. There is limited evidence on the relationships between public health organization, performance, and health outcomes (Hyde & Shortall, 2012). However, the authors noted that several key areas help to improve health outcomes including increases in LHD expenditures, more full time employees per capita, and location of health department within local networks and partnerships (Hyde & Shortall, 2012).

Increased attention and awareness is being paid to role of leadership plays in public health, both at the individual and organizational leadership levels. In a LHD, organizational leadership is a key element in its capacity for performance (Kuiper, Jackson, Barna, & Satariano, 2012). Anderson et al.(2008) found that low infrastructure and limited leadership were factors that may explain a lack of health education action. It is thus important that LHDs have a framework that includes leadership development, to better maximize resources to have the best possible sustained impact on health outcomes. Most relevant to this study, these findings tells us that leadership is an important piece of the organizational culture, that it will impact the work of practitioners, and specific to this study, it will affect roles in CTW implementation.

7. Rural Health and Rural Local Health Departments

According to the National Institutes of Health (NIH), Americans living in rural populations experience differences in the incidence, prevalence, morbidity, mortality, and burden

of disease and other adverse health conditions. Compared with their urban counterparts, rural communities have higher rates of chronic disease and are faced with unique challenges related to their environment. Rural residence in the U.S. is linked to increased risk of type 2 diabetes, obesity, poor oral health, suicide, and tobacco use (Gamm, et al.,2002; Hartley, 2004). According to Crosby, et al. (2012):

> A population 60 million strong, rural individuals are greatly influenced by geography, and so is their health. Whether through the physical terrain of their environment or the composition of their communities, including an aging population, lower socioeconomic status, and higher concentrations of ethnic and racial minorities, rural residents are at risk for negative health outcomes (p. E104).

Often public health work in rural settings has focused on issues related to access to care such as increasing number of medical and clinical providers or practitioners. However, many of the major public health problems faced in rural areas, as noted above, are not likely to respond to an increase in clinical access to care. Instead, these challenges call for a focus on a population based health prevention (Phillips and McLeroy, 2004). As such, it provides a perfect setting for instituting CTW which focuses on improving healthy life choices where people, live, work, and play. In addition, rural LHDs provide a good place to study CTW because little is known about what rural LHDs are doing and how they are implementing CTW.

Since rural LHDs may have focused on clinical or individual level care and access, these LHDs may face unique challenges related to organizational capacity and workforce development to implement CTW. It is unclear if rural LHDs have been engaged in CTW or if they have health educators on staff. A rural LHD is defined as one that serves a population under 50,000 (NACCHO, 2007). NACCHO, 2007, describes a typical rural LHD as one that serves a

population of 15,000, has a budget of about $500,000, and has equivalent of a nine full time employee (FTE) staff. Approximately 40% of U. S. LHDs serve rural areas. In NACCHO's 2007 profile, it is also noted that small town rural LHDs experience many of the same challenges of other LHDs serving small populations. However, small town rural LHDs typically focus more on providing healthcare services, which suggest that more research is needed to determine the extent to which the local public health systems in these jurisdictions have the capacity to meet their communities' public health needs (NACCHO, 2007).

8. Relationship with Community Coalitions and Partners

It is widely known that community coalitions can effectively implement broad change to increase the health of communities. No one agency has the resources, access, and trust relationships to address the wide range of community determinants of public health (Green, Daniel, & Novick, 2001). This is especially true in the area of CTW which necessarily addresses an array of lifestyle and social circumstances affecting the underlying causes of chronic disease including access to care, obesity, nutrition, and physical activity. Community partnerships and external relationships are essential components to LHD efforts to effectively implement CTW. Studies of tobacco prevention and control policy work have noted the importance of the LHD relationships with coalition and community partners (Rogers, Howard-Pitney, Feighery, Altman, Endres, & Roeseler, 1993). Coalitions are dynamic organizations that are affected by many things including people, other organizations, and funding. However, they have a huge potential to spark social change (Holliday, 2008). It takes strong leadership and a common vision to truly bring people from various organizations together to implement common goals. Studies of coalitions indicate that effective management of the dynamics of group process increases participation (Butterfoss, Goodman, & Wandersman, 1993; Rogers et al., 1993). In addition,

Butterfoss, Goodman, and Wandersman (1996) found that more active participation outside of meetings, as well as the number roles members assumed were related to better leadership. Effective leaders foster an inclusive organizational climate that attracts committed members, works to resolve conflicts, and enhances coalition success in acquiring funding and mobilizing resources (Wolff, 2001). Leaders can play an important part in developing participative and collaborative environments within coalitions. Thus, the organizational culture around supportive relationships with community partnerships was an important construct to explore in this study.

9. Literature Review Summary

The current literature has outlined the positive aspects of public health adopting a system's based ecological view in practice. There are several articles that propose what capacity is and what is needed for health educators and public health practice to fully reach their potential to reduce chronic disease. Health education will need to adapt its strategies do address the underlying determinants of health to be able to make broad level change in communities. The community transformation movement is a current approach that is promising to reduce chronic disease. It remains unclear how CTW is being implemented by rural LHDs and what factors, both at the individual employee level and the organizational level, facilitate CTW implementation through PSE change strategies. How are rural LHDs implementing systems-focused chronic disease prevention work?

The literature also revealed that leadership is a crucial issue in LHD capacity and strong leadership was identified as a key factor in health education action. The NACCHO report provides important information, including the number of health educators currently in the work force; however, an understanding of their role in chronic disease prevention is needed. Further, an investigation of organizational approaches and investment in population-based strategies such

as CTW is necessary in order to understand their efforts to reduce chronic disease. This study focuses on how health educators at rural LHDs in Illinois are implementing CTW, and the organizational constructs that can affect the implementation of this work by the health educator.

B. Conceptual Framework

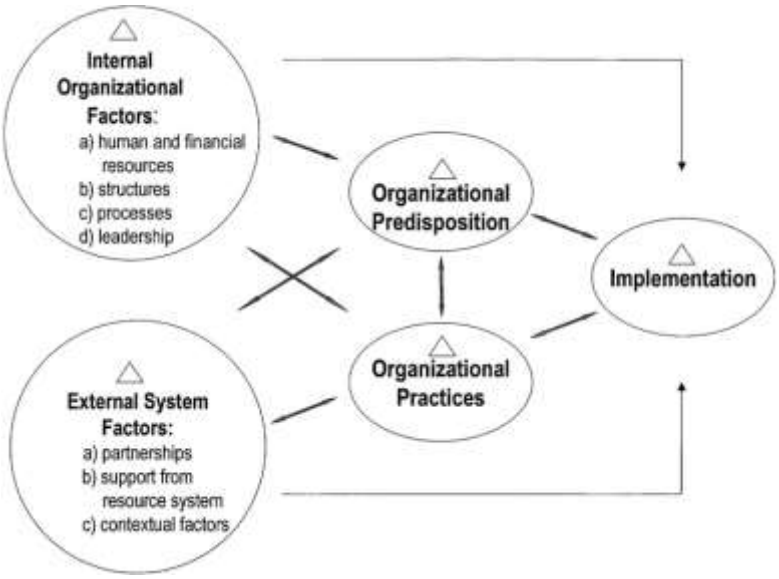
There are several guiding frameworks for this study, including the social-ecological model, organizational theories, and health education and promotion capacity theories. Community transformation is rooted in the social-ecological model that focuses on the complex interaction between individuals, organizations, communities, and environments (Flaman, et al., 2011; Rivera and Birnbaum, 2010, Green et al, 1996, McLeroy, et al, 1988). CTW focuses on modifying the environment to make healthy choices practical and available to all community members through PSE changes. A significant impact can be made on issues such as obesity, diabetes, and other chronic diseases by changing policies and our environments. (Cook County, CPPW, 2010). CTW focuses on where people live, learn, work, and play, so as to improve the health of the community and its members (CDC , 2014). While the term PSE is often used as one term to describe a set of strategies, these strategies vary conceptually as well as in how they are used to design and implement specific interventions. Practitioners may have various levels of experience in each of these three areas of change; the impact of prior training and experience was explored in this study.

The social-ecological model gives a framework to understand the importance and relevance of a variety of distal factors that impact health and the adoption of healthy behaviors, it is a framework and does not provide address specific issues related to intervention design or implementation or what factors influence implementation. While the social-ecological model provides guidance for developing effective interventions, an effective intervention design is only

the first step; the next step is to ensure that the intervention achieves desired results in practice and effectively maintained by them (Durlak & DuPre, 2008). Implementation is defined by Powell et al., (2013) as, "a complex, multi-level process, that involves the planned use of multiple strategies to address barriers to change that can emerge at all levels of the implementation context" (p. 92). Understanding the factors related to implementation is a key component to the success of an intervention and assessing the internal and external validity of interventions (Saunders, Evans, and Joshi, 2005; Durlak & DuPre, 2008). Implementation research has been gaining attention and recent efforts have focused on: 1) defining or assessing roles of public health agencies, 2) capacity building activities, and 3) understanding public health performance, including levels of implementation. (Durlak & DuPre, 2008). Understanding the role of the health educator in implementation and the factors that affect their role in implementation is central to this study

Organizational theories of change provide the insight or framework to study implementation factors. Based upon their efforts to implement community-based cardiovascular disease interventions, Riley, Taylor, and Elliot (2003), proposed a theory of organizational change theory that centers on the organizational contexts including organizational culture, policies, leadership and the environmental context including partnerships. Figure 3 depicts their theory. This study used their theoretical framework to investigate the relationship between implementation of health education work and the organizational context within which that work is implemented.

Figure 3. Theoretical framework to explain change in implementation of heart health promotion activities (Riley, Taylor, and Elliot, 2003) *reprinted with permission, see Appendix*

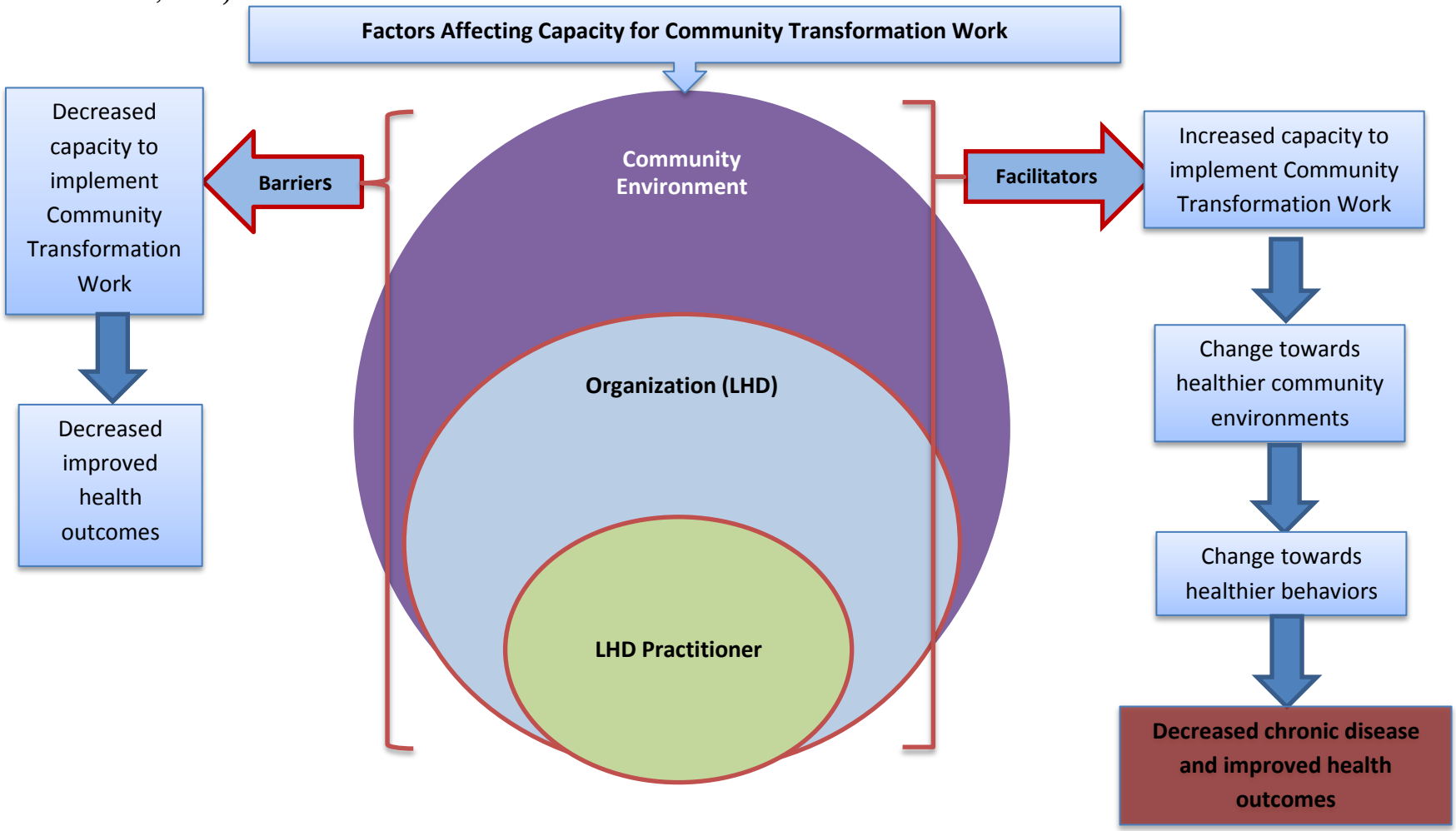


In addition to organizational theory, health education and promotion capacity theories will also be used in this study. The capacity to reduce chronic disease through CTW is dependent on several factors at the individual, organizational, and community level. Capacity is an important factor for successful implementation of prevention strategies. (Durlak & Dupre, 2008). Capacity for health education and promotion is complex and includes having the knowledge, skills, commitment, and resources at the individual and organizational levels and in the wider environment to conduct effective health education (Woodard, 2004). Organizational capacity for effective population-level health education work is not only the sum of individual capacities but includes organizational structures and policies which determine the patterns of relationships between individual practitioners, and also their organizational environment. Organizations facilitate certain individual actions and inhibit others. They can motivate and

reward practitioners, help them develop their individual capacity, enable them to increase collaboration from working with others, and facilitate their access to resources.

A facilitating factor is defined as any factor which assists, stimulates, or provides support to the individual, organization, or community to achieve success towards meeting strategy objectives, thereby making a positive contribution to capacity. (Robinson, et al., 2006) A barrier to success is defined as any factor which hinders or creates a challenge to the individual, organization, or community to achieve success towards meeting strategy objectives, thereby impairing capacity. (Robinson, et al., 2006). Organizational factors such as culture, structures, and resources can have a very important effect on individual practice, which, in turn, is affected by environmental factors imposed by social and political structures (Woodard, 2004). With greater organizational and individual capacity, organizations such as health departments will be better equipped to implement CTW and PSE change strategies, build healthier communities, and ultimately improve health outcomes. This is outlined in a conceptual model in Figure 4.

Figure 4.Conceptual Model – Factors Affecting Health education Capacity for Community Transformation Work (adapted from Woodard, 2004)



Based on these theories and frameworks, the main constructs and factors in this study are:

1. Health Educator:
    a. Activities and management related to implementation
    b. Practitioner capacity
2. Organizational constructs:
    a. Structure
    b. Culture
    c. Resources

These constructs and theories were identified in the literature review and were chosen based upon their potential to inform the main study aim, understanding the role of health education and the health educator in CTW implementation in rural Illinois. Table II summarizes which sources were utilized to develop the constructs for this study.

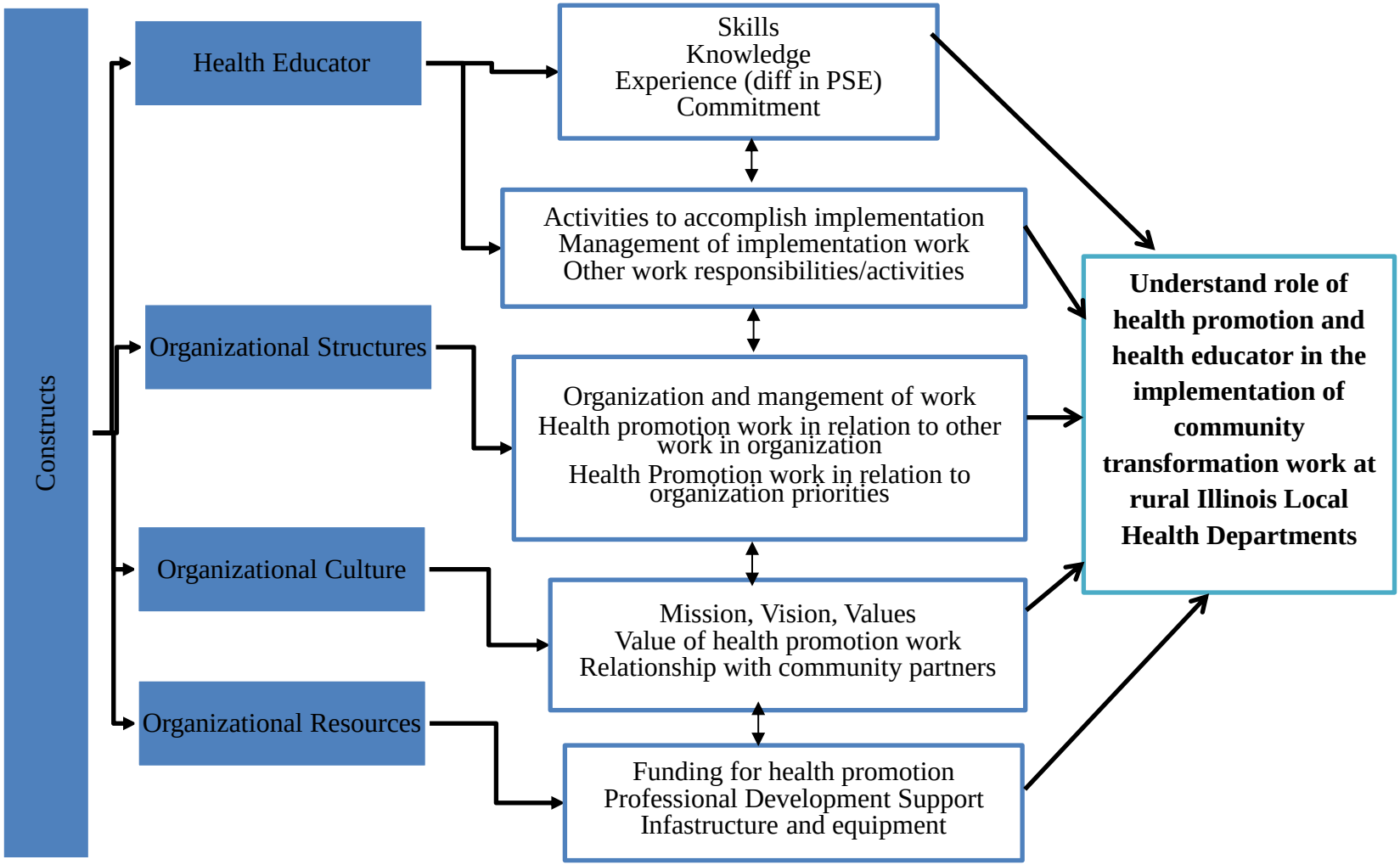
The constructs are further illustrated in a conceptual model, depicted in Figure 5. The conceptual model proposes that, in order to understand the role of health educators in implementing CTW at rural LHDs, one must first know what activities they are doing and then explore the constructs that affect their role in implementation. For this study, system-based thinking helped to guide the understanding of their role as a whole, but also to understand the various factors that influence this role, and how the various aspects of implementing CTW fit together. As health educators are often those charged to lead this work at the LHD, understanding their role and capabilities is important to develop structures related to workforce development. In the end, by understanding these factors, a case can be made for improving health education and LHD capacity and developing leadership skills. With a shared vision for

how LHDs can implement evidence-based population strategies, the vision of equitable and healthy communities is possible.

Table II. Summary Linking Study Constructs and Literature

Construct	Source from literature
Health promotion practitioner	-Health promotion capacity model by Woodard, 2004. -National Commission for Health Education Credentialing, Roles and Responsibilities of Health Educators (NCHEC) -Implementation framework of health education activities by Riley, Taylor, and Elliot, 2003
Organizational structure	-Health promotion capacity model by Woodard, 2004. -Factors affecting implementation by Durlak and Dupre, 2008 -Implementation framework of health education activities by Riley, Taylor, and Elliot, 2003
Organizational culture	-Health promotion capacity model by Woodard, 2004. -Characteristics of successful coalitions by Rogers, et al., 1993 -Organizational theory by Daft, 2006
Organizational resources	-Health promotion capacity model by Woodard, 2004. -Implementation framework of health promotion activities by Riley, Taylor, and Elliot, 2003

Figure 5. Proposed conceptual model for this study to understand role of health educator in implementation of community transformation work at rural Illinois Local Health Departments.



1. Definition of Constructs

a. Health Educator

In its simplest term, health educators help people and communities improve their health and increase their control over a variety of health indicators. The U.S. Department of Labor Bureau of Labor Statistics (BLS) website defines health educators (SOC 21-1091.00) as:

> those who promote, maintain, and improve individual and community health by assisting individuals and communities to adopt healthy behaviors, collect and analyze data to identify community needs prior to planning, implementing, monitoring, and evaluating programs designed to encourage healthy lifestyles, policies and environments. They may also serve as a resource to assist individuals, other professionals, or the community, and may administer fiscal resources for health education programs. (subjects section, standard occupational definitions)

Health education is a multidisciplinary field in which responsibilities vary from giving one-on-one, face-to-face education to developing and working with community partners on strategic policies for health education. The work of a health educator may be focused on a specific sub-population of a community, such as the elderly, youth, or an ethnic minority group, or on a specific issue such as tobacco prevention. Their skills and competencies are based on the NCHEC seven areas of responsibility, outlined in the previous literature review section.

b. Organizational Structure

Organizational structure is most often defined as a system used to define a hierarchy within an organization. It identifies each job, its responsibilities and function, and delineates lines of report within the organization. This structure is developed to establish how an

organization operates, how information flows between different levels of management, how people and programs are held accountable, and assists an organization in obtaining its goals and objectives. The structure is typically illustrated using an organizational chart. (Business Dictionary, 2013). Organizational structure, including how the work is organized, managed, and who does the work, is important to explore in this study because it impacts the role the health educator plays in CTW. Woodard (2004) contends that health education and promotion is a shared responsibility within an organization and should not be considered the responsibility of just one person or one section of an organization. An organizational structure that encourages regular meetings and opportunities to work together on projects across departments and with other community members will support innovative health education practices (Woodard, 2004).

c. Organizational Culture

Organizational culture is complex. Daft (2006) defines it as "the set of key values, beliefs, and norms shared by members of an organization. Organizational culture serves two critically important functions: to integrate members so that they know how to relate to one another and to help the organization adapt to the external environment" (p. 172). An organization with a strong culture is present, in part, when members take actions and make decisions that are consistent with the shared values and beliefs. In this case, it is important to understand the organizational culture around health educators and their work, as it would affect their role in the organization and their role in CTW implementation. For instance, the value placed on health education by leadership will affect what work is done, how it is prioritized, and the support for such work.

d. Organizational Resources

Organizational resources are the combination of assets that are available to an organization for use to accomplish its goals and objectives. There are several types of organizational resources but they generally fall under three major categories: human resources, fiscal resources, and physical/structural resources. Human resources can refer to having an appropriately skilled workforce and providing professional development opportunities for staff. Fiscal resources refer to having adequate funding. Physical/structural resources examples include having the appropriate infrastructure and equipment for staff to do their jobs. (Business Dictionary, 2013). Having adequate resources will assist the practitioner in carrying out his/her responsibilities.

III. STUDY DESIGN, DATA, AND METHODS

A. Study Questions

This study focused on one main question in three aspects:

Main Question: How are health educators involved in the implementation of community transformation work through PSE change strategies at rural LHDs?

Study Question 1a. How is community transformation organized and managed at the rural LHD?

Study Question 1b. What is the role of the health educator in community transformation work at rural LHD?

Study Question 1c. How do organizational factors affect the role of health educator in the implementation of community transformation work through PSE change strategies at rural LHDs?

B. Program Setting

With the election of President Barack Obama, there was a renewed effort to pass health reform legislation. As legislation was being developed, a clear intention to statutorily require and fund population-based prevention efforts emerged. The passage of the Affordable Care and Patient Protection Act created The National Prevention and Public Health Fund, the nation's first mandatory funding stream dedicated to population-based prevention (American Public Health Association [APHA], 2013). The ACA also called for the formation of a national prevention council and the development of a national prevention strategy. NPS council chair Dr. Regina Benjamin (2011), who also was serving as the U. S. Surgeon General at the time, wrote:

> the council developed a cross-sector, integrated national strategy that identifies priorities for improving the health of Americans. Through these partnerships, the NPS will improve America's health by helping to create healthy and safe communities, expand clinical and community-based preventive services, empower people to make healthy choices, and eliminate health disparities" (NPS, 2011, p. 3)

The CDC received money from the National Prevention and Public Health Fund to provide support to state and local communities through the Community Transformation Grant program, which was designed to enable awardees to design and implement community-level programs that prevent chronic diseases including cancer, diabetes, and heart disease. (CDC, 2012). In 2011, CDC awarded $103 million to 61 state and local government agencies, tribes and territories, and nonprofit organizations in 36 states, along with nearly $4 million to six national networks of community-based organizations (CDC, 2011). Figure 6 shows how national directives were translated to local initiatives.

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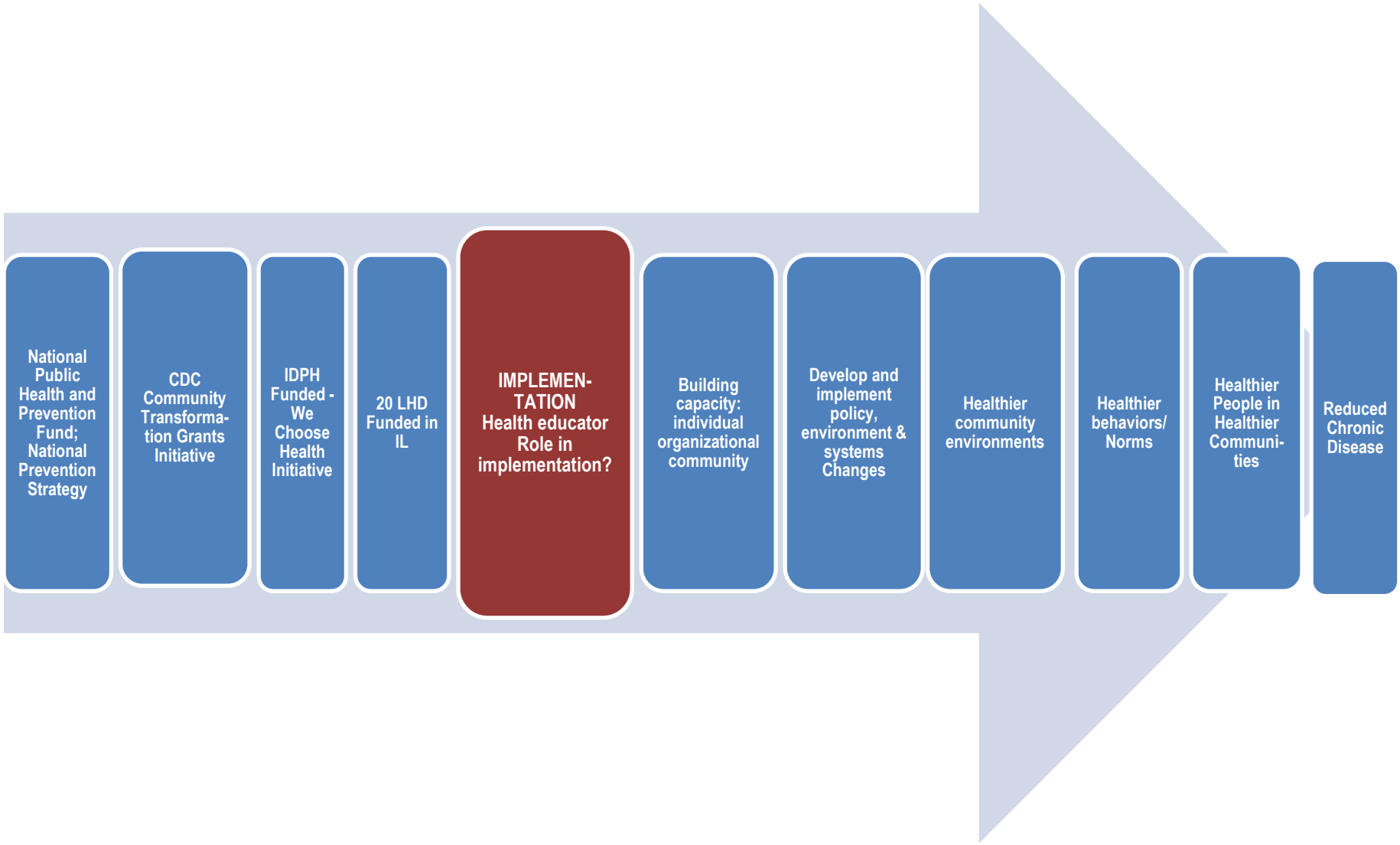
Figure 6. Community Transformation Work in Rural/Suburban Illinois



IDPH received $4,781,121 each for fiscal years 2011 and 2012. IDPH branded their community transformation grant *We Choose Health* (WCH) and provided a funding opportunity to local communities in rural and suburban Illinois. In the Request for Applications, IDPH set three broad goals (IDPH, 2012):

- Increase nutrition and physical activity in communities;
- Increase opportunities for environments that support physical activity; and
- Increase access to smoke-free environments.

The Request for Applications required that applicants choose to implement at least two pre-determined strategies, including at least one from Health Eating and Active Living and one related to smoke-free environments. These strategies are summarized in Table III.

Applicants were also required to demonstrate that, at the time of application, they were engaged in community-based coalitions that would direct the proposed projects. Each application required an evaluation plan and, further, the community coalitions were mandated to have a role in evaluation (IDPH, 2012.)

Table III. IDPH We Choose Health Focus Areas (IDPH, 2012)

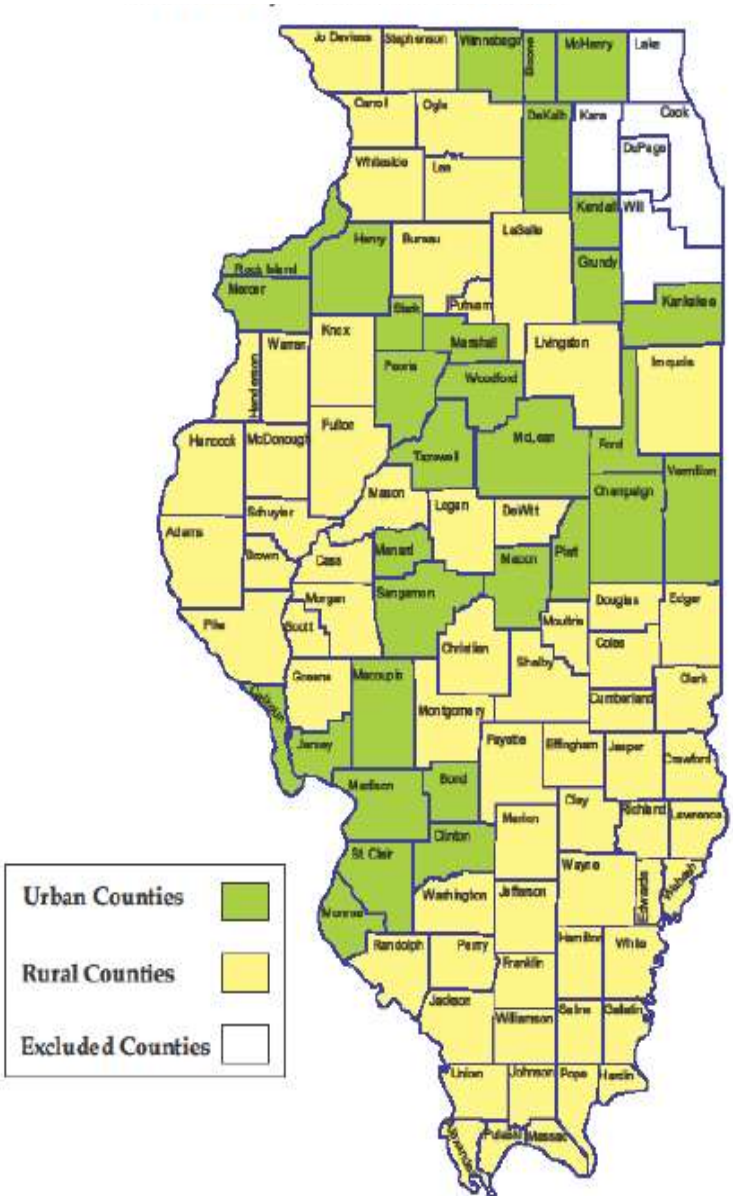
Healthy Eating and Active Living
1. Coordinated School Health Model – Implement in school districts a model addressing eight components: health education; physical education; health services; nutrition services; counseling, psychological and social services; healthy and safe school environment; health promotion for staff; and family/community involvement.
2. Baby Friendly Hospitals – Adopt the World Health Organization initiative to make hospitals a supportive place for mothers who want to breastfeed.
3. Worksite Wellness – Establish policies to give employees opportunities to be physically active, eat healthy foods, and live tobacco free at work.
Smoke-Free Living
4. Smoke-free Multi-unit Housing – Pursue smoke-free policies in multi-housing facilities.
5. Smoke-free Outdoor Spaces – Support further polices that limit smoking in outdoor areas such as parks and campuses
Healthy and Safe Built Environment
6. Complete Streets – Make roads accessible to all users by making it easier to cross the street, walk to ships, and bike to work; allow buses to run on time; and make it safer for people to walk to and from train stations.
7. Joint Use Agreements – Increase the number of facilities or areas where people can participate in physical activity through agreements between schools and communities.
8. Safe Routes to School – Establish and promote designated pedestrian and bike-friendly routes for children and others to use when traveling to and from community schools

Only organizations serving rural or suburban Illinois counties with populations less than 500,000 were eligible to apply. While there are several definitions of 'rural,' IDPH adopted the US Census Bureau definition and operationalized it as shown in Figure 7::

> The urban-rural classification is fundamentally a delineation of geographical areas, identifying both individual urban areas and the rural areas of the nation. The Census Bureau's urban areas represent densely developed territory, and encompass residential, commercial, and other non-residential urban land uses. The Census Bureau identifies two

types of urban areas: Urbanized Areas (UAs) of 50,000 or more people and Urban Clusters (UCs) of at least 2,500 and less than 50,000 people. ‘Rural’ encompasses all population, housing, and territory not included within an urban area (US Census Bureau, 2010, geography section, references).

Figure 7. Target Area for the Illinois Department of Public Health's Community Transformation Grant (IDPH, 2012)



In fiscal year 2013, 21 grants were awarded to 60 rural counties, totaling $3.5 million in funding (IDPH, 2012). Twenty of the 21 grant awards went to rural LHDs and their partnering coalitions. The multiple case study approach helps to increase the explanatory ability and

generalizability of the data in the study (Miles & Huberman 1994). The cases (n=3) were rural LHDs funded through the WCH Initiative. The following cases were chosen: Logan County Health Department, Bureau County Health Department, and Henry County Health Department. Table IV lists all 2012 WCH grantees. The cases chosen for this study are highlighted in green.

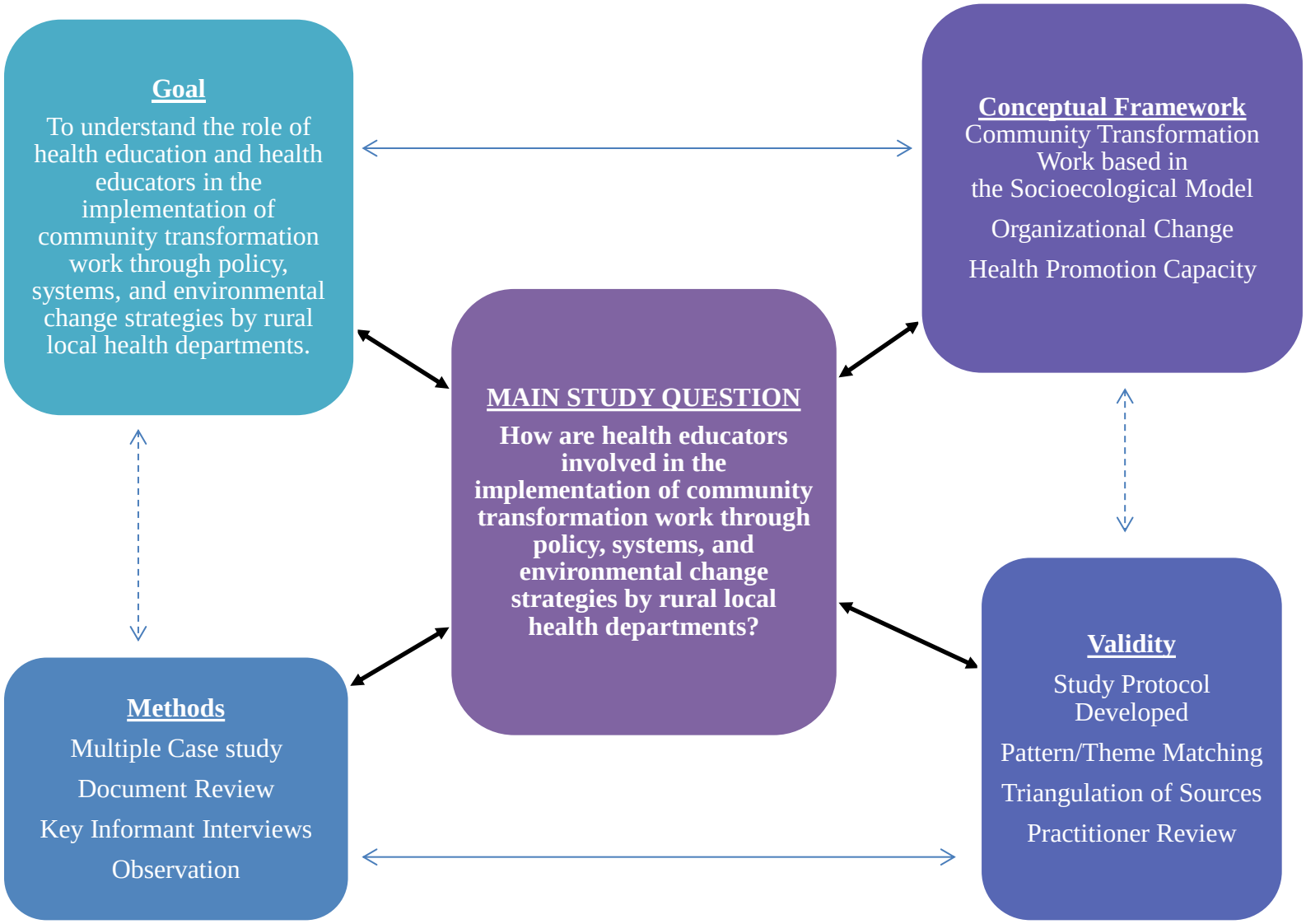
Table IV. – IDPH We Choose Health Grantees FY 2013 (IDPH, 2012)

Organization	Type	Counties Served	Total Population served	Amount FY 2013	Strategies
Moultrie County Health Dept.	Rural	Moultrie	14,846	$15,000	1, 3, 5
Logan County Health Dept.	Rural	Logan	30,305	$30,000	2, 3, 5
Bureau County Health Dept.	Rural	Bureau, Putnam	40,984	$74,388	1, 3, 5
Mercer County Health Dept.	Rural	Mercer, Henderson, Warren	41,472	$54,999	1, 5
Henry County Health Dept.	Rural	Henry, Stark	56,480	$56,480	1, 4
Knox County Health Dept.	Rural	Fulton, Knox, Mason, McDonough	137,266	$144,279	3, 5, 6, 7
Franklin-Williamson Bi-County Health Dept.	Rural	Franklin, Gallatin, Hamilton, Saline, White, Williamson	164,409	$184,547	1, 3, 4, 5, 7
Jackson County Health Dept.	Rural	Alexander, Hardin, Jackson, Johnson, Massac, Perry, Pope, Pulaski, Randolph, Union	183,002	$217,584	1, 3, 4, 5, 7
Whiteside County Health Dept.	Rural	Whiteside, Lee, Ogle, Stephenson, Carroll	207,701	$210,000	2, 3, 5
Clinton County Health Dept.	Rural/ Urban	Bond, Clay, Clinton, Crawford, Edwards, Effingham, Fayette, Jasper, Jefferson, Lawrence, Marion, Wabash, Washington, Wayne	298,853	$300,000	1, 2, 3, 5
Provena United Samaritans Medical Center	Urban	Vermilion County	81,625	$44,814	1, 4, 7,
DeKalb County Health Dept	Urban	DeKalb	105,160	$112,889	1, 4
Macon County Health Dept.	Urban	Macon	110,768	$141,301	1, 3, 5
Kendall County Health Dept.	Urban	Kendall	114,736	$111,055	2, 4
Rock Island County Health Dept.	Urban	Rock Island	147,546	$144,186	1, 5, 8
McLean County Health Dept.	Urban	McLean	169,572	$200,000	1, 3, 4, 5
Champaign-Urbana Public Health District	Urban	Champaign	201,081	$221,922	1, 3, 4, 5
St. Clair County Health Dept.	Urban	St. Clair	268,858	$300,000	1, 4, 6, 8
Madison County Health Dept.	Urban	Madison	269,282	$300,000	1, 4, 7
McHenry County Health Dept.	Urban	McHenry	308,760	$298,994	1, 5, 6, 7, 8
Winnebago County Health Dept.	Urban	Winnebago, Boone	346,009	$296,472	1, 3, 4, 5, 6, 8

C. Analytical Approach and Study Design

This study utilized a qualitative exploratory multiple case study approach, in which each participating LHD is conceptualized as a case (n=3). A case study is a qualitative method which is appropriate when a study seeks to describe, interpret, and explain study sites, participants, and processes in order to provide an in-depth understanding of the topics of interest (Lee, 1999). According to Yin (2009), "case studies are particularly helpful when 'why' or 'how' questions are proposed, investigator has little control over events, and the focus in on a contemporary phenomenon within a real-life context" (p. 4). This current study meets these conditions. The multiple case study was selected in order to compare and contrast the findings from each case study to the other cases. The data came from document review, semi-structured interviews with key informants, and observation of practitioners so as to allow for triangulation of sources. The overall study design is depicted in Figure 8.

Figure 8. Study Design



D. Case Selection Criteria

The multiple case study method was utilized to gather information from key experts and practitioners at LHDs. For the multiple case study design, the major units of analysis were LHDs in rural Illinois (n=3), with the sub-units being health educators. Cases were selected from the rural LHDs receiving funding through the We Choose Health Initiative of the Illinois Department of Public Health (IDPH). Case selection was based on population reach, strategy focus areas, and funding amount.

The cases in this study were purposively selected as they were all mid-sized LHDs, did not have more than three LHDs in their collaborating coalitions (thereby avoiding the effect of regionalization), and were deemed capable of providing insight into the key concepts in this study. In addition, selection was made with the understanding that the performance of an LHD is influenced by many factors with key factors being jurisdictional size and funding (Erwin, 2008); the selected cases were deemed to meet this criteria also. By choosing cases that were similar in these ways, it was possible to analyze each case within its setting and to then draw conclusions across cases. The following WCH grantees were chosen: Bureau County Health Department (with Putnam County Health Department as a collaborating partner); Henry County Health Department (in collaboration with Stark County); and the Logan County Health Department were selected as cases.

In summary, the decision to select three cases versus one or more than three was based on the factors noted above and the thought that three, all similar in size and scope of focus, would be able to accurately provide insight in the study questions

E. Data Collection

The primary sources of data included: document review of applications for the WCH grant and quarterly report;, semi-structured key informant interviews with LHD staff; and observations of health educators.

- **Document Review:** WCH applications for fiscal year 2013 were requested from IDPH. Each WCH application contained information on organizational characteristics, capacity, staffing, fiscal management, coalition structure and experience, the target population and strategies to be implemented. Documents were also requested from the participating LHDs, including performance reports and practitioner planning or implementation documents. This information was used to supplement or triangulate interview data regarding practitioner capacity, practitioner role, organizational structure, culture, and resources.
- **Semi-structured key informant interviews:** The key informants were chosen based upon their particular knowledge and understanding of the LHD, especially in the realm of CTW implementation, and their abilities to provide insight into the substantive questions of the study. They included LHD administrators, program managers, and program staff/practitioners. LHDs administrators were the main point of contact and were asked to help identify other key informants in each case. The use of multiple respondents is intentional, as some individuals may be more or less knowledgeable about their organization's approach to implementation and this will allow for triangulation. For each case, 3-4 interviews of 1-1½ hours were conducted. A total of 10 interviews were conducted (three LHD administrators, one health education program manager, and six health educators). The questions related to health educator activities

and organizational structure were guided by an activity analysis tool initially developed by Ward Goodenough (1963) to obtain data in specific contexts. The structured analysis tool focuses on several relevant factors in this study including organizational structures, procedures, personnel, and organization of personnel. According to Pinsker and Lieber (2005), "conducting research with the activity as the analytical unit consists of two stages of data collection: (1) an exhaustive description of the features of the activity, activities, or sets of activities, one by one and (2) an exhaustive description of the relations between activities observed." (p.108).

Additional questions to understand health educator capacity, organizational culture, and resources were developed for this study. The questions were open-ended to allow participants an opportunity to elaborate on the issue. All interviews were conducted in person, except for one which was conducted via phone. The interviews were recorded and the notes were transcribed by a professional transcription service.

- **Observation:** This included observing health educators at each LHD. Observation occurred in a variety of settings, including staff meetings, coalition meetings, or while staff was conducting an activity related to CTW implementation. An observation tool was created to capture which NCHEC responsibilities and competencies were being utilized. Field notes describing the setting and activity were taken and a written reflection was completed after the observation.
- **Case site review:** After data collection and analysis was completed, the information was vetted with participants to ensure results, findings, and recommendations were accurately reflected. The final case report and cross case analysis were initially sent via e-mail to all cases for review and comment. Then a brief summary report was made

available to cases and discussed either via phone or in-person if available (see Appendix j). The main discussion questions included asking respondents whether the results, findings, and recommendations were accurate and what information would they add or change? Results of the case site review were then incorporated into the results, findings, and/or final recommendations.

The primary data collection measures and sources of data are outlined in Table V. The tools used for data collection are found in the Appendix F and G.

Table V. Study Questions, Constructs, Factors, and Data Sources

STUDY QUESTIONS, CONSTRUCTS, FACTORS, AND TO DATA SOURCES		
Constructs	**Study Factors**	**Data Sources**
Main Study Question 1: **How are health educators involved in the implementation of community transformation work through PSE change strategies at rural LHDs?**		
Health educator role	• Activities and management related to implementation.	• Document review WCH application and reports • Semi-structured interviews: Director, manager, practitioner • Observation of practitioner
Study Question 1a. **How is community transformation organized and managed at the rural LHD?**		
Organizational Structure	• Organization and management of work • Health education work in relation to other work in organization • Health education work in relation to organization priorities	• Document review WCH application and reports • Semi-structured interviews: Director, manager, practitioner
Organizational Resources	• Funding for health education • Professional Development Support • Infrastructure and equipment	• Semi-structured interview: Director, manager, practitioner • Document Review WCH application and reports

Table V. Study Questions, Constructs, Factors, and Data Sources (Continued)

STUDY QUESTIONS, CONSTRUCTS, FACTORS, AND DATA SOURCES		
Constructs	**Study Factors**	**Data Sources**
Study Question 1b. **What is the role of the health educator in community transformation work at rural LHD?**		
Health educator role	• Role and responsibilities related to implementation.	• Document review WCH application and reports • Semi-structured interviews: Director, manager, practitioner • Observation of practitioner: NCHEC competencies
Study Question 1c. **How do organizational factors affect the role of health educator in the implementation of community transformation work through PSE change strategies at rural LHDs?**		
Health educator Capacity	• Skills • Knowledge • Experience (Differences in each of change areas: PSE) • Commitment	• Document review WCH application and reports • Semi-structured interviews of practitioners • Observation of practitioner: NCHEC competencies
Organizational Structure	• Organization and management of work • Health education work in relation to other work in organization • Health education work in relation to organization priorities	• Document review WCH application and reports • Semi-structured interviews: Director, manager, practitioner
Organizational Culture	• Mission, vision, values • Value for health education work and CTW • Relationship with community/coalition partners	• Semi-structured interview: Director, manager, practitioner • Document Review WCH application and reports
Organizational Resources	• Funding for health education • Professional Development Support • Infrastructure and equipment	• Semi-structured interviews: Director, manager, practitioner • Document Review WCH application and reports

F. Analysis Plan

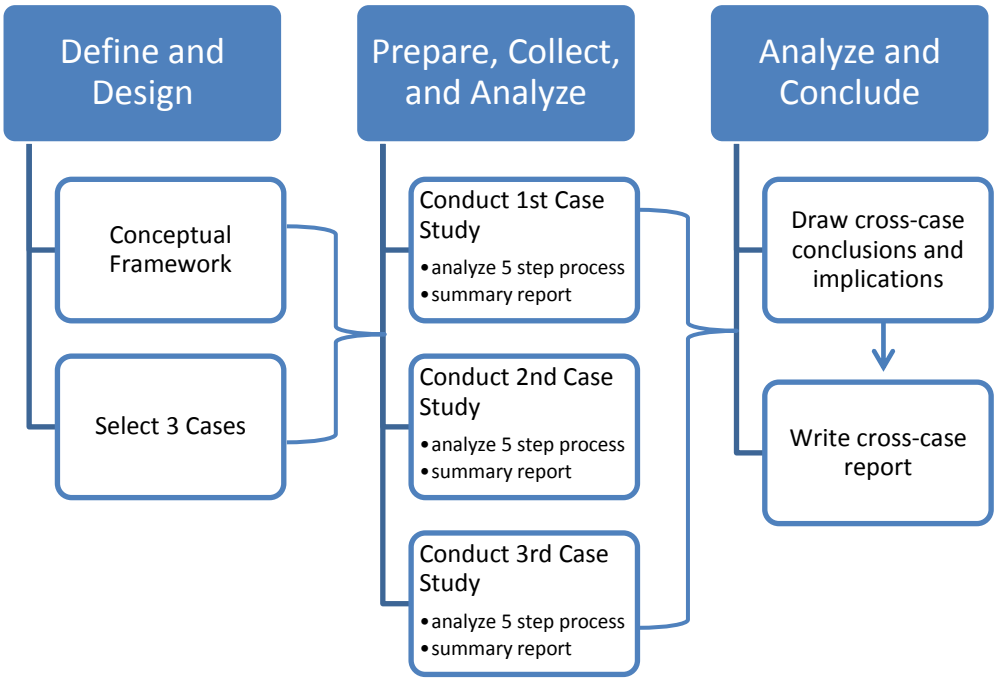
The replication approach in this study was proposed and outlined in Figure 9 (adapted from Yin, 2009). Utilization of multiple sources of data allows for triangulation and multiple cases allows for comparing and contrasting the results from each case to the other cases. The major conclusions from each case were analyzed using a five-step approach from Miles and Huberman (199), as outlined below. Cross-case conclusions and implications were made, and final findings were summarized in the results and discussion section of this paper. Overall analysis was informed by the guiding conceptual models, with additional patterns and themes being allowed to emerge from the data. The major elements of the qualitative data analysis happened in several steps, as outlined by Miles and Huberman (1994).

- Step 1: All data was read and reviewed for general understanding. Preliminary impressions were written down and reflected upon.
- Step 2: The data was focused and organized around the main study questions and then further organized by constructs defined in this this study. All data from each research question considered together. Consistencies and differences were then itemized.
- Step 3: The data was categorized or coded based on the research questions and constructs in the study. Transcripts were systematically read to identify common themes and to form conclusions regarding factors related to the health educator role in CTW implementation. Additional categories were added through the iterative process of reviewing the data. Illustrative text-based quotes were gathered to support each theme (Miles and Huberman, 1994).

- Step 4: The themes were assessed to determine their relative importance by asking the following questions: What are the key ideas being expressed within each category? What are the similarities and differences in the way people responded? (Powell & Renner, 2003). Once complete, a summary of each theme was prepared and a matrix table illustrating main points was completed.
- Step 5: The final analysis involved attaching overall meaning and significance to the data. A list of key points was summarized for each of the major constructs. In addition, new themes that emerged were summarized. A table summarizing the data was completed, thereby allowing an integrated view of the findings.
- Step 6: In addition, once all data was collected and analyzed, the results were vetted through the participants to ensure findings, and recommendations were accurately reflected.

Once each case was analyzed, themes and patterns pulled out, and summarized, the researcher looked across cases for overall patterns based on the research questions and constructs. This allowed for cross-case conclusions and findings to be made in the final cross-case report. The last phase of analysis included vetting the results and findings with the key informants at each participating LHD. Their feedback and responses were incorporated into the final results, findings, and recommendations.

Figure 9. Multiple Case Study Design, Data Collection, and Analysis (modified from Yin, 2009).



G. Validity Considerations

To address issues related to study quality, several strategies were employed. The study utilized various sources of data including documents, semi-structured interviews, and observation, so that data triangulation could be performed. A clearly defined study protocol was developed. Within the protocol, an outline for developing and utilizing observation and the semi-structured interview instrument was developed. Content analysis including pattern matching on the core constructs of the study was completed. Study participants were asked to review and validate the findings, further enhancing triangulation. The results and procedures used in this study were documented and kept in a secure excel database.

H. Study Limitations

This study was conducted during the first 18 months of the WCH grant cycle. Thus, the findings represent preliminary factors related to the involvement of health educators in CTW implementation. The results may only be relevant to Illinois and cannot be generalized to all

rural communities. Response bias may be a factor, as key informants may provide answers based upon their impressions of what the researcher wants them to say. Recall bias may also be a factor, as differences in the accuracy or recollection of the events may occur between participants. Additionally, no interviews were conducted with community partners, who were vitally integrated into the planned scopes of work. However, utilizing multiple data sources can minimize the impact of these two factors. Finally, as the researcher was the sole interpreter of the data, researcher bias can occur.

In summary, this study has the potential for long-term influence in Illinois efforts to address chronic disease with population-level interventions**.** In 2008, the state legislature passed the Chronic Disease Prevention Act by both the House and Senate Chambers (Illinois Public Health Association (IPHA, 2008). However, the Act failed to go any further. In June 2013, the Illinois Public Health Association (IPHA) passed a resolution for the establishment of a local health protection and health promotion block grant for LHDs (IPHA, 2013). This block grant would provide stable financial support to LHDs for health education and chronic disease prevention activities. By studying population-based chronic disease prevention in the context of LHDs, recommendations for how to build capacity at the LHD and build support for sustainable funding at the state level for this work can be made.

IV. RESULTS

A. Introduction

The purpose of this chapter is to summarize the finding of each case (N=3) and the results of the cross-case analysis. Three main research questions helped to explore and determine the role of health education and health educators in CTW in rural Illinois. The research questions, constructs and study factors were used. The main constructs included exploring organizational structure, organizational resources, health educator role and capacity, and organizational culture. The three main study questions were:

a. How is CTW organized and managed at a rural LHD?
b. What is the role of the health educator in CTW at a rural LHD?
c. How do organizational factors affect the role of the health educator in CTW implementation at rural LHDs?

A summary of the study results by research question, constructs, and related factors is presented in Table VI. Specific results are presented in accordance with factors, constructs, and measures that were detailed in the proposed conceptual model and operationalized in Table V. Additional factors or constructs that emerged during the study are also presented.

The study results came from three data sources: WCH applications and quarterly performance reports from October 2012-January 2014; semi-structured interviews of rural LHD staff; and observation of the health educators. In addition, respondents were asked to review the findings and results for accuracy. This was done via e-mail, over the phone and in-person. Overall, the results from each data source complimented and validated the others. No major discrepancies were found. This section presents the data extracted from the reviewed documents and observational activities. Table VI provides a summary.

Table VI. Study Questions, Constructs, Factors, and Results Summary

STUDY QUESTIONS, CONSTRUCTS, FACTORS, AND TO DATA SOURCES		
Constructs	**Study Factors**	**Results Summary**
Main Study Question: **How are health educators involved in the implementation of community transformation work through PSE change strategies at rural LHDs?**		
Study Question 1a. **How is community transformation organized and managed at the rural LHD?**		
Organizational Structure	• Organization and management of work within the LHD • Health education work in relation to other work in organization • Health education work in relation to organization priorities	• Health educator primary and lead staff • Often had other health education duties in LHD that aligned with CTW work such as tobacco prevention and control • CTW supports community health needs assessment priority involving obesity prevention or cardiovascular disease prevention
Organizational Resources	• Funding for health education • Professional Development Support • Infrastructure and equipment	• Funding not sustainable • Health education work often seen as 'extra' in LHD • Funding agency for CTW provides many resources but need more specific to rural needs
Study Question 1b. **What is the role of the health educator in community transformation work at rural LHD?**		
Health Educator role	• Role and responsibilities related to implementation.	• Lead role in implementation • Seen as 'most obvious' choice to lead CTW work because of multi-varied skills required of health educator

Table VI. Study Questions, Constructs, Factors, and Results Summary (Continued)

STUDY QUESTIONS, CONSTRUCTS, FACTORS, AND TO DATA SOURCES		
Constructs	**Study Factors**	**Results Summary**
Study Question 1c. **How do organizational factors affect the role of health educator in the implementation of community transformation work through PSE change strategies at rural LHDs?**		
Health Educator Capacity	• Skills • Knowledge • Experience (Differences in each PSE change area) • Commitment	• All 7 areas of responsibility in health education (NCHEC) present • Flexibility, passion, relationship builder, coalition builder, strong communicator, facilitator of groups, advocacy are all skills needed to lead this work • Only minimal experience in PSE. Most experience from tobacco prevention and control initiatives. Policy is the main focus area in PSE change • Strong passion and commitment for this work found
Organizational Structure	• Organization and management of work • Health education work in relation to other work in organization • Health education work in relation to organization priorities	• Health education seen as 'natural' fit to do this type of work • Health education valued; but still not be well understood since seen as extra and not often vital to function of LHD • Health education work often charged with implementation of community focused activities that align with community assessment priorities.
Organizational Culture	• Mission, vision, values • Value for health education work and CTW Value of relationship with community/coalition partners	• Aligns with LHD mission, vision and values • Aligns with community health priorities • High value placed in health education but doesn't always show up in funding priority • Community partners are essential in to implement CTW
Organizational Resources	• Funding for health education • Professional Development Support • Infrastructure and equipment	• Not enough funding to support staff time; this work take a lot of time • Funding agency for CTW provided many resources and learning opportunities, but still left to figure it out and adapt to your community.

1. Document Review

The review of WCH first and second year applications and quarterly performance reports from October 2012-January 2014 provided insight into organizational structure and resources, including how the work was intended to be organized and managed, and who would serve as lead staff for CTW. The reports described the particular activities of the health educators related to CTW. The applications provided background information on the cases and their prior experience with CTW. Both documents discussed coalitions and partners, specifically, how rural LHDs worked with community partners and the role(s) of coalitions in supporting rural LHD efforts to implement CTW. It should be noted that the document review provided just a small amount of data relevant to this study compared to interviews and observation. The documents primarily served to support interview information and what was noted during observation.

2. Semi-Structured Interviews

A total of 10 interviews were conducted (three LHD administrators, one health education program manager, six health educators). Nine interviews were conducted in person and one was done over the phone. The interviews provided rich data on all three main study questions, constructs, and study factors. Also, themes other than those initially determined emerged from the interviews.

3. Observation of Health Educators

Only two cases include observation data. For Case 2, no observation was able to be made because of time constraints and staff turnover of the case. Three total observations were completed. In Case 1, the observation two meetings/presentations at two local schools regarding workplace wellness were observed. These were led by two health educators. The participants included all faculty and staff at an elementary school and junior/senior high school. For case 3, a

two-hour coalition meeting attended by 35 coalition members, led by two health educators was observed. The observations provided insight into the skills/traits of the health educator, their role in implementing CTW, and relationship between community partners and coalition members. Observation helped to confirm findings from the interviews and document review in these key areas.

4. Case site review

Once all data was collected and analyzed the information was vetted through the cases to ensure results, findings, and recommendations were accurately reflected. The final case report and cross case analysis were initially sent via e-mail to all cases for review and comment. Then a brief summary report was made available to cases and discussed either via phone or in-person if available (see Appendix j). The main discussion questions included asking respondents, about the accuracy of the results, findings, and recommendations and what information would they add or change. Results of the case site review were then incorporated into the overall results, findings, and/or final recommendations. All three case sites participated in the reviews which were conducted by phone or in-person discussions; five of the 10 interviewees participated. All participants validated the results and findings to be true and accurate. Several participants also provided additions to strengthen the findings and recommendations section.

Table VII. Data Source Crosswalk

Study Questions	Study Constructs	Study Factors	Document Review	Semi-Structured Interviews	Observation
How is community transformation organized and managed at the rural LHD?	Organizational Structure	Organization and management of work	X	X	X
		Health education work in relation to other work in organization		X	
		Health education work in relation to organization priorities	X	X	
	Organizational Resources	Funding for health education	X	X	
		Professional Development Support	X	X	
		Infrastructure and equipment	X	X	
What is the role of the health educator in community transformation work at rural LHD?	Health educator Role	Activities and management related to implementation.	X	X	X
	Health educator Capacity	Skills	X	X	X
		Knowledge	X	X	X
		Experience (Differences in each of change areas: PSE)	X	X	X
		Commitment		X	X
How do organizational factors affect the role of health educator in CTW implementation through PSE change strategies at rural LHDs?	Organizational Structure	Organization and management of work	X	X	X
		Health education work in relation to other work in organization		X	
		Health education work in relation to organization priorities	X	X	
	Organizational Resources	Funding for health education	X	X	
		Professional Development Support	X	X	
		Infrastructure and equipment	X	X	
	Organizational Culture	Mission, vision, values	X	X	
		Value for health education work and CTW		X	X
		Relationship with community/coalition partners	X	X	X

B. Case Summaries

All cases were rural LHDs located primarily in central Illinois. They had populations of approximately 50,000 or less, which categorizes them as rural according to the US Census Bureau (US Census Bureau, 2010). Table VIII summarizes salient feature of the cases.

Table VIII. – Characteristics of Cases

Cases	Population Size	PSE Strategy Areas	WCH Funding FY13	FTE working on WCH
Case 1	40,993	Workplace wellness Smoke-free public places Coordinated School Health	$74,388	1.1
Case 2	30,305	Safe-routes to school Smoke-free public places Coordinated School Health	$30,000	1
Case 3	56,480	Workplace wellness Smoke-free multi-unit housing Coordinated School Health	$56,480	1

1. Case #1 Summary

Case #1 was a rural LHD serving a population of 40,993. For fiscal year 2013, it received $74,388 in funding through its WCH grant. The strategy focus areas were workplace wellness, smoke-free public places, and coordinated school health. Interviews of staff included the LHD administrator, health education manager, and two health educators. Staff was eager and excited to be interviewed and be part of this study. They were 'excited to tell their story' as noted by one respondent. Documents reviewed included the initial application for the WCH grant, subsequent FY14 re-application, and performance reports from October 2012-January 2014. In addition, a coalition meeting was led by the health education manager and one of the health

educators was observed. Overall, the findings found in the interviews, observation, and document review supported and validated each other. Table IX summarizes the results.

The health education manager and two health educators were leading the community transformation efforts at this health department. The two educators were hired specifically for this grant, but also worked on other initiatives aligned with CTW, including tobacco prevention and control initiatives and school-based interventions. Initially when the grant began, a "seasoned" health educator was let go because the individual was "not on board with this type of work." Neither of the two new health educators had experience with CTW or health policy, but noted being passionate about making changing in the community. They stressed strong leadership from management helped to facilitate their leading this work. They noted that leadership qualities are needed to lead this type of work including being passionate, flexible, organized, and a good communicator and facilitator.

This rural LHD had experience implementing two of the strategy areas: Coordinated School Health and tobacco prevention initiatives. However, all noted that CTW changed the scope of what they were doing in these two areas by increasing the policy focus. In their application, they stressed that they had established "excellent" relationships in their community, especially with their local schools, health care providers, local businesses, other social service organizations, hospitals and local media. They reported that these relationships have been a strong asset in implementing their plans to increase healthy choices throughout their catchment area. In one interview, the person stated that the coalition's motto was, "we never go alone." This was further confirmed while observing the coalition meeting which was attended by over 35 members representing many sectors including the faith community, healthcare, schools, law enforcement, county board, health department, community representatives, business owners,

parents, and other community-based organizations. The key informants in this case, stressed that knowing and working with your community was vital to success and continued sustainability. “It is with the support of our coalition and community partners that will help carry on this work.”

Table IX. Case #1 Summary of Results

Constructs	Results Summary		
	Interviews	**Document Review**	**Observation**
Health Educator role	Health educators lead staff; Seasoned health educator let go-"not on board with CTW'; No "real" policy experience prior to CTW; Must be passionate, flexible, organized, and good communicator and facilitator; must be people person to lead and build support for CTW	1 FTE health educator to lead work; leading meetings with partners, legislators, business leaders; education on policy; development of polices; social media campaigns; trainings CSH; survey development and analysis	Leading meeting and leading coalition members; Mentor to coalition members; Uplifting, organized, positive, engaging; Provided educational updates and policy updates; speaking to local town council
Organizational Structure	Health educators lead staff; Health educators more valuable than ever before through this work	Health educators lead staff; history of work on tobacco policy and CSH	Health educators leading CTW
Organizational Resources	Takes a lot of time to do CTW-meetings, continual communication and follow-up with partners.; If grant goes away not sure what will happen with positions and how much CTW will continue. May hurt relationships and trust in community; Funding is always an issue here	$74,338 in funding for WCH; partnerships will help to sustain work; time consuming to build support before policy passed	Issue of sustainability woven throughout meeting; coalition invested with their time
Organizational Culture	Strong leadership support from administration to do CTW and guide health educators; aligned with community health needs assessment priorities, mission, and vision of LHD; health education seen as extra	Established and excellent relationships in their community; strong asset	Strong connection with coalition members; Provided opportunities for all to share; trust and support of LHD staff; "personal connection" and "leadership" of LHD has been key to coalition success; aligns with community health priorities
Emerging Themes	This work is done with people and you have to know and understand them; We know our community, understand rural and they trust us; Can't be focused just on getting the policy passed as an outcome…need to work on education, coalition building	Partnerships in rural community important to get buy in	Trust from and with partners helps to get things done and policies passed

2. Case #2 Summary

Case #2 was a rural LHD serving a population of 30,305. For fiscal year 2013, it received $30,000 in funding through the WCH initiative. They adopted three strategy focus areas: baby-friendly hospitals, smoke-free public places, and coordinated School Health as noted in the application and performance reports. However, after the first year, they dropped their focus on baby-friendly hospitals; the one and only hospital backed out of the initiative noting it was too time intensive to work on at this time. Thus in FY14, the LHD added the new strategy area, safe routes to school. They felt their long standing relationship with schools and municipalities would make this a better fit. The rural LHD administrator and two health educators were interviewed. The staff seemed somewhat nervous but were interested in participating in the study. Document review included the initial application for the WCH grant, the subsequent FY14 re-application, and performance reports from October 2012-January 2014. This case did not include observation. Overall, findings from the document review supported what was found in the interviews. The results are summarized in Table X.

Initially, one health educator was charged with leading the CTW. After adopting the safe routes to school strategy, an additional health educator whose main responsibilities had been emergency preparedness was added to help with the new strategy area. This health educator noted that her work in emergency preparedness lent itself well to this type of CTW with a focus on policy change and working with school and city officials. The other health educator didn't have experience with CTW or health policy and was apprehensive that this "wasn't what she signed up for when taking this job several years ago." Both health educators had undergraduate degrees in community health and one had earned a Master in Public Health degree (MPH). They both worked on other initiatives that aligned with CTW such as tobacco prevention and control

initiatives and school-based interventions. All LHD staff noted this work was important but very time consuming, takes time to see real change, and that it is hard to compete with other larger LHDs doing this work. All noted that CTW takes a strong leader who needs to be passionate, a good communicator, flexible, organized, and have strong knowledge of the community and political environment. They felt their LHD was supportive of this work and it was great to have a Certified Health Education Specialist (CHES) as an administrator. "He really gets what we do" according to one respondent. The administrator noted that the health educators, "have really risen to the challenges of this CTW."

In their application, the rural LHD had noted that they had "extensive" experience in tobacco prevention and control initiatives. They mentioned working with the schools on drug free initiatives and a heart disease prevention program for teens, which provided a good established relationship to work on coordinated school health. Further the CTW strategies were aligned with their current community health assessment priorities. An established coalition was in place prior to the WCH CTW work and included members from community organizations and businesses such as the park district, local hospital, day care facilities, Head Start locations, an emergency management agency, schools, probation board, and many others. One respondent noted, "partnerships are huge [and] helped us make connections and opened doors for us." Another respondent noted the importance of partnerships, saying, "because we are rural and small, it really helps that we build a lot of personal relationships. People know us. They know if they need something, they know where to call." However, respondents were not sure how much the CTW work would continue once funding is cut. "We need staff to do this work, and without funding, the position is reduced and [while] partners may do some [of the work we are] not really sure if they'd pick it all up."

Table X. Case #2 Summary of Results (no observation completed)

Constructs	Results Summary	
	Interviews	**Document Review Observation**
Health Educator role	2 health educators leading CTW; both had community health education degree; 1 had MPH; 1 had experience through emergency preparedness and other no experience in PSE; takes a strong leader who needs to be passionate, a good communicator, flexible, organized, and have strong knowledge of the community and political environment	1 FTE health educator to lead work; gathering information on policy development; meetings with school personnel; presentations and meetings with city council for smoke free places; leading coalition meetings; helping schools with school health index and interpretation; content for newsletters; coordinated public events; survey collection and analysis;
Organizational Structure	Health educators leading CTW; natural fit for this type of work	Health educators lead staff; history of work on tobacco policy; WCH work coordinates with other grants-tobacco prevention and heart health for teens
Organizational Resources	Time-consuming work; not enough time and can't compete with larger LHD, do what we can; if we had more staff and funding, we could do more; takes time to see results and legislators may not be patient to really see outcomes.	$30,000 in funding for WCH; coordinated with other grants focused on chronic disease prevention; initiatives take a lot of time from policy development to passage;
Organizational Culture	Strong administration support has been helpful; partners and coalition members vital to our success; partners know us and trust us; aligns with current community health needs assessment priorities, mission, and vision of LHD; funding goes, then we goes and that says a lot about priority of health education; health education not seen as vital function of LHD	Established coalition in place; strong relationships in their community to partner with for CTW; focus areas in WCH align with identified priorities in the county;

Table X. Continued - Case #2 Summary of Results (no observation completed)

Constructs	Results Summary	
	Interviews	**Document Review Observation**
Emerging Themes	Sustainability - not sure how much CTW work would continue once funding is cut. Rural – we know rural, we live here, this is our community and they trust us; we can get things done, just on a smaller scale. Limited in scope of opportunities for change. You get one shot usually Partnerships-key to our success, have to build support and buy in first to get policy passed	Policies developed will be sustained; work will be sustained by empowering partners such as schools to continue the work; partners more vested and engaged than before with previous initiatives;

3. Case #3 Summary

Case #3 was a rural LHD serving a population of 56,480. For fiscal year 2013, it received $56,480 in funding through the WCH grant. The strategy focus areas were workplace wellness, smoke-free public places, and coordinated school health as noted in the application and performance reports. Staff interviews included the LHD administrator and two health educators. Staff was eager and excited to be interviewed and be part of this study. Documents reviewed included the initial application for the WCH grant, the subsequent FY14 re-application, and performance reports from October 2012-January 2014. In addition, two presentations/meetings on workplace wellness at two local schools that were led by the two health educators were observed. Overall, the findings found in the interviews, observations, and document review supported and validated each other. Summary of the results are included in Table XI.

Two health educators were charged with leading the WCH CTW work. According to one respondent, "they are the right people to do this type of work." The administrator noted, "health promotion and education do more than just presenting – they can affect real change in community." One health educator worked full time on implementing WCH and was considered the lead; the other health educator was dedicated part-time to implement WCH strategies. Neither had previous experience with CTW or policy work, but felt strongly about their expertise in education and working with the community. As noted by one respondent, "education plus advocating for policy change is best approach in our community." Many skills and traits were viewed as needed to be able to lead this work including, really knowing and understanding your community, "having it all," being a strong leader, a "willingness to go the distance," a good facilitator and relationship builder, and "having your heart in this work." This was evident and confirmed by observing the excitement, passion, knowledge of strategy areas, knowledge of their

population, and positivity of the health educators; their personal stories and connections were empowering to their audience.

Results suggest that the linkage between WCH and other awarded grants as well as the integration of WCH within existing programming at the rural LHD was very strong. The CTW aligned with their current community health assessment priorities and they had previous experience in tobacco prevention and control and school based programs, experiences which were viewed as providing a strong foundation for the WCH grant work. In the interviews, staff noted that "they rely heavily on the established community partners and networks to provide services for their residents." It was thought that is was essential "to build relationships and get buy-in from partners as they are huge allies. And if they trust you and they will be willing to work with you." Being a rural LHD was seen as more of an asset than a disadvantage to their implementation of this work because to them it was mostly about building and maintaining relationships to get CTW done. They seemed to think CTW was easier for a small rural community. However, they expressed doubt that both health educators would remain employed when funding ended, and that this would mean there would be no one to push and drive this work.

Table XI. - Case #3 Summary of Results

Constructs	Results Summary		
	Interviews	**Document Review**	**Observation**
Health educator role	2 health educators leading CTW; no experience with CTW or PSE; key skills needed strong commitment, relationship builder, good communicator and passionate; believe in work;	Social media; leading meetings; policy development and implementation; presenting at city council and other board meetings; educational presentations; persistence pays off	excitement, passion, knowledge of strategy areas, knowledge of their population, positivity, and were empowering to their audience with personal stories and connections; resource for school staff; follow-up meetings planned with school administrators
Organizational Structure	Health educators leading CTW; aligns with community health priorities; aligns with other work in tobacco prevention and CSH; before WCH primarily program based in health education; right staff for this type of work since they are ones out in community	Aligns with community priorities and a few other health education initiatives-CSH, tobacco prevention;	Health educators leading meeting and presentation with local school staff
Organizational Resources	Technology can be issue in rural communities; need more staff and time to do this work; CTW is time consuming; once funding is gone not sure where CTW will go since staff won't be there to lead and push initiatives in community	$56,480 CTW funding; takes a lot of time to do CTW; leveraged resources from partners	
Organizational Culture	CTW fits well with mission and vision and community health priorities; rely heavily on the established community partners;	Strong partners	Partners appeared to have strong respect and trust for LHD staff
Emerging Themes	Starts with education and building support to get buy in for policy change; have to know your community, especially in rural community to build trust; trust can be lost when funding goes away since we made promises; being rural is an asset	Partners essential and more engaged in process of healthy community	Have to build buy-in and support through educational events to broach subject of policy development in schools

The next section provides a summary of the cross-case analysis by results by the three main research questions, constructs, and related study factors.

C. Findings Across Cases

1. Results for Question 1a: How is community transformation organized and managed at the rural LHD?

Qualitative data were collected from interviews and document review to address research question 1a. The constructs for this question included organizational structure and resources. Specific results for each of these constructs are presented below by the major themes that emerged using qualitative analysis. Tables XII and XIII summarize results by the constructs.

a. Organizational Structure

CTW at rural LHDs was overseen primarily by a health educator. Either one to two health educators were charged with the CTW implementation; this finding was supported by interviews, document review, and observation. The health educators had other health education and promotion duties; most often these responsibilities aligned with CTW goals such as tobacco prevention and control initiatives and school-based interventions but were supported by other funding streams that were in place prior to the WCH grant. According to one respondent, "health education is a natural fit for this type of work. They make the most sense since CTW falls in line with the principles of what health education do. They help to motivate and facilitate community partnerships to make change in the community." Further, it was noted that health educators are the ones "out in the community." The partnerships that had been built up through primarily programmatic work, such as in the schools, provided for the perfect opportunity to expand upon what the rural LHD could offer through policy development and change.

Across cases, the CTW supported health needs assessment priorities previously identified, as supported by interviews and the primary WCH application. While those priorities are often stated in general terms, the relationship between PSE change around nutrition, physical activity, and tobacco prevention to priorities related to cardiovascular health and obesity prevention was viewed as central. One responded noted that,

> it was so great to have just identified obesity as a priority and see state funding mirror this priority since that doesn't often happen. We often have no real money to help implement and support the priorities set out in IPLAN.

Health educators were most often identified to often carry out and implement these 'new' priority areas, despite the fact that health education funding is often scarce. One respondent noted, "health educators have such an important role because they get to do the work that is really tailored to your community and addressing the new issues that come up and any of the new grants are mostly in health education."

Table XII. – Results Summary - Organizational Structure

Factors	Results	Quotes from Respondents
• Organization and management of work within LHD • Health education work in relation to other work in organization • Health education work in relation to organization priorities	• Health educator primary and lead staff • Often had other health education duties in LHD that aligned with CTW work such as tobacco prevention and control • CTW supports community health needs assessment priorities involving obesity prevention or cardiovascular disease prevention	"Health education is a natural fit for this type of work since it falls in line with the principals of what health education does. They help to motivate and facilitate community partnerships to make change in the community." "It was so great to have just identified obesity as a priority and see state funding mirror this priority since that doesn't often happen. We often have no real money to help implement and support the priorities set out in IPLAN." "Health education has such an important role because they get to do the work that is really tailored to your community and addressing the new issues that come up and any of the new grants are mostly in health education"

b. Organizational Resources

Lack of funding was a common theme as noted by respondents in the previous section. A summary of results related to organizational resources is outlined in Table XIII. However, most seem to think that the CTW funding received through WCH was adequate to do the work they had set out for themselves. One respondent noted, "funding is an issue always everywhere but you figure out how to make do with what you have." The larger issue in terms of resources was staff and time to do the "enormous amount of work" that is required of CTW. "It is hard not to

feel like failure when bigger LHDs are doing more – but they have more time, staff, and funding and you just can't physically get it all done."

They also noted that more funding, staff, and time are inexplicitly linked because it would be useful to hire more staff, which would give us more time for the work, but that takes more funding. And the staff and time is what is most need to get this type of CTW done. One respondent noted, "health education and health promotion is really amount funding their time, since they don't need a lot of physical stuff, it is not about much else. We need them, their time, and expertise to build relationships, to get policies passed and programs implemented." While there seems to be a consensus around observation, there was also a common theme that health education and promotion work is seen as "extra" in the health department. And "while this is important work, it is not necessary work needed in order to run a LHD." All respondents would like to see a system in place at the state and or federal level to support "real sustainable" funding such as that which was envisioned by the Illinois Local Health Protection fund. "Only then will we see the true potential of what we can do as a LHD in terms of health education type work."

Rural LHDs noted that while the lead funding agency for CTW work provided many resources and learning opportunities, they still felt that they "were left to figure it all out and adapt to our community." One theme that emerged was that those [working] at the state and federal agencies, "don't really get rural." And because of that, their resources – the examples and best practices – don't really apply to rural communities. Respondents thought they often learned best from other rural practitioners and rural health departments in that they were dealing with similar issues. As one participant explained, "One of the best things that I did was just dig in and start to reach out to other rural LHD, and I learned so much from them." An additional resource-related theme that emerged was the issue of technology and its availability in rural

areas. While this is an age in which technology drives how we communicate (such as through e-mail, social media, webinars, mobile devices, etc.), in a rural area, the technology "may not be there in all areas," which can limit what you do and how you do it. For example, one respondent noted, "I may have a community partner that doesn't have consistent access to e-mail and the Internet, so if I send him something via e-mail like a link to check out . . . they may not get it or get it days or a week later."

Table XIII. - Organizational Resources

Study Factors Explored	Results	Quotes from Respondents
• Funding for health education • Professional Development Support • Infrastructure and equipment	• Funding not sustainable • Health education work often seen as "extra" in LHD • Funding agency for CTW provides many resources but need more specific to rural needs	"Amount of funding is adequate" "While this is important work it is not necessary work needed in order to run a LHD." With more sustainable funding sources, "Only then will we see the true potential of what we can do as a LHD in terms of health education type work." "It is hard not to feel like failure when bigger LHDs are doing more – but they have more time, staff, and funding and you just can't physically get it all done." "People don't really get rural"

2. **Results for Question 1b:** What is the role of the health educator in CTW at the rural LHD?

Qualitative data were collected from interviews, observations, and document review to address research question 1b. The study factors for this question included the roles and

responsibilities related to CTW implementation. In addition, this question explored the construct of health educator capacity; the study factors included: skills, knowledge, experience, and commitment to CTW. Specific results for each constructs and study factor are presented by the major themes that emerged during qualitative analysis. Tables XIV and XV summarize results by the constructs and study factors.

a. Roles and Responsibilities Related to Implementation

As noted in the discussion of Question 1a, health promoters and health educators were chosen to lead the CTW at these rural LHDs because they were viewed as a "natural fit for this type of work with the diversity and multi-varied skill set they have." When asked about the difference in terms, health educator, and which their rural LHD used or preferred, all key informants saw these terms as the same and interchangeable. The duties charged to the health educator to implement PSE change within their chosen strategy areas varied. Table X outlines some of the key activities that health educators were engaged in by CTW strategy areas.

The interviews and performance reports documented activities that included, for example, making connections via e-mail, at events, and via phone calls; contacting key people such as principals and council members; developing and delivering promotional materials; and setting up, conducting, and presenting information on strategy areas at various meetings. Some of the activities took a considerable amount of time before a specific PSE change occurred. For example, one might present information for consideration on a smoke-free park to a city council one month, and it may take several months to get back on the agenda, develop the policy, and have the policy put up for a vote. In another example, a school might indicate they are interested in coordinated school health, but does not get back to practitioner for months. These situations demonstrate that continued follow-up is necessary to secure commitments.

In addition to specific strategy-based activities, health educators conducted overarching activities across all strategy areas. This included leading coalition meetings, which in some cases met every month and in other cases met quarterly. Coordinating coalition activities was a time-intensive process which included developing agenda and action items with partners, maintaining contact with coalition members, and fostering momentum between meetings. In addition, conducting media-related activities, including developing content for social media, press releases, and speaking to local media, was viewed as necessary but time consuming.

Table XIV. We Choose Health Strategy Areas and Health educator Activities

Strategy Area	Health Educator Activities
Workplace wellness	Meet with business leaders and school administrators. Deliver educational presentations on workplace wellness initiatives to employees at schools and local businesses. Develop specific policies related to workplace such as breastfeeding policy, vending policy, and employee wellness policy.
Smoke-free public places	Deliver smoke-free playground presentation to city council. Develop sample smoke-free ordinances. Present to county board regarding smoke-free parks. Develop tobacco free signs for parks. Develop content for LHD newsletter and for social media.
Smoke-free multi-unit housing	Develop and help collect smoke-free lease addendums. Conduct educational presentations and Freedom from Smoking classes. Develop radio, poster, and flyer advertising classes. Develop lists of contacts for multi-unit housing with coalition. Work with property managers on proper signage for smoke-free properties and enforcement related issues.
Safe Routes to School	Contact and meet with school principals and parent teacher organizations. Educate school administrators, parents and the community on what safe-routes to school entails. Develop survey for parents. Analyze survey results.
Coordinated School Health	Contact via phone and email school principals. Have face-to-face meetings with school principals and key personnel Help schools complete the school health index, develop school wellness teams and school wellness councils, and wellness actions plans. Develop media and marketing materials on wellness initiatives in the school. Attend professional development training. Organizing trainings for teachers.

As shown in Table XV, activities related to CTW implementation by the health educator aligned with NCHEC health education responsibilities. The implementation of PSE change often starts with assessing the need within the organization or community, and proceeds through a set of steps, up to and including planning or developing appropriate policies, involving stakeholders, advocating for their passage, and ensuring implementation. These activities are congruent with the responsibilities and competencies of a health educator, according to NCHEC. . Further, health education activities are often focused on organizations and broader community. For example, in this study the health educators met with and provided education to county boards, town officials, school officials, school boards, and business leaders as part of their efforts to develop policies and see them through all stages of implementation. In this study, this process and these activities were confirmed through document review, key informant interviews, and observation. The respondents noted these activities specifically in the interview. In the performance reports, meetings were recounted in deep detail, including who attended, what was discussed, and the outcome(s). Through observation, the researcher witnessed meetings with school officials, personnel and key community partners at a coalition meeting. It is important to note that NCHEC endorses the activities that lead up to PSE change, specifically advocacy, policy development, and employing policy techniques to influence decisions as core responsibilities for health education specialists (NCHEC, 2010).

Table XV. – NCHEC Seven Areas of Responsibility and Relevant Examples

Seven Areas of Responsibility	Example of Activity
1. Assess Individual and Community Needs for Health Education	Help to implement the school health index; Support and promote of Illinois youth survey (IYS) data; Assess needs of staff for workplace wellness programming and policy; Identify local data to support policy
2. Plan Health Education	Discuss planning in regards to how workplace wellness would work in school setting; Plan how to approach officials with safe routes to school plan; Develop policies; Involve stakeholders and coalitions in planning
3. Implement Health Education	Provide background information on chronic disease, why this is important, demonstrated how an Internet based program wellness worked; Present information to county board on importance of smoke-free public places; Provide information to coalition members on PSE change.
4. Conduct Evaluation and Research Related to Health Education	Illinois Youth Survey; Research new and emerging issues to keep on radar; Conduct process evaluations on how program and policies implemented; Complete performance reports
5. Administer and Manage Health Education	Manage budget for CTW; Write performance reports; Manage coalitions; Facilitate CTW partnerships
6. Serve as a Health Education Resource Person	Serve as key resources in the community for strategy areas; Empower and lead coalition members through education and resources to implement PSE change strategies
7. Communicate and Advocate for Health and Health Education	Provide opportunities for coalition members and community members to be involved; Advocate for policies at workplaces, schools, and in communities; Help develop policies for smoke-free parks, schools, and workplaces

In this study, the health educators leading CTW assumed the responsibilities delineated by NCHEC. However, only one was a Certified Health Education Specialist (CHES); this person also held a degree in community health education. One individual held master's degree in public health (MPH). The other health educators held various degrees that included education and exercise science. Several respondents noted that health education is a diverse field and often requires a "foundation in education;" therefore, a degree in education or exercise science coupled with a sincere interest in healthy communities was appropriate preparation for this type of work.

b. PSE Change – Focus, Shift, and Experience

Table XVI summarizes a sampling of quotes from respondents regarding their experience with PSE change and the possible shift towards PSE change in health education and promotion. In this study, most practitioners had little or no experience in "policy type work." Most had previous experience in programmatic type health education, including health education in the school classroom on topics such as tobacco cessation or cardiovascular health. Some noted experience working on a current tobacco prevention policy project under a grant that was aligned with the objectives of the WCH grant. This had been noted in their initial WCH application. The other project included working on policy related to smoke free public places such as parks and the Smoke Free Illinois Act. Another respondent noted that previous work in emergency preparedness and planning provided good experience for policy change work. In the interviews, the administrators stated their environmental staff had the most experience in PSE change, but that the health educator was rarely involved in those efforts.

When asked about the differences between policy change, system change and environmental change, most noted that, "the policy piece seems to be the primary focus" in CTW. Most examples cited by respondents were policy related and included a smoke-free

public parks ordinance, a smoke-free multi-unit housing policy and a school wellness policy. Several respondents stated that they did not really understanding what systems change was and felt that the focus should be on getting the policy passed, because then either a system or environmental change will come from this policy. According to one respondent, "you can say you'll do all these things, but if you don't have a policy to back it up, who knows if it will remain and then how to you really evaluate it then." Further, another respondent noted, "as health educators, we need to broaden our perspective because if I'm not here in 10 years, at least that policy will be and we can look at the changes that have been made because of it."

During follow-up, respondents were asked if they thought health education was experiencing a shift to a more PSE change focus. According to one respondent, "health education seems to have been focused on programs and education, now there is big push for policy and proving effectiveness – and has been sort of barrier because our thinking isn't policy driven usually." This comment supported the emergence of a theme concerning a recent change in focus from a programmatic approach to one that stresses organizational change and education of policy makers, school officials, and community leaders to make PSE change happen. "There is more pressure from grants to do policy work and more evaluation." However, most respondents thought that education is a key element in PSE change. One individual stated, "yes, I see a shift in all our programs to be more policy driven. We can't just do education anymore, but we have to educate to get policy passed and build support. They go hand in hand and it is a give and take – provide education, build support, then policy, then more education on it." While it appeared respondents agreed this shift is happening, it had taken some health educators by surprise. In one case, a "seasoned health educator with 20 years of experience could not come to terms with this policy work, wasn't on board, and we had to let her go." One respondent noted

that, "I am not sure that when I signed up to be a health educator, I signed up for this type of work, or was I prepared, but it is important. I just never had policy class." An administrator in one case noted that, "it may have been outside their comfort zone at first since [they were] used to doing programming but they adapted very well because their experience with health education served them well." While a shift was noted, it many expressed that they felt PSE change work should occur in addition to, not instead of, individual or classroom based health education. "As health educators – this is what we do, we are supposed to be in schools, be out in community and making change…this is what we do."

Table XVI. Results Summary of Policy, Systems and Environmental Change – Focus, Shift, and Experience

Quotes from Respondents		
PSE Change Focus	**Shift to PSE Change**	**Experience with PSE Change**
"The policy piece seems to be the primary focus" "Understanding that the policy piece is so important in that if you start with policy then the environment and system is going to change if the policy is implemented properly...so we should focus on policy and the others will fall in line."	"Yes I see a shift in all our programs to be more policy driven. We can't just do education anymore but we have to educate to get policy passed and build support. They go hand in hand and it is a give and take – provide education, build support, then policy, then more education on it."	"Not much experience with policy change" "It may have been outside their comfort zone at first since used to doing programming but they adapted very well because their experience with health education served them well."

c. <u>Skills, Traits, Knowledge, and Commitment</u>

In addition to the competencies required to implement the seven areas of responsibility delineated by NCHEC, respondents noted many other skills and traits that are necessary to lead CTW work. Specifically, a few respondents said that, "health educators have to have a very

diverse skill set." Those skills included being flexible, being passionate, being a relationship builder and coalition builder, strong communicator, facilitator of groups, and advocacy skills. A full list of all the skills, traits, and knowledge thought to be needed by health educator is summarized in Table XVII. One respondent noted that, "health educators have to have it all, since we are the face of the health department and out in the community advocating for change." Having strong leadership skills emerged as a common theme with the most cited trait, being passionate. As one participant noted, "Passion for this work is vital, so that you can motivate others. If you don't believe in what you are doing, it will show. I think being passionate really comes into play because if you are and you really want it to happen and make a change, you will be more successful if you are passionate." This illustrates the commitment expressed by many during the interviews, confirmed through the observations, and in the documents reviewed. Another respondent noted, "you have to buy into the work, that's essential, if you buy in, get those other people to buy in, get a policy written, then it gets done and it's their success, they own it." Further, one administrator noted, "It starts from your heart, have to believe that you are making a difference because that is why we do our jobs in public health to make a difference. You have to look at what drives people, including your own staff and make sure they get it to." Another respondent stated, "I think this work is so important and it's really a game changer for us in health education or hope it can be."

The respondents noted other necessary skills and traits including, "living and buying into what you do," and being a great collaborator, facilitator and communicator. According to one respondent, "leadership skills play a huge role in this work – more than ever before, we have to advocate for what we do." Of note, NCHEC lists advocacy as one of the seven areas of responsibility for health educators (NCHEC, 2010).

In terms of knowledge, common themes included knowing and understanding your community; knowing who the key players are; strong understanding of health; and understanding the political environment. This was further confirmed through observation which showcased the health educators and demonstrated their knowledge and understanding of the community and issues.

Table XVII. Results Summary: Skills, Traits Knowledge, and Commitment Needed by Health Educator to Lead CTW

Skills and Traits	Knowledge	Commitment
• Courageous • Motivator and be positive • Relationship builder • Have your heart in this work • Team player • Willing to go the distance with partners • Empowering to others • Passion for this work is vital • Be flexible and patient • Need to be a change agent • Facilitation of group dynamics • Have people skills and be outgoing • Collaboration skills • Believe in and live what you preach • Be persistent • Be organized	• Health education principles. • Know and understand your community. • Know the key players • Know and understand political environment. • Know and understand what you are talking about. • Knowledge of advocacy and policy development. • Knowledge of "what it takes to lead this work.	• Passion for this work is vital, so that you can motivate others. If you don't believe in what you are doing, it will show. • I think this work is so important and it's really a game changer for us in health education or hope it can be. • It starts from your heart, have to believe that you are making a difference because that is why we do our jobs in public health to make a difference.

3. **Results for Question 1c:** How do organizational factors affect the role of health educators in CTW implementation through PSE change strategies at rural LHDs?

Qualitative data were collected from interviews, observations, and document review to address research question 1c. The constructs for this question included: structure, resources, and

culture. Structure and resources were addressed in the previous sections; this section focuses on organization culture. The study factors explored in relation to organizational culture included: mission, vision, values of organization, value for health education work and CTW, and value of relationship with community/coalition partners. Specific results for each of these constructs are presented below by the major themes that emerged using qualitative analysis. Tables XVIII and XIX summarize results by the constructs.

a. CTW Alignment with the Mission, Vision, and Values of the Organization

In all cases, through interviews and document review, it was found that CTW work aligned with their mission, vision, and values as a LHD. As noted earlier, it aligned with their community health assessment priorities as well. Among health educators charged to lead this work, there was a common theme that organizational support and understanding is very high for this type of work. They felt it was valued and supported by the organization and that their CTW work was viewed as essential to their overall success at work. However, the practitioners also noted that they were unsure if the work would continue to be a priority if there was not grant funding to directly support their position.

b. Value of Health Education

Among participants, a theme emerged that health education was valued at the rural LHDs. And as noted earlier, all rural LHD administrators felt it made the most sense to integrate CTW into health education and promotion. "Health educators and health promoters are a natural fit for this type of work with the diversity and multi-varied skill set they have." One respondent noted that, "the value is very high on health education in our health department and it is supportive of any kind of education, prevention, and health education." One administrator said, "health education is more valuable than ever before, and then that makes our health department

more valuable to the community. So it is a win-win for all." Another administrator noted, "health education and promotion is often considered extra position but is so vital and there is so much potential in their work. They are becoming more integral into public health. So in that way this push towards environmental change really helped us solidify the role of a health educator."

However, it also emerged that health education and promotion work is not always a funding priority and, "that makes the work hard to sustain if we don't have funding to support staff." One practitioner said, "right now, when funding goes, the position goes. There has to be a way to pay for health educators to do the work and now it is grant by grant." Another emerging theme was that some practitioners thought that other rural LHD staff may misunderstand what health education and promotion are and what they can do. According to one respondent, "the other staff don't quite get what we do but we helped to alleviate that by keeping staff updated on our progress and what we are doing in the community." So now there is a lot of "buzz" around this work and it emerged that rural LHD staff are talking about the changes that are happening in the community with an understanding of what health education and promotion can do. Further, "health education does more than just presenting. Health educators can affect real change in the community, understand data and how to impact change. Which is a great asset to our health department."

Table XVIII. – Results Summary - CTW Alignment with Mission, Vision, and Values of organization and Value of Health Education

CTW Alignment with Mission, Vision, and Values of organization	Value of Health Education
"Organizational support and understanding is very high for this type of work."	"The value is very high on health education in our health department and it is supportive of any kind of education, prevention, and health promotion."
"Aligns well with mission and vision at our health department"	"Health education is more valuable than ever before, and then that makes our health department more valuable to the community"
"Falls in line with our IPLAN priorities"	"Health education and health promotion work doesn't always show up as a funding priority and "that makes the work hard to sustain if we don't' have funding to support staff."
	"Health education does more than just presenting. They can affect real change in the community, understand data and how to impact change. Which is a great asset to our health department."

c. Relationship with Community and Coalition Partners

All LHDs funded through the WCH grant were required to be involved in a community-based coalition ready to work on PSE change strategies at the time of application. Across cases, it emerged that at the time of application, some had in place some established partners and some had a previously established coalition that was working on issues that would be able to be aligned with CTW. Essentially, in all three cases, the LHDs were building off past successes with partners. As on respondent explained:

> We are confident in our ability as a coalition to engage our local community leaders to embrace the desire to improve the health and well-being of all citizens of our county. The combined experiences of current and future members along with the backing of community and school leaders creates an optimistic outlook in achieving the goals we

> have set and starting the momentum for future projects. As we prepared our application and examined the successes that we have been able to achieve on a smaller scale we realize the promise of what can be achieved when the team is coordinated and focused on a common goal. We believe that our coalition will continue to grow as we experience successes in this effort and we look forward to this new chapter and anticipate continued support and growth in our local communities.

Respondents reiterated the importance of good relationships with community partners; this emerged as a strong theme. As the health educators were often the people interfacing with the community, the job of relationship building fell to them. According to one respondent, "having an established coalition of partners was very helpful and a great resource. These members are our community and are vital to our success. You can't ignore coalition building in this type of work." Another respondent noted, "it is key to build relationships and get buy in from partners. They are huge allies and if they trust you, they will be willing to work with you and for you." Many saw their partners as ways to "open doors for them" because if "I don't know someone, then I bet someone on my coalition will." According to two cases, coalition partners and good collaboration can help to align and leverage resources and possibly bring in new resources according. Further, one respondent noted, "this work is done with people, not to them." They found that working with community partners allows staff to learn about the community and what they need.

The theme of building and maintaining coalition partners was strong, including issues related to continued engagement and sustainability. Participants linked efforts to keep partners educated on key issues with increasing their capacity, which led to remaining engaged and active. According to one respondent, "the key in working with partners is to utilize their time

wisely, give them a clear purpose, use their strengths, and keep them engaged." Respondents also reported that the nature of their work with partners changed; Previously, they had taken a more passive role of support in their community-based coalitions but with the addition of CTW, they became more actively involved. In one example offered, "we always had relationship with partners but with this work, for the first time in the schools for example, they are actively changing what they are doing as opposed to us at health department just coming in for program or presentation, or just sharing information." Table XIX displays several key quotes on this topic. During the two observations that were conducted, the interaction of health educator with community and coalition partners showed that partners had a high regard and respect for the practitioners. One partner noted, "she is a great leader and so much of our work is a testament to her."

Table XIX. Results Summary - Relationship with Community and Coalition Partners

Quotes to Illustrate Importance of Community and Coalition Partners in CTW
"Having an established coalition of partners was very helpful and a great resource. These members are our community and are vital to our success. You can't ignore coalition building in this type of work."
"It is key to build relationships and get buy in from partners. They are huge allies and if they trust you they will be willing to work with you and for you."
"The key in working with partners is to utilize their time wisely, give them a clear purpose, and keep them engaged"
"We always had relationship with partners but with this work, for the first time in the schools for example, they are actively changing what they are doing as opposed to us at health department just coming in for program or presentation, or just sharing information."

4. Results of Other Themes that Emerged

Through the qualitative analysis, new themes emerged that did not fall in line with the some of the key constructs in the study. Those themes that emerged included: sustainability of CTW; issues specific to rural communities and LHDs; and education and PSE change. They are summarized in Table XX.

a. Sustainability of CTW

The issue of how this work would be sustained over time emerged as a theme. While the three cases believed in CTW and felt that there was support for continuing the work among coalition partners, there was some doubt in this regard if funding was discontinued. In particular, if funding was discontinued, respondents felt that the LHD may not have a health educator leading the work and leading the coalition. One respondent noted, "it is going to be hard when the WCH funding goes, since we made promises to schools that were unsure about working with us because of the nature of grants. So it may continue but not at same level because not all our staff will be here to keep pushing and helping. And I think it damages community relations when funding is cut like this. They lose faith and trust in the health department." Many respondents were hopeful that new grants would emerge once funding ended. Respondents did not think that the LHDs would change how it funded health education work, such as in CTW; there was agreement that health education, most likely, would continue to be funded through grants. Several practitioners were unsure if they would have a job when the grant ended. In this study, participants understood that CTW work takes a long time to see real changes and legislators may not be patient enough to give this work a chance to show results. While unstable funding was seen as a major barrier to sustainability, one participant noted that the changes being

made, “include not only sustainable environmental changes such as policy and ordinances that support our efforts, but they are also designed to empower schools and businesses to sustain the work that is done and continue to increase sustainability by bringing more and more of the community into the effort.” This quote demonstrates that sustainability is not just about funding, but about the continued impact of PSE change accomplished by CTW efforts.

b. Issues Specific to Rural Communities and LHDs

Issues and ideas specific to rural communities and rural LHDs engaged in CTW work also emerged. There seemed to be a general theme that “just because we are rural, doesn’t mean we can’t get things done.” Study participants saw that the small scale of the rural community could be a facilitating factor in accomplishing CTW. According to one respondent, “aside from our numbers being smaller, I don't think rural has anything to do with us being able to accomplish these PSE objectives because you come in and you just get used to how it is. You get to know your community and what it doable and that won't necessarily be that same as an urban county, but that is ok. We adapt.” It appears to these cases, that rural is still very much misunderstood. One benefit or facilitator noted repeatedly was the idea of knowing and understanding your rural community and building relationships. One participant said, “We are from here. We know this community. People trust us and we are a familiar face.” ‘Everyone knows each other and knows what is going on’ emerged as a theme and was viewed to be of great benefit to ‘get in the door’ and make policy change happen. Further, “rural public health is about relationship building, and that is why your coalition and partners are so important. Making connections is key.”

However, being a small rural community also means that if you 'break a bridge,' it is hard to get that back. And often that connection, may be the only connection of that sort in the community. One respondent said, "You get one shot, which is unlike larger cities that have lots of opportunities." Respondents also confirmed that many rural communities have fewer resources, transportation issues and food desserts. One respondent noted that while, "rural Illinois in the winter is not conducive to exercise outdoors," other opportunities exist, stating that "gardening is big in rural and that is a plus for us." Participants were also concerned that rural LHDs would never get the "big dollars" for prevention. As one participant said, "how do you justify that to legislators with our small reach? But our small changes are just as important, because then they trickle down fast in our community."

c. Education and PSE Change

The respondents in this study stated that while policy change is a critical focus, activities under the traditional purview of health education have to be the building block or foundation. While traditional health education activities were often termed just 'programming'" in rural LHDs, participants expressed that education work opens door for CTW. Participants from all three cases noted that their previous experiences in tobacco prevention and control, health education and promotion gave them 'standing' to move to policy changes in these areas. According to one respondent, "issues are never solely solved by policy because there's people involved. So you have to look at the whole person and community and how do you help them to believe this is theirs, not just ours." The focus on policy and systems change essentially broadened the health education activities of the participating LHDs. It opened up a variety of venue beyond individual and classroom-based interventions. For example, the health educators are meeting with county boards, town officials, school officials, school boards, and business

leaders to get policies developed and passed. This was confirmed through not only responses to interview questions, but through document review of performance reports and direct observation.

For the cases, it was very much about getting the 'buy in' first through building relationships to make CTW happen in communities and not just 'pushing a policy through.' As one participant stated, "education is still the foundation of it and we have to couple that with policy and environmental change, and think that is what health education here at the LHD was missing before." Many participants expressed that there was a middle ground and that while their funders are focused solely on policy as an outcome, and do not allow "just education," policy will not happen without health education and promotion. One responded went further to say, "health education and promotion plus advocating for policy change is best approach in our community so they can see big picture of how small things like food as rewards can add up and are part of bigger problem in the system." So there seemed to be a call to grant funders to be flexible in the PSE change approach and recognize that broader programming and education need to be allowed and valued, along with policy development and implementation.

Table XX. Summary of Other Emerging Themes

Sustainability	Rural Specific	PSE and Education
"It is going to be hard when the WCH funding goes since we made promises to schools that were unsure about working with us because of the nature of grants. So it may continue but not at same level because not all our staff will be here to keep pushing and helping. And I think it damages community relations when funding is cut like this. They lose faith and trust in the health department." "This type of work takes a long time to see real changes and legislators may not be patient enough to give this work a chance to show results." The changes being made, "include not only sustainable environmental changes such as policy and ordinances that support our efforts, but they are also designed to empower schools and businesses to sustain the work that is done and continue to increase sustainability by bringing more and more of the community into the effort." Sustainability was not just about funding but much more to most of the cases.	"Just because we are rural, doesn't mean we can't get things done." "People don't understand rural" "Aside from our numbers being smaller. I don't think rural has anything to do with us being able to accomplish these PSE objectives because you come in and you just get used to how it is. You get to know your community and what it doable and that won't necessarily be that same as an urban county, but that is ok. We adapt." "You get one shot which is unlike larger cities that have lots of opportunities."	**"**Issues are never solely solved by policy because there's people involved. So you have to look at the whole person and community and how do you help them to believe this is theirs, not just ours." "Education is still the foundation of PSE and we have to couple that with policy and environmental change, and think that is what health education here at the LHD was missing before." "Health education and promotion plus advocating for policy change is best approach in our community so they can see big picture of how small things like food as rewards can add up and are part of bigger problem in the system"

D. Case Site Review

Once case-level data was collected and analyzed, the information was vetted by key informants to ensure that the results, findings, and recommendations were accurate. The final case report and cross case analysis were vetted through all cases. At least one respondent from each case reviewed the results and findings (total of six). Five respondents participated in a discussion regarding the results and findings via phone or in person; the sixth person provided

feedback via e-mail. All six respondents agreed that the results and findings were accurate. One respondent indicated "it looks great" and another "I have nothing else to add, since you captured it very well." Some respondent's added insights regarding sustainability and the impact of losing WCH funding would have on their relationships in the community and their ability to do public health work.

E. Results Summary

Health education is leading CTW at rural LHDs. CTW is a "shift" from the traditional individual-based health education work traditional seen as its purview, but it falls in line with the seven areas of responsibility of a health educator. The focus now is on organizations and broader community change, rather than individual change. This shift towards a more policy focus in health education is also evident in rural LHDs because that is what "new" grants are calling for, but not all the health educators felt ready or prepared to do this work. However, because of a diverse set of skills and traits, knowledge, and experience working in the community, they were able to "rise to the occasion." Key leadership skills and traits needed by practitioners to carry out CTW include flexibility and a strong passion for helping their communities be healthy. Additionally, rural LHDs credited knowing and understanding the rural community and working closely with community partners as the most important assets for successful CTW. The issue of resources specifically funding to support staff time, continues to be an issue and is nothing new to rural LHDs.

V. DISCUSSION

A. Introduction

This chapter summarizes key findings and recommendations. The main aim of the study was to explore the role of health education and health educators in CTW in rural Illinois. The main constructs included exploring organizational structure, organizational resources, health educator role and capacity, and organizational culture. The results from the three primary data sources – interviews, document review, and observations were triangulated to verify the major findings.

B. Major Findings

1. Role of the Health Educator

The major findings from this study are summarized in Table XXI. Health educators, most often termed health educators by cases, are leading CTW work in rural Illinois. Because of their diverse skill set and their public role in the community, the LHDs in this study charged them with this work. And, traditionally at rural LHDs, health educators have implemented new initiatives that align with LHD's community health assessment priorities. In this study, priority areas involving obesity prevention, tobacco prevention and cardiovascular disease prevention were aligned with CTW priorities. Further, CTW aligns well with the principles of health education and promotion; at its core, CTW is about enabling people, organizations, and communities to increase control over their health and the health of their communities by changing the landscape in which they live, work, and play (WHO, 2009). This is a foundation in health education and promotion. In this study, health educators were uniquely positioned to undertake and lead these strategies. Their understanding and specialization in changing health

behavior can help them to understand how to change organizational and community systems (Lieberman, et al, 2013). Where they were once primarily focused on individual behavior change (one level of the social-ecological model), CTW allowed them to address issues across domains and facilitate change at the organizational, community, and health policy levels. In this study, health educators were viewed as the ideal people to implement CTW and, across cases, were the ones selected by their LHDs to do so.

2. Health Educator Focus Changes with CTW

The health educators were not entirely in agreement that policy work was indeed health education; many did not feel that it fell under their scope of work at a LHD. Traditionally, health education and promotion in rural LHDs focused on education and programming and, in that context, building relationships primarily in school settings. They worked primarily with individuals whereas CTW required them to work at the organization level through schools, businesses, workplaces, and the broader community. Many of the health educators while feeling inexperienced in CTW, worked successfully with partners to get policies passed. In this study, county boards, town officials, school officials, and business leaders supported the development and implementation of policies in a variety of areas. However, it is important to note that this change of focus caused a change in personnel at one LHD in this study: An experienced health educator could not adapt towards the focus of PSE change and was let go. It would be interesting to investigate if this happened at other rural LHDs and determine if this was an isolated incident or a common experience.

3. Education as a Key Element in CTW

Participants in this study agreed that health education cannot focus solely on policy development and implementation. Health education is a key community need and, when linked with broader efforts, it can be utilized as a gateway to building support for policy change initiatives. To be effective, health education cannot solely focus on education and PSE change strategies cannot achieve policy change when those efforts are divorced from the comprehensive needs of a community. Policy change and health education are inexplicitly linked (today, as they have been historically) (Lieberman, Golden, & Earp, 2013). In this study, it appeared that the cases had a set idea that education was primarily about individual-based or classroom-based education. They had come into CTW with a bias against recognizing that policy-focused interventions aimed at an organization or the broader community were in fact health education. As noted by one respondent, "this wasn't what I signed up to do as a health educator." As Nelson Mandela said, "education is the most powerful weapon which you can use to change the world."(United Nations, 2013) PSE change starts and continues with education.

4. Alignment of CTW with Health Education Responsibilities

According to NCHEC, which developed the seven areas of responsibility and competencies for health educators, the core strategies of CTW are aligned with the essential duties of health educators. This includes efforts to involve partners, advocate for healthy communities, develop policy, and employ policy techniques to influence decision makers. While this might not have been a focus at the rural LHD, CTW work has changed that and personnel are now required to have a comfortableness with their roles and training in appropriate areas, including health policy, systems change and environmental change. As Wright et al (2003) stated:

As a core public health discipline, health educators are increasingly being called upon to assume leadership positions and have the opportunity to create visibility for the profession as a network of change agents for healthy communities (Wright, et al., 2003).

In addition to the competencies related to the seven areas of responsibility, CTW required many other skills and traits, many of which are related to leadership: collaboration, flexibility, passion, advocacy, persistence, good communication, and empowering others by being a change agent (Wright, et al., 2000, CDC, 2011). In particular, understanding how the key people and organizations in the rural community could influence PSE change was seen as a requirement. This falls in line with a key leadership skill identified in the literature, systems thinking (Wright, et al., 2003). In order to pursue CTW, health educators meet with key officials, community leaders, and decision makers and lead their community partners and coalitions in upstream efforts to bring about the types of systems change that has the potential to reduce chronic disease. An important question becomes, how can we continue to support health education and promotion at rural LHDs and also across the public health system to continue to lead this work and drive change in communities?

5. Leadership and CTW

Leadership skills by the practitioner were important, but also having an LHD administrator be a strong leader and advocate for health education and promotion was important too. This is supported by the current literature. Organizational leadership is a key element in a local public health agencies capacity for performance (Kuiper, et al., 2012). In an article by Anderson et al. (2008), low infrastructure and limited leadership were factors that may explain a lack of health education action. Leadership skills play a significant role for these practitioners to be successful, as does leadership by their LHD to support health education work and CTW.

This can be by not only showing it is of value, but making it a priority in funding structures within the health department.

6. Sustainability of Health Educator Position

While health education and promotion was found to not always be understood in rural LHDs and thought not to be "vital" to the functioning of a health department, it came out that health education is highly valued and that this CTW may be changing the way LHD staff and the community looks at health educators. Time will tell if this changes the role of health education overall in rural LHDs, but many saw it as promising and a real "game changer" for the profession. There is still work to be done to secure sustainable funding to keep health educators at rural LHDs. It was also evident that rural LHDs value these practitioners and their work, but funding now for them is only through state or federal grant money. Further, there does not seem any evidence that way health education and promotion work is funded in rural LHD will change. There will continue to be this brutal start and stop nature of the grants, and when grants end it may mean cutting that position and stopping the work the grant funded. This vicious cycle hinders long term change towards healthy communities, the prevention of chronic disease, and according to most cases, hurts the LHDs reputation and ability to work with local partners. This was noted in a study by Barnidge, et al, 2013 that one of the barriers in rural health is "human capital" in terms of having enough well trained staff for community outreach to make CTW happen well. However, there is hope that many of changes through CTW work will last and be sustained over time since that is the nature of these type PSE changes. These include the policy and system changes in the schools, through school wellness teams and policies, in certain organizations through workplace wellness initiatives and policies, and in the community through

smoke-free multi-unit housing policies and smoke-free parks ordinances. The positive outcomes from these PSE changes will continue to emerge but will take time.

7. Strengths of Rural LHDs in CTW

Some respondents indicated that one strength of rural health departments was their ability to form and sustain partnerships. As a small and rural department, they had the trust of the community because they had been building those relationships and partnerships for years. One respondent indicated, "they know us and know that we are from here, and are part of their community." This allows for doors to open more easily in their eyes, to be heard, and get CTW to happen. It appeared that some respondents indicated that, if it happens that a certain door closes, than that can paralyze efforts tremendously since that is the only outlet in the small community for that change to happen. They have more resource constraints than larger communities. An example might be having just one small hospital as opposed to several hospitals or just one school district. But overall felt there were many strengths to being a small rural community. However, cases also recognized that because their reach is small it may deter funding because they cannot make a "huge impact" like urban areas.

One of the most significant themes that emerged regarding rural LHDs engaged in CTW, was the high importance and value of building relationships, knowing your community, and collaboration. Again this supports the recent work by Barnidge, et al., (2013), where rural communities noted that to overcome the barriers and challenges of being rural, it is essential to build broad based partnerships. These are noted to be essential elements to be successful in CTW rural communities. Partners include hospitals, healthcare providers, nonprofit organizations, community volunteers, schools, and many others. Partnerships are an essential resource to accomplish the essential services in public health. Meit and Knudson (2009) contend that

partners are of utmost importance in rural communities and more specifically for those rural communities lacking public health capacities and resources. Partnerships, however, can be hindered if there is not sustainable positions at the LHDs to continue to build and cultivate those relationships. In this case, health educator's, often the key personal building relationships in the community, are not always sustainable positions. Thus, not only is the work hindered when funding for these positions is cut, potential key relationships are damaged and a key resource lost. The cases called for more attention and training to the development and building of coalitions to implement CTW.

8. Funding Limitations and a Proposed Option Of Regionalization.

A regional approach to bring together many rural counties and LHDs may be a solution to ensure funding support for CTW and other health education work. Cases noted that often their biggest support and ally for how to get the work accomplished in a rural community, is other practitioners at rural LHDs. They are dealing with similar issues and if regionalization occurs, that may provide the strength in numbers that funders may seek in terms of reach and the necessary resources in terms of funding and staff LHDs need to get the work done. There are several examples of regionalization from the emergency preparedness area. In one example out of Nebraska by Palm and Svoboda (2008), it was shown that "a new system, based on the concept of regionalization, allowed multiple counties to combine to form regional health departments. This approach enabled these departments to build the capacity needed to plan for and respond more effectively to emergencies" (p. 419) Another very relevant example comes from the rural communities of Lee, Lenox and Stockbridge in Massachusetts written by Kolodzie (2012), who illustrate that it is possible to advance their healthy community goals through a regional strategy.

In addition, how can they as a rural community better align resources to support CTW and a sustainable position at the LHD to lead this work. This work takes time and dedicated personnel to help rural partners navigate CTW, and without the necessary staff, expertise, and funding, rural communities with struggle to conquer issues related to chronic disease and other important public health issues. In a study about community partnerships led by health educators by Hann (2005), even with dedicated partners in a rural health partnership, it was still difficult for the partnership to succeed without dedicated, paid staff from the health department. In rural communities it appears even more important to go beyond networking, cooperation, and just getting partners to the table to exchange information. A true collaboration among partners that shares resources and enhances the capacity of a rural community can be a key resource necessary to work towards a common purpose, a healthy community. Rural communities can achieve success towards healthy communities by combining expertise, funds, and staff time with their critical community partners (NACCHO, 2013).

9. Challenges and Misunderstanding of Rural Communities

While the other challenges in rural communities support previous research, like transportation and lack of access to healthy foods, rural LHDs did not seem deterred by this. There was consensus that "we know our communities, what is doable, and what are limitations are." For instance, in certain rural areas, "we know that a safe routes to school program or policy to encouraging walking just is not going to work here because that may mean kids walking 3-4 miles to school." So they employ other PSE strategies to promote healthy and active living say at the worksite or school setting where they have captive audiences.

It appears to these cases, that "rural" is still misunderstood. And this supports previous research that there is tendency to categorize rural into an all-purpose definition but in reality

Hart, Larson, and Lishner (2005) contend that "defining rurality can be elusive and frequently relies on stereotypes and personal experiences" (p. 1149). More research in rural areas may help to alleviate this misperception and misunderstanding of rural areas and rural LHDs. By doing so, more evidence based strategies specific to rural communities can emerge.

Table XXI. Summary of Major Findings

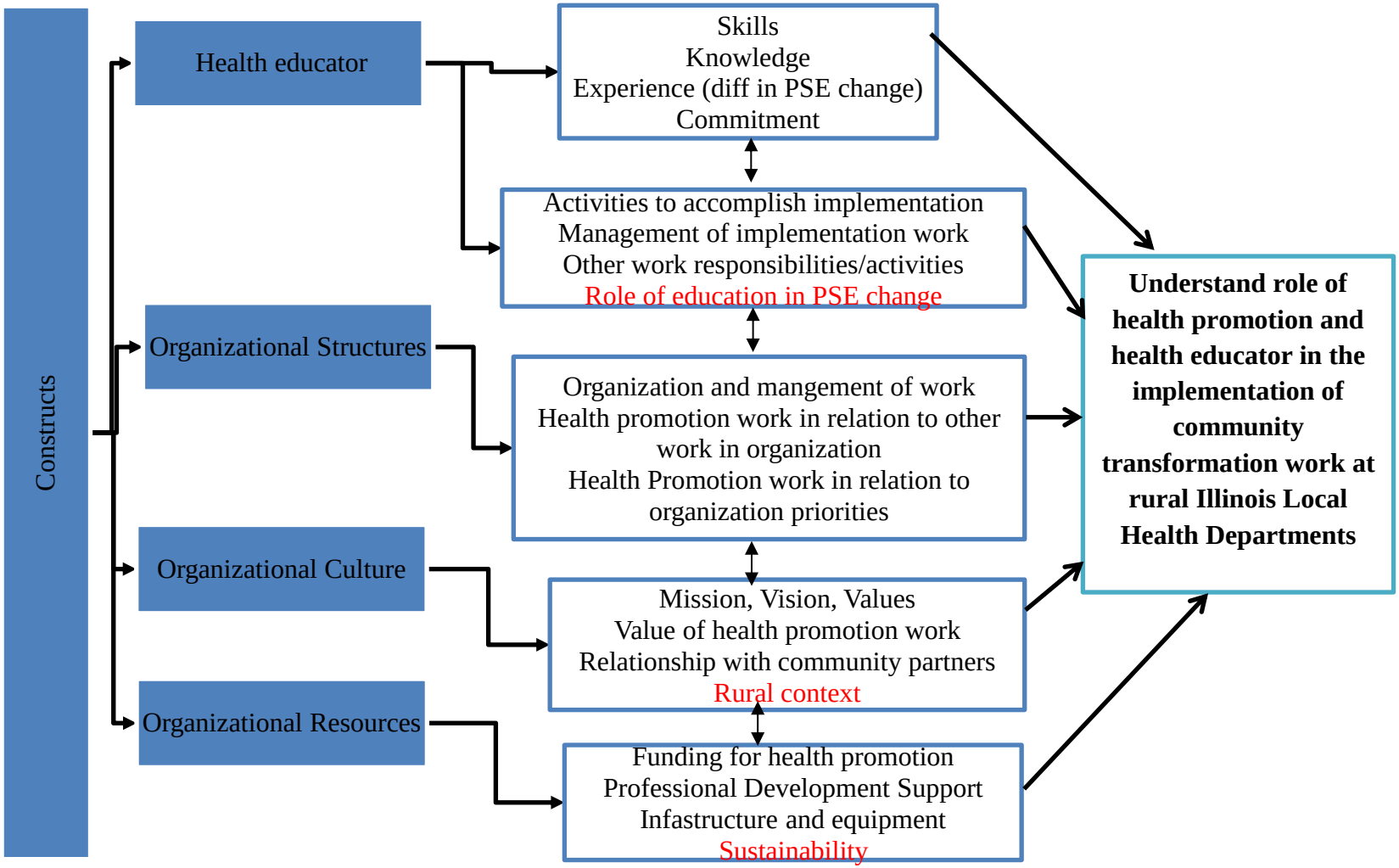
Main Study Questions	Major Findings
How is CTW organized and managed at the rural LHD?	• Health education work and health educators while valued, there is not sustainable funding for their positions. • Resources in terms of staff and funding continue to be a challenge at rural LHD. • The narrowed view health education just doing programs seems to be changing in rural LHD because of CTW.
What is the role of the health educator in CTW at rural LHD?	• Health educators are leading CTW at rural LHD, but did not feel prepared. • CTW shifts the focus from individual level programing and change, to organizational level programing and change in line with the social-ecological model and systems view. • There seems to be a view that policy work and PSE change is new to health education work in rural LHD, but it is an essential responsibility as laid out by NCHEC. • Leadership skills and traits are essential to build necessary relationships to implement PSE change…both at practitioner and administrator level.
How do organizational factors affect the role of health educator in CTW implementation at rural LHDs?	• CTW and health education work is valued in rural LHD. • CTW and health education work align well with LHD mission, vision, and main community health priority areas in rural LHD, of which all included chronic disease prevention. • Resources in terms of staff and funding continue to be a challenge at rural LHD. • Community partners and relationships are crucial in rural communities to implement CTW.

C. Revised Conceptual Model for Study

Based on the study findings an updated conceptual model has been developed, Figure 10, which now outlines a clearer understanding of the role of health education and the health

educators in CTW in rural Illinois. Overall, the main study questions and constructs theorized to understand the role of health education and the health educator in CTW in rural Illinois were able to adequate, but a few other constructs did emerge. The results and findings support the original conceptual model in understanding the role of health education and the health educator in CTW in rural LHDs in Illinois. However, several other themes emerged as very important in understanding this work in this context. Those themes included education as foundation for building support for CTW, issues thought to be unique and specific to the rural communities in CTW, and sustainability for health educators to continue to do CTW. Education was thought to be key to help build relationships and trust in rural communities, so as to pave the way for CTW to happen. The importance of the relationships was thought to be more essential and important in rural communities since they provide for key resources and support for the accomplishment of CTW. Without the support of partners, CTW cannot happen in a small rural community and are a key asset. Lastly, health educator positions do not appear to be sustainable, and without them and their work to build partnerships, CTW does not succeed. And their ability and focus to build relationships in a rural community, may also hinder the trust for other public health work.

Figure 10.Updated conceptual model for this study that now understands the role of health educator in implementation of community transformation work at rural Illinois LHDs.



D. Recommendations

Based on the study results and interpretation noted in the discussion section, there are several recommendations that can be made. Those recommendations include:

1. **Sustainability of health education work at rural LHDs should be addressed to combat start and stop nature of grants.** This study has shown the importance of health education in leading CTW, which aligns with the national focus on systems level approach to chronic disease prevention. However, there continues to be a vicious start and stop nature to the health education and promotion grants allotted to rural LHDs. Upon interviews and respondent review, the cases noted the detrimental effect this has on building and sustaining relationships in a small community setting. Relationships are needed for all essential functions in public health. If relationships are hurt by the start and stop funding cycle often seen in health education work at LHD, finding other ways to fund and support health education and health educators is very important. This was found to not only hinder system level work such as CTW to impact chronic disease prevention, but potentially other public health functioning in rural communities. Are there solutions at the state or national level to create a more sustainable funding stream to LHDs for health education? A current Illinois bill that would fund prevention at the local level through a tax on sugar sweetened beverages may be another solution, the Healthy Eating and Active Living (HEAL) Act SB 3524/HB 5690 (Illinois Alliance to Prevent Obesity, 2014). In addition, at the local level, in Illinois, can local health protection dollars which are typically afforded to services

such as environmental health and communicable disease be earmarked for health education and promotion? (IDPH, 2014)

2. **Regionalization may be a solution towards rural LHD funding and continued implementation of CTW by rural health educators.** In all cases, it was found that resources and funding continued to be a challenge at rural LHDs. Regionalization may provide for an opportunity to align priorities and resources. This approach may enable health departments to build the capacity needed to plan for and respond more effectively to priority areas such as chronic disease. (Palm & Svoboda, 2008) Regionalization has been shown to be successful in other public health ventures such as emergency preparedness. Upon study review by participants, one case noted that they are planning to apply for national funding with several other rural LHDs near them. Thus trying to utilize this regional approach to keep the CTW in the community since they are not eligible for funding on their own due to their small size.
3. **More training in health policy and leadership in health education and promotion preparation programs may be a solution to getting practitioners better prepared to do CTW.** Most of the health educators charged with CTW had little to no experience or training in CTW or policy development prior to working on the WCH grant. Additional training to address this gap could be incorporated at various levels including the undergraduate, graduate level, and through certificate programs. In addition, workforce training and continuing education opportunities on leadership, system's thinking, advocacy, and health policy seem to be warranted based on study findings. Upon case review, several

respondents again noted they were in need of more training in policy development and how funders should recognize this fact, and address it with grantees.

4. **A review of the NCHEC competencies related to leadership, advocacy, and organizational level education and change should be explored.** While it was found that all the work completed by the health educators falls within the seven areas of responsibility of a health educator as laid out by NCHEC, there did not seem to be an understanding by the health educators charged with CTW that organizational level advocacy and education do indeed fall in line with the responsibilities. It may be that they are not sufficiently itemized in the description of the competencies within the responsibilities to guide practitioners in their work. In addition, there does not explicit mention of systems thinking and development of leadership skills in the responsibilities and competencies, and it was found that leadership skills are essential for health educators to be successful in this work.
5. **More training and attention should be made to developing partners and coalitions to support rural LHD CTW.** Rural partnerships were found to be essential to the success of CTW in rural LHDs. There appears to be a need for more preparation of health educators in facilitating partnerships and coalitions. In addition, more training to include not only LHD staff but their partners on building and maintaining coalitions. Attention to how to sustain a leadership position at the LHD to cultivate these partnerships. Without someone at the LHD funded to lead this work and manage CTW coalitions, work may be stifled. By pooling expertise, funds, and staff time, partners in rural communities can identify

common interests, overcome familiar challenges, and develop comprehensive strategies for success.

6. **Investigate how and in what way funders of CTW require the work to be accomplished, that could include key educational strategies needed to build support for policy change.** The cases overall felt that "education" type activities were not allowed but they are a necessary part of building support for CTW and specifically, policy development and implementation.

There are several areas that would benefit from further study and exploration:

1. Understanding more about the role of coalitions in CTW at rural LHDs, to include more of what they do, how the work is broken up among partners, what it takes to lead the coalition, and how to assess their effectiveness.
2. Further investigation of funding models at LHDs that can support health education, and specifically CTW. Are their models for delivering public health services, specifically population-based approaches, for rural LHDs that can create a consistency and be sustainable?
3. Further development of a framework of support for health education and promotion at LHDs including rural LHDs. What are the key factors that organizations can do to support their work? What do LHDs need to look for in future health educators as the shift towards more PSE change focus continues to emerge?
4. It would be interesting to explore the other emerging issues that are facing health education and promotion in rural LHDs. As this study was only able to focus on work specific to CTW.

E. Conclusion and Summary

Health education, whose roles leading CTW implementation are valued at the rural LHD, still face unstable funding. Without sustained funding the start and stop nature of their work may continue and it may undermine efforts to reduce chronic disease. Rural LHDs may benefit from a regional approach to CTW to ensure sustained funding and resources so that the work can continue. In addition, changes made at the state or national level could be made to create a more sustainable fluid approach to funding health education and promotion. In Illinois, that could include funding from the local Health protection block grants or legislator to change how prevention is funded such as through a proposed tax on sugar sweetened beverages (Illinois Alliance to Prevent Obesity (IAPO), 2014).

A shift towards a more policy focus in health education is evident in rural LHDs because that is what "new" grants are calling for and it falls in line with the national priorities towards a more systems based approach in chronic disease prevention. Not all the health educators felt ready or prepared to do this work. However, because of a diverse set of skills, traits, knowledge, and experience working in the community, they were able to "rise to the occasion." This speaks to the leadership skills needed by practitioners to carry out CTW to include flexibility, strong communication skills, and a strong passion for this work to be that change agent to lead their communities to be healthier. And it is the knowing and understanding your rural community and working closely with community partners, that LHDs credit to be the most important assets to be successful in CTW in a rural setting.

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APPENDICES

A. IRB Approval

UNIVERSITY OF ILLINOIS
AT CHICAGO

Office for the Protection of Research Subjects (OPRS)
Office of the Vice Chancellor for Research (MC 672)
203 Administrative Office Building
1737 West Polk Street
Chicago, Illinois 60612-7227

Exemption Granted

February 25, 2014

Jacqueline Lanier, BS, MSPH
Community Health Sciences
22 Shoal Creek Court
Bloomington, IL 61704
Phone: (309) 838-2786

RE: Research Protocol # 2014-0179
"Health education and Health educator's Role in the Implementation of Community Transformation Work in Rural Illinois"

Sponsors: None

Dear Ms. Lanier:

Your Claim of Exemption was reviewed on February 24, 2014 and it was determined that your research protocol meets the criteria for exemption as defined in the U. S. Department of Health and Human Services Regulations for the Protection of Human Subjects [(45 CFR 46.101(b)]. You may now begin your research.

Exemption Period: **February 24, 2014 – February 24, 2017**

Performance Site(s): UIC

Subject Population: Adult (18+ years) subjects only

Number of Subjects: 3

The specific exemption category under 45 CFR 46.101(b) is:

(2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless: (i) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and (ii) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.

You are reminded that investigators whose research involving human subjects is determined to be exempt from the federal regulations for the protection of human subjects still have responsibilities for the ethical conduct of the research under state law and UIC policy. Please be aware of the following UIC policies and responsibilities for investigators:

1. Amendments You are responsible for reporting any amendments to your research protocol that may affect the determination of the exemption and may result in your research no longer being eligible for the exemption that has been granted.

2. Record Keeping You are responsible for maintaining a copy all research related records in a secure location in the event future verification is necessary, at a minimum these documents include: the research protocol, the claim of exemption application, all questionnaires, survey instruments, interview questions and/or data collection instruments associated with this research protocol, recruiting or advertising materials, any consent forms or information sheets given to subjects, or any other pertinent documents.

3. Final Report When you have completed work on your research protocol, you should submit a final report to the Office for Protection of Research Subjects (OPRS).

4. Information for Human Subjects UIC Policy requires investigators to provide information about the research protocol to subjects and to obtain their permission prior to their participating in the research. The information about the research protocol should be presented to subjects in writing or orally from a written script. When appropriate, the following information must be provided to all research subjects participating in exempt studies:
   a. The researchers affiliation; UIC, JBVMAC or other institutions,
   b. The purpose of the research,
   c. The extent of the subject's involvement and an explanation of the procedures to be followed,
   d. Whether the information being collected will be used for any purposes other than the proposed research,
   e. A description of the procedures to protect the privacy of subjects and the confidentiality of the research information and data,
   f. Description of any reasonable foreseeable risks,
   g. Description of anticipated benefit,

h. A statement that participation is voluntary and subjects can refuse to participate or can stop at any time,
i. A statement that the researcher is available to answer any questions that the subject may have and which includes the name and phone number of the investigator(s).
j. A statement that the UIC IRB/OPRS or JBVMAC Patient Advocate Office is available if there are questions about subject's rights, which includes the appropriate phone numbers.

Please be sure to:

→Use your research protocol number (listed above) on any documents or correspondence with the IRB concerning your research protocol.

We wish you the best as you conduct your research. If you have any questions or need further help, please contact me at (312) 355-2908 or the OPRS office at (312) 996-1711. Please send any correspondence about this protocol to OPRS at 203 AOB, M/C 672.

Sincerely,

Charles W. Hoehne, BS, CIP
Assistant Director

Office for the Protection of Research Subjects

cc: Jesus Ramirez-Valles, Community Health Sciences, M/C 923

Christina Welter, Community Health Sciences, M/C 923

B. Letter of Support Illinois Department of Public Health

Illinois Department of PUBLIC HEALTH

Pat Quinn, Governor
LaMar Hasbrouck, MD, MPH, Director

122 S. Michigan Ave., Suite 2009 • Chicago, Illinois 60603-6152 • www.idph.state.il.us

January 17, 2014

Christina Welter, DrPH, MPH
Assistant Director
DrPH Program in Leadership
University of Illinois at Chicago
1603 W. Taylor St., 6th floor (MC 923)
Chicago, IL 60612

Dear Dr. Welter,

On behalf of the Illinois Department of Public Health, I am pleased to offer our support for Jackie Lanier's Dissertation project entitled, *Health Promotion Practitioner's role in the Implementation of Community Transformation Work in Rural Illinois.*

The Illinois Department of Public Health has been working on community transformation work for many years to reduce the burden of chronic disease in Illinois. Most recently, The Illinois Department of Public Health (IDPH) received $4,781,121 each for fiscal years 2011 and 2012, from the Centers for Disease Control and Prevention (CDC) to support community transformation work. We branded our community transformation initiative to be called *We Choose Health* (WCH) and provided an opportunity to fund local communities in rural and suburban Illinois. WCH is a comprehensive, statewide initiative to transform communities and reduce the burden of chronic disease.

Ms. Lanier's project is both timely and relevant to our work. It may help to better understand health promotion's role and the factors that affect this role which may help to build the case for improvements in health promotion and local health department capacity. We look forward to working with her and to her project findings.

Sincerely,

Leticia E. Reyes-Nash
Division Chief, Health Policy
Project Manager, Community Transformation Grant (We Choose Health)

C. E-Mail Invitation

Subject: Research Study on how health educators are involved in implementing community transformation work at rural local health departments in Illinois.

My name is Jackie Lanier and I am a doctoral student the University of Illinois at Chicago School of Public Health. I am writing to ask you to participate in my dissertation thesis research project.

The purpose of my study is to explore the role of health educators in the implementation of community transformation work to reduce chronic disease at rural local health departments in Illinois. You have been selected because your LHD is participating in the community transformation work funded by the Illinois Department of Public Health's We Choose Health Initiative (WCH). I would like your LHD to be one of three cases studied.

Participation involves document review of WCH application, semi-structured interviews and observation of programs staff. First, I would like to conduct an approximately one to one and one half hour long interview with you and your program staff conducting this work. Each person would be interviewed separately. Second, helping provide me with the opportunity to observe your program staff in WCH related implementation activities.

Your participation in this study is voluntary. Your responses will be confidential and no person will be named in the research findings. I will share a copy of the analysis results with you and anyone interested upon completion of the study.

Thank you very much for considering participation in this study. If you are interested in this project, please acknowledge your participation by responding to this email. A formal consent form will be sent to you prior to data collection. I will also be calling you in approximately five business days to discuss your interest in the project. If you have any questions or would like to confirm your response, please do not hesitate to contact me at 309-438-8285 or jlanie2@uic.edu.

Thank you in advance for your time and efforts. I look forward to talking with you soon.

Sincerely,
Jackie Lanier, MSPH, MCHES
Candidate, DrPH
University of Illinois at Chicago, School of Public Health

D. Script for Follow-Up Phone Call Regarding Participation

Hello. My name is Jackie Lanier and I am a doctoral student the University of Illinois at Chicago School of Public Health. I am calling to discuss your participation in my dissertation research project.

The purpose of my study is to explore the role of health educators in the implementation of community transformation work to reduce chronic disease at rural local health departments in Illinois.. You have been selected because your LHD is participating in the community transformation work funded by the Illinois Department of Public Health's We Choose Health Initiative.

Participation involves document review of WCH application, semi-structured interviews and observation of programs staff. First, I would like to conduct an approximately one to one and one half hour long interview with you and your program staff conducting this work. Each person would be interviewed separately. Second, helping provide me with the opportunity to observe your program staff in WCH related implementation activities.

Your participation in this study is voluntary. Your responses will be confidential and no person will be named in the research findings. I will share a copy of the analysis results with you and anyone interested upon completion of the study.

Would you be interested in participating in this study?

-"Yes" - Thank you very much for considering participation in this study. I will re-send the link for you to acknowledge your participation and consent. I will be in touch soon to set up interviews. If you have any questions, please do not hesitate to contact me at 309-438-8285 or jlanie2@uic.edu. Thank you in advance for your time and efforts. I look forward to talking with you soon.

-"No" – Thank you very much for your consideration. Have a great day.

E. Consent Form (upon opening survey-monkey)

Purpose: The purpose of my study is to explore the factors related to the role of health educators in the implementation of community transformation work to reduce chronic disease at rural Illinois local health departments. You have been selected because your LHD is participating in the community transformation work funded by the Illinois Department of Public Health's We Choose Health Initiative.

Procedure: Participation involves document review of WCH application, semi-structured interviews and observation of programs staff. First, I would like to conduct an approximately one to one and one half hour long interview with you and your program staff conducting this work. Each person would be interviewed separately. Second, helping provide me with the opportunity to observe your program staff in WCH related implementation activities

Withdrawal: If you choose not to participate or withdraw from the study at any time, you can stop the study without penalty

Confidentiality: Your participation in this study is voluntary. Your responses will be confidential and no person will be named in the research findings. I will share a copy of the analysis results with you and anyone interested upon completion of the study. The results may be published but only combined data will be used.

Risks: The risks associated with this study are minimal and involve those associated with you reflecting on the implementation of community transformation work.

Benefits: Benefits of this study include assisting us in understanding more about the implementation factors that affect community transformation work and be able to address those so as to work towards a healthier community.

By clicking yes below, I agree to participate in the study. I understand and affirm that:

• I am at least 18 years old
• This study is part of a research project being completed at University of Illinois at Chicago.
• My participation in this project will consist of document review, answering interview questions, and observation by researcher.
• My responses to the interview and my identity are confidential.
• I realize that if I have any questions or concerns about this project, I can contact: Jackie Lanier, 309-438-8285, jlanie2@uic.edu. For questions about research participants' rights and/or a research related injury or adverse effects, please contact the Office for the Protection of Research Subjects at 1-866-789-6215 and/or uicirb@uic.edu.

Do you agree to participate?
--Yes, I will participate.
--No, I do not wish to participate
Your Name: Date:

F. Semi-Structured Interview Guides

Interview Guide – LHD Director/Manager

(after informed consent has been obtained)

Introduction

Thank you for agreeing to participate in this study about the implementation of community transformation work at rural Illinois LHDs. Your feedback is vital in the success and future of understand community transformation work and ultimately what we need to do to reduce chronic disease and create healthier communities.

The purpose of this interview is to gather information about your LHDs experience in implementing community transformation work through PSE change strategies.

Specifically, I hope to ask you questions about the role of health educators and the organizational factors you think have facilitated or impeded implementation which will include questions about, practitioner's role and capacity, organizational structures, culture, and resources.

Please note that these interviews are being tape-recorded for documentation purposes and your comments will be used for doctoral research. No single individual will be named nor will any single health department be named in any of the reports. All your responses are confidential. I anticipate interviews taking approximately 1 hour.

Activity Analysis reference	Questions
Purpose, culture/leadership	1. Describe why your LHD decided to apply for and engage in the We Choose Health CT Work? a. How does it fit within your organizations priorities? b. How does it fit within your organizations mission and vision? c. How as this work benefited your organization? 2. Describe how your organization was engaged in this type of work prior to the WCH grant? a. Which area more experience, Policy, Systems, or Environmental change? Why? 3. What challenges in implementing this work have you encountered? a. Attempts to overcome challenges? 4. Describe the strengths this LHD has to support this work? 5. Describe the weaknesses/limitation this LHD has to support this work? 6. How would you describe the relationship with community/coalition partners to do this work? a. What are they doing to support this work? i. What other resources, including funding, have they contributed to do this work? b. How was this role determined or decided upon? c. Was LHD working with partners prior to this project? Did this help to facilitate implementation of the work? d. How has your LHDs experience and history with community partner's facilitator or impeded implementation?

	7. How would you describe the place of health education work in this organization? a. What are the priorities of this work? b. Describe the value of this work to this LHD 8. Who does health education work in this organization?
Structures, Procedures Personnel, occasions of performance	9. What personnel do you have working on the We Choose Health CT work? a. Why were they chosen to do this work? b. What are they doing? i. How often? ii. Who Coordinates? iii. Who is assisting them with this work? At LHD? Other Organizational partners c. Did what they are doing change over time? How? - tell me what happened. d. What other duties/activities are they involved in at this LHD? 10. Describe their knowledge and experience with doing this type of work? a. Describe how prepared they were to do to this work? b. Describe the skill set they have that facilitates them to do this work? c. Describe any challenges they have faced in the implementation of this work? 11. How has CTW changed the place or role of health education in this LHD? 12. How would you describe the Health educations staffs satisfaction with doing this work?
Resources, Management	I'd like to ask you just a few more additional questions, about the resources needed to do this work. 13. Describe the resources needed to implement the WCH CT work? a. Would you say you have enough staff to do this work? b. Would you say there is enough time to do this work? c. Do you have the location/facilities needed to do this work? d. Do you feel that you have adequate funding necessary for your HD to do this work? i. Do you have any supplemental funding beyond WCH grant to do this work? e. Describe the funding you had in place for health education before this grant? i. What was the nature of this work? f. Describe any plans your LHD has in place to sustain this work once WCH funds are gone? g. Describe the types of professional development opportunities available to aid in implementation of this work? i. As offered by your HD? ii. As offered by IDPH? Or Others?
Wrap up	Thank you for all that valuable information, is there anything else you'd like to add before we end?

Interview Guide –Health Educator

(after informed consent has been obtained)

Introduction

Thank you for agreeing to participate in this study about the implementation of community transformation work at rural Illinois LHDs. Your feedback is vital in the success and future of understand community transformation work and ultimately what we need to do to reduce chronic disease and create healthier communities.

The purpose of this interview is to gather information about your LHDs experience in implementing community transformation work through PSE change strategies.

Specifically, I hope to ask you questions about the role of health educators and the organizational factors you think have facilitated or impeded implementation which will include questions about, practitioner's role and capacity, organizational structures, culture, and resources.

Please note that these interviews are being tape-recorded for documentation purposes and your comments will be used for doctoral research. No single individual will be named nor will any single health department be named in any of the reports. All your responses are confidential. I anticipate interviews taking approximately 1 hour.

Activity Analysis Reference/ Construct	Questions
Structures, Procedures Personnel, occasions of performance	1. Tell me how you started to work on the We Choose Health CT work? a. Why were you chosen to do this work? b. What are you doing? i. How often? ii. Who Coordinates this work? iii. Who is assisting you with this work? At LHD? Other Organizational partners? c. Did what you are doing change over time? How? - tell me what happened. d. Which area you more experienced in, Policy, Systems, or Environmental change? Why? Which is harder? e. What other duties/activities are you involved in at this LHD? 2. Describe your knowledge and experience with doing this type of work? a. What competencies/skills/knowledge do you think you need to do what you are doing now? i. Are there different skills needed for policy, versus system, versus environmental change? Why? b. Describe the skills/competencies that facilitated you the to do this work? c. How did you develop these skills/competencies? i. Undergraduate education?

	ii. CHES/MCHES? d. Tell me about how your education fits what you are doing now? e. How well did your education and training prepare you to do this work? i. Describe how prepared you felt you were to do to this work? f. Describe any challenges related to your knowledge, skills, or competencies that you have faced in the implementation of this work? 3. How would you describe your overall satisfaction with doing this type of work? a. Strong commitment or will, Excited, apprehensive, etc.?
Purpose, culture/leadership	4. Describe why your LHD decided to apply for and engage in the We Choose Health CT Work? a. How does it fit within your organizations priorities? b. How does it fit within your organizations mission and vision? c. How as this work benefited your organization? 5. Describe the strengths this LHD has to support this work? 6. Describe the weaknesses/limitations this LHD has to support this work? 7. How would you describe the place of health education work in this organization? a. What are the priorities of this work? b. Describe the perceived value of this work to this LHD? 8. What about how Health education is perceived in HD has changed by doing this work? How is health education perceived in this HD? 9. Has your role or role of Health education work changed as a result of being involved in this work? 10. What challenges in implementing this work have you encountered? a. Attempts to overcome challenges? 11. How would you describe the relationship with community/coalition partners to do this work? a. What are they doing to support this work? i. What other resources, including funding, have they contributed to do this work? b. How was this role determined or decided upon? c. Was LHD working with partners prior to this project? Did this help to facilitate implementation of the work? d. How has your LHDs experience and history with community partner's facilitator or impeded implementation?
Resources, Management	12. Describe the resources needed to implement the WCH CT work? a. Would you say you have enough the necessary resources to do this work? Describe those resources. b. Would you say you have enough staff to do this work? c. Would you say you have enough time to do this work? d. Do you have the location/facilities needed to do this work? e. Do you feel that you have adequate funding necessary for your HD to do this work?

	i. Do you have any supplemental funding beyond WCH grant to do this work? f. Describe the funding you had in place for health education before this grant? i. What was the nature of this work? g. Describe any plans your LHD has in place to sustain this work once WCH funds are gone? h. Describe the types of professional development opportunities available to aid you in implementation of this work? i. As offered by your HD? ii. As offered by IDPH? Or Others? iii. Have taken advantage of these opportunities? Why or why not? iv. Have they been useful to you?
Wrap up	Thank you for all that valuable information, is there anything else you'd like to add before we end?

G. Observation Guide

1. Location?
2. Type of activity being observed?
3. Who is being observed?
4. What activities happened? (based on 7 areas of NCHEC responsibilities)
    a. Assessing needs, assets, and capacity for health education
    b. Planning health education
    c. Implementing health education
    d. Conducting evaluation and research related to health education
    e. Administering and managing health education
    f. Serving as a health education resource person
    g. Communicating and advocating for health and health education

H. Health Educator Seven Areas of Responsibilities and Competencies

The Seven Areas of Responsibility contain a comprehensive set of Competencies and Sub-competencies defining the role of the health education specialist. These Responsibilities were verified through the 2010 Health Educator Job Analysis Project and serve as the basis of the CHES exam beginning in April 2011 and the MCHES exam in October 2011.

AREA OF RESPONSIBILITY I: Assess Individual and Community Needs for Health Education

COMPETENCY 1.1. Plan Assessment Process
COMPETENCY 1.2: Access Existing Information and Data Related to Health
COMPETENCY 1.4: Examine Relationships Among Behavioral, Environmental and Genetic Factors That Enhance or Compromise Health
COMPETENCY 1.5: Examine Factors That Influence the Learning Process
COMPETENCY 1.6: Examine Factors That Enhance or Compromise the Process of Health Education
COMPETENCY 1.7: Infer Needs for Health Education Based on Assessment Findings

AREA OF RESPONSIBILITY II: Plan Health Education
COMPETENCY 2.1: Involve Priority Populations and Other Stakeholders in the Planning Process
COMPETENCY 2.2: Develop Goals and Objectives
COMPETENCY 2.3: Select or Design Strategies and Interventions
COMPETENCY 2.4: Develop a Scope and Sequence for the Delivery of Health Education

AREA OF RESPONSIBILITY III: Implement Health Education
COMPETENCY 3.1: Implement a Plan of Action
COMPETENCY 3.2: Monitor Implementation of Health Education
COMPETENCY 3.3: Train Individuals Involved in Implementation of Health Education

AREA OF RESPONSIBILITY IV: Conduct Evaluation and Research Related to Health Education
COMPETENCY 4.1: Develop Evaluation/Research Plan
COMPETENCY 4.2: Design Instruments to Collect
COMPETENCY 4.3: Collect and Analyze Evaluation/Research Data
COMPETENCY 4.4: Interpret Results of the Evaluation/Research
COMPETENCY 4.5: Apply Findings From Evaluation/Research

AREA OF RESPONSIBILITY V: Administer and Manage Health Education
COMPETENCY 5.1: Manage Fiscal Resources*
COMPTENCY 5.2: Obtain Acceptance and Support for Programs
COMPTENCY 5.3: Demonstrate Leadership
COMPETENCY 5.4: Manage Human Resources

AREA OF RESPONSIBILITY VI: Serve as a Health Education Resource Person
COMPETENCY 6.1: Obtain and Disseminate Health-Related Information
COMPETENCY 6.2: Provide Training
COMPETENCY 6.3: Serve as a Health Education Consultant

AREA OF RESPONSIBILITY VII: Communicate and Advocate for Health and Health Education
COMPETENCY 7.1: Assess and Prioritize Health Information and Advocacy Needs
COMPETENCY 7.2: Identify and Develop a Variety of Communication Strategies, Methods, and Techniques
COMPETENCY 7.3: Deliver Messages Using a Variety of Strategies, Methods and Techniques
COMPETENCY 7.4: Engage in Health Education Advocacy
COMPETENCY 7.5: Influence Policy to Promote Health
COMPETENCY 7.6: Promote the Health Education Profession

Reference

National Commission for Health Education Credentialing, Inc. (NCHEC), Society for Public Health Education (SOPHE), American Association for Health Education (AAHE). (2010a). *A competency-based framework for health education specialists - 2010*. Whitehall, PA: Author.

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J. Summary For Case Site Review

Health education and the Health Educator's Role in the Implementation of Community Transformation Work in Rural Illinois

DrPH Dissertation – Jackie Lanier, UIC School of Public Health, jalanie@ilstu.edu

Study Aim: To understand the role of health education and health educators in the implementation of community transformation work (CTW) through PSE change strategies by rural LHDs

Study Design

- Qualitative exploratory multiple case study approach
  - LH) is conceptualized as a case (n=3). Three rural LHDs engaged in IDPH WCH initiative in Illinois
  - The sub-units of the case are the health educators at the LHD
- Logic of literal replication
- Data sources - document review, semi-structured interviews, and observation of practitioners

Major Findings

Main Study Questions	Major Findings
How is community transformation work organized and managed at the rural LHD?	• Health education work and health educators while valued, there is not sustainable funding for their positions. • Resources in terms of staff and funding continue to be a challenge at rural LHD. • The narrowed view health education and health education just doing "programs" seems to be changing in rural LHD because of CTW.

Main Study Questions	Major Findings
What is the role of the health educator in community transformation work at rural LHD?	• Health educators are leading CTW at rural LHD, but did not feel prepared. • CTW shifts the focus from individual level programing and change, to organizational level programing and change in line with the social ecological model and systems view. • There seems to be a view that policy work and PSE change is new to health education work in rural LHD, but it is an essential responsibility as laid out by NCHEC. • Leadership skills and traits are essential to build necessary relationships to implement PSE change…both at practitioner and administrator level.

Main Study Questions	Major Findings
How do organizational factors affect the role of health educator in the implementation of community transformation work at rural LHDs?	• CTW and health education work is valued in rural LHD. • CTW and health education work align well with LHD mission, vision, and main community health priority areas in rural LHD, of which all included chronic disease prevention. • Resources in terms of staff and funding continue to be a challenge at rural LHD. • Community partners and relationships are crucial in rural communities to implement CTW.

Recommendations

- Investigating solutions at the state or national level to create a more sustainable funding stream to LHDs for health education and health education.
    - National – ACA
    - Illinois – Healthy Eating and Active Living (HEAL) Act or Health Protection Block Grant
- Regionalization may be a solution towards funding and continued implementation of CTW by rural health educators.
- More study of rural communities so as to further understanding of their needs and assets.
- More training in PSE change, health policy, leadership in health education and promotion preparation programs:
    - Undergraduate and Graduate level
    - Certificate programs
    - Professional development
- More training and attention should be made to developing partners and coalitions to support rural LHD CTW.
- Allowing for educational strategies through CTW funding.

Questions for respondent review:

1. Do you feel results ring true, why or why not?
2. What would you add or change to the results?
3. What would you add or change to the recommendations?

VIII. VITA

Jacqueline A. Lanier
22 Shoal Creek Court, Bloomington, IL 61704, (309) 838-2786, jlanie2@uic.edu

Education:
Illinois State University, Normal Illinois Bachelor of Science in Biology, May 1996
Chemistry Minor

University of Illinois at Urbana-Champaign
Master of Science in Public Health (MSPH), May 2000 Community Health Education Focus
Thesis – *Relationships between eighth grade student smoking behavior and four parental variables: supervision, communication, attitudes, and education level.*

University of Illinois at Chicago
DrPH in progress, Degree Expected August 2014

Work Experience:
8/2013 – Present
Assistant Professor in Health Sciences Illinois State University, Normal, IL
Primary focus on community health education. Courses: Dynamics of US Contemporary Health Issues; Needs Assessment in Health Education, Community Public Health; Epidemiology

5/2000 – 5/2013
Health Promotion Specialist
McLean County Health Department, Bloomington, IL

- Oversee implementation of *We Choose Health* grant from Illinois Department of Public Health. Policy, system, and environmental change in following areas:
  - Coordinated school health
  - Worksite wellness
  - Smoke free outdoor spaces
  - Smoke free multi-unit housing
- Direct employee wellness programs, with focus on nutrition and physical activity
- Teach tobacco prevention education in local schools and to area organizations/agencies
- Provide smoking cessation counseling
- Monitoring, enforcement, and education of Smoke Free Illinois Act
- Coordinate IPLAN – community needs assessment & health planning. Lead writer for final Community Health Plan Report 2012.
- Co-chair McLean County Wellness Coalition
  - Focus on policy, systems, & environmental change.
  - CDC ACHIEVE grant co-coach.
- Leadership team for Smoke Free Bloomington Normal Coalition
- Provide grant writing & report submission

- Oversee HIV, STD and Teen Pregnancy prevention Project (2000-2005)

8/2008 – 12/2012
Lecturer, Department of Health Sciences, Illinois State University, Normal, IL
- Instructor for HSC 208 - Dynamics of US Contemporary Health Issues
  - IDEA evaluations available upon request
  - Fall 2012 course taught online

8/98 - 5/2000
Graduate Teaching Assistant Department of Community Health University of Illinois at Urbana-Champaign
- Instructor for 3 sections of Community Health 143 – Drug Use and Abuse
- Helped to develop course curriculum and assessment

6/97-8/98
Research Information Specialist
The University of Illinois Medical Center, Chicago, Illinois
Section of Digestive and Liver Diseases, Gastroenterology (GI) Lab
- Database Management and data entry of procedures performed and results
- Compilation of research statistics on GI Lab procedures and outcomes
- Abstract and journal article preparation

Major Grants
- Illinois Department of Public Health, We Choose Health Grant. Principal Investigator. Co-written with Jan Morris and Kelli Coldren. $800,000 August 15, 2012 – September 30, 2016.
- Illinois Department of Public Health, Illinois Tobacco Free Communities Grant. Co-written with Jan Morris, Kelli Coldren, and Carolyn Rutherford. $50,000 each year since 2002.
- Center for Disease Control and Prevention, ACHIEVE grant. Co-written with BJ Wilken and Heather Young. YMCA fiscal agent. $36,000. February 2010 – August 2013.

Professional Presentations:
- Presentation: *A Collaborative Approach to Teen Pregnancy Prevention*. Illinois Society for Public Health Education Conference. April, 2002.
- Poster session: *Employee Wellness Programming: Good Health Is Always in Season*. WIC, Nutrition, and Family Case Management Conference. June, 2002.
- Panel Presentation: *Advocacy Strategies for Smoke Free Laws*. Developing Clean Indoor Air Policy-A Symposium for Public Officials and Health Professionals. February, 2007
- Panel Presentation: *Approaches to Community and Business Education*. Preparing for the Smoke Free Illinois Act-A Symposium for Public Officials and Health Professionals. June, 2007
- Panel Presentation: *ACHIEVING a Healthier Community Through the McLean County Wellness Coalition*. Building Campus Community Through Collaborative Problem Solving Conference. March, 2011

- Presentation: *Planning for Healthy Communities.* Fall Citizen Planners Conference. November, 2011.

- Poster Session: *Reflective Writing in the Classroom to Enhance Student Learning and Critical Thinking.* Illinois State University Teaching and Learning Symosium, 2014.

Publications

- Lanier, J. Public Health Quality Improvement Exchange. *Improving the Quality of a Community Coalition: Clarify, Engage, and Empower*. Thu, 04/24/2014 - 09:21. Available at https://www.phqix.org/content/improving-quality-community-coalition-clarify-engage-and-empower
- Schumacher, J. R., Lanier, J. A., & Calvert, K. (2014). Fostering Community Health through Community Gardens. *Journal of the Academy of Nutrition and Dietetics*, *114*(9), A88.

Training and Certifications:

- Master Certified Health Education Specialist (MCHES)
- Certified in Healthcare CPR & AED
- American Red Cross certified HIV/AIDS instructor
- Trained in Nicotine Recovery by Carle Foundation Hospital
- Teens Against Tobacco Use (TATU) Program, teen peer leadership program
- Reducing the Risk: Building Skills to Prevent Pregnancy, HIV and STD (trainer)

Awards

Individual

- "Employee of the Year - 2008" - McLean County Health Department
- "Health Educator of the Year – 2006," Cornbelt Health Educators Association

Program

- "Illinois Tobacco Quitline Commitment Award 2008", American Lung Association
- "Outstanding Program Award – 2006," for Employee Wellness Program, National Association of County Officials
- "Collaboration Award" for Teen Pregnancy Prevention Program – 2001, Illinois Department of Human Services.
- "Star Award" for work done on the youth tobacco prevention program, Tar Wars – 2001, Illinois Academy of Family Physicians.

Professional Affiliations:

- Leadership Team, McLean County Wellness Coalition (2009-present)
- Member, Cornbelt Health Educator's Association (2000-present),
    - President 2008-09, Secretary 2002-08
- Member, Illinois Public Health Association (2000-present)
- Member, Illinois Society for Public Health Education (2000-present)

    - President-elect 2013; President 2014
- Member, Society for Public Health Education (2012 – present)
- Member, OSF St. Joseph Employee Wellness Best Practice Group (2005-present)
- Board Member, American Heart Association, McLean County Heart Board (2011 – present)
- Advisory panel for Healthy and Active Community Network in Illinois (2012 – present)
- Board Member, Heartland Coalition For Youth and Families (2000 – 2012)
- United Way Panel Member, Promoting Health & Well - Being - 2004 – 2008

Professional interests:

- Policy, systems, and environmental (PSE) change
    - Role and capacity of health educator
    - Leading effective community coalitions to accomplish goals of PSE change
    - Health and built environment
    - Obesity
    - Tobacco prevention and control
- Health equity/social determinants of health
- Effective community partnerships (University – Community partnerships)
    - Community-based participatory research
    - Building partnerships
- Health care reform and prevention
- Public health system
    - Workforce development
    - Organizational development
- Tobacco prevention and control