REDUCING POTENTIAL BARRIERS TO CERVICAL CANCER SCREENING OF UNDERSERVED SOUTHEAST ASIAN WOMEN IN MILWAUKEE, WISCONSIN

by

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Abstract

Research studies indicate that Southeast Asian women in the Milwaukee metropolitan area experience cervical cancer incidence and mortality rates that are higher than national averages for women in general in all age groups. The Wisconsin Well Woman Program does provide cervical cancer screening to Southeast Asian women through the City of Milwaukee Health Department. However, in the 2015-2016 City of Milwaukee Community Health Assessment, Southeast Asian residents of Milwaukee expressed that the community was underserved because of "the need for more culturally competent providers and culturally appropriate education, services, and programs" (Milwaukee Health Care Partnership, 2016d, p. 295). The subject participants in this Action Research Project's analysis of community preventive services were Southeast Asian women aged 18 years and older living in Wisconsin. A survey instrument, created with the assistance of key informants in the Milwaukee Southeast Asian community, collected qualitative and quantitative primary data from subject participants in Milwaukee County. The survey data appeared to indicate that there was a set of barriers to the provision of cervical cancer screening, such as limited English proficiency, access to free cervical cancer screening, and health literacy related to human papillomavirus and hysterectomy. The implications of this Project are cervical cancer health disparities and adverse health outcomes may continue to negatively impact medically underserved Southeast Asian women in Milwaukee, Wisconsin until the City of Milwaukee Health Department consistently uses process maps, applies process improvement techniques**,** and initiates active process interventions. Steps that support process interventions to increase cervical cancer screening rates lead to the dual results of decreased cervical cancer incidence and mortality rates for the subject group.

Keywords: action research, cervical cancer, cervical cancer screening, health disparities, health literacy, Hmong, HPV, human papillomavirus, hysterectomy, medically underserved, Milwaukee, Pap, Papanicolaou, Southeast Asian, transformative, underserved, Wisconsin

Dedication

I dedicate this Action Research Project in loving memory of my parents, John G., and Marie M. Jendrzejczak, for their selfless commitment to higher education for women.

I further dedicate this Project with unending pride, respect, and love to my sister, Geraldine Jendrzejczak Wildfeuer: “I’ll be looking at the moon, but I’ll be seeing you” (Fain & Kahal, 1938).

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CHAPTER 1. INTRODUCTION

Chapter One introduces the Action Research Project with sections such as the Overview; the Background and Rationale of the Action Research Project; the Statement of the Problem; the Purpose of the Action Research Project; the Research Questions; and the Nature of the Action Research Project. A section containing abbreviations, acronyms, words, and phrases establishes the Definition of Terms for the Project. Chapter One also contains sections that describe the Significance of the Action Research Project; the Assumptions and Limitations; and the Scope of the Action Research Project. A section outlining the Worldview and Theoretical Foundation provides a logical framework for the Project.

A transformative worldview and transformative theoretical foundation represent "reality in an ethical manner" and "lead to the enhancement of social justice" (Mertens, 2010, p. 472). A transformative point of view inspires the Dissertation author of this Action Research Project towards a personal exploration of potential barriers to cervical cancer screening in collaboration with key informants in the Milwaukee Southeast Asian community. This Project will confirm that a current process exists in Milwaukee, Wisconsin for the provision of medical services related to the prevention and treatment of cervical cancer. However, the breakdown of certain steps in the process may have contributed to the emergence of barriers to the equitable provision and full utilization of these services by underserved women in the Milwaukee metropolitan area. As a result, Southeast Asian women living in Milwaukee are among the women who are

disadvantaged and thus medically underserved due to breakdowns and inefficiencies in the current process.

At a minimum, the Dissertation author anticipates raising public awareness regarding cervical cancer health disparities in community preventive services at the City of Milwaukee Health Department. As a result, there are three goals for this Project:

1. To identify cervical cancer health disparities affecting underserved Southeast Asian women in Milwaukee, Wisconsin.
2. To assess the potential barriers to cervical cancer screening of underserved Southeast Asian women in Milwaukee, Wisconsin.
3. To develop process interventions for the City of Milwaukee Health Department to improve the current process and thus improve access to cervical cancer screening for medically underserved Southeast Asian women in Milwaukee, Wisconsin.

The process maps for the current state and ideal or future state processes will be discussed in Chapters Three, Four, and Five. The findings or projected results of the process improvements will be summarized in Chapter Five.

Overview

The United States (U.S.) has long accepted the connection between preventing cervical cancer through screening and the resulting positive impacts on incidence and mortality rates (United States Department of Health, Education, and Welfare, 1979). The U.S. Congress acknowledged the medical significance of cervical cancer screening to underserved women by passing Public Law 101-354, the Breast and Cervical Cancer Mortality Prevention Act of 1990, to administer breast and cervical cancer screenings to underserved women in the U.S. (Howard et al., 2015). Additionally, Congress recognized

that a lack of funding might be a barrier to cervical cancer screening for underserved women. Therefore, in 1991 the U.S. Centers for Disease Control and Prevention (CDC) began funding breast and cervical cancer screenings of underserved women at state health agencies through the National Breast and Cervical Cancer Early Detection Program (NBCCEDP) (Miller, Royalty, Henley, White, & Richardson, 2015). In the State of Wisconsin, the Wisconsin Well Woman Program (WWWP) has administered the NBCCEDP for the CDC since 1993 (Wisconsin Well Woman Program, 2010). The City of Milwaukee Health Department manages the WWWP for the residents of Milwaukee, Wisconsin.

The NBCCEDP complies with the cervical cancer screening recommendations of the U.S. Preventive Services Task Force (USPSTF) (Dalzell et al., 2015). Currently, the USPSTF recommends the provision of cervical cancer screening to women aged 21 years to 65 years by the Papanicolaou (Pap) test alone every three years (Curry, 2018). However, in contrast to the current USPSTF recommendation that women as young as 21 years of age should receive screening, the City of Milwaukee Health Department does *not* provide routine cervical cancer screening tests to underserved women aged 34 years or younger and aged 65 years and older (see Figure 1). Additionally, the City of Milwaukee Health Department *adds* specific eligibility and enrollment criteria not found in the USPSTF recommendations for cervical cancer screening: Underserved women aged 35 years through 64 years if they meet specific eligibility and enrollment criteria established by the WWWP (Wisconsin Well Woman Program, 2010).

Background and Rationale of the Action Research Project

Reducing Potential Barriers to Cervical Cancer Screening

"Cancer is the second leading cause of death" (Singh & Jemal, 2017, p. 17) in the U.S. According to national vital statistics, "cancer accounted for 23.4% of deaths to males, and 21.6% of deaths to females" (Heron, 2016, p. 8). Every year "about 89,000 women are diagnosed with and more than 29,000 die from a gynecologic cancer" nationwide (Centers for Disease Control and Prevention, 2017, p. 3). "Cervical cancer is the easiest gynecologic cancer to prevent with regular screening tests and follow-up" (Centers for Disease Control and Prevention, 2016, p. 1).

Cervical cancer is gynecologic cancer most often diagnosed in women aged 30 years and older (Centers for Disease Control and Prevention, 2016, p. 1). In 2012, 528,000 cervical cancer diagnoses and 266,000 cervical cancer deaths affected women worldwide (Yoo et al., 2017, p. 2). Globally, cervical cancer is the "fourth cause of death in women" (Momberg, Botha, Van der Merwe, & Moodley, 2017, p. 1). "Cervical cancer has remained a global health disparity and a health care priority in low resource countries, despite it being a highly preventable cancer" (Driscoll, 2016, p. 21).

Routine cervical cancer screening tests promote disease prevention, early disease detection, and medical follow-up (Centers for Disease Control and Prevention, 2017). Screening detects both cervical cancer and precancerous cervical abnormalities that lead to cervical cancer (Bayrami, Taghipour, & Ebrahimipour, 2015). "The NBCCEDP is the only national screening program for cervical cancer" (Benard, Royalty, Saraiya, Rockwell, & Helsel, 2015, p. 2) for underserved women in the U.S. However, based on program data estimates from 2010 to 2012, the NBCCEDP screened for cervical cancer only 6.5% of all eligible underserved women (Subramanian et al., 2015, p. 2).

Reducing Potential Barriers to Cervical Cancer Screening

The USPSTF of the Agency for Healthcare Research and Quality (AHRQ) updated the 2003 cervical cancer screening recommendations following a systematic evidence review conducted by the Oregon Evidence-based Practice Center in Portland, Oregon (Vesco et al., 2011). The updated screening recommendations included clinical guidelines developed by the American Cancer Society (ACS), the American Society for Colposcopy and Cervical Pathology (ASCCP), and the American Society for Clinical Pathology (ASCP) (Saslow et al., 2012). In 2012, the USPSTF recommended cervical cancer screening of women aged 21 years to 65 years by Pap test every three years (Tangka et al., 2015, p. 672). Also, to lengthen the screening interval, the task force recommended cervical cancer screening of women aged 30 years to 65 years by Pap test plus human papillomavirus (HPV) test every five years (Moyer, 2012, p. 881).

In 1979, the U.S. Surgeon General acknowledged the carcinogenic effects of diethylstilbestrol (United States Department of Health, Education, and Welfare, 1979). The Surgeon General's report recommended the following progressive measures regarding cervical cancer screening: Healthcare service providers should more frequently screen for cervical cancer all women exposed in utero to diethylstilbestrol, a synthetic estrogen drug (Burd, 2016). Additionally, service providers should more frequently screen all women with a previous history of cervical cancer or precancerous cervical lesions (Moyer, 2012). Finally, providers should more frequently screen all immunosuppressed women (for example, women treated with chemotherapy drugs) or immunocompromised women (for example, women infected with the human immunodeficiency virus) (Saslow et al., 2012).

Reducing Potential Barriers to Cervical Cancer Screening

Adequate evidence exists to support initiating cervical cancer screening of women aged 21 years and older (Moyer, 2012). However, limited evidence exists to support continuing cervical cancer "screening in women older than age 65 years" (Vesco et al., 2011, p. 11). Therefore, using historical trend data (National Center for Health Statistics, 2016, p. 249), the USPSTF recommended against the cervical cancer screening of women aged 20 years or younger and *average-risk* women aged 65 years and older. However, healthcare service providers should more frequently screen for cervical cancer older women with a prior history of inadequate cervical cancer screening and minority women with a previous history of limited access to adequate healthcare services (White & Wong, 2015).

Historically, "the primary problem for many of the elderly and other age groups is poverty and fixed incomes" (United States Department of Health, Education, and Welfare, 1979, p. 10-23). A recent study of NBCCEDP grant recipients sponsored by the CDC and conducted by Levano et al. (2014) across five U.S. states included a finding of relevance to underserved Southeast Asian women in Milwaukee, Wisconsin: Women of lower socioeconomic status encounter more financial and access barriers to cervical cancer screening. Poverty promotes domestic violence, mental illness, disease, and death (Milwaukee Health Care Partnership, 2016c). Poverty also significantly increases cervical cancer incidence and mortality rates in underserved racial and ethnic minority groups in the U.S. (Center to Reduce Cancer Health Disparities, 2015).

The U.S. Census Bureau provides population data based on clinical, demographic, economic, and geographic characteristics to healthcare service providers in the U.S. for underserved racial and ethnic minority groups (Dalzell et al., 2015). The Asian

population “represented 6.3% of the total US population (20 million/318.7 million) in 2014” (Torre et al., 2016, p. 2). In 1997, the U.S. Office of Management and Budget (OMB) separated the single Asian or Pacific Islander (API) race group into the Asian and the Native Hawaiian or Other Pacific Islander (NHOPI) race groups to reflect changing demographics in the U.S. (National Center for Health Statistics, 2003). There are at least 27 and at most 32 Asian race groups currently in the U.S. (Bakker, Koffel, & Theis-Mahon, 2017, p. 39).

The U.S. Census Bureau defines the term Asian as “a person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent, including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam” (Hoeffel, Rastogi, Kim, & Shahid, 2012, p. 2). Limited access to screening programs in rural communities of China contributes to a high incidence of cancer (Lee, 2016). The incidence of cervical cancer is two times higher in Cambodian women than in non-Hispanic white women (Torre et al., 2016, p. 11). The incidence of cervical cancer is five times higher in Vietnamese women than in non-Hispanic White women (Center to Reduce Cancer Health Disparities, 2015, p. 1).

Southeast Asians evacuated to the U.S. during and after the Vietnam War. The diaspora or “scattering of peoples from their original site and location” (Lee, 2016a, p. 12) continued well beyond the Fall of Saigon in 1975. Many Southeast Asians emigrated to the U.S., primarily from China, Laos, Thailand, and Vietnam (Sparks & Vang, 2015). Most Southeast Asians settled in the States of California, Minnesota, North Carolina, and Wisconsin (Lee, 2016a).

The incidence of cervical cancer is 4.2 times higher in Southeast Asian women than in non-Hispanic White women (Kue, Thorburn, & Levy Keon, 2015, p. 3). From 2002 to 2012, "cervical cancer incidence and mortality rates continued to decline annually by 2.4% and 0.9%, respectively" (Yoo et al., 2017, p. 2) in the U.S. However, even with federally funded programs such as the NBCCEDP, underserved women in the U.S. continue to experience cervical cancer health disparities (Benard et al., 2015). Also, to compound the problem, contemporary research studies indicate that Southeast Asian women often fail to actively participate in cervical cancer early detection programs (Lee, 2016).

Statement of the Problem

In the 2015-2016 City of Milwaukee Community Health Assessment, Southeast Asian residents of Milwaukee, Wisconsin expressed "the need for more culturally competent providers and culturally appropriate education, services, and programs to address top health concerns" (Milwaukee Health Care Partnership, 2016d, p. 295). Early detection of cervical cancer is a significant health concern to Southeast Asian women living in Milwaukee:

- The incidence of cervical cancer is 4.2 times higher in Southeast Asian women than in non-Hispanic White women (Kue et al., 2015, p. 3).
- Southeast Asian women in all age groups experience increased cervical cancer incidence and mortality rates (Sparks & Vang, 2015).

Southeast Asian women "have the highest rates of cervical cancer" (Nghiem, Davies, Chan, Mulla, and Cantor, 2016, p. 2) and the lowest rates of Pap testing in the U.S. The Southeast Asian population is the largest Asian ethnic minority group in the

State of Wisconsin (Hoeffel et al., 2012). According to the 2010 decennial census of population and housing, more than 23% of Wisconsin's Southeast Asians were concentrated in the Milwaukee metropolitan area (Vang, 2016, p. 13). The City of Milwaukee Health Department is the principal provider of community preventive services to underserved Southeast Asian women in Milwaukee, Wisconsin (City of Milwaukee Health Department, 2016).

The community preventive services provided by the City of Milwaukee Health Department include cervical cancer screening for the detection of cervical cancer and precancerous cervical abnormalities that lead to cervical cancer (Bayrami et al., 2015). Southeast Asian women in all age groups experience increased cervical cancer incidence and mortality rates (Sparks & Vang, 2015). However, despite high rates of cervical cancer in Southeast Asian women, the City of Milwaukee Health Department follows WWWP criteria and provides routine cervical cancer screening tests to underserved women aged 35 years through 64 years (Wisconsin Well Woman Program, 2010). If the health department continues to adopt this reactive approach to cervical cancer screening, then medically underserved Southeast Asian women in Milwaukee, Wisconsin will continue to be diagnosed with "late-stage cancer" (Kue et al., 2015, p. 3) and experience "lower cancer survival rates" (Singh & Jemal, 2017, p. 13).

In the State of Wisconsin, 19% of the Southeast Asian population lives "below the poverty line" (Vang, 2016, p. 45). With an overall poverty rate of 29%, Milwaukee, Wisconsin is the "fifth most impoverished city" in the U.S. (City of Milwaukee Health Department, 2016, p. 15). The NBCCEDP classifies Southeast Asian women with income levels at or less than 250% of the federal poverty level as low-income women

(Tangka et al., 2015). Therefore, Southeast Asian women living in Milwaukee "must have a gross household income or a net taxable income at or below 250% of the current federal poverty level" (Wisconsin Well Woman Program, 2010, p. 3.2) to qualify for cervical cancer screening through the WWWP.

Purpose of the Action Research Project

The purpose of this transformative mixed methods Action Research Project is multi-phased: (1) to assess the potential demographic, socioeconomic, and health literacy barriers to cervical cancer screening of underserved Southeast Asian women; (2) to identify where the current process of cervical cancer screening breaks down; and (3) to develop an action plan which if implemented increases the cervical cancer screening rates and consequently decreases the cervical cancer incidence and mortality rates. These underserved Southeast Asian women live in a large metropolitan city in the Midwestern U.S. The location of this Project is an annual community festival for Southeast Asian immigrants and their descendants.

The Dissertation author will use an action research methodology for this Project to identify the cervical cancer health disparities that negatively impact the health outcomes of underserved Southeast Asian women living in Milwaukee, Wisconsin. The purpose of this methodology is to determine whether information gathered, and primary data collected from smaller groups of Southeast Asian women may be applied in practice to a larger group of medically underserved Southeast Asian women in Milwaukee (Creswell & Creswell, 2018). In the first phase of this methodology, the author will discreetly gather information by observing, conversing with, and obtaining informed consent from underserved women while volunteering at three different City of

Milwaukee Health Department community health centers. In the second phase, the author will actively partner with key informants in the Milwaukee Southeast Asian community to create an informed consent form, survey instrument, and survey process specifically for underserved Southeast Asian women in Milwaukee. In the third and final phase, the author will personally collect de-identified primary data in the Milwaukee metropolitan area to confirm through qualitative and quantitative analysis that barriers *do* exist and may be reduced through process improvements and/or interventions by the City of Milwaukee Health Department.

The Dissertation author of this Action Research Project will create an informed consent form and survey instrument for primary data collection in the Milwaukee metropolitan area with information gathered in collaboration with Southeast Asian women at the Milwaukee Consortium for Hmong Health (MCHH) doing business as (dba) Southeast Asian Educational Development of Wisconsin (SEAED). The author will conduct two feasibility analyses and one pilot test with assistance provided by Southeast Asian women at the Hmong American Women's Association (HAWA) and MCHH dba SEAED. The author will collect de-identified primary data from Southeast Asian women in all age groups at an annual community festival in Milwaukee County with the assistance of a qualified Hmong language interpreter and translator.

Through primary data, the author of this Project will create an ideal or future state process map of the process steps which when linked together would reduce barriers to cervical cancer screening and increase cervical cancer screening rates. The author will utilize the NVivo 11 Pro (QSR International, 2016) computer-assisted qualitative data analysis software program to perform qualitative and quantitative analysis of primary

data collected from Southeast Asian women, drawing Project conclusions, and making Project recommendations by comparing qualitative and quantitative data captured in the survey instruments to qualitative data collected during exit interviews**.** Detailed observations and explanations will be included in Chapters Three, Four, and Five. Chapter Five will also summarize the findings and the results of the process improvements.

A transformative mixed methods research design will guide the author of this Project toward process interventions to improve the health outcomes of underserved Southeast Asian women living in Milwaukee, Wisconsin. The author will develop a process to address "the need for more culturally competent providers" (Milwaukee Health Care Partnership, 2016d, p. 295) at the City of Milwaukee Health Department. The author will suggest a professional partnership to improve access to community preventive services at the City of Milwaukee Health Department. Based on personal observations and data for process interventions, the author will propose ways to improve the current process and offer more culturally appropriate cervical cancer screening "education, services, and programs" (Milwaukee Health Care Partnership, 2016d, p. 295) at the City of Milwaukee Health Department.

Research Questions

In the 2015-2016 City of Milwaukee Community Health Assessment, Southeast Asian residents expressed the need for culturally competent providers and appropriate education, services, and programs (Milwaukee Health Care Partnership, 2016d, p. 295). Three research questions facilitated a better understanding of the needs identified by the Milwaukee Southeast Asian community related to community preventive services

provided by the City of Milwaukee Health Department. The three central research questions that guided this Action Research Project:

1. What roles do demographic and socioeconomic factors play in the cervical cancer screening of underserved Southeast Asian women by the City of Milwaukee Health Department?
2. What process improvements and/or process interventions by the City of Milwaukee Health Department might improve the health literacy and cervical cancer screening of underserved Southeast Asian women in Milwaukee, Wisconsin?
3. What are the process steps which if implemented by the City of Milwaukee Health Department might reduce potential barriers to cervical cancer screening of underserved Southeast Asian women in Milwaukee, Wisconsin?

Nature of the Action Research Project

When using an action research methodology, the Dissertation author seeks to learn what steps lead to improving the process and what steps are in fact impediments to the process. The author is attempting to find or create a current state process map that links the effective steps and improves or eliminates the ineffective steps, ultimately leading to the intended results and process improvements. For example, Kasting et al. (2017) conducted an exploratory survey of minority women in the State of Indiana to examine the relationships between HPV vaccination and cervical cancer screening. Stated another way, the relationships between vaccination and screening are in fact the linkages between the steps that flow from HPV vaccination to cervical cancer screening. Additionally, Malhotra, Bilger, Liu, and Finkelstein (2016) used “sequential focus groups

and surveys" (p. 3893) in Singapore to investigate perceived barriers to cervical cancer screening. Therefore, based on these and other cervical cancer screening studies identified during the literature review, the Dissertation author will use an exploratory sequential approach for this Action Research Project.

The author will also use a transformative mixed methods research design for this Project. A transformative research design "allows researchers to consciously situate their work as a response to the inequities in society with a goal of enhancing social justice" (Mertens, 2010, p. 470). A mixed methods research design is appropriate for public health studies (Newman, Newman, and Newman, 2011). A transformative mixed methods research design allows researchers to improve the circumstances of disadvantaged and marginalized members of society including but not limited to racial and ethnic minority groups as well as lesbian, gay, bisexual, transgender, and queer/questioning (LGBTQ) communities (Creswell & Creswell, 2018).

Definition of Terms

This section introduces relevant concepts and theories applied throughout the Project. The terms clarified include abbreviations, acronyms, words, and phrases used in the Project. The definition of terms includes popular terms that have special meaning and common terms that have meaning in the context of the Project. The author of this Project gratefully acknowledges numerous authors, scholars, researchers, and government agencies for contributing to the definition of terms for the Project.

Action research: "Research leading to social action" (Lewin, 1946, p. 35). A methodology by which the dissertation author actively participates in the project and its improvements. Whereas in a traditional research study the author simply observes and

gathers data, in an action research project the dissertation author assembles data in day-to-day practices which can then be applied immediately in the environment to create the intended result. Action research aims largely at quantitative results which can be shown to yield tangible improvements. In this Project, the problem is the low rate of cervical cancer screening among Southeast Asian women in Milwaukee, Wisconsin, and the high rates of cervical cancer incidence and mortality that result. Stated another way, this Project will propose an action plan to increase the cervical cancer screening rates and consequently decrease the cervical cancer incidence and mortality rates in the Milwaukee Southeast Asian community.

Ambiguity: "Confusing or unclear phrasing in surveys" (Brown & Hale, 2014, p. 287).

Annotated bibliography: "Summary of sources used in a research project, usually containing bibliographic information; research question, theory, and hypotheses; description of data; summary of findings; and notes about how each source can be used by the researcher" (Brown & Hale, 2014, p. 287).

Applied dissertation: "A research project undertaken in partial fulfillment of the requirements for a Ph.D. and that tackles real-world problems; guided by academic advisers" (Brown & Hale, 2014, p. 287); the written result of applied research.

Applied research: "Research that focuses on understanding or trying to solve practical problems, as opposed to basic research, which focuses on furthering our understanding of theoretical relationships, whether empirical or normative" (Brown & Hale, 2014, p. 287); the written results are applied dissertations and action research dissertations.

Argumentativeness: "Wording of questions in surveys that subtly convinces respondents that a particular perspective is correct" (Brown & Hale, 2014, p. 287).

Availability sampling: "Selecting population units for study based on their availability or ease" (Brown & Hale, 2014, p. 288).

Behavioral coding: "In pilot testing survey instruments and processes, observing respondents to watch for questions that take longer to answer or that appear more difficult or confusing" (Brown & Hale, 2014, p. 288).

Benchmarks: "Empirical measures used to capture the results of a policy intervention or progress toward a goal" (Brown & Hale, 2014, p. 288). Benchmarks may be used to demonstrate process improvements and comparative results of Projects. For example, this Action Research Project refers to the fact that cervical cancer incidence and mortality rates are higher for Southeast Asian women than for women in general in all age groups. This Project suggests that certain barriers to cervical cancer screening contribute, at least in part, to the adverse health of Southeast Asian women.

Cancer: "A group of diseases in which cells in the body grow out of control" (Centers for Disease Control and Prevention, 2017, p. 20).

Cancer health disparities: Health disparities that disproportionately affect certain racial and ethnic minority groups regarding cancer incidence and mortality (Deshmukh et al., 2017).

Carcinogenic: Cancer-inducing (for example, radiation) (United States Department of Health, Education, and Welfare, 1979).

Case study: "Approach to data collection using an in-depth examination of an event, geographic area, or public problem" (Brown & Hale, 2014, p. 288).

Cell: "The basic unit that makes up all living things" (Centers for Disease Control and Prevention, 2017, p. 20).

Cervical cancer: Gynecologic cancer that originates in a woman's cervix (Centers for Disease Control and Prevention, 2017).

Cervix: "The lower, narrow end of the uterus that forms a canal between the uterus and vagina" (Centers for Disease Control and Prevention, 2017, p. 20).

Chemotherapy: Drugs used to stop or slow the growth of cancer cells (Centers for Disease Control and Prevention, 2017).

Closed-ended questions: "Survey questions that contain a fixed list of possible response categories" (Brown & Hale, 2014, p. 289).

Coding: "Reducing a qualitative descriptor of a phenomenon to a numeric value" (Brown & Hale, 2014, p. 289). Organizing data into segments to create categories of information (Creswell & Creswell, 2018).

Cognitive interview: "In pilot testing survey instruments and processes, an interview with respondents about how they understood the questions and response categories, whether any were confusing, or whether anything should be added or amended" (Brown & Hale, 2014, p. 289).

Colposcopy: "Examination of the vagina and cervix using a lighted magnifying instrument called a colposcope" (Vesco et al., 2011, p. 118).

Community preventive services: "Health-care related preventive services provided in community settings such as places of employment, schools, childcare centers, community centers, medical care and other places where services are delivered" (Community Preventive Services Task Force, 2015, p. 2).

Confidence levels: "Levels of certainty about whether what is true for sample data will be true for population data in testing statistical significance" (Brown & Hale, 2014, p. 289).

Constructivist worldview: This worldview is more commonly known as activism or social constructivism (Creswell & Creswell, 2018).

Content analysis: "Approach to data collection based on the systematic analysis of recorded materials for common themes using the application of a strict set of rules" (Brown & Hale, 2014, p. 289).

Content expert: "A known senior scholar who may be asked to read or comment on work to ensure that it is carefully crafted" (Brown & Hale, 2014, p. 289).

Data: "Information gathered to understand a particular issue or phenomenon" (Brown & Hale, 2014, p. 290).

Data transformation: "Converting qualitative data to numbers for descriptive and, subsequently, analytical purposes" (Creamer, 2018, p. 117); associated with integrated mixed methods research.

Dataset: A set of alphabetic and numeric data that can be entered into a Microsoft Excel spreadsheet or a similar software application for analysis (Jackson & Bazeley, 2019).

Demographics: "The characteristics of people or geographic areas, including aspects that can change and aspects that do not" (Brown & Hale, 2014, p. 290).

Diagnosis: "The process of identifying a disease based on its signs and symptoms, and medical testing" (Centers for Disease Control and Prevention, 2017, p. 20).

Direct observation: "A form of data collection that involves watching and documenting actions, events, or processes" (Brown & Hale, 2014, p. 290).

DMADV: Acronym for Define, Measure, Analyze, Design, and Verify; a Design for Six Sigma approach "used to develop new processes or products" (Pendokhare & Quazi, 2015, p. 1536).

DMAIC: Acronym for Define, Measure, Analyze, Improve, and Control; a Six Sigma approach used "for existing processes for incremental improvement" (Pendokhare & Quazi, 2015, p. 1536).

Embedded mixed methods: A complex mixed methods research design that embeds one research design within another (Creswell & Creswell, 2018).

Empirical theory: "An explanation of an event or phenomenon based on a combination of observations, findings from other research, and logic" (Brown & Hale, 2014, p. 291).

Ethnography: "Approach to data collection in which researchers fully immerse themselves in a culture for an extended period of time to better understand that culture" (Brown & Hale, 2014, p. 291).

Exploratory sequential approach: An approach that begins with a qualitative phase of exploration and ends with a quantitative phase of research. Researchers often use the qualitative phase to design a survey instrument for the quantitative phase (Creswell & Creswell, 2018).

Exploratory research: "Research that contributes to the development of new theories based on observations of new or unexpected phenomena" (Brown & Hale, 2014, p. 292).

Focus group: "Research approach in which a small group of people is brought together for a moderated conversation" (Brown & Hale, 2014, p. 292).

Follow-up: "Visits with your doctor for more testing or treatment" (Centers for Disease Control and Prevention, 2017, p. 20).

Grounded theory: "Theory developed about a phenomenon based on in-depth empirical observation and analysis of one or more cases" (Brown & Hale, 2014, p. 292).

Gynecologic cancer: "Cancer of the female reproductive organs, including the cervix, fallopian tubes, ovaries, uterus, vagina, and vulva" (Centers for Disease Control and Prevention, 2017, p. 20).

HAFA: Acronym for the Hmong American Friendship Association; interpretation and translation service provider in Milwaukee, Wisconsin. According to HAFA, literacy is the demographic barrier to cervical cancer screening in Milwaukee (see Figure 21).

HAWA: Acronym for the Hmong American Women's Association; advocates for gender equality and social justice in Milwaukee, Wisconsin. According to HAWA, insurance is the socioeconomic barrier to cervical cancer screening in Milwaukee (see Figure 21).

Health literacy: "The ability to obtain, process, and understand basic health information" (Bakker et al., 2017, p. 34).

Hmong: An ethnic minority of Southeast Asian refugees that immigrated to the U.S. after the Vietnam War (Thorburn et al., 2013); Southeast Asians from Cambodia, China, Laos, Myanmar (Burma), Thailand, Vietnam, and the U.S.; the language and culture of the Hmong community.

Human papillomavirus (HPV): "A very common virus passed on during sex that can cause changes to cells. At least 50 percent of sexually active men and women will have HPV at some point in their lives. Most of the time, people who become infected with HPV will not have any symptoms and the infection will clear up on its own. However, when the infection does not clear up, it can cause normal cells to turn abnormal. Over time, these abnormal cells can turn into cancer of the cervix, vagina, or vulva" (Centers for Disease Control and Prevention, 2017, p. 20).

Human papillomavirus (HPV) test: Test that examines for "the presence of high-risk HPV, the primary cause of cervical cancer" (Kobetz et al., 2017, p. 2).

Human papillomavirus (HPV) vaccine: "A vaccine being studied in the prevention of human papillomavirus infection and cervical cancer" (Vesco et al., 2011, p. 118).

Hypotheses: "Testable expectations from empirical theories" (Brown & Hale, 2014, p. 292).

Hysterectomy: "Surgery to remove the uterus and, generally, the cervix. When only the uterus is removed, it is called a partial hysterectomy. When the cervix also is removed, it is called a total hysterectomy" (Centers for Disease Control and Prevention, 2017, p. 20).

In utero: Refers to fetal development during pregnancy (United States Department of Health, Education, and Welfare, 1979).

Incidence: "The number of cases of disease having their onset during a prescribed period of time" (National Center for Health Statistics, 2016, p. 411).

Informed consent: The process used by researchers to explain the legal rights, the purpose of the research, and the risks (if any) associated with participation to potential research participants.

Informed consent form: A form that potential research participants voluntarily review and sign before engaging in research (Creswell & Creswell, 2018).

Institutional Review Board (IRB): "Organization within a university that reviews research proposals for compliance with ethical requirements" (Brown & Hale, 2014, p. 293). Permission to proceed with the research proposals must be obtained from the IRB to ensure the protection of participants' rights (Creswell & Creswell, 2018).

Instrument: Survey tool used to collect data (Brown & Hale, 2014).

Interview: "Approach to data collection in which researchers identify respondents and ask them questions; typically used with expert or key informants" (Brown & Hale, 2014, p. 293).

Iterative process: "The continual reviewing and refining of our work while we are working within each step and across the steps of the research process" (Brown & Hale, 2014, p. 293).

Key informants: "People who are sources of the best possible information because of their particular backgrounds or experiences" (Brown & Hale, 2014, p. 293). Key informants for this Project included community organizations, healthcare professionals, and advocates working with underserved women in the Milwaukee Southeast Asian community.

LGBTQ: Acronym for "the lesbian, gay, bisexual, transgender, and queer/questioning (LGBTQ) community, also referred to as sexual and gender minorities" (Tamargo, Quinn, Sanchez, & Schabath, 2017, p. 1).

Limited English proficiency (LEP): "The inability to speak or read English well" (City of Milwaukee Health Department, 2016, p. 18).

Literature: "The published work in a particular discipline" (Brown & Hale, 2014, p. 294).

Literature map: A visual representation of the literature review (Creswell & Creswell, 2018).

Logic model: "Pictorial description of a problem, available resources, the hypothesized solution to the problems, and hypothesized outcomes" (Brown & Hale, 2014, p. 294).

Median: "A measure of central tendency for ordinal or scale variables with extreme outliers; the value at the 50^{th} percentile" (Brown & Hale, 2014, p. 294).

Medically underserved women: "Those with little or no access to preventive care, those without health insurance (uninsured or underinsured), those facing barriers to care (language, cultural, financial, transportation)" (CAP Foundation, 2019, p. 4).

MCHH: Acronym for the Milwaukee Consortium for Hmong Health; "established in 2008 to build capacity to investigate and address barriers to screening and cancer care" (Sparks & Vang, 2015, p. 405).

MCHH dba SEAED: Acronym for the Milwaukee Consortium for Hmong Health doing business as Southeast Asian Educational Development of Wisconsin. According to MCHH dba SEAED, transportation is the socioeconomic barrier and cancer

education is the health literacy barrier to cervical cancer screening in Milwaukee (see Figure 21).

Mixed methods: "Analytical approach combining both qualitative and quantitative data" (Brown & Hale, 2014, p. 294).

Mixed methods research: A research methodology that mixes or integrates both qualitative and quantitative research designs into a single project (Creswell & Creswell, 2018).

Morbidity: "Any departure, subjective or objective, from a state of physiological or psychological well-being" that "encompasses disease, injury, and disability" (City of Milwaukee Health Department, 2016, p. 21).

Mortality rate: The U.S. calculates mortality rate statistics based on underlying causes of death obtained from death certificates filed in the fifty states and the District of Columbia (Heron, 2016).

N: Abbreviation for the total number of survey respondents; sample size (Creamer, 2018).

Needs assessment: "Systematic examination of a social or political condition, frequently used to inform program planning" (Brown & Hale, 2014, p. 295).

Open-ended question: "Type of survey question that does not propose any sort of response options and does not limit the information that respondents choose to provide" (Brown & Hale, 2014, p. 295).

Outcomes: "The results or consequences of activities or interventions" (Brown & Hale, 2014, p. 295).

Papanicolaou (Pap) test: "A screening test where a doctor swabs the cervix for cells and then examines them under a microscope to look for changes on the cervix and early sign of cervical cancer, as well as precancerous changes on the cervix that can be treated. Cervical cancer is the only cancer that the Pap test screens for. It does NOT screen for ovarian, uterine, vaginal, or vulvar cancers" (Centers for Disease Control and Prevention, 2017, p. 20).

Paradigm: Also known as a worldview; "In philosophy of science, the common ways of thinking about problems in a given period of scientific development" (Brown & Hale, 2014, p. 296).

Participant observer: "A researcher who interacts with subject participants as a participant and as a collector of data simultaneously" (Brown & Hale, 2014, p. 296).

Pilot test: "A test of the processes and instruments to be used for data collection prior to the start of data collection to ensure that they work" (Brown & Hale, 2014, p. 296); used to verify external validity.

Population: "All possible observations, subjects, or units" (Brown & Hale, 2014, p. 296).

Post-positivist worldview: This worldview is more commonly known as the scientific method (Creswell & Creswell, 2018).

Pragmatist worldview: This worldview focuses on actions and consequences rather than the research method (Creswell & Creswell, 2018).

Precancerous: "Cell changes that are not normal, but have not yet turned into cancer" (Centers for Disease Control and Prevention, 2017, p. 20).

Primary data: "Original data collected by the research; as compared to secondary data" (Brown & Hale, 2014, p. 296).

Process map: A flow chart or map of the process by which a process flows from inputs to outputs. A current state process map is a map of the process as it exists either formally or as an understood process. An ideal or future state process map is the process as it is developed after improvements have been made through active interventions.

Qualitative research: A research methodology "focused on observing complex political and social phenomena and then describing and analyzing those phenomena based on the observations in total; compared to quantitative research, which reduces these phenomena through a coding process to numeric representations of reality" (Brown & Hale, 2014, p. 207).

Quantitative analysis: "Mathematical explanation of relationships between and among events" (Brown & Hale, 2014, p. 297).

Quantitative research: A research methodology "focused on reducing political and social phenomena to numbers by giving them numerical codes and then analyzing them with statistical techniques; compared to qualitative research, in which the same phenomena are analyzed in total" (Brown & Hale, 2014, p. 297).

Quantitative results: Results that are measurable and verifiable in practice. American Meridian University and action research emphasize quantitative results from process improvements.

Quantitizing: "The process of assigning numerical values to textual data for purposes of further analysis" (Creamer, 2018, p. 119). "When qualitative data is

transformed into a quantitative format, often through frequency counts" (Creamer, 2018, p. 246).

Random sample: "Sample drawn such that each case or element within a population has an equal chance of being drawn as part of the sample" (Brown & Hale, 2014, p. 298).

Random sampling: A quantitative research process that ensures equal representation through random selection (Creswell & Creswell, 2018).

Reliability: "Condition in which repeated measurement yields the same result; indicative of stability and consistency" (Brown & Hale, 2014, p. 298).

Research design: "Overall approach to collection of data to answer a research question and/or to test hypotheses" (Brown & Hale, 2014, p. 298). The research design aligns with the worldview and can be qualitative, quantitative, or mixed methods (Creswell & Creswell, 2018).

Respondent validation: "Process in which researchers provide their findings to participants for feedback" (Brown & Hale, 2014, p. 298); used to verify internal validity.

Research question: "Question that guides a scientific inquiry" (Brown & Hale, 2014, p. 298).

Sample: "Observed information from a subset of a population used to infer parameters about the larger population" (Brown & Hale, 2014, p. 299).

Sampling: "The process of drawing a subset of population elements for study in order to make inferences about the larger population" (Brown & Hale, 2014, p. 299).

Screening: "Checking for disease when there are no symptoms. Cancer screening tests are effective when they can find disease early" (Centers for Disease Control and Prevention, 2017, p. 20).

SD: Abbreviation for the distance from the average number of survey respondents; standard deviation (Breitkopf et al., 2016, p. 3349).

SEAED: Acronym for the Southeast Asian Educational Development of Wisconsin; provider of cancer health and wellness community preventive services in Milwaukee, Wisconsin.

Secondary data: "Using data that someone else has collected; as compared to primary data" (Brown & Hale, 2014, p. 299).

Shamanism (*kev dab qhuas*): The traditional Hmong practice "based on beliefs that sickness is caused by evil spirits or loss of one or more of the soul(s) that animate each person" (Lee, 2016a, p. 17).

Survey: "Approach to data collection in oral or written form in which data are collected from individuals, usually about beliefs, opinions, characteristics, or behaviors that cannot be observed" (Brown & Hale, 2014, p. 300).

Test-retest reliability: "The ability to provide consistent scores over time in a stable population" (Paiva et al., 2014, p. 2); replication research method used to carefully study and confirm the reliability of a survey instrument (Leppink & Pérez-Fuster, 2017).

Theory: "A general explanation of why variables work together, how they are related to each other, and especially how they influence each other" (Galvan & Galvan, 2017, p. 6).

Theory of Change: "A theoretical description of a problem; a program, intervention, or activity that is hypothesized to address the problem; the expected outcomes due to the intervention; and the causal linkages among these elements" (Brown & Hale, 2014, p. 300).

Trade and professional sources: "Published material that focuses on issues of concern to the specific trade or profession and is written to be accessible to that audience" (Brown & Hale, 2014, p. 300).

Transformative: Ethical principles for the "enhancement of social justice, furtherance of human rights, and respect for cultural norms" (Mertens, 2010. p. 470).

Transformative mixed methods: This mixed methods research design focuses on social injustice and marginalized members of society (Creswell & Creswell, 2018).

Transformative worldview: This worldview addresses political and social injustice, discrimination, and oppression (Creswell & Creswell, 2018).

Triangulation: "The process of collecting information on a single topic from a variety of sources using multiple methods in order to enhance believability of findings" (Brown & Hale, 2014, p. 300); used to verify the validity of a project.

Underinsured: "Have health insurance that does not cover preventive services, have a high deductible, or have a catastrophic policy" (Wisconsin Well Woman Program, 2010, p. 1).

Underserved women: "Low-income, uninsured, and underinsured women" (Howard et al., 2015, p. 1; see also Levano et al., 2014, p. 1; Tangka et al., 2015, p. 671).

Uterus: "The small, hollow, pear-shaped organ in a woman's pelvis. This is the organ in which a baby grows. Also called the womb" (Centers for Disease Control and Prevention, 2017, p. 20).

Validity: "The condition in which the measurement approach accurately captures the phenomenon as intended" (Brown & Hale, 2014, p. 301).

Worldview: Also known as a paradigm; the basic set of beliefs that guide researchers (Creswell & Creswell, 2018).

Significance of the Action Research Project

Healthy People 2020, monitored by the CDC for the U.S. Department of Health and Human Services, set benchmarks and performance objectives for all U.S. communities "to achieve by the year 2020" (Milwaukee Health Care Partnership, 2016, p. A-5). According to Nghiem, Davies, Chan, Mulla, and Cantor (2016), the goal of Healthy People 2020 was to improve community health by eliminating health disparities and achieving health equity. The Healthy People 2020 target for cervical cancer screening by Pap test alone was 93% of women aged 21 years to 65 years every three years (Padela, Peek, Johnson-Agbakwu, Hosseinian, & Curlin, 2014, p. 8). Yet the percentage of women aged 18 years to 65 years screened for cervical cancer in Milwaukee, Wisconsin decreased from 90% to 81% from 2003 to 2015 (Milwaukee Health Care Partnership, 2016a, p. B-6).

Identifying the missing, ineffective, or failed steps in a process is a crucial stage in the action research methodology. Since 2003, Milwaukee, Wisconsin has consistently failed to achieve the Healthy People 2020 target of 93% for cervical cancer screening by Pap test within the past three years (City of Milwaukee Health Department, 2016, p. 25).

Below is a series of steps that might constitute a skeletal process map which if implemented would result in increased rates of cervical cancer screening. However, these steps are *not* part of the current City of Milwaukee Health Department process. In a recent community health assessment, Milwaukee residents correctly identified the following missing steps as barriers to healthcare services (City of Milwaukee Health Department, 2016):

1. Lack of transportation.
2. Long waits for appointments.
3. Lack of culturally and linguistically appropriate services.
4. Lack of knowledge about the importance of preventive care.
5. Low health literacy (p. 22).

In contrast, Milwaukee Southeast Asian residents explicitly expressed "the need for more culturally competent providers and culturally appropriate education, services, and programs to address top health concerns" (Milwaukee Health Care Partnership, 2016d, p. 295). This Action Research Project seeks to investigate the perceived gaps in providers, education, services, and programs expressed by the Milwaukee Southeast Asian community by collecting de-identified primary data regarding the potential demographic, socioeconomic, and health literacy barriers to cervical cancer screening at an annual community festival for Southeast Asian immigrants and their descendants in Milwaukee County.

Assumptions and Limitations

The assumptions for this Project are as follows:

1. At least 30 Southeast Asian women in all age groups attending the 2018 Milwaukee Hmong New Year festival will participate in this Project.
2. At least some of the 30 Southeast Asian women participating in this Project will be underserved according to WWWP eligibility and enrollment criteria.
3. The Southeast Asian women attending the 2018 Milwaukee Hmong New Year festival and participating in this Project will respond honestly and willingly to the survey instrument.
4. MCHH dba SEAED will recommend a qualified Hmong language interpreter and translator for primary data collection at the 2018 Milwaukee Hmong New Year festival.

The limitations of this Project are as follows:

1. The time frame for the creation of the informed consent form and survey instrument and the development of the survey process will be limited to six months.
2. Only Southeast Asian women aged 18 years and older living in Wisconsin will be included in this Project.
3. The anticipated small size of the subject group will limit generalizations from the primary data.

Scope of the Action Research Project

The Milwaukee Hmong Consortium scheduled the Milwaukee Hmong New Year festival for 2018 in the Exposition Center at Wisconsin State Fair Park in Milwaukee County. The Dissertation author of this Action Research Project will collect de-identified primary data from Southeast Asian women attending the festival with the assistance of a

qualified Hmong language interpreter and translator. The author of this Project anticipates collecting informed consent forms, survey instruments, and exit interviews from a minimum of 30 underserved Southeast Asian women aged 18 years and older. The author will implement appropriate measures to ensure all Southeast Asian women participating in this Project fully understand the dynamics and expectations involved. These measures will include informed consent and the provision of a qualified Hmong language interpreter and translator to ensure the inclusion of Southeast Asian women with limited English proficiency.

Worldview and Theoretical Foundation

A paradigm is a standard and accepted way for researchers to study social science problems (Brown & Hale, 2014). In the broadest sense, a researcher develops a study based on a paradigm or worldview of general philosophical assumptions about how to conduct and report research. The four primary philosophical worldviews are post-positivist, constructivist, pragmatist, and transformative (Creswell & Creswell, 2018). A transformative worldview is an advanced worldview "that directly engages members of culturally diverse groups with a focus on increased social justice" (Mertens, 2010, p. 470).

A transformative worldview is "applicable to people who experience discrimination and oppression on whatever basis, including (but not limited to) race/ethnicity, disability, immigrant status, political conflicts, sexual orientation, poverty, gender, age, or the multitude of other characteristics that are associated with less access to social justice" (Mertens, 2017, p. 20). According to Creswell and Creswell (2018), a representative body of knowledge does not support a transformative worldview.

Nevertheless, the Dissertation author of this Action Research Project will use a transformative worldview to investigate the potential barriers to cervical cancer screening of underserved women in the Milwaukee Southeast Asian community**.** In terms related to action research, the author will seek to validate the transformation of the current state process map into an ideal or future state process map which if implemented may result in increased cervical cancer screening rates and consequently decreased cervical cancer incidence and mortality rates.

The five areas of Merriam's theoretical framework include specification of the main topic; knowledge about the topic; the gap in knowledge about the topic; the purpose of the study; and the research questions and sub-questions that inform the purpose of the study (Merriam & Tisdell, 2016). The Dissertation author will establish a transformative theoretical framework for this Action Research Project by affirmatively answering ten research-related questions set forth by Creswell and Creswell (2018):

1. The author will openly reference a problem identified in the Milwaukee Southeast Asian community.
2. The author will openly declare a transformative theoretical lens.
3. The author will write three research questions with an advocacy lens.
4. The literature review will include discussions of diversity and oppression.
5. The author will discuss the appropriate labeling of the participants.
6. Data collection and outcomes will benefit the Milwaukee Southeast Asian community.
7. Members of the Milwaukee Southeast Asian community will be actively engaged in the Action Research Project.

8. The Project results will elucidate power relationships in Wisconsin.
9. Project results will support social change in Wisconsin.
10. The author will explicitly state the use of a transformative framework.

Organization of the Remainder of the Action Research Project

There are five chapters that comprise the Action Research Project. Chapter One introduced the Project. Chapter Two addresses the literature review and the annotated bibliography. Chapter Three describes the research design, the methodological approach, and the methods of data collection for the Project. Chapter Four explains the process of data analysis. Chapter Five presents the results, the discussion, and the recommendations of the Project. Chapter Five will explicitly suggest ways in which potential barriers may be reduced. Once the barriers are reduced, the result would become the ideal or future state process map.

CHAPTER 2. LITERATURE REVIEW

Overview

Literature includes the published ideas, opinions, and experiences of subject matter experts (Brown & Hale, 2014). A literature search involves an exploration of dissertations, theses, scholarly publications, and other available resources to identify relevant literature on a subject. The literature review categorizes all relevant literature identified during a literature search to encourage further investigation and a better understanding of a subject. The literature review for this Action Research Project began with the identification and selection of relevant theories, research methods, and frameworks identified during the literature search.

The literature review for this Project continued with the categorization, evaluation, integration, and synthesis of all relevant literature selected during the literature search. The Dissertation author applied Cooper's taxonomy of literature reviews to categorize the relevant literature for this Project. Cooper's taxonomy is a methodological framework that identifies six basic characteristics of literature: focus, goal, perspective, coverage, organization, and audience (Cooper, 1985). Contemporary researchers often apply Cooper's taxonomy and similar guiding frameworks when conducting secondary research (Templier & Paré, 2015).

Primary research is a direct account of a participant population, while secondary research is an indirect account of a population written by other authors. This Project proceeded with an evaluation of secondary research related to cervical cancer screening programs currently available in Milwaukee, Wisconsin. The preliminary evaluation

identified age-related cervical cancer health disparities in the State of Wisconsin. Integration and synthesis of secondary research identified additional cervical cancer health disparities. These health disparities affected underserved women, especially underserved Southeast Asian women, in Milwaukee, Wisconsin. To gain a better understanding of the people and the situation, the Dissertation author began gathering information from key informants in the Milwaukee Southeast Asian community. The process of exploring the problem in the Milwaukee Southeast Asian community paralleled the method for selecting the literature and compiling the literature review.

The literature review should include dissertations, theses, scholarly publications, and other sources of relevant literature. The literature review for this Project included dissertations and theses, peer-reviewed journal articles, government reports, organization websites, textbooks, and other academic materials. The Dissertation author gathered dissertations and theses from ProQuest Dissertations and Theses Global. The Dissertation author identified relevant peer-reviewed journal articles for the literature review using PubMed.

The author downloaded journal articles from PubMed Central and PubMed Health in the U.S. National Library of Medicine of the U.S. National Institutes of Health. The author accessed government reports from other government agency websites such as the CDC and the U.S. Department of Education. The author used the Internet to locate academic and professional organization websites. The author also utilized WorldCat, a worldwide network of library content, to retrieve textbooks and other academic materials from local public, private, and academic libraries.

This Action Research Project sought to reduce the potential demographic, socioeconomic, and health literacy barriers to cervical cancer screening of underserved Southeast Asian women living in Milwaukee, Wisconsin. The Dissertation author understands the requirement of action research that all the elements mentioned above are integrated into a series of steps which when linked together form a roadmap to the improvement of the current state of the process. To fulfill the requirement, the author explored the literature and selected for the literature review more than 150 sources of secondary research from academic, professional, and government databases. Various authors, scholars, and researchers published over 80% of this literature within the last five years. Also, most of this literature included relevant peer-reviewed journal articles and reports from government agencies.

Questions that Guide the Action Research

In the 2015-2016 City of Milwaukee Community Health Assessment, Southeast Asian residents expressed the need for culturally competent providers and appropriate education, services, and programs (Milwaukee Health Care Partnership, 2016d, p. 295). Three research questions facilitated a better understanding of the needs identified by the Milwaukee Southeast Asian community related to community preventive services provided by the City of Milwaukee Health Department. The three central research questions that guided this Action Research Project:

1. What roles do demographic and socioeconomic factors play in the cervical cancer screening of underserved Southeast Asian women by the City of Milwaukee Health Department?

2. What process improvements and/or process interventions by the City of Milwaukee Health Department might improve the health literacy and cervical cancer screening of underserved Southeast Asian women in Milwaukee, Wisconsin?
3. What are the process steps which if implemented by the City of Milwaukee Health Department might reduce potential barriers to cervical cancer screening of underserved Southeast Asian women in Milwaukee, Wisconsin?

Method for Reviewing the Literature

The three principal sources of literature are popular press sources, trade and professional sources, and scholarly sources (Brown & Hale, 2014). Popular press sources are newspapers, news magazines, and nontechnical publications, while trade and professional sources are technical publications designed for specific fields of study. Scholarly sources include "published information in the form of scientific discussion and data analysis about a specialized topic that has undergone a blind peer-review process before publication" (Brown & Hale, 2014, p. 299). Examples of scholarly sources are peer-reviewed journal articles and reports from government agencies such as the U.S. Census Bureau, the U.S. Department of Health and Human Services, and the U.S. Government Accountability Office.

The literature review represents "a comprehensive review of literature pertaining to the philosophical and theoretical bases" (Driscoll, 2016, p. 14) of a project. For the literature review, the Dissertation author created a visual framework or literature map of the three principal sources of literature using a Microsoft Excel spreadsheet. The first iteration of the literature map categorized the principal sources according to the three

research questions. As the number of sources increased and significant themes emerged, the second iteration of the literature map classified the principal sources according to the following themes and sub-themes:

1. Theme 1: cervical cancer screening of Southeast Asian women.
    - Sub-themes: cervical cancer, cervical cancer screening, City of Milwaukee Health Department, health disparities in Milwaukee, Southeast Asian women in Milwaukee, and HPV.
2. Theme 2: socioeconomics of Southeast Asian women.
    - Sub-themes: access, culture, education, economics, literacy, and religion.
3. Theme 3: public health interventions for Southeast Asian women.
    - Sub-themes: access to health care, demographics, focus groups, health literacy, population health management, and qualitative surveys.

The third and final iteration of the literature map captured more than 150 principal sources of literature, categorizing them into seven themes based on the title and the purpose of this Action Research Project. The Dissertation author selected the NVivo 11 Pro computer-assisted qualitative and mixed methods data analysis software program to further simplify the categorization of the literature map. NVivo 11 Pro allowed the author to upload, store, and retrieve each principal source within the program in Adobe Portable Document Format (PDF) file format. In addition to principal sources, NVivo 11 Pro permitted the storage and retrieval of the annotated bibliography as well as personal notes, observations, and conversations.

Method for Analyzing the Literature

The Dissertation author created an annotated bibliography to analyze the literature gathered for this Project. An annotated bibliography is "a summary of sources used in a research project, usually containing bibliographic information; research question, theory, and hypotheses; description of data; summary of findings; and notes about how each source can be used by the researcher" (Brown & Hale, 2014, p. 287). At first, creating an annotated bibliography allowed the author to accept or reject sources from the literature map to ensure the inclusion of only appropriate and relevant sources. Later, creating an annotated bibliography allowed the author to capture valuable insights from each source in the final iteration of the literature map by answering the following seven questions (Hatcher, 2018):

1. What was the purpose of this source?
2. What was the main issue addressed in this source?
3. What relevant data did this source present?
4. What was the main inference drawn from this research?
5. What was/were the most important concept(s)/idea(s) to understand the author's line of reasoning?
6. What was/were the main point(s) of view?
7. What findings supported the conceptual framework of this research (p. 2)?

Relevant Models, Theories, Benchmarks, and Frameworks

Kurt Lewin first postulated the application of action research to the social sciences to address minority problems in society (Lewin, 1946). Action research "integrates theory and practice with a goal of addressing important organizational, community, and social issues together with those who experience them" (Shani &

Coghlan, 2019, p. 3) by actively involving the researcher in the project. Applied research "focuses on understanding or trying to solve practical problems" (Brown & Hale, 2014, p. 287). The Dissertation author created a logic model to address the issue and focus on the solution for this Action Research Project (see Figure 2). A logic model is a "pictorial description of a problem, available resources, the hypothesized solution to the problems, and hypothesized outcomes" (Brown & Hale, 2014, p. 294).

Exploratory research "contributes to the development of new theories based on observations of new or unexpected phenomena" (Brown & Hale, 2014, p. 292). Grounded theory is "a theory that emerges from exploratory research" (Brown & Hale, 2014, p. 24). In social science research, grounded theory develops from the viewpoints of research participants (Creswell & Creswell, 2018). Grounded theory to address the Statement of the Problem emerged during the qualitative phase of exploration from personal observations and conversations in the Milwaukee Southeast Asian community.

The Dissertation author used the Theory of Change to focus on a solution to address the Statement of the Problem. The Theory of Change is "a theoretical description of a problem; a program, intervention, or activity that is hypothesized to address the problem; the expected outcomes due to the intervention; and the causal linkages among these elements" (Brown & Hale, 2014, p. 300). The Theory of Change streamlined the creation of a logic model (see Figure 2). The logic model identified the problem; the appropriate interventions; the short-term, medium-term, and long-term outcomes; and the benchmarks for this Project.

Several benchmarks and frameworks refined the solution for this Action Research Project. Benchmarks included the cervical cancer screening recommendations of the

USPSTF, the goals of the See, Test & Treat® program of the College of American Pathologists (CAP) Foundation, and the targets of the Healthy People 2020 initiative. Frameworks included the Wisconsin Way Framework and the Baldrige Excellence Framework. The Dissertation author presents these benchmarks and frameworks in greater detail in the remaining chapters.

Organization of Project According to Themes

The literature review begins with a thorough and comprehensive search of the relevant literature on the subject. Coding of the literature review with NVivo organizes the literature search by topic, case, or theme (QSR International, 2016). Themes that emerge from coding lead to the formation of substantive research questions. The seven themes that emerged from coding the literature review for this Action Research Project were: (1) barriers; (2) cervical cancer screening; (3) underserved women; (4) Southeast Asian women; (5) Milwaukee, Wisconsin; (6) data collection and analysis; and (7) data synthesis and recommendations.

Theme One: Barriers

The three most common languages spoken in the State of Wisconsin are English, Spanish, and Hmong (Wisconsin Well Woman Program, 2010). Underserved racial and ethnic minority groups with limited English proficiency are particularly "vulnerable to health disparities" (Breitkopf et al., 2016, p. 3347). Among the residents of Milwaukee aged 5 years and older, "8.6% have limited English proficiency, equal to the national rate, but higher than the statewide rate of 3.2%" (City of Milwaukee Health Department, 2016, p. 15). Limited English proficiency "creates barriers to health care access, provider communications, and health literacy" (City of Milwaukee Health Department, 2016, p.

18); however, an analysis of four contemporary studies indicates that language translation services can improve cancer screening rates by as much as 71.2 percentage points (Community Preventive Services Task Force, 2016, p. 4).

Theme Two: Cervical Cancer Screening

The NBCCEDP provides cervical cancer screening services to underserved women across the U.S. (Guy, Tangka, Hall, Miller, & Royalty, 2015). In the State of Wisconsin, 73,000 women aged 18 years to 29 years are eligible for cervical cancer screening through the NBCCEDP (Tangka et al., 2015, p. 685). In addition to the NBCCEDP, "community health centers, hospitals, family planning clinics, and voluntary associations provide cervical cancer screening services to underserved women" (Tangka et al., 2015, p. 681). Despite numerous federal, state, and local healthcare service providers, "underserved ethnic minority women experience significant disparities in cervical cancer incidence and mortality, mainly due to lack of cervical cancer screening" (Kobetz et al., 2017, p. 1).

Theme Three: Underserved Women

Community health partnerships pool resources to provide cervical cancer education, outreach, and screening to underserved women in the community (Levano et al., 2014). The See, Test & Treat® program of the CAP Foundation promotes the development of successful community health partnerships. See, Test & Treat® is a pathologist-driven cervical cancer screening program for underserved women (Magnani, Harubin, Katz, Zuckerman, & Strohsnitter, 2016). See, Test & Treat® has already served "approximately 700 medically underserved women" across the U.S. (College of American Pathologists, 2016, p. 30).

Theme Four: Southeast Asian Women

The Surveillance, Epidemiology, and End Results (SEER) database of the National Cancer Institute (NCI) is "a well-known, high-quality source of cancer statistics" (Nghiem et al., 2016, p. 3). Although Asian and Native Hawaiian and Pacific Islander (NHPI) populations are separate race groups in the U.S. Census, the SEER database combines these two race groups "due to small numbers or for continuity with historical statistics" (Torre et al., 2016, p. 2). However, cervical cancer incidence and mortality rates are more than three times higher in Southeast Asian women than in the combined Asian and NHPI populations (Sparks & Vang, 2015). Furthermore, the mortality rate statistics in the SEER database "are 15-28 years old and geographically limited" (Felix, 2016, p. 613).

Theme Five: Milwaukee, Wisconsin

The Southeast Asian population living in Milwaukee, Wisconsin is comparatively young. In 2015, the median age of the Asian population was estimated to be 36.0 years in the U.S., 27.4 years in the State of Wisconsin, and 28.3 years in Milwaukee County (Milwaukee Health Care Partnership, 2016d, p. 710). Most residents of Milwaukee are aged five years to 34 years (City of Milwaukee Health Department, 2016, p. 15), and 53% are women (Milwaukee Health Care Partnership, 2016d, p. 28). In 2012, 74% of women aged 18 to 24 years in Milwaukee reported having a Pap test within the past three years; however, by 2015 only 47% of women aged 18 to 24 years reported having a Pap test within the past three years (Milwaukee Health Care Partnership, 2016d, p. 130).

Theme Six: Data Collection and Analysis

Hulme et al. (2016) successfully analyzed qualitative data about cervical cancer screening collected by interviewing South Asian and Chinese women in Ontario, Canada. Community-based qualitative research conducted by Kue et al. (2015) effectively investigated cervical cancer screening behaviors among Southeast Asian women in the State of Oregon. When conducting cervical cancer research in Cape Town, South Africa, Momberg et al. (2017) efficiently transcribed interviews, digital recordings, and handwritten notes into NVivo computer-assisted qualitative and mixed methods data analysis software. Furthermore, Pati et al. (2017) adopted an NVivo "thematic framework approach" (p. 1020) for analyzing the reproductive cancer data collected from 101 women in Odisha, India.

Theme Seven: Data Synthesis and Recommendations

The National Association of County and City Health Officials (NACCHO) "supports health departments to work to increase uptake of the HPV vaccine in their communities" (National Association of County and City Health Officials, 2016, p. 2). HPV vaccination protects women "against the most common HPV infections that cause cervical cancer" (Wisconsin Comprehensive Cancer Control Program, 2016, p. 2). According to LaMontagne et al. (2014), community health centers are the appropriate sites for delivering HPV vaccinations to adolescents. The City of Milwaukee Health Department currently offers HPV vaccinations at its Keenan Health Center, Northwest Health Center, and Southside Health Center.

Synthesis

Based on the literature review, underserved minority women with a history of inadequate cervical cancer screening and limited access to adequate healthcare services

are especially vulnerable to the development of cervical cancer. Yet research studying cervical cancer screening of underserved Southeast Asian women in communities with limited resources and lacking culturally specific programs is limited. Also, although a transformative theoretical framework is appropriate for studying underserved women (Mertens, 2010), no previous studies have applied transformative mixed methods research to assess the potential barriers to cervical cancer screening of underserved Southeast Asian women in Milwaukee, Wisconsin. Therefore, to address this gap in the literature, the Dissertation author selected a transformative mixed methods research design to assess the potential barriers to cervical cancer screening of underserved Southeast Asian women in Milwaukee.

The reasons for low cervical cancer screening rates among Southeast Asian women are not well understood. Some authors attribute the low screening rates to a general distrust of Western medicine in favor of the traditional practice of shamanism (Lee, 2016a). However, community-based research conducted with Southeast Asian men and women in the State of Oregon by Kue et al. (2015) identified health system barriers to cervical cancer screening included “literacy and language issues” (p. 4). Fortunately, a study conducted by Lor and Bowers (2014) in three Midwestern Southeast Asian communities concluded that “cancer prevention education interventions that are consistent with Hmong culture and language may be helpful in promoting early cancer screening” (p. 2).

In Wisconsin, MCHH offered cancer prevention education to Southeast Asian women through the Health Hmong Women project. MCHH is the result of a partnership between the University of Wisconsin-Madison and the House of Peace Community

Nursing Center of the University of Wisconsin-Milwaukee Institute for Urban Health Partnerships. MCHH initiatives include "1) providing communication, education and outreach on cancer issues, 2) building capacity to address cancer issues, and 3) addressing barriers to and encouraging cancer screening and follow-up for Hmong women in Milwaukee" (Sparks & Vang, 2015, p. 408). The full, legal, registered name of MCHH is the Milwaukee Consortium for Hmong Health doing business as Southeast Asian Educational Development of Wisconsin Inc.

Summary of the Current Status of the Problem in Light of Recent Research

Southeast Asians are the largest Asian ethnic group in the State of Wisconsin (Hoeffel et al., 2012). Southeast Asian women in all age groups experience increased cervical cancer incidence and mortality rates (Sparks & Vang, 2015). The USPSTF recommends cervical cancer screening of Southeast Asian women aged 21 years to 65 years by Pap test every three years (Tangka et al., 2015, p. 672). Unfortunately, the City of Milwaukee Health Department only provides routine cervical cancer screening tests to underserved Southeast Asian women aged 35 years through 64 years if they meet specific eligibility and enrollment criteria established by the WWWP (Wisconsin Well Woman Program, 2010).

The City of Milwaukee Health Department must contend with inadequate "funding, staff, volunteers, and services" (Brown & Hale, 2014, p. 8). Sadly, the State of Wisconsin ranks "in the bottom of all states in the nation in terms of state-level investments in public health" (City of Milwaukee Health Department, 2016, p. 13). Overcrowding and limited service hours at community health centers affect the delivery of appropriate community preventive services (Refaei, Nayeri, Khakbazan, & Pakgohar,

2017). In the current economic environment, the City of Milwaukee Health Department is "continually scrutinized and challenged to deliver more for less and to achieve policy goals that may be ill-defined or simply unattainable" (Brown & Hale, 2014, p. 282).

Chapter Two addressed the literature review and the annotated bibliography for the Action Research Project. Chapter Three describes the research design, the methodological approach, and the methods of data collection for the Project. Chapter Four explains the process of data analysis. Chapter Five presents the results, the discussion, and the recommendations of the Project. Chapter Five will explicitly suggest ways in which potential barriers may be reduced. Once the barriers are reduced, the result would become the ideal or future state process map.

CHAPTER 3. METHODOLOGY

Overview

A methodology is an "appropriate approach to systematic inquiry" (Mertens, 2010, p. 470). The Dissertation author developed a methodology to support a research design that would facilitate a better understanding of the potential barriers to cervical cancer screening of underserved Southeast Asian women in Milwaukee, Wisconsin. The research methodology for this Action Research Project included constructing and implementing an exploratory sequential approach for a transformative mixed methods research design. Successful execution of the research methodology is an iterative process that involves six steps (Brown & Hale, 2014):

1. Forming ideas and research questions.
2. Developing theories and hypotheses.
3. Constructing a research design as a plan for data collection and analysis.
4. Implementing the research design through the collection of data.
5. Analyzing those data.
6. Drawing conclusions and communicating about research (p. 21).

Ethical Considerations

An Institutional Review Board (IRB) is an "organization within a university that reviews research proposals for compliance with ethical requirements" (Brown & Hale, 2014, p. 293). The National Graduate School of Quality Management (NGS) required the prospective doctoral degree candidate to apply for and receive IRB approval before conducting any primary data collection in the Milwaukee Southeast Asian community.

The prospective doctoral degree candidate attempted and accomplished all the requirements stipulated in the IRB application successfully. Five requirements related to participants included: (1) a description of the participants; (2) full disclosure to participants of any procedures that might harm, deprive, or create unusual degrees of mental stress; (3) full disclosure to participants of all activities to avoid the perception of immoral, unethical, or illegal activities; (4) the exclusion of participants in a protected class; and (5) the exclusion of participants unable to give free and informed consent (including minors, prisoners, pregnant women, human fetuses, and neonates) (Hatcher, 2018a).

Informed consent explains the purpose of the survey and assures research participants that "participation in the survey is completely voluntary" (ICF, 2018, p. 27). Informed consent forms are documents voluntarily signed by potential research participants before engaging in research (Creswell & Creswell, 2018). The World Health Organization (WHO) Research Ethics Review Committee (ERC) offers researchers a standard informed consent form for qualitative research studies (World Health Organization, 2017). Nonetheless, the prospective doctoral degree candidate selected an informed consent form from the University of Wisconsin-Madison since primary data collection was planned for the State of Wisconsin (University of Wisconsin-Madison, 2017).

The prospective doctoral degree candidate recruited Project participants from the Milwaukee Southeast Asian community at an annual community festival for Southeast Asian immigrants and their descendants. The total number of participants aged 18 years

and older recruited was 30 biological females. The risk level to participants reported on the IRB application was minimal. None of the participants reported harm or discomfort.

Organization of the Remainder of this Chapter

The remainder of this chapter outlines the research methodology for this Action Research Project. The first three sections address the research questions, research design, and research approach. American Meridian University requires the overarching methodology of action research. As defined in the list of terms included in Chapter One, action research aims to measure and improve a current process according to specified quantitative metrics. The metrics in this Project address the type and frequency of cervical cancer screenings and the resulting positive impacts of process improvements on the incidence and mortality rates of medically underserved women in the Southeast Asian community of Milwaukee, Wisconsin. The next two sections present the quality management model and the Six Sigma model used in this Project. Both models are employed in this Project to identify elements or steps in a process map that leads to improvements in the two specified metrics. The remaining sections provide detailed information for this Project regarding population and sample; selection of participants; instrumentation; procedures; data collection; data analysis; and validity and reliability.

Research Questions

In the 2015-2016 City of Milwaukee Community Health Assessment, Southeast Asian residents expressed the need for culturally competent providers and appropriate education, services, and programs (Milwaukee Health Care Partnership, 2016d, p. 295). Three research questions facilitated a better understanding of the needs identified by the Milwaukee Southeast Asian community related to community preventive services

provided by the City of Milwaukee Health Department. The three central research questions that guided this Action Research Project:

1. What roles do demographic and socioeconomic factors play in the cervical cancer screening of underserved Southeast Asian women by the City of Milwaukee Health Department?
2. What process improvements and/or process interventions by the City of Milwaukee Health Department might improve the health literacy and cervical cancer screening of underserved Southeast Asian women in Milwaukee, Wisconsin?
3. What are the process steps which if implemented by the City of Milwaukee Health Department might reduce potential barriers to cervical cancer screening of underserved Southeast Asian women in Milwaukee, Wisconsin?

Research Design

The research design is the "overall approach to collection of data to answer a research question and/or to test hypotheses" (Brown & Hale, 2014, p. 298). The three fundamental research designs are qualitative, quantitative, and mixed methods research. Mixed methods research is "an analytical approach combining both qualitative and quantitative data" (Brown & Hale, 2014, p. 294). The Dissertation author initially selected a mixed methods research design due to the qualitative and quantitative aspects of this Action Research Project.

After extensive secondary research, the Dissertation author ultimately selected a transformative mixed methods research design. Transformative research supports "the use of multiple methods for the conduct of studies, as well as the development of

interdisciplinary approaches to solve difficult problems" (Mertens, 2017, p. 23). The final embedded mixed methods research design for this Action Research Project became a transformative mixed methods research design. This complex research design allowed the author to efficiently assess the potential barriers to cervical cancer screening of underserved Southeast Asian women in Milwaukee, Wisconsin with the assistance of NVivo 11 Pro computer-assisted qualitative and mixed methods data analysis software.

The three main mixed methods research approaches are convergent, explanatory, and exploratory approaches. An exploratory research approach "contributes to the development of new theories based on observations of new or unexpected phenomena" (Brown & Hale, 2014, p. 292). The Dissertation author employed an exploratory research approach because limited information is currently available concerning the cervical cancer screening behaviors of Southeast Asian women in Milwaukee, Wisconsin. Furthermore, the author used a sequential approach due to the inherent complexities associated with community health screenings. The resulting exploratory sequential approach began with a qualitative phase that explored the views of potential project participants and ended with a quantitative phase that collected de-identified primary data from the target population being studied (Creswell & Creswell, 2018).

The Dissertation author used direct observation to explore the problem at three City of Milwaukee Health Department family health fairs. Direct observation is "a form of data collection that involves watching and documenting actions, events, or processes" (Brown & Hale, 2014, p. 290). The exploration began while the author was a volunteer at the Northwest Health Center of the health department. Personal observations and

conversations at subsequent health centers hosting family health fairs yielded the following unacceptable results:

1. None of the women observed at the Keenan Health Center were Southeast Asian women. According to a representative of the WWWP, the location of the Keenan Health Center is a predominantly Southeast Asian American and Hispanic American community.
2. Less than half (approximately 40%) of the women observed at the Northwest Health Center were Southeast Asian women. According to a representative of the WWWP, the location of the Northwest Health Center is a predominantly Southeast Asian American and African American community.
3. A small percentage (approximately 5%) of the women observed at the Southside Health Center were Southeast Asian women. According to a representative of the WWWP, the location of the Southside Health Center is a predominantly Hispanic American community.

Researchers often use ethnography to observe, document, and gain a better understanding of a particular racial or ethnic minority group. Anthropologists and sociologists use ethnography to "fully immerse themselves in a culture for an extended period of time to better understand that culture" (Brown & Hale, 2014, p. 291). Using ethnography, the Dissertation author continued to qualitatively explore the obvious lack of Southeast Asian participation observed at the Keenan Health Center of the City of Milwaukee Health Department. To serve as key informants for this Project, the author contacted Southeast Asian women in Milwaukee at the following organizations:

1. The Hmong American Friendship Association (HAFA), which offers interpretation and translation services and coordinates the annual Milwaukee Hmong New Year festival for the Milwaukee Southeast Asian community.
2. HAWA, which advocates for gender equality and social justice in the Milwaukee Southeast Asian community.
3. MCHH dba SEAED, which provides cancer health and wellness community preventive services in the Milwaukee Southeast Asian community.

Before primary data collection, the Dissertation author conducted two feasibility analyses of the informed consent form, survey instrument, and survey process for this Action Research Project with assistance provided by HAWA and MCHH dba SEAED. An informed consent form is "a written document that includes statements of voluntary participation, risks, and benefits associated with participation, anonymity, confidentiality, the coding of participants, and an offer to provide a summary of findings" (Rease-Mackey, 2015, p. 64). A survey instrument is a tool for "data collection in oral or written form in which data are collected from individuals, usually about beliefs, opinions, characteristics, or behaviors that cannot be observed" (Brown & Hale, 2014, p. 300). A survey process involves the administration of a survey instrument to participants as well as "operational matters including planning and conducting fieldwork" (ICF, 2018, p. 3).

Those conducting academic research often use a focus group when conducting exploratory research. A focus group is a "research approach in which a small group of people is brought together for a moderated conversation" (Brown & Hale, 2014, p. 292). The Dissertation author contacted three different organizations in the Milwaukee Southeast Asian community: HAFA, HAWA, and MCHH dba SEAED. Thankfully,

MCHH dba SEAED accepted the author's invitation to meet and engage in a moderated conversation.

Those conducting academic research in Milwaukee should consider the research study requirements of the State of Wisconsin. To ensure alignment with state and local requirements, the Dissertation author explored the University of Wisconsin-Madison website and the University of Wisconsin-Milwaukee website. The University of Wisconsin-Madison KnowledgeBase offered a useful non-physical intervention informed consent template (University of Wisconsin-Madison, 2017). The template streamlined the creation of an informed consent form that was subsequently reviewed and approved by the Southeast Asian women at MCHH dba SEAED.

A preliminary survey instrument resulted from information and feedback gathered during face-to-face conversations and meetings with Southeast Asian women at MCHH dba SEAED. These conversations and meetings took place over four months, from August to December 2017. The first feasibility analysis of the preliminary informed consent form and survey instrument, as well as the survey process, was deemed successful. However, a panel of four doctoral-level content experts recommended the following minor revisions to the preliminary survey instrument before primary data collection:

1. Add one closed-ended question with a limited number of responses to determine the country of origin.
2. Add one open-ended question to encourage further exploration of potential barriers to cervical cancer screening.

3. Revise one closed-ended question to differentiate between partial and total hysterectomy.

A second feasibility analysis, as well as a pilot test of the final informed consent form, survey instrument, and survey process, occurred before primary data collection. Discussions with Project participants after the second feasibility analysis identified the following areas of concern related to the final survey instrument: a reluctance to share personal information related to the country of origin and annual income. Behavioral coding during and cognitive interviews after the pilot test resulted in the following area of concern related to the final informed consent form: the time-consuming nature of administering the informed consent form to participants with limited English proficiency.

Overview of Research Approach Used in this Action Research Project

Applied research "typically involves interaction between researchers and stakeholders" (Brown & Hale, 2014, p. 25). The Dissertation author identified four opportunities for interaction with stakeholders in the Milwaukee community. The first opportunity involved volunteering at the City of Milwaukee Health Department family health fairs, while the second involved evaluating the organizational performance of the City of Milwaukee Health Department using personal observations and conversations as well as the Baldrige Excellence Framework. The third opportunity involved exploring the delivery of cervical cancer screening with key informants in the Milwaukee Southeast Asian community, while the fourth involved using benchmarking to improve cervical cancer screening by the City of Milwaukee Health Department.

The first area of inquiry involved volunteering at the City of Milwaukee Health Department. In 2016, the Dissertation author began exploring health care service

providers in Milwaukee, Wisconsin. The author identified an opportunity to further examine the delivery of cervical cancer screening at the City of Milwaukee Health Department. Volunteering at the City of Milwaukee Health Department family health fairs provided the author with an opportunity for personal observations and conversations in the Milwaukee community. Also, the family health fairs offered a chance to learn the informed consent process and discuss cervical cancer health disparities with local community health workers.

In the second area of inquiry, the Dissertation author became "interested in identifying the capacity" (Brown & Hale, 2014, p. 7) of the City of Milwaukee Health Department to deliver cervical cancer screening effectively and efficiently to underserved Southeast Asian women in Milwaukee, Wisconsin. The author evaluated the Wisconsin Way Framework used by the City of Milwaukee Health Department. Ultimately, the author selected the Baldrige Excellence Framework to assess the performance of the City of Milwaukee Health Department. Pyzdek and Keller (2013) recommend using quality approaches such as the Baldrige Excellence Framework for performance improvement initiatives.

In the third area of inquiry, the Dissertation author selected the DMADV Design for Six Sigma approach to create a novel survey instrument. The survey instrument was designed specifically to capture the perceptions of underserved Southeast Asian women in Milwaukee (see Figure 3). The author investigated the perceptions of underserved Southeast Asian women currently receiving cervical cancer screening from the City of Milwaukee Health Department "about the support that they obtained and what their

additional needs might be, if any" (Brown & Hale, 2014, p. 7). The author implemented the Six Sigma model with the assistance of HAWA and MCHH dba SEAED.

In the fourth area of inquiry, the Dissertation author became interested in benchmarking to identify "best practices for serving the needs" (Brown & Hale, 2014, p. 7) of Southeast Asian women in Milwaukee, Wisconsin. Benchmarking is "the process of identifying, understanding, and adapting outstanding practices and processes for improving the performance" (Salem et al., 2017, p. 12) of an organization. It is "a powerful tool in the quest for continuous improvement and breakthroughs" (American Productivity and Quality Center, 2016, p. 1). Benchmarking to improve the performance of public health organizations becomes especially important when considering the current healthcare environment of rising costs and impending value-based reimbursement.

The American Productivity and Quality Center (APQC) is a nonprofit organization that offers benchmarking resources in the field of financial management; human capital management; knowledge management; process and performance management; and supply chain management. Members of the APQC have unrestricted access to research-based best practices, benchmarks, frameworks, and tools. Nonmembers have limited access to various APQC resources. For example, the Dissertation author downloaded five free documents from the APQC website to support the benchmarking activities of this Action Research Project:

1. A Guide to Conducting Primary Research for Benchmarking.
2. Benchmarking Code of Conduct.
3. Benchmarking Project Plan Template.
4. Cross-Industry Process Classification Framework.

5. Six Steps to Achieve Strategic Goals through Benchmarking (American Productivity and Quality Center website, n.d.).

Overview of Quality Management Model Used in this Action Research Project

A needs assessment is a "systematic examination of a social or political condition, frequently used to inform program planning" (Brown & Hale, 2014, p. 295). State of Wisconsin law requires a health department to conduct a needs assessment every five years (City of Milwaukee Health Department, 2016). For the last needs assessment, the 2015-2016 City of Milwaukee Community Health Assessment, the City of Milwaukee Health Department selected the Wisconsin Way Framework. The Wisconsin Way Framework describes the interactions and relationships between health factors, health outcomes, and health disparities in a continual improvement cycle (City of Milwaukee Health Department, 2016).

As an alternative to the Wisconsin Way Framework, the Dissertation author selected the Baldrige Excellence Framework to conduct a needs assessment and evaluate the quality management system of the City of Milwaukee Health Department. The Wisconsin Way Framework focuses on health factors, health outcomes, and health disparities (City of Milwaukee Health Department, 2016). In contrast, the Baldrige Excellence Framework of the Baldrige Performance Excellence Program focuses on helping organizations achieve overall performance excellence. The Baldrige program is a rigorous performance excellence initiative managed by the National Institute of Standards and Technology (NIST) for the U.S. Department of Commerce (National Institute of Standards and Technology, 2015).

Since 1987, the Baldrige program has acknowledged performance excellence in manufacturing companies, service companies, and small businesses with the prestigious Malcolm Baldrige National Quality Award (Pyzdek & Keller, 2013). The Baldrige Excellence Framework of the Baldrige program uses Criteria for Performance Excellence; core values and concepts; and scoring guidelines to inspire continual improvement and assess organizational performance (National Institute of Standards and Technology, 2015). The Baldrige criteria include an organizational profile, six process categories, and one results category. The profile is the starting point for the Baldrige evaluation, offering a high-level overview of an organization's daily operations, internal and external relationships, and strategic environments.

The first three process categories of the Baldrige Excellence Framework belong to the leadership triad of Leadership, Strategy, and Customers. The fourth process category of Measurement, Analysis, and Knowledge Management addresses the use of pie charts, bar charts, and other quality tools for data, information, and knowledge management. The last three categories of the Baldrige framework belong to the results triad of Workforce, Operations, and Results. The Results category expresses the organizational consequences of all six previous process categories.

The Baldrige framework logically and comprehensively evaluates the systems and processes within an organization. First, the framework evaluates processes using Approach (A), the method an organization selects to design a process; Deployment (D), the way an organization executes an approach; Learning (L), the way an organization assesses the progress of, updates, and improves an approach; and integration (I), the way an organization aligns an approach with its needs and goals to ensure process

standardization and system harmonization (National Institute of Standards and Technology, 2015). Next, the Baldrige framework evaluates organizational results using Level (Le), which indicates current organizational performance on a quantifiable scale; Trend (T), which illustrates the upward (positive) or downward (negative) direction of organization results; Comparison (C), which use standards, guidelines, and best practices to benchmark organizational performance against industry leaders and competitors; and Integration (I), which demonstrates the successful implementation of positive results throughout an organization (National Institute of Standards and Technology, 2015). Finally, the framework uses double plus (++) and single plus (+) symbols to signify strengths as well as double minus (--) and single minus (-) symbols to signify opportunities for improvement (National Institute of Standards and Technology, 2015).

Gathering information from the City of Milwaukee Health Department website and recording answers to Baldrige criteria questions in a Key Business and Strategic Factors Worksheet (Homick, 2017a), resulted in a Baldrige Organizational Profile for the City of Milwaukee Health Department (see Appendix C). The Key Business and Strategic Factors Worksheet identified strengths in the organizational environment, relationships, and situation at the City of Milwaukee Health Department. The organizational environment at the health department includes a comprehensive list of product and service offerings that support the health department's mission "to ensure that services are available to enhance the health of individuals and families, promote healthy neighborhoods, and safeguard the health of the Milwaukee community" (City of Milwaukee Health Department website, n.d.).

Surprisingly, the organizational profile for the health department also identified opportunities for improvement in the organizational environment at the City of Milwaukee Health Department. For example, health department programs support the organization's vision to ensure "that Milwaukee is the healthiest city in the nation, with the best personal health care, environmental health, and population-based preventive services possible" (City of Milwaukee Health Department website, n.d.). Recently, insufficient assets limited the expansion of critical programs such as lead poisoning prevention and population-based community preventive services (Spicuzza & Johnson, 2018). Also, although the profile indicates a well-established organization, it further illustrates a lack of strategic context to address "strategic challenges and advantages in the areas of business, operations, societal responsibilities, and workforce" (National Institute of Standards and Technology, 2015, p. 6).

Gathering information from the City of Milwaukee website, the City of Milwaukee Health Department website, and the 2015-2016 City of Milwaukee Community Health Assessment (City of Milwaukee Health Department, 2016), and recording answers to Baldrige criteria questions in an Item Examination Worksheet (Homick, 2017), resulted in a Baldrige Scorebook for the City of Milwaukee Health Department (see Appendix D). The scorebook identified the following strengths by Baldrige category at the City of Milwaukee Health Department:

1. Category 1, Leadership: strengths in governance and societal responsibilities.
2. Category 2, Strategy: strengths in strategy development.
3. Category 3, Customers: strengths in capturing the voice of the customer.

4. Category 4, Measurement, Analysis, and Knowledge Management: strengths in data and information collection, and benchmarking.
5. Category 5, Workforce: strengths in workforce capacity.
6. Category 6, Operations: strengths in work processes.

The scorebook identified the following opportunities for improvement by Baldrige category at the City of Milwaukee Health Department:

1. Category 1, Leadership: opportunities for improvement in leadership. The health department should consider improving leadership using Culturally-Adapted Leadership for Inspired Business Excellence and Results (CALIBER), "a 74-item 360-degree scale that provides an assessment of leadership, organizational performance, and business results" (Lakhani & Marquard, 2014, p. 3234).
2. Category 2, Strategy: opportunities for improvement in strategy implementation. The health department should consider developing, deploying, and modifying action plans to improve strategy implementation using the Baldrige Excellence Framework (National Institute of Standards and Technology, 2015).
3. Category 3, Customers: opportunities for improvement in customer engagement. The health department should consider improving customer engagement using CALIBER (Lakhani & Marquard, 2014).
4. Category 4, Measurement, Analysis, and Knowledge Management: opportunities for improvement in data and information analysis to improve organizational performance. The health department should consider improving data and information analysis to improve organizational performance using the cervical cancer screening performance measures of the Women's Preventive Services

Initiative (WPSI) (American College of Obstetricians and Gynecologists website, n.d.).

5. Category 5, Workforce: opportunities for improvement in workforce engagement. The health department should consider improving workforce engagement using CALIBER (Lakhani & Marquard, 2014).
6. Category 6, Operations: opportunities for improvement in operational effectiveness. The health department should consider improving operational effectiveness using CALIBER (Lakhani & Marquard, 2014).

The Category 3, Category 5, and Category 6 opportunities for improvement in the Baldrige Scorebook for the City of Milwaukee Health Department align with the intent of the research questions for this Action Research Project as well as "the need for more culturally competent providers and culturally appropriate education, services, and programs" (Milwaukee Health Care Partnership, 2016d, p. 295) identified by the Milwaukee Southeast Asian community.

Overview of Six Sigma Model Used in this Action Research Project

American Meridian University requires the practical application of an established process improvement model to the overarching methodology of action research. Six Sigma is the well-established model used for "error reduction by improving processes and reducing process variability" (Salem et al., 2017, p. 7). DMAIC and DMADV are the two main approaches for a Six Sigma model. The five steps of the DMAIC Six Sigma approach include (Sodhi, 2020):

1. Define the problem, improvement activity, opportunity for improvement, the project goals, and customer (internal and external) requirements.

2. Measure process performance.
3. Analyze the process to determine root causes of variation and poor performance (defects).
4. Improve process performance by addressing and eliminating the root causes.
5. Control the improved process and future process performance (p. 5878).

When applied to business processes, the primary focus of the DMAIC approach is decreasing the number of defects in current business products below 3.4 per million opportunities (Sodhi, 2020). In contrast, the primary focus of the DMADV Design for Six Sigma approach is creating new business products that meet customer needs and specifications. Pyzdek and Keller (2013) recommend the use of DMADV for product, service, or process design projects. Furthermore, Pendokhare and Quazi (2015) endorse the application of DMADV for developing new products such as survey instruments. For these reasons, when developing the informed consent form, survey instrument, and survey process for this Action Research Project, the Dissertation author selected the DMADV Design for Six Sigma approach (see Figure 3), incorporating recommendations from content experts, feedback from key informants in the Milwaukee Southeast Asian community, and comments from underserved Southeast Asian women in Milwaukee, Wisconsin.

Population and Sample

Availability sampling involves "selecting population units for study based on their availability or ease" (Brown & Hale, 2014, p. 288). The population for this Action Research Project included Southeast Asian women aged 18 years and older living in Wisconsin. Based on the results of the first feasibility analysis, this population of women

would be readily available at the 2018 Milwaukee Hmong New Year festival in West Allis, Wisconsin. West Allis, located in Milwaukee County, is a suburb of Milwaukee. The location of the festival in Milwaukee County guaranteed the availability of subject participants. Furthermore, the celebratory nature of the event ensured the ease of subject participant recruitment.

A random sample is "a sample drawn such that each case or element within a population has an equal chance of being drawn as part of the sample" (Brown & Hale, 2014, p. 298). With the assistance of a qualified Hmong language interpreter and translator, the Dissertation author successfully recruited a random sample of Southeast Asian women in various age groups in the target population. Castro et al. (2010) and Small (2011) as cited in Creamer (2018) agreed that a sample of 20 to 40 participants "is characteristic for most research with a qualitative component" (p. 121). Additionally, small sample size is acceptable for an action research project "when the population is homogeneous" (Brown & Hale, 2014, p. 123).

Selection of Participants

The Dissertation author created a survey instrument for this Action Research Project suitable for simple random sampling of subject participants for the subject group. Simple random sampling is a basic "probability sampling approach in which each population unit has the same probability of being selected into the sample" (Brown & Hale, 2014, p. 299). With the assistance of a qualified Hmong language interpreter and translator, the author applied this sampling approach to randomly select 30 subject participants for the subject group from the population of Southeast Asian women attending the 2018 Milwaukee Hmong New Year festival in Milwaukee County. Simple

random sampling guaranteed an equitable and unbiased yet representative sample of subject participants for the subject group.

Instrumentation

Triangulation is “the process of collecting information on a single topic from a variety of sources using multiple methods in order to enhance believability of findings” (Brown & Hale, 2014, p. 300). Triangulation of information collected through multiple methods (for example, document analysis, interviews, and observations) strengthens internal validity (Creswell & Creswell, 2018). The Dissertation author used triangulation of information by gathering evidence from various sources and using multiple methods to verify the validity of a novel survey instrument. Information resources included:

1. The literature review of peer-reviewed journal articles; dissertations and theses; government reports; textbooks; and academic materials.
2. General information obtained from the City of Milwaukee website and the City of Milwaukee Health Department website.
3. Public information collected from the WWWP website.
4. Personal observations and conversations with underserved women attending family health fairs at the Keenan Health Center, Northwest Health Center, and Southside Health Center of the City of Milwaukee Health Department.
5. Personal observations and conversations with a representative of the WWWP and community health workers attending family health fairs at the Keenan Health Center, Northwest Health Center, and Southside Health Center of the City of Milwaukee Health Department.

6. Personal observations and conversations with medical and nursing students attending community health workshops sponsored by MCHH dba SEAED.
7. Personal observations, conversations, and meetings with Southeast Asian women representing HAWA and MCHH dba SEAED.
8. Personal observations and conversations with underserved Southeast Asian women in the Milwaukee Southeast Asian community during two feasibility analyses to evaluate both the preliminary and final informed consent form, survey instrument, and survey process for this Action Research Project.
9. Personal observations and conversations with Southeast Asian women in the Milwaukee Southeast Asian community during a pilot test of the final informed consent form, survey instrument, and survey process for this Project.

With the assistance of MCHH dba SEAED, the Dissertation author created a survey instrument to collect de-identified primary data from underserved Southeast Asian women in Milwaukee, Wisconsin. At first, the survey was created to explore the relevance of current WWWP eligibility and enrollment criteria to the Milwaukee Southeast Asian community. Later, the survey was expanded to gauge the current state of health literacy in the Milwaukee Southeast Asian community. Finally, and most importantly, the survey instrument was revised to assess the potential barriers to cervical cancer screening of underserved Southeast Asian women living in Milwaukee, Wisconsin.

The Dissertation author used fifteen closed-ended questions in the final survey instrument created for primary data collection in the Milwaukee Southeast Asian community. These closed-ended questions contained “a fixed list of possible response

categories" (Brown & Hale, 2014, p. 289). The author also used one open-ended question in the survey for primary data collection. An open-ended question is a "type of survey question that does not propose any sort of response options and does not limit the information that respondents choose to provide" (Brown & Hale, 2014, p. 295).

The first 10 questions in the survey instrument addressed the population demographics of the Project participants. Demographics are "the characteristics of people or geographic areas, including aspects that can change and aspects that do not" (Brown & Hale, 2014, p. 290). Regarding the demographic of gender, the survey provided an opportunity for participants to self-identify as male, female, or transgender. Self-identification allowed LGBTQ members of the Milwaukee Southeast Asian community to express gender identity freely.

Regarding the demographic of age, the Dissertation author created four age groups based on the eligibility and enrollment criteria in the WWWP Policy and Procedures Manual (Wisconsin Well Woman Program, 2010, p. 3.1): 20 years old or younger, 21 years old to 34 years old, 35 years old to 64 years old, and 65 years old and older. The author added the age group of 20 years old or younger to the survey instrument to further explore HPV vaccination rates in the Milwaukee Southeast Asian community. Regarding the demographic of income, Appendix 2 of the program manual provided income eligibility guidelines to determine 250% of the federal poverty level based on the number of family members and the yearly income (see Table 2).

The 1997 OMB standards offered the five race groups for the survey instrument: American Indian or Alaska Native (AIAN), Asian, Black or African American, NHOPI, and White or Caucasian (Hoeffel et al., 2012). The Dissertation author created seven

possible birthplaces based on the literature review and the Healthy Southeast Asian Families project of MCHH dba SEAED: Cambodia, China, Laos, Myanmar (Burma), Thailand, United States of America, and Vietnam. The author also created nine possible ethnicities based on the literature review and the Healthy Southeast Asian Families project: Burmese, Chin, Chinese, Hispanic/Latino, Hmong, Karen, Karenni, Laotian, and Vietnamese. By expanding the options for race, birthplace, and ethnicity, the survey instrument provided an opportunity for Project participants to self-identify national origin, country of origin, and language and culture (see Appendix A).

The next five questions in the survey instrument gauged the health literacy of Project participants. Health literacy topics included cervical cancer, cervical cancer screening, HPV vaccination, and hysterectomy. The final question in the survey instrument was open-ended. The open-ended question allowed participants to freely share thoughts, ideas, and perceptions, as well as personal experiences regarding barriers to cervical cancer screening in Milwaukee, Wisconsin.

Procedures

The Dissertation author used an exploratory sequential approach for a transformative mixed methods research design. This approach and design involved the use of personal observations, conversations, a case study, two feasibility analyses, and a pilot test before primary data collection. The author studied and spoke with underserved women in Milwaukee, Wisconsin while volunteering at three family health fairs sponsored by the City of Milwaukee Health Department. The author also observed and conversed with underserved Southeast Asian women at MCHH dba SEAED workshops and the 2018 MCHH 3rd Annual Health Conference held in Milwaukee, Wisconsin.

Recognizing similar research characteristics, the Dissertation author thoroughly reviewed the statewide needs assessment conducted by Mitchell Brown and Kathleen Hale for case study comparison. A case study is “an in-depth examination of an event, area, or organization” (Brown & Hale, 2014, p. 159). Using the statewide needs assessment as a roadmap, the author built the empirical theory for this Action Research Project. The empirical theory is “an explanation of an event or phenomenon based on a combination of observations, findings from other research, and logic” (Brown & Hale, 2014, p. 291).

Before primary data collection, the Dissertation author conducted a feasibility analysis of a preliminary informed consent form, survey instrument, and survey process at the 2017 Milwaukee Hmong New Year festival also held in the Exposition Center at Wisconsin State Fair Park in Milwaukee County. Courtesy of MCHH dba SEAED, one medical student and one nursing student provided Hmong language interpretation and translation services for the feasibility analysis. In 2017, the author successfully gathered information in Milwaukee County from underserved Southeast Asian women in four age groups living in Wisconsin. The preliminary survey instrument contained 14 questions designed to collect demographic and socioeconomic data, gauge cervical cancer health literacy, and assess the potential barriers to cervical cancer screening of underserved women in the Milwaukee Southeast Asian community.

The Dissertation author revised the preliminary informed consent form and survey instrument based on recommendations from four doctoral-level content experts, feedback from key informants in the Milwaukee Southeast Asian community, and comments from underserved Southeast Asian women in the Milwaukee metropolitan area. The final

survey instrument contained 16 questions for gathering demographic and socioeconomic data, gauging cervical cancer health literacy, and assessing the potential barriers to cervical cancer screening of underserved Southeast Asian women in Milwaukee, Wisconsin. The last open-ended question in the survey encouraged Southeast Asian women to freely communicate thoughts, ideas, and perceptions, as well as personal experiences related to community preventive services in Milwaukee. Before primary data collection, the author conducted a second feasibility analysis of the final informed consent form, survey instrument, and survey process in 2018 at the MCHH 3rd Annual Health Conference held at the Italian Community Center in Milwaukee.

Data Collection

Approaches to non-experimental data collection include direct observation, interviews, and surveys (Brown & Hale, 2014). As a participant observer, the Dissertation author used direct observation to monitor and record the reactions of Project participants during primary data collection. Also, the author conducted a brief exit interview with each participant at the end of each survey. An interview is an "approach to data collection in which researchers identify respondents and ask them questions" (Brown & Hale, 2014, p. 293).

According to Jackson and Bazeley (2019), datasets can be effectively captured using direct observation, interviews, and survey instruments. With the assistance of a qualified Hmong language interpreter and translator, the Dissertation author collected de-identified primary data in the Milwaukee Southeast Asian community at the 2018 Milwaukee Hmong New Year festival. The Dissertation author collected 30 informed consent forms and 30 survey instruments from Southeast Asian women in Milwaukee

County. Each survey instrument contained 15 closed-ended questions and one open-ended question to encourage participants to freely express personal thoughts, ideas, and perceptions (see Appendix A).

Moran, Frank, Chatterjee, Murphy, and Baezconde-Garbanati (2016) recommend the use of graphics to improve the level of communication and the quality of data during data collection. The Dissertation author located on the CDC website three colorful cervical cancer-related infographics to improve communication and quality. These infographics were displayed and referenced in 2017 and 2018 during feasibility analyses of the informed consent form and survey instrument to enrich the survey process for Project participants. The infographic most preferred by Southeast Asian women during feasibility analyses (see Appendix B) was selected for the pilot test and was used during primary data collection to expedite data collection from Southeast Asian women in Milwaukee County.

Data Analysis

A current state process map (see Figure 1) created with NVivo 11 Pro enabled the visualization of two age-related cervical cancer screening health disparities in the WWWP Policy and Procedures Manual. The federally funded state program does *not* provide routine cervical cancer screening tests to women aged 34 years or younger as well as women aged 65 years and older (see Figure 1). Further exploration of remaining WWWP eligibility and enrollment criteria sought to reveal additional health disparities inherent in the program. NVivo 11 Pro computer-assisted qualitative and mixed methods data analysis software simplified the exploration of the remaining program eligibility and enrollment criteria.

NVivo 11 Pro software supported mixed methods research by allowing the Dissertation author to combine, compare, and contrast qualitative and quantitative survey responses collected during the survey process (Jackson & Bazeley, 2019). Furthermore, the software simplified data transformation to facilitate a deeper understanding of all captured datasets. NVivo 11 Pro provided the source, node, and coding functions needed to generate pie charts and bar charts from survey data (QSR International, 2016). Three-dimensional pie charts and bar charts were created with NVivo to effectively visualize the data relationships among personal observations, open-ended questions, closed-ended questions, and exit interviews.

Validity and Reliability

Ethical researchers strive for "the most valid and reliable information possible" (Brown & Hale, 2014, p. 138). Validity is "the condition in which the measurement approach accurately captures the phenomenon as intended" (Brown & Hale, 2014, p. 301). Reliability refers to the consistency and stability of the survey instrument and the survey process (Creswell & Creswell, 2018). Examples of validity and reliability strategies include respondent validation, test-retest reliability, and triangulation.

Respondent validation is the "process in which researchers provide their findings to participants for feedback" (Brown & Hale, 2014, p. 298). The Dissertation author applied respondent validation to this Project by sharing preliminary results of the first feasibility analysis in 2017 with the Southeast Asian women at MCHH dba SEAED. Respondent validation verified the internal validity of the preliminary informed consent form, survey instrument, and survey process. Feedback received by the author from the

Milwaukee Southeast Asian community resulted in valuable enhancements to the preliminary survey instrument and survey process.

The reliability coefficient of a test for a population of individuals equals the correlation between two independent trials (Guttman, 1945). The Dissertation author determined the test-retest reliability of the preliminary survey instrument to the final survey instrument to substantiate the reliability of the primary data (see Table 1). Paiva et al. (2014) found that a reliability coefficient that meets or exceeds the "minimum reliability threshold of 0.70" (p. 3) indicates adequate test-retest reliability. The application of the Spearman-Brown prophecy formula (Siegle, 2018) to this Action Research Project resulted in a calculated split-half test-retest reliability coefficient of 0.81. The calculated reliability coefficient for this Project exceeded the minimum threshold of 0.70, confirming the internal and external reliability, stability, and consistency over time of the survey instrument.

Sequential methodological triangulation studies a research problem using the results of one research method (for example, qualitative research) to plan the next research method (for example, quantitative research) (Creswell & Creswell, 2018). The Dissertation author used sequential methodological triangulation to create a novel survey instrument for this Project. Methodological triangulation also interprets the findings from qualitative and quantitative research "together in the context of one another to gain a more complete picture of the study" (Malhotra et al., 2016, p. 3888). The author also applied methodological triangulation to further enhance the validity of this Project by integrating all qualitative and quantitative primary data collected from underserved Southeast Asian women into a single statistical database called NVivo 11 Pro.

Chapter Three described the research design, the methodological approach, and the methods of data collection for the Action Research Project. Chapter Four explains the process of data analysis for the Project. Chapter Four also offers a statistical analysis of the primary data collected during the Project. Chapter Five presents the results, the discussion, and the recommendations of the Project. Chapter Five will explicitly suggest ways in which potential barriers may be reduced. Once the barriers are reduced, the result would become the ideal or future state process map.

CHAPTER 4. RESULTS: PRESENTATION AND ANALYSIS OF THE DATA

Overview

Milwaukee hosts numerous ethnic festivals throughout the year to "represent minority ethnic populations that maintain active community structures" (Neilson, 2015, p. 24). The annual Milwaukee Hmong New Year festival is the preeminent social event in the Milwaukee Southeast Asian community. Each year, approximately 10,000 people gather to commemorate the end of harvest at Milwaukee Hmong New Year (Vang, 2016). For comparison, in 2018 the state capital anticipated attendance at the Hmong New Year festival in Madison, Wisconsin to be only 5,000 to 7,000 people (Speckhard Pasque, 2018).

The Milwaukee Hmong New Year festival takes place in Milwaukee County at the Wisconsin State Fair Park Exposition Center in nearby West Allis, Wisconsin. The Milwaukee Hmong Consortium hosts the annual event on the first weekend in December. The two managing organizations of the Milwaukee Hmong Consortium are HAFA and the Shee Yee Community of Milwaukee. Although Milwaukee Hmong New Year is a significant community outreach event, local media generally do not promote the annual ethnic festival (Harris, 2018).

Two feasibility analyses of the survey process confirmed the selection of the 2018 Milwaukee Hmong New Year festival for primary data collection. During the first feasibility analysis at the 2017 Milwaukee Hmong New Year festival in Milwaukee County, Hmong language interpreters and translators supported the survey process successfully. The invaluable assistance of qualified Hmong language interpreters and

translators maximized participant confidence levels and ensured the inclusion of Southeast Asian women with limited English proficiency. However, during the second feasibility analysis at the 2018 MCHH 3rd Annual Health Conference in Milwaukee, a shortage of Hmong language interpreters and translators resulted in the redeployment of all available resources to community health screenings. All available Hmong language interpreters and translators at the 2018 MCHH 3rd Annual Health Conference were needed to assist with life-saving health screenings. Therefore, to minimize any interference with future screenings, the Dissertation author selected the 2018 Milwaukee Hmong New Year festival in Milwaukee County for primary data collection. Thankfully, the results of survey data collected in the Milwaukee metropolitan area, prepared by JKV Research, LLC, and presented in the *Milwaukee City Community Health Survey Report—2015* and the *Milwaukee County Community Health Survey Report—2015* were equivalent (Milwaukee Health Care Partnership, 2016d).

Statement of the Problem

In the 2015-2016 City of Milwaukee Community Health Assessment, Southeast Asian residents of Milwaukee, Wisconsin expressed "the need for more culturally competent providers and culturally appropriate education, services, and programs to address top health concerns" (Milwaukee Health Care Partnership, 2016d, p. 295). Early detection of cervical cancer is a significant health concern to Southeast Asian women living in Milwaukee:

- The incidence of cervical cancer is 4.2 times higher in Southeast Asian women than in non-Hispanic White women (Kue et al., 2015, p. 3).

- Southeast Asian women in all age groups experience increased cervical cancer incidence and mortality rates (Sparks & Vang, 2015).

Research Questions

In the 2015-2016 City of Milwaukee Community Health Assessment, Southeast Asian residents expressed the need for culturally competent providers and appropriate education, services, and programs (Milwaukee Health Care Partnership, 2016d, p. 295). Three research questions facilitated a better understanding of the needs identified by the Milwaukee Southeast Asian community related to community preventive services provided by the City of Milwaukee Health Department. The three central research questions guided this Action Research Project:

1. What roles do demographic and socioeconomic factors play in the cervical cancer screening of underserved Southeast Asian women by the City of Milwaukee Health Department?
2. What process improvements and/or process interventions by the City of Milwaukee Health Department might improve the health literacy and cervical cancer screening process for underserved Southeast Asian women in Milwaukee, Wisconsin?
3. What are the process steps which if implemented by the City of Milwaukee Health Department might reduce potential barriers to cervical cancer screening of underserved Southeast Asian women in Milwaukee, Wisconsin?

Research Findings

Research Question 1

What roles do demographic and socioeconomic factors play in the cervical cancer screening of underserved Southeast Asian women by the City of Milwaukee Health Department?

Survey Question 1: What is your gender (sex)? One hundred percent of the 30 Project participants responded to this survey question during primary data collection. One hundred percent of the participants selected female (see Figure 4).

Survey Question 2: How old are you (age)? One hundred percent of the 30 Project participants responded to this survey question during primary data collection. More than 13% of the participants selected 20 years old or younger (see Figure 5). Thirty percent chose 21 years old to 34 years old. Forty percent selected 35 years old to 64 years old, and nearly 17% chose 65 years and older.

Survey Question 3: Where were you born (country of origin)? One hundred percent of the 30 Project participants responded to this survey question during primary data collection. Forty percent of the participants selected the United States of America (see Figure 6). More than 43% selected Laos, and nearly 17% chose Thailand as the county of origin.

Survey Question 4: What is your race (national origin)? One hundred percent of the 30 Project participants responded to this survey question during primary data collection. One hundred percent of the participants selected Asian (see Figure 7).

Survey Question 5: What is your ethnicity (language and culture)? One hundred percent of the 30 Project participants responded to this survey question during primary data collection. One hundred percent of the participants selected Hmong (see Figure 8).

Survey Question 6: Do you live in the State of Wisconsin? One hundred percent of the 30 Project participants responded to this survey question during primary data collection. One hundred percent of the participants answered affirmatively (see Figure 9).

Survey Question 7: How many members in your family (include yourself, your spouse, and your children)? One hundred percent of the 30 Project participants responded to this survey question during primary data collection. More than 23% of the participants selected six family members (see Figure 10). Nearly 27% selected more than six members, and 50% chose less than six members. The calculated and adjusted median number of family members was four members.

Survey Question 8: Do you have health insurance? One hundred percent of the 30 Project participants responded to this survey question during primary data collection. More than 93% of the participants answered affirmatively (see Figure 11). Only one participant replied negatively.

Survey Question 9: If you have health insurance, what is the name of your health insurance plan? One hundred percent of the 30 Project participants responded to this survey question during primary data collection. Ninety percent of the participants named the health insurance plan (see Figure 12). United Healthcare was the health insurance plan most often named by participants.

Survey Question 10: What is your yearly income in United States dollars (USD)? One hundred percent of the 30 Project participants responded to this survey question during primary data collection. More than 83% of the participants revealed

yearly income (see Figure 13). The median yearly income in USD was $30,151 to $40,600.

Research Question 2

What process improvements and/or process interventions by the City of Milwaukee Health Department might improve the health literacy and cervical cancer screening of underserved Southeast Asian women in Milwaukee, Wisconsin?

Survey Question 11: Did you ever have surgery to remove your uterus (hysterectomy)? One hundred percent of the 30 Project participants responded to this survey question during primary data collection. More than 83% percent of the participants replied negatively (see Figure 14).

Survey Question 12: Do you have a history of a high-grade precancerous cervical lesion or cervical cancer? One hundred percent of the 30 Project participants responded to this survey question during primary data collection. Ninety percent of the participants replied negatively (see Figure 15).

Survey Question 13: Have you ever been vaccinated to prevent human papillomavirus (HPV) infection? One hundred percent of the 30 Project participants responded to this survey question during primary data collection. More than 73% of the participants replied negatively (see Figure 16).

Survey Question 14: When was your last Papanicolaou (Pap) test to screen for cervical cancer? One hundred percent of the 30 Project participants responded to this survey question during primary data collection. Less than 57% of the participants met the current USPSTF recommendations (Curry, 2018). The median number reported a Pap test last year (see Figure 17).

Survey Question 15: When was your last human papillomavirus (HPV) test to screen for cervical cancer? One hundred percent of the 30 Project participants responded to this survey question during primary data collection. Less than 27% of the participants met the current USPSTF recommendations (Curry, 2018). Forty percent were unable to answer the question with any degree of certainty. The median number reported an HPV test three years ago (see Figure 18).

Research Question 3

What are the process steps which if implemented by the City of Milwaukee Health Department might reduce potential barriers to cervical cancer screening of underserved Southeast Asian women in Milwaukee, Wisconsin?

Survey Question 16: What barriers to cervical cancer screening have you experienced? One hundred percent of the 30 Project participants responded to this survey question during primary data collection. Nearly 87% of the participants experienced no barriers (see Figure 19).

Synthesis and Summary of Data

Research Question 1

What roles do demographic and socioeconomic factors play in the cervical cancer screening of underserved Southeast Asian women by the City of Milwaukee Health Department?

1. Survey Question 1 confirmed the WWWP eligibility and enrollment criteria (Wisconsin Well Woman Program, 2010). Based on gender alone 100% of the survey respondents met the criteria of the WWWP. The question allowed the respondents to self-identify gender as female, male, or transgender. Members of

the Milwaukee LGBTQ community elected *not* to self-identify gender as either male or transgender. No spouses or partners of respondents participated in this Project. Also, no spouses or partners restricted participation in this Project.

2. Survey Question 2 confirmed the WWWP eligibility and enrollment criteria (Wisconsin Well Woman Program, 2010). Based on the age group alone only 40% of the survey respondents met the criteria of the WWWP.
3. Survey Question 3 confirmed the WWWP eligibility and enrollment criteria (Wisconsin Well Woman Program, 2010). Based on the country of origin alone only 40% of the survey respondents met the criteria of the WWWP. The question allowed the respondents to either select or self-identify their country of origin. None of the respondents self-identified their country of origin. Also, more than 13% of the women responded anonymously during the second feasibility analysis. Content experts still recommended the addition of the question to the final survey instrument. The current social climate and immigration policies in the U.S. may have contributed to the request for anonymity among some feasibility analysis participants. Fears of imprisonment and deportation among U.S. immigrants have created a social climate in which "persons whose legal presence in the United States is questioned because of their race/ethnicity" (Perreira & Pedroza, 2019, p. 151).
4. Survey Question 4 confirmed participation in this Action Research Project. Based on race alone 100% of the survey respondents were eligible to participate in this Project. The question allowed the respondents to either select or self-identify race or national origin. Only one respondent selected Asian and self-identified as

Hmong which indicated negligible uncertainty regarding the meaning of the terms race and national origin.

5. Survey Question 5 confirmed participation in this Action Research Project. Based on ethnicity alone 100% of the survey respondents were eligible to participate in this Project. The question allowed the respondents to either select or self-identify ethnicity or language and culture. None of the respondents self-identified ethnicity or language and culture.
6. Survey Question 6 confirmed the WWWP eligibility and enrollment criteria (Wisconsin Well Woman Program, 2010). Based on the State of Wisconsin residency alone 100% of the survey respondents met the criteria of the WWWP.
7. Survey Question 7 confirmed the WWWP eligibility criteria (Wisconsin Well Woman Program, 2010). Based on the number of family members (see Question 7) and the yearly income (see Question 10) alone more than 73% of the survey respondents met the criteria of the WWWP (see Table 3).
8. Survey Question 8 confirmed the WWWP eligibility and enrollment criteria (Wisconsin Well Woman Program, 2010). Uninsured women living in the State of Wisconsin, diagnosed with a high-grade precancerous cervical lesion or cervical cancer, and "eligible for the Wisconsin Well Woman Program may be eligible to enroll in Wisconsin Well Woman Medicaid" (Wisconsin Well Woman Program, 2010, p. 5.3). Based on health insurance alone only one uninsured survey respondent met the criteria of the WWWP; however, this respondent had no history of a high-grade precancerous cervical lesion or cervical cancer. One respondent was unable to answer the question with any degree of certainty.

9. Survey Question 9 confirmed the WWWP eligibility and enrollment criteria (Wisconsin Well Woman Program, 2010). Based on the health insurance plan alone 30% of the survey respondents did *not* meet the criteria of the WWWP. More than 13% of the respondents selected BadgerCare Plus. More than 13% of the respondents selected Medicare-Part B, and more than 3% chose Medicaid. Ten percent of the respondents were unable to answer the question with any degree of certainty.
10. Survey Question 10 confirmed the WWWP eligibility criteria (Wisconsin Well Woman Program, 2010). Based on the yearly income (see Question 10) and the number of family members (see Question 7) alone more than 73% of the survey respondents met the criteria of the WWWP (see Table 3). Nearly 17% of the respondents were unable to answer the question with any degree of certainty.

Research Question 2

What process improvements and/or process interventions by the City of Milwaukee Health Department might improve the health literacy and cervical cancer screening of underserved Southeast Asian women in Milwaukee, Wisconsin?

11. Survey Question 11 explored health literacy related to hysterectomy. Nearly 17% answered affirmatively; however, 60% of these survey respondents were unable to specify partial hysterectomy or total hysterectomy. Exit interviews after primary data collection revealed that three respondents aged 65 years and older with limited English proficiency did *not* understand the meaning or significance of the terms partial hysterectomy and total hysterectomy.

12. Survey Question 12 explored health literacy related to the history of a high-grade precancerous cervical lesion or cervical cancer. Ten percent of the survey respondents were unable to respond to the question with any degree of certainty. One hundred percent of these respondents had a hysterectomy. Exit interviews after primary data collection revealed one respondent aged 35 years through 64 years and two respondents aged 65 years and older with limited English proficiency did *not* understand the meaning or significance of a high-grade precancerous cervical lesion.
13. Survey Question 13 explored health literacy related to HPV vaccination. Only two survey respondents answered affirmatively; therefore, less than 7% of the respondents reported vaccination to prevent HPV infection. Twenty percent were unable to answer the question with any degree of certainty. Exit interviews after primary data collection revealed one respondent aged 20 years or younger, two respondents aged 21 years through 34 years, and three respondents aged 65 and older with limited English proficiency did *not* understand the meaning or the consequences, implications, or seriousness of HPV infection.
14. Survey Question 14 explored health literacy related to the Pap test. Less than 57% of the respondents reported a Pap test within the past three years. More than 23% of the survey respondents never had a Pap test. Ten percent of the respondents reported a Pap test more than five years ago. Ten percent were unable to answer the question with any degree of certainty.
15. Survey Question 15 explored health literacy related to the HPV test. Less than 27% of the survey respondents reported an HPV test within the past five years.

Nearly 27% of the survey respondents never had an HPV test. Forty percent of the respondents were unable to answer the question with any degree of certainty.

Research Question 3

What are the process steps which if implemented by the City of Milwaukee Health Department might reduce potential barriers to cervical cancer screening of underserved Southeast Asian women in Milwaukee, Wisconsin?

16. Survey Question 16 assessed potential barriers to cervical cancer screening. Ten percent of the survey respondents identified the following five barriers to cervical cancer screening: (1) high cost, (2) free screening, (3) health insurance, (4) language, and (5) embarrassment. A word cloud of respondent comments captured during exit interviews and created with NVivo 11 Pro confirmed these five barriers and enabled the discovery of additional barriers such as the need to know more about hysterectomy and free screening (see Figure 20). Ninety percent of the respondents either experienced no barriers to cervical cancer screening or were unable to answer the question with any degree of certainty.

Contribution to Applied Practice

The survey process for this Action Research Project included the direct observation of survey respondents, the administration of survey instruments to respondents, and the performance of exit interviews with respondents. Direct observation of the survey respondents during the survey process detected no ambiguity or argumentativeness in the survey instrument. Exit interviews with the respondents after the survey revealed no inconsistencies or uncertainties related to the survey process. Also, comments captured from respondents during exit interviews enabled the discovery

of additional barriers to cervical cancer screening such as the need to know more about hysterectomy and free screening (see Figure 20).

Methodological triangulation of the survey process provided previously undetermined and actionable insights for underserved women in the Milwaukee Southeast Asian community. The following three recurring themes emerged from the content analysis of primary data collected at the 2018 Milwaukee Hmong New Year festival: limited English proficiency; access to free cervical cancer screening; and health literacy related to HPV and hysterectomy (see Figure 21). The implications that result from this Project are cervical cancer health disparities and adverse health outcomes may continue to negatively impact medically underserved Southeast Asian women in Milwaukee, Wisconsin until the City of Milwaukee Health Department consistently provides more culturally competent providers and appropriate education, services, and programs.

Chapter Four explained the process of data analysis for the Action Research Project. Chapter Four also offered a statistical analysis of the primary data collected during the Project. Furthermore, Chapter Four offered a synthesis and summary of the data as well as the contributions of the Project to the applied practice. Chapter Five presents the results, the discussion, and the recommendations of the Project. Chapter Five will explicitly suggest ways in which potential barriers may be reduced. Once the barriers are reduced, the result would become the ideal or future state process map.

CHAPTER 5. DISCUSSION, IMPLICATIONS, RECOMMENDATIONS

Overview

In 2017, the City of Milwaukee Health Department sponsored three annual community health fairs (City of Milwaukee Health Department, 2017). The following year, the health department failed to adequately notify thousands of families with young children having elevated blood lead levels (Spicuzza & Johnson, 2018). As a result, the City of Milwaukee Health Department likely diverted resources from the Community Healthcare Access program to the Lead Poisoning Prevention program (see Appendix C). Limited resources and staffing shortages may have prevented the City of Milwaukee Health Department from sponsoring annual community health fairs in 2018 and 2019.

Yet the City of Milwaukee Health Department administered free immunizations and lead testing to children in 2018. Furthermore, the health department supplied free water filters to Milwaukee homeowners in 2018. A partnership between the City of Milwaukee Health Department and Anthem Blue Cross and Blue Shield enabled the provision of immunizations, lead testing, and water filters (City of Milwaukee Health Department, 2018). Partnerships prove that "public health and health care organizations are more effective when they combine their efforts to address a community population health issue than when they work separately and competitively" (Bialek, Moran, & Kirshy, 2015, p. 1).

Partnerships address cancer health disparities in communities with limited access to adequate health care services (Samaras et al., 2014). Community partnerships may involve collaborations among "state and local governments, hospitals, community

organizations, health centers, and private practices" (Coleman, McMann, & Fraser, 2016, p. 13). According to Bialek et al. (2015), "collaboration and greater alignment of efforts are essential to effectively prevent and treat disease, control health care costs, and promote health in our communities" (p. 2). Health disparities in the Milwaukee Southeast Asian community related to the prevention and treatment of cervical cancer can be effectively reduced if the City of Milwaukee Health Department actively supports partnerships in the community among healthcare service providers.

Statement of the Problem

In the 2015-2016 City of Milwaukee Community Health Assessment, Southeast Asian residents of Milwaukee, Wisconsin expressed "the need for more culturally competent providers and culturally appropriate education, services, and programs to address top health concerns" (Milwaukee Health Care Partnership, 2016d, p. 295). Early detection of cervical cancer is a significant health concern to Southeast Asian women living in Milwaukee:

- The incidence of cervical cancer is 4.2 times higher in Southeast Asian women than in non-Hispanic White women (Kue et al., 2015, p. 3).
- Southeast Asian women in all age groups experience increased cervical cancer incidence and mortality rates (Sparks & Vang, 2015).

Summary of Major Themes that Informed Literature Review

The literature review begins with the identification and selection of relevant theories, research methods, and frameworks. The literature review continues with the categorization, evaluation, integration, and synthesis of the relevant literature. The Dissertation author began categorizing the literature review by applying Cooper's

taxonomy of literature reviews (Cooper, 1985). Applying Cooper's taxonomy revealed seven major themes that informed this Action Research Project: (1) barriers; (2) cervical cancer screening; (3) underserved women; (4) Southeast Asian women; (5) Milwaukee, Wisconsin; (6) data collection and analysis; and (7) data synthesis and recommendations.

Summary of Research Methodology

The research methodology is an iterative process that involves six steps:

1. Forming ideas and research questions.
2. Developing theories and hypotheses.
3. Constructing a research design as a plan for data collection and analysis.
4. Implementing the research design through the collection of data.
5. Analyzing those data.
6. Drawing conclusions and communicating about research (Brown & Hale, 2014, p. 21).

This Action Research Project used qualitative research to form ideas and research questions; develop theories and hypotheses; and create a survey instrument for data collection and analysis. This Project also utilized quantitative research to construct and implement a transformative mixed methods research design for collecting primary data, analyzing the data, drawing conclusions, and communicating about the research. An exploratory sequential approach for a transformative mixed methods research design allowed the Dissertation author to consciously situate this Project "as a response to the inequities in society with a goal of enhancing social justice" (Mertens, 2010, p. 470).

Summary of Research Findings

Research Question 1

What roles do demographic and socioeconomic factors play in the cervical cancer screening of underserved Southeast Asian women by the City of Milwaukee Health Department?

Survey Question 1. Based on gender alone 100% of the survey respondents met the eligibility and enrollment criteria of the WWWP (N = 30, SD = 0); however, biological females who self-identify as male or transgender may or may *not* meet the gender criteria of the WWWP (see Figure 22).

Survey Question 2. Based on the age group alone most (40%) of the survey respondents met the eligibility and enrollment criteria of the WWWP (N = 30, SD = 3.20); however, based on age group alone an additional 30% of the respondents *should* qualify for cervical cancer screening according to current USPSTF recommendations (Curry, 2018).

Survey Question 3. Based on the country of origin alone only 40% of the survey respondents met the eligibility and enrollment criteria of the WWWP; however, based on country of origin alone the remaining 60% of the respondents from Laos and Thailand may or may *not* meet the U.S. citizenship and immigration status criteria of the WWWP (see Figure 22).

Survey Question 4. Based on race alone the 100% survey response rate (N = 30, SD = 0) verified the selection of the 2018 Milwaukee Hmong New Year festival for this Project.

Survey Question 5. Based on ethnicity alone the 100% survey response rate (N = 30, SD = 0) verified the selection of the 2018 Milwaukee Hmong New Year festival for this Project.

Survey Question 6. Based on the State of Wisconsin residency alone the 100% survey response rate (N = 30, SD = 0) verified the selection of the 2018 Milwaukee Hmong New Year festival for this Project.

Survey Question 7. Based on the number of family members (see Question 7) and the yearly income (see Question 10) alone more than 73% of the survey respondents met the eligibility criteria of the WWWP (see Table 3); however, based on the age group and the health insurance plan nearly 64% of these low-income respondents did *not* meet the criteria of the program.

Survey Question 8. Based on health insurance alone only one uninsured survey respondent met the eligibility and enrollment criteria of the WWWP; however, based on the WWWP definition of underinsured, the remaining respondents may or may *not* meet the health insurance criteria of the WWWP. Therefore, based on health insurance alone nearly 97% of the respondents may or may *not* be eligible to receive cervical cancer screening through the City of Milwaukee Health Department.

Survey Question 9. Based on the health insurance plan alone 30% of the survey respondents enrolled in the BadgerCare Plus, Medicare-Part B, or Medicaid plans did *not* meet the eligibility and enrollment criteria of the WWWP. However, based on the WWWP definition of underinsured, the remaining 70% of the respondents may or may *not* meet the health insurance plan criteria of the WWWP (see Figure 22). Therefore, based on the health insurance plan alone 70% of the respondents may or may *not* be eligible to receive cervical cancer screening through the City of Milwaukee Health Department.

Survey Question 10. Based on the yearly income (see Question 10) and the number of family members (see Question 7) alone more than 73% of the survey respondents met the eligibility criteria of the WWWP (see Table 3); however, based on the age group and the health insurance plan nearly 64% of these low-income respondents did *not* meet the criteria of the program.

Research Question 2

What process improvements and/or process interventions by the City of Milwaukee Health Department might improve the health literacy and cervical cancer screening of underserved Southeast Asian women in Milwaukee, Wisconsin?

Survey Question 11. Exit interviews after primary data collection revealed that three survey respondents aged 65 years and older with limited English proficiency did *not* understand the meaning or significance of the terms partial hysterectomy and total hysterectomy. “The USPSTF recommends against screening for cervical cancer in women who have had a hysterectomy with removal of the cervix and do not have a history of a high-grade precancerous lesion or cervical cancer” (Curry, 2018, p. 674). However, current clinical guidelines recommend cervical cancer screening based on partial hysterectomy, total hysterectomy, and a patient’s medical history (American College of Obstetricians and Gynecologists website, n.d.). The lack of understanding related to hysterectomy among respondents confirmed the need for culturally competent providers and appropriate education, services, and programs in the Milwaukee Southeast Asian community (Milwaukee Health Care Partnership, 2016d, p. 295).

Survey Question 12. Exit interviews after primary data collection revealed one survey respondent aged 35 years through 64 years and two respondents aged 65 years and

older with limited English proficiency did *not* understand the meaning or significance of a high-grade precancerous cervical lesion. Women aged 21 years to 65 years with a history of a high-grade precancerous cervical lesion have an increased risk of developing cervical cancer (Curry, 2018). Women diagnosed with this type of lesion require medical intervention and regular screening to prevent cervical cancer. The lack of understanding related to precancerous cervical lesions among respondents confirmed the need for culturally competent providers and appropriate education, services, and programs in the Milwaukee Southeast Asian community (Milwaukee Health Care Partnership, 2016d, p. 295).

Survey Question 13. None of the survey respondents aged 20 years or younger reported vaccination to prevent HPV infection. Only two respondents aged 21 years through 34 years reported vaccination to prevent infection; therefore, less than 7% of the respondents reported vaccination to prevent HPV infection. According to the 2015-2016 City of Milwaukee Community Health Assessment, only 23.6% of Milwaukee adolescents aged 13 years to 18 years received three or more doses of the HPV vaccine in 2014 (City of Milwaukee Health Department, 2016, p. 27). Exit interviews after primary data collection revealed one respondent aged 20 years or younger, two respondents aged 21 years through 34 years, and three respondents aged 65 years and older with limited English proficiency did *not* understand the meaning or the consequences, implications, or seriousness of HPV infection. The low rates of HPV vaccination, as well as the lack of understanding related to HPV, confirmed the need for culturally competent providers and appropriate education, services, and programs in the Milwaukee Southeast Asian community (Milwaukee Health Care Partnership, 2016d, p. 295).

Survey Question 14. More than 43% of the survey respondents either never had a Pap test, reported a Pap test more than five years ago, or were unable to answer the question with any degree of certainty. Less than 57% of the respondents reported a Pap test within the past three years. However, according to the 2015-2016 City of Milwaukee Community Health Assessment, 81% of women aged 18 years to 65 years reported a Pap test within the past three years (Milwaukee Health Care Partnership, 2016d, p. 218). The low percentage of Pap tests discovered among Southeast Asian women in all age groups confirmed the need for culturally appropriate education, services, and programs in the Milwaukee Southeast Asian community (Milwaukee Health Care Partnership, 2016d, p. 295).

Survey Question 15. Nearly 67% of the survey respondents either never had an HPV test or were unable to answer the question with any degree of certainty. Less than 27% of the respondents reported an HPV test within the past five years. However, according to the 2015-2016 City of Milwaukee Community Health Assessment, 63% of women aged 18 years to 65 years reported an HPV test within the past five years (Milwaukee Health Care Partnership, 2016d, p. 218). The low percentage of HPV tests discovered among Southeast Asian women in all age groups confirmed the need for culturally appropriate education, services, and programs in the Milwaukee Southeast Asian community (Milwaukee Health Care Partnership, 2016d, p. 295).

Research Question 3

What are the process steps which if implemented by the City of Milwaukee Health Department might reduce potential barriers to cervical cancer screening of underserved Southeast Asian women in Milwaukee, Wisconsin?

Survey Question 16. Nearly 87% of the survey respondents experienced no barriers to cervical cancer screening; however, more than 69% of these respondents may or may *not* meet the eligibility and enrollment criteria of the WWWP based on the program definition of the term underinsured. The presence of *unrecognized* barriers among respondents in all age groups confirmed the need for culturally competent providers and culturally appropriate education, services, and programs in the Milwaukee Southeast Asian community (Milwaukee Health Care Partnership, 2016d, p. 295).

Contribution of the Action Research Project

A doctoral dissertation must result in the creation of new information to add to the body of knowledge. The three goals of this Action Research Project:

1. To identify cervical cancer health disparities affecting underserved Southeast Asian women in Milwaukee, Wisconsin.
2. To assess the potential barriers to cervical cancer screening of underserved Southeast Asian women in Milwaukee, Wisconsin.
3. To develop process interventions for the City of Milwaukee Health Department to improve the current process and thus improve access to cervical cancer screening for medically underserved Southeast Asian women in Milwaukee, Wisconsin.

The first goal of this Project was to identify what, if any, cervical cancer health disparities affected underserved Southeast Asian women in Milwaukee, Wisconsin. Triangulation of information was used to gather personal observations and conversations with key informants in the Milwaukee Southeast Asian community. Information gathered through these observations and conversations, as well as the literature review, supported the creation of a novel informed consent form, survey instrument, and survey process

designed specifically for collecting primary data from underserved Southeast Asian women in the Milwaukee metropolitan area.

The second goal of this Project was to assess the potential barriers to cervical cancer screening of underserved Southeast Asian women in Milwaukee, Wisconsin. Race, ethnicity, and residency questions within the novel survey instrument verified the acceptability of the 2018 Milwaukee Hmong New Year festival for this Project. Sequential methodological triangulation using direct observation, survey instruments, and exit interviews supported the development of a survey process designed specifically for underserved Southeast Asian women in the Milwaukee metropolitan area. The simultaneous application of sequential methodological triangulation, using qualitative and quantitative research methods all at the same time (Creswell & Creswell, 2018), resulted in a blended survey process for underserved women in the Milwaukee Southeast Asian community that contributed to the relevant body of knowledge.

The third and last goal of this Project was to develop process interventions for the City of Milwaukee Health Department to improve access to cervical cancer screening for medically underserved Southeast Asian women in Milwaukee, Wisconsin. Both the survey instrument and the survey process enhanced the relevant body of knowledge by providing previously undetermined and actionable insights for underserved women in the Milwaukee Southeast Asian community. Primary data collection led to the creation of three distinct process interventions for the City of Milwaukee Health Department. These process interventions, when applied in practice by the health department consistently, may well lead to measurable improvements in the processes by which cervical cancer screenings are provided to medically underserved Southeast Asian women, especially

Hmong women, in Milwaukee. The following three recurring themes emerged from the data: limited English proficiency; access to free cervical cancer screening; and health literacy related to HPV and hysterectomy (see Figure 21).

Discussion and Implications

Limited English Proficiency

"Cultural background, language capacity, and socioeconomic status can affect patients' willingness to seek health services" (Samaras, 2014, p. 6). A recent study conducted by Roman, Zambrana, Ford, Meghea, and Williams (2016) found that community health workers "can be leveraged to reach underserved families with cancer preventive interventions" (p. 1). For these reasons, a community health worker in the Milwaukee Southeast Asian community assisted the Dissertation author in obtaining informed consent and administering the survey instrument for this Project. Furthermore, the health worker, also a Hmong language interpreter and translator, supported the recording of exit interview comments for this Project. Both MCHH dba SEAED and HAFA offer qualified Hmong language interpretation and translation services in the Milwaukee Southeast Asian community.

Access to Free Cervical Cancer Screening

"U.S. cervical cancer screening practice bears a hefty economic burden of roughly $6 billion each year on screening, diagnosis, and pre-cancer treatment" (Kim et al., 2015, p. 3). Pap test screening performed by qualified Cytopathologists and Pathologists, as well as follow-up tests for false negative and false positive results, contribute to this screening-related economic burden. In a recent study, Liu et al. (2016) found that "the total incremental costs for managing cervical cancer were $362 in the pre-diagnosis

phase, $15,722 in the initial phase, $3924 per year in the continuing phase, and $52,539 in the terminal phase" (p. 615.e1). Cervical cancer screening "as currently practiced is inefficient with respect to health benefits and costs when accounting for variable screening frequency, inappropriate HPV triage testing, and imperfect compliance to diagnostic and treatment referrals" (Kim et al., 2015, p. 8).

"Cervical cancer disparities among Asian American women are related primarily to access to screening" (Torre et al., 2016, p. 11). Cervical cancer is often asymptomatic (Marth et al., 2017). "Asian American women generally wait for physical symptoms before seeking care" (Magnani et al., 2016, p. 1420). The See, Test & Treat® program of the College of American Pathologists offers medically underserved minority women access to free cervical cancer screening.

See, Test & Treat® is "designed to reduce the barriers for these women by providing care that addresses cultural, financial, and practical issues" (Magnani et al., 2016, p. 1420). The See, Test & Treat® program provides free breast and cervical cancer screenings to medically underserved women across the U.S. (CAP Foundation, 2019). Based on the amenities observed at the Southside Health Center, the City of Milwaukee Health Department would be a suitable host site for a CAP Foundation See, Test & Treat® cervical cancer screening event (Magnani et al., 2016). The Keenan Health Center and Northwest Health Center of the health department would only be suitable sites for HPV vaccinations.

Health Literacy Related to HPV and Hysterectomy

Health Literacy. Sentell et al. (2015) concluded that "low health literacy may be a critical factor to explain low rates of Asian American cancer screening" (p. 2). Bakker,

Koffel, and Theis-Mahon (2017) discovered lower rates of health literacy "among the elderly, minority populations, persons of limited financial means, and those with less than a high school education" (p. 34). Additionally, morbidity increases with age (Hsueh, Chang, & Ramakrishnan, 2016). Therefore, health education programs in all age groups in the Milwaukee Southeast Asian community "have the potential to increase cervical cancer awareness and screening uptake, and reduce cervical cancer mortality" (Islam, Bell, Billahreseul Hossain, & Davis, 2015, p. 1386).

HPV Screening. From 2009 to 2013 the State of Wisconsin reported 897 cases of "cervical cancer that could have been prevented" (Wisconsin Comprehensive Cancer Control Program, 2016, p. 2). One proven method of prevention is early detection by cervical cancer screening. Historically, healthcare professionals considered cytology-based screening by Pap test the gold standard for cervical cancer screening. However, a recent analysis of the Pap test versus the HPV test "showed that HPV-based cervical screening provides 60%–70% greater protection against invasive cancer compared with cytology-based screening" (Marth et al., 2017, p. iv72).

HPV, particularly genetic types (genotypes) HPV16 and HPV18, are detected in 99% of cervical tumors (Marth et al., 2017, p. iv72). In most situations, the detection of any high-risk genotype from a single cervical specimen would indicate the possibility of developing cervical cancer in the future. The U.S. Food and Drug Administration (FDA) recently approved an HPV test for cervical cancer screening without an associated Pap test; however, "screening alone is not sufficient to reduce cervical cancer morbidity and mortality and related disparities" (Curry, 2018, p. 679). Another method of cervical

cancer prevention involves immunization "with highly efficacious HPV vaccines" (Marth et al., 2017, p. iv80).

HPV Vaccination. Sexually transmitted infections such as HPV can lead to serious long-term consequences such as cervical cancer (Milwaukee Health Care Partnership, 2016b). Cervical cancer prevention is possible by immunization with highly effective HPV vaccines (Marth et al., 2017). Breitkopf et al. (2016) discovered a "crucial need for strategies to educate medically underserved adults about HPV and to offer information about the HPV vaccine and, if resources permit, offer the vaccine in all clinic settings" (p. 3350). According to the 2015-2016 City of Milwaukee Community Health Assessment, only 23.6% of Milwaukee adolescents aged 13 years to 18 years received three or more doses of the HPV vaccine in 2014 (City of Milwaukee Health Department, 2016, p. 27). Although the health department considered this a positive trend when compared to the 15.4% reported in 2012, the Healthy People 2020 goal for HPV vaccination remained at 80% (City of Milwaukee Health Department, 2016, p. 27).

A study conducted by Kim, Kim, Choi, Song, and Han (2015a) found that women who heard of the HPV vaccine "were confused about HPV vaccine recommended guidelines, benefits, and side effects" (p. 5); however, most of these women "were favorable towards HPV vaccination after learning about the benefits" (p. 5). Additionally, Paskett et al. (2016) found that multi-level interventions improved HPV vaccination rates "among girls aged 9 to 17 years" (p. 11). LaMontagne et al. (2014) "reported an increase in the workload for health workers to implement HPV vaccinations, but nearly all reported that this situation was temporary, short-lived, did not affect routine services significantly, and could be managed well if careful planning was done" (p. 7). Ultimately,

community "partnerships build comprehensive, sustained community programs that advocate for policies that will result in the immunization of people against vaccine-preventable diseases" (Frieden, 2014, p. 20).

Hysterectomy. Research conducted by Sentell, Braun, Davis, and Davis (2015) in the State of California assessed the general health literacy of Asians Americans using two questions: (1) "When you get written information at a doctor's office, would you say that it is very easy, somewhat easy, somewhat difficult, or very difficult to understand?" and (2) "When you read the instructions on a prescription bottle, would you say that it is very easy, somewhat easy, somewhat difficult, or very difficult to understand?" (p. 3). From March 16 through July 14, 2015, research conducted by JKV Research, LLC in Milwaukee County assessed health literacy related to HPV and hysterectomy using two questions: (1) "A pap smear is a test for cancer of the cervix. If you have not had a hysterectomy, how long has it been since you had your last pap smear?" and (2) "An HPV test is a test for the human papillomavirus in the cervix and is sometimes done at the same time as a pap smear. When was the last time you had an HPV test?" (Milwaukee Health Care Partnership, 2016d, p. 192). To minimize ambiguity in the survey instrument, the Dissertation author assessed health literacy related to HPV and hysterectomy in the Milwaukee Southeast Asian community using five questions: (1) Did you ever have surgery to remove your uterus (hysterectomy)? (2) Do you have a history of a high-grade precancerous cervical lesion or cervical cancer? (3) Have you ever been vaccinated to prevent human papillomavirus (HPV) infection? (4) When was your last Papanicolaou (Pap) test to screen for cervical cancer? and (5) When was your last human papillomavirus (HPV) test to screen for cervical cancer? Even so, three survey

respondents aged 65 years and older with limited English proficiency did *not* understand the meaning or significance of the terms partial hysterectomy and total hysterectomy.

Conclusions and Recommendations

The Southeast Asian community in Milwaukee relies on the public health services provided by the State of Wisconsin. Additionally, "health disparities remain marked among urban poor populations" (Samaras et al., 2014, p. 2). If the USPSTF recommends the screening of women aged 21 years to 65 years by Pap test alone every three years (Curry, 2018), then the City of Milwaukee Health Department should provide routine cervical cancer screening tests to underserved Southeast Asian women aged 21 years to 65 years living in Milwaukee, Wisconsin. Public health service providers such as the City of Milwaukee Health Department can use performance management models such as the Baldrige Excellence Framework to easily identify process gaps in community preventive services for "rigorous, real-time monitoring, evaluation, and program improvement" (Frieden, 2014, p. 17).

"Transforming qualitative data through quantitizing has been used as an analytical procedure in high-quality mixed method research publications" (Creamer, 2018, p. 120). This Action Research Project transformed qualitative data through quantitizing to generate the following recommendations to reduce the barriers to cervical cancer screening of medically underserved Southeast Asian women in Milwaukee, Wisconsin:

1. Recommendation for Research Question 1: Develop a community partnership between the City of Milwaukee Health Department and HAFA to regularly provide free qualified Hmong language interpreters and translators to medically underserved Southeast Asian women at the Keenan Health Center, Northwest

Health Center, and Southside Health Center in Milwaukee, Wisconsin (see Figure 23). HAFA volunteers would also be well prepared and readily available to provide free Hmong language interpreters and translators at CAP Foundation-sponsored See, Test & Treat® events held at the Southside Health Center of the City of Milwaukee Health Department.

2. Recommendation for Research Question 2: Develop a partnership between the City of Milwaukee Health Department and the CAP Foundation See, Test & Treat® program to provide free cervical cancer screening to medically underserved Southeast Asian women at the Southside Health Center in Milwaukee, Wisconsin (see Figure 23). See, Test & Treat® program funds are not unlimited; in fact, the available number of grants using net assets decreases every year (see Table 4). Medically underserved Southeast Asian women aged 35 years through 64 years already have access to cervical cancer screening through the WWWP. Also, medically underserved Southeast Asian women aged 65 years and older may have access to screening through the Wisconsin Well Woman Medicaid program. Therefore, free cervical cancer screening through the CAP See, Test & Treat® program at the Southside Health Center of the City of Milwaukee Health Department should be limited to medically underserved Southeast Asian women aged 21 years through 34 years (see Figure 23).
3. Recommendation for Research Question 3: Develop a community partnership among the City of Milwaukee Health Department, HAWA, and MCHH dba SEAED to provide free cancer education related to HPV and hysterectomy to medically underserved Southeast Asian women at the Keenan Health Center,

Northwest Health Center, and Southside Health Center in Milwaukee, Wisconsin (see Figure 23). Based on the age groups of the women they serve, HAWA should provide cancer education related to HPV to younger Southeast Asian women, and MCHH dba SEAED should provide cancer education related to hysterectomy to older Southeast Asian women. HAWA and MCHH dba SEAED volunteers would also be well prepared and readily available to provide free cancer education to medically underserved Southeast Asian women in all age groups at CAP Foundation-sponsored See, Test & Treat® events at the Southside Health Center of the City of Milwaukee Health Department.

This Project generated the following additional recommendations for further exploration of potential barriers to cervical cancer screening of underserved Southeast Asian women in Milwaukee, Wisconsin:

1. Explore whether biological females in the Southeast Asian LGBTQ community who self-identify as male or transgender meet the gender criteria of the WWWP.
2. Explore what percentage of Southeast Asian women born in Laos and Thailand meet the U.S. citizenship and immigration status criteria of the WWWP.
3. Further explore the reasons why, based on the age group and the health insurance plan, nearly 64% of the low-income Southeast Asian women who participated in this Project did *not* meet the criteria of the WWWP.
4. Further explore and assess health literacy in the Milwaukee Southeast Asian community using the “36-item Test of Functional Health Literacy in Adults (TOFHLA)” (Simon et al., 2015, p. e88).

Reducing Potential Barriers to Cervical Cancer Screening

Healthy People 2020 established goals and objectives that monitored health outcomes for reducing cervical cancer death rates and reducing invasive cervical cancer (Miller et al., 2015). The CDC will launch the Healthy People 2030 initiative in 2020 (Office of Disease Prevention and Health Promotion website, 2020). The new initiative of recommendations from experts, advisory committees, and relevant stakeholders will include "broad objectives to move the country toward better health" (Haskins, 2017, p. 2). The Healthy People 2030 national objective related to cervical cancer is expected to raise the cervical cancer screening percentage point for women aged 21 years to 65 years.

Healthcare service providers should more frequently screen for cervical cancer older women with a prior history of inadequate cervical cancer screening and minority women with a previous history of limited access to adequate healthcare services (White & Wong, 2015). "The populations over age sixty-five will double from 2000 to 2030 to reach approximately 20 percent of the total" (Brown & Hale, 2014, p. 6). If the age group in the Healthy People 2030 national objective for cervical cancer screening remains 21 years to 65 years, then future action research projects should also explore process improvements for reducing potential barriers to cervical cancer screening of underserved Southeast Asian women aged 65 years and older in Milwaukee, Wisconsin. For now, the CAP Foundation should bridge this age-related process gap in community preventive services by assisting the City of Milwaukee Health Department in (1) identifying medically underserved Southeast Asian women aged 65 years and older, and (2) directing these medically underserved women to the Wisconsin Well Woman Medicaid program (see Figure 23) for evaluation and referral during the See, Test & Treat® program pre-scheduling and pre-approval processes.

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Appendix A

Survey Instrument

Page 1

Study: Doctor of Business Administration (DBA) Dissertation Project
Study Title for Participants: Barriers to Cervical Cancer Screening
Version: April 25, 2018

Instructions: Please circle the letter next to the answer that applies to you. You may choose more than one answer. Please write any comments or suggestions on the lines provided or in the open spaces next to your answer.

1. **What is your gender (sex)?**
   a. Female
   b. Male
   c. Transgender (gender identity different from sex assigned at birth)
2. **How old are you (age)?**
   a. 20 years old or younger
   b. 21 years old to 34 years old
   c. 35 years old to 64 years old
   d. 65 years old and older
3. **Where were you born (country of origin)?**
   a. Cambodia
   b. China
   c. Laos
   d. Myanmar (formerly Burma)
   e. Thailand
   f. United States of America
   g. Vietnam
   h. Other (please specify country of origin) _____
4. **What is your race (national origin)?**
   a. American Indian or Alaska Native
   b. Asian
   c. Black or African American
   d. Native Hawaiian or Other Pacific Islander
   e. White or Caucasian
   f. Other (please specify race): _____
   g. More than one race (please specify races): _____
5. **What is your ethnicity (language and culture)?**
   a. Burmese
   b. Chin
   c. Chinese (Mandarin, Cantonese)
   d. Hispanic/Latino
   e. Hmong
   f. Karen
   g. Karenni
   h. Laotian
   i. Vietnamese
   j. Other (please specify ethnicity): _____
   k. More than one ethnicity (please specify ethnicities): _____
6. **Do you live in the State of Wisconsin?**
   a. Yes
   b. No
   c. I don't know

Thank you for participating in this research study.

Appendix A

Survey Instrument

Page 2

Study: Doctor of Business Administration (DBA) Dissertation Project
Study Title for Participants: Barriers to Cervical Cancer Screening
Version: April 25, 2018

7. **How many members in your family (include yourself, your spouse, and your children)?**
   a. 1 member (yourself)
   b. 2 members (yourself and one other)
   c. 3 members (yourself and two others)
   d. 4 members (yourself and three others)
   e. 5 members (yourself and four others)
   f. 6 members (yourself and five others)
   g. 7 members (yourself and six others)
   h. 8 members (yourself and seven others)
   i. More than 8 members in family (please specify number of members in family): _____
8. **Do you have health insurance?**
   a. Yes
   b. No
   c. I don't know
9. **If you have health insurance, what is the name of your health insurance plan?**
   a. Anthem Blue Cross and Blue Shield
   b. BadgerCare Plus
   c. Medicaid
   d. Medicare-Part B
   e. United Healthcare
   f. United States Department of Veterans Affairs (VA)
   g. Health insurance that does not fully cover or does not pay for screenings or preventive services
   h. Other (please specify health insurance plan): _____
   i. I don't know
10. **What is your yearly income in United States dollars (USD)?**
    a. $0 to $30,150
    b. $30,151 to $40,600
    c. $40,601 to $51,050
    d. $51,051 to $61,500
    e. $61,501 to $71,950
    f. $71,951 to $82,400
    g. $82,401 to $92,850
    h. $92,851 to $103,300
    i. More than $103,300 (please specify yearly income in USD): _____
    j. I don't know
11. **Did you ever have surgery to remove your uterus (hysterectomy)?**
    a. Yes, total hysterectomy (removal of uterus and cervix)
    b. Yes, partial hysterectomy (removal of uterus but not cervix)
    c. No
    d. I don't know
12. **Do you have a history of a high-grade precancerous cervical lesion or cervical cancer?**
    a. Yes
    b. No
    c. I don't know
13. **Have you ever been vaccinated to prevent human papillomavirus (HPV) infection?**
    a. Yes
    b. No
    c. I don't know

Page 2 of 3

Thank you for participating in this research study.

Appendix A

Survey Instrument

Page 3

14. When was your last Papanicolaou (Pap) test to screen for cervical cancer?

a. This year
b. Last year
c. 2 years ago
d. 3 years ago
e. 4 years ago
f. 5 years ago
g. More than 5 years ago
h. I don't know
i. I never had a Pap test

15. When was your last human papillomavirus (HPV) test to screen for cervical cancer?

a. This year
b. Last year
c. 2 years ago
d. 3 years ago
e. 4 years ago
f. 5 years ago
g. More than 5 years ago
h. I don't know
i. I never had an HPV test

16. What barriers to cervical cancer screening have you experienced?

a. I have difficulty communicating cervical cancer screening to my doctor. If so, why?

_____

b. I am uncomfortable discussing cervical cancer screening with my doctor. If so, why?

_____

c. I am uncertain about cervical cancer screening. If so, why?

_____

d. I am unable to afford cervical cancer screening. If so, why?

_____

e. I am unable to locate free cervical cancer screening sites in Milwaukee. If so, why?

_____

f. I am unable to attend free cervical cancer screening events in Milwaukee. If so, why?

_____

g. Other barriers:

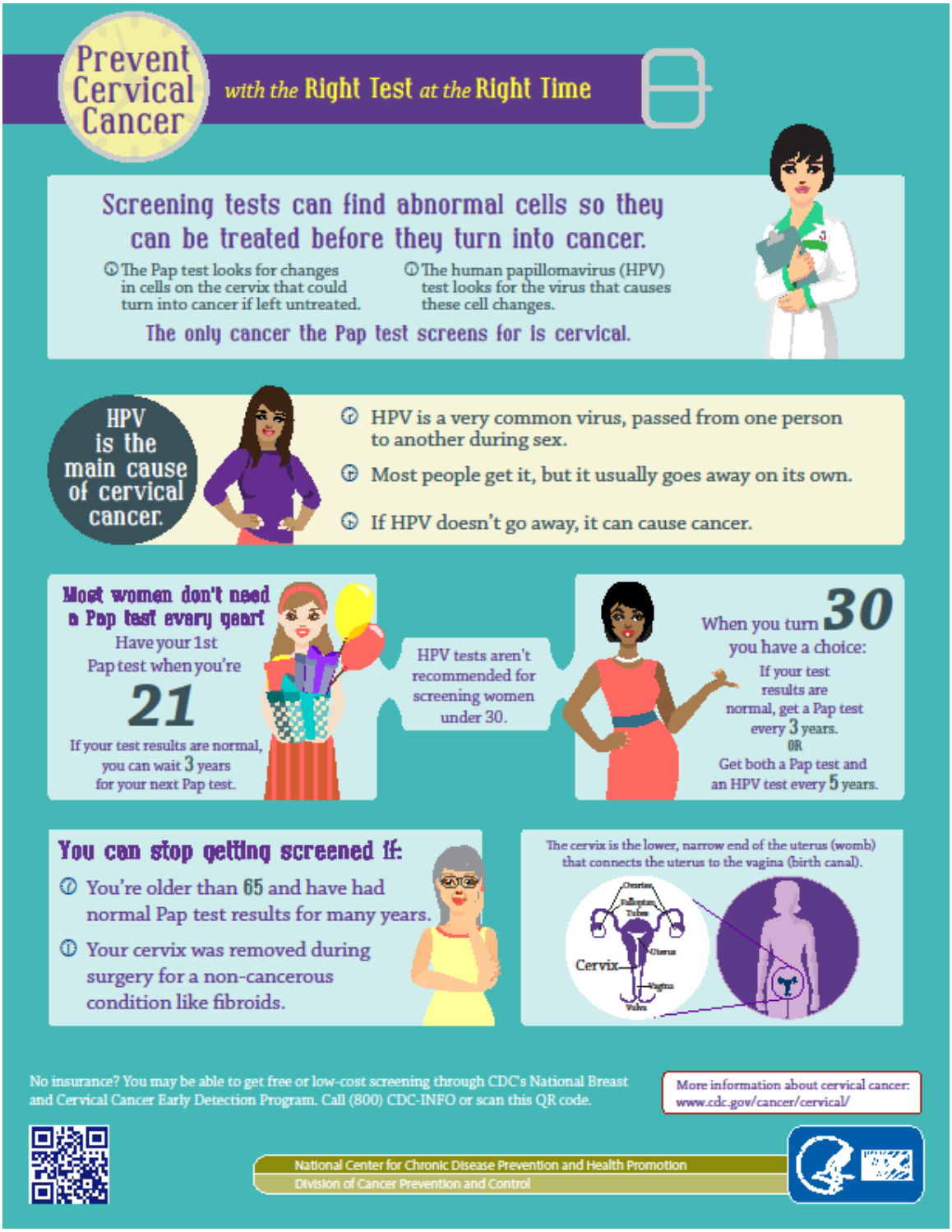
_____

h. No barriers

Thank you for participating in this research study.

Appendix B

Centers for Disease Control and Prevention: Prevent Cervical Cancer Infographic



Reducing Potential Barriers to Cervical Cancer Screening

Appendix C

Baldrige Organizational Profile: City of Milwaukee Health Department

P.1a Organizational Environment	
a (1)	**Product/Service Offerings.** • Birth and Death Certificates • Clinics • Community Healthcare Access • Emergency Community Resource Contacts • Inspections and Licensing • Laboratory • Lead Poisoning Prevention • Men's Health Center • Sexually Transmitted Disease (STD) and human immunodeficiency virus (HIV) Program • Tuberculosis (TB)/Refugee Program • Teen Health • Variances and Approvals • Violence Prevention • Wisconsin Center for Health Equity • Women and Child Health
a(2)	**Mission and Vision.** • **Mission:** The mission of the MHD is to ensure that services are available to enhance the health of individuals and families, promote healthy neighborhoods, and safeguard the health of the Milwaukee community. • **Vision:** o The MHD is a leader in assuring that Milwaukee is the healthiest city in the nation, with the best personal health care, environmental health, and population-based preventive services possible. o Because the health of the individual and the health of the community are interdependent, we work in partnership with private providers and others to guarantee access to health care, to safeguard the environment, and to provide up-to-date health information using the latest available technology to monitor and assess community health. o The MHD in the forefront of public health and strives to meet the changing needs of our community. Our services respond directly to these needs and are delivered in a way that is fully respectful of the rights and dignity of each client in order to promote a partnership with them to achieve and maintain health. o Our ability to serve our clients successfully results from individual and team efforts of the entire staff, who recognize and value each member's unique skills and diversity. • **Values:** o **Quality:** We seek continuous improvement in our community's health through data-driven outcome-based approaches with ongoing evaluation, prioritization, improvement, and follow-up. o **Scientific and Technical Excellence:** We uphold the highest standards of scientific and technical excellence. We emphasize and provide for training and staff development to maintain excellent performance. All employees demonstrate competence in their work, whether their field is science-based, customer service, or any other area. o **Serving the Public:** We are dedicated to meeting the needs of the community in a positive, coordinated, and professional manner. The traits and behaviors of the men and women of our organization demonstrate their commitment to working together for the public good. o **Valuing Others:** We respect the rights and dignity of all persons in our workplace and in our community. We advocate for social justice and celebrate diversity. o **Visionary Leadership:** We strengthen the community through innovation, creativity, strategic thinking, and visionary leadership. We are a learning community where everyone thinks proactively, learns continuously, and passes on learning to others. We are committed to building leaders at every level of the organization.
a(3)	**Workforce Profile.** • Zeidler Municipal Building = 132 staff • Southside Health Center = 66 staff • Keenan Health Center = 40 staff • Northwest Health Center = 31 staff
a(4)	**Assets.** • Total revenues (2011) = $27,233,813 • Total expenditures (2011) = $25,496,428 • SurvNet county-wide communicable disease surveillance system

a(5)	**Regulatory Requirements.** • Federal laws and regulations • State laws and regulations • County laws and regulations • Municipal laws and regulations
P.1b Organizational Relationships	

b(1)	**Organization Structure.**
	• There are four multidisciplinary divisions within the Health Department dedicated to accomplishing specific health outcomes by assessing public health needs, developing healthy public health policy, assuring that public, non-profit, and private sectors collaborate to advance initiatives, and providing direct services, when needed.
	• Current Health Department Divisions are as follows:
	  ○ Disease Control & Environmental Health
	  ○ Family & Community Health
	  ○ Health Laboratories
	  ○ Consumer Environmental Health

b(2)	**Customers and Stakeholders.** • Residents of Milwaukee, Wisconsin • Employees of the Milwaukee Health Department • Suppliers and Partners
b(3)	**Suppliers and Partners.** • University of Wisconsin-Milwaukee (UW-Milwaukee) Joseph J. Zilber School of Public Health • Milwaukee Public Schools • Diverse & Resilient • AIDS Resource Center of Wisconsin • Medical College of WI • Center for AIDS Intervention and Research • University of Wisconsin-Madison (UW-Madison) • U.S. Department of Homeland Security (FEMA) • USDA WIC Farmer's Market Nutrition Program • Milwaukee Health Services, Inc.
P.2a Organizational Situation	
a(1)	**Competitive Position.** • The City of Milwaukee accepted the "Healthy Communities Challenge," a competition among 20 communities across the U.S. that have high numbers or percentages of Marketplace-eligible uninsured, and have community collaborations willing to make a meaningful impact.
a(2)	**Competitiveness Changes.** • Affordable Care Act • Private insurance

a(3)	**Comparative Data.**
	• 2010 Census Bureau Estimate: 594,833
	• Unemployment Rate (Milwaukee-Waukesha-West Allis, Wisconsin)
	  ○ December 2016 = 3.9%
	  ○ January 2017 = 4.2%
	  ○ February 2017 = 4.5%
	  ○ March 2017 = 3.7%
	  ○ April 2017 = 3.2%

P.2b Strategic Context.	
	• **Not evident**
P.2c) Performance Improvement System	
	• Laboratory System Improvement Program (L-SIP) is a program of the Association of Public Health Laboratories, an organization that represents the interests of public health laboratories nationally and internationally.

Reducing Potential Barriers to Cervical Cancer Screening

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Baldrige Scorebook: City of Milwaukee Health Department

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Baldrige Scorebook – Process Items (Categories 1 – 6)

Examiner/Team Name: Donna M. Gillespie **Date: August 15, 2017**
Organization: City of Milwaukee Health Department
Milwaukee, Wisconsin
Seven Baldrige Criteria for Performance Excellence Categories:

- **Category 1, Leadership**
- **Category 2, Strategy**
- **Category 3, Customers**
- **Category 4, Measurement, Analysis, and Knowledge Management**
- **Category 5, Workforce**
- **Category 6, Operations**
- **Category 7, Results**

Key Business and Strategic Factors, City of Milwaukee Health Department:

- **Mission: The mission of the City of Milwaukee Health Department is to improve and protect the health of individuals, families, and the community.**
- **Vision: The vision of the City of Milwaukee Health Department is that Milwaukee becomes the healthiest city in the nation through bold leadership, effective partnerships, and innovation in thinking and practice.**
- **Values:**
  - **Excellence – Our activities will be primarily evidenced-based and will be delivered with the highest quality.**
  - **Equity – Our activities will address root causes of poor health outcomes and health disparities.**
  - **Integrity – We will be honest, respectful, and ethical in all of our activities and interactions.**
  - **Impact – We will measure our success by achieving significant, sustainable improvements in health outcomes for all.**

Key Themes, City of Milwaukee Health Department:

- **Category 1, Leadership: Strengths in governance and societal responsibilities, Opportunities for Improvement in leadership.**
- **Category 2, Strategy: Strengths in strategy development, Opportunities for Improvement in strategy implementation.**
- **Category 3, Customers: Strengths in capturing voice of the customer, Opportunities for Improvement in customer engagement.**
- **Category 4, Measurement, Analysis, and Knowledge Management: Strengths in data and information collection and benchmarking, Opportunities for Improvement in data and information analysis to improve organizational performance.**
- **Category 5, Workforce: Strengths in workforce capacity, Opportunities for Improvement in workforce engagement.**
- **Category 6, Operations: Strengths in work processes, Opportunities for Improvement in operational effectiveness.**

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Baldrige Scorebook: City of Milwaukee Health Department

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Strengths

+ or ++	Category Item Number	Key Examiner Observations: Summary of Process/Evidence Responsive to Criteria Requirement (List Each Key Process or Cluster of Methods Separately)	A L	D I
+	1.1.a(1)	The City of Milwaukee Health Department (MHD) is a leader in assuring that Milwaukee is the healthiest city in the nation, with the best personal health care, environmental health, and population-based preventive services possible. The MHD is in the forefront of public health and strives to meet the changing needs of the community.	A	
+	1.1.b(1)	The ability of the MHD to serve clients successfully results from individual and team efforts of the entire staff, who recognize and value each member's unique skills and diversity.		D
+	1.2.a(1)	The MHD is led by the Commissioner of Health whose broad authority is established under Chapter 59 of the Milwaukee Code of Ordinances and by Chapter 252 and related chapters of the Wisconsin State statutes.	A	
+	1.2.b(1)	Through implementation of evidence-based programs and meticulous data collection, the MHD capitalizes on its innate ability to quickly respond to illnesses that threaten public health.		D
+	1.2.b(2)	MHD services respond directly to these needs and are delivered in a way which is fully respectful of the rights and dignity of each client in order to promote a partnership with them to achieve and maintain health.		D
+	1.2.c(1)	Because the health of the individual and health of the community are interdependent, the MHD works in partnership with private providers and others to guarantee access to health care, to safeguard the environment, and to provide up-to-date health information using the latest available technology to monitor and assess community health.		I
+	1.2.c(2)	Through the work of the MHD, the city has experienced significant improvements in childhood immunization rates, birth outcomes among high-risk pregnant women, and the number of children with high blood lead level readings.		I
+	2.1.a(1)	The Community Health Assessment (CHA) process involved the collection and analysis of a large range of primary and secondary data, including demographics, socioeconomic and health statistics, environmental data, and primary data such as personal self-reports and public opinion collected by survey, focus groups, or other methods.	L	
+	2.1.a(2)	The MHD seeks to investigate the current health status of the community, describe changes since the previous assessment, and identify opportunities to improve the health of the community.	A	
+	2.2.a(3)	As of 2016, the MHD reported a total operating budget of $13,619,554 and a total of 241.83 full-time employees.	A	
+	3.1.a(1)	Issues in the Milwaukee community were identified through a stakeholder meeting, focus groups, phone survey and key informant interviews.	L	
+	3.2.a(1)	The next step is to develop a community health improvement plan. The community health improvements planning process uses CHA data to select priority issues upon which to focus, develop and implement strategies for action, outline the responsibilities of a variety of stakeholders in addressing these issues, and		D

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Baldrige Scorebook: City of Milwaukee Health Department

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		establish accountability to ensure measurable health improvement.	
+	3.2.a(3)	The majority of Milwaukee city residents are between the ages of 5 and 34 years. Milwaukee continues to boast a diverse population with approximately 53% of residents identifying as Black, Asian, or of another race other than white.	A
++	4.1.a(1)	The MHD selected The Wisconsin Way Framework which is a shared framework for community health needs assessment and community health improvement planning developed by the Community Health Improvement Processes and Plans (CHIPP) Infrastructure Improvement Project of the Wisconsin Association of Local Health Departments and Boards (WALHDAB).	A
++	4.1.a(2)	The MHD used data and information from National Institutes of Health (NIH), National Cancer Institute (NCI), Surveillance, Epidemiology, and End Results (SEER) Program and the U.S. Department of Health & Human Services (HHS), Office of Disease Prevention and Health Promotion (ODPHP), Healthy People 2020 program.	A
+	4.1.a(3)	The MHD commissioned an independent firm, JKV Research, LLC to conduct the community survey and capture voice of the customer.	A
+	5.1.a(1)	The MHD has 4.6 full-time equivalents per 10,000 population compared to 3.2 per 10,000 population for local health departments across the State of Wisconsin.	A
+	5.1.a(4)	The MHD strives to achieve a culture of continuous quality improvement in order to enhance department capacity, improve department processes, and achieve measurable improvement in health.	A
+	5.2.b(1)	The CHA determined baseline measures for key health outcomes and key health determinants. A 2016 community-wide survey of more than 3,000 people who live and/or work in the city of Milwaukee along with a photo campaign, key stakeholder interviews, focus groups and meetings helped identify proposed Priority Action Areas. Action Teams were convened in 2017 to review the proposed Priority Action Areas, identify existing work in these areas, and develop shared goals and action steps.	L
+	6.1.a(1)	Operationally, the department is organized into eight functional units or divisions: Business Administration, Consumer Environmental Health, Disease Control and Prevention, Family and Community Health, Laboratory Services, Medical and Academic Affairs, Planning and Policy, and Violence Prevention. Family and Community Health promotes, initiates, and leads programs that seek to reduce racial and ethnic disparities and address health issues faced by individuals throughout their life cycles by supporting healthy birth outcomes and healthy child development, improving sexual and reproductive health, and encouraging healthy behaviors and health care access for all.	A
+	6.1.a(2)	The MHD provides 10 out 10 of the most commonly provided services offered by local health departments nationally: Monitor health status to identify and solve community health problems; diagnose and investigate health problems and health hazards in the community; inform, educate, and empower people about health issues; mobilize community partnerships and action to identify and solve health problems; develop policies and plans that support individual and community health efforts; enforce laws and regulations that protect health and ensure safety; link people to needed personal health services and assure the provision of health care when otherwise unavailable; assure competent public and personal health care	A

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		workforce; evaluate effectiveness, accessibility, and quality of personal and population-based health services; research for new insights and innovative solutions to health problems.	
+	6.2.c(2)	The strategic aim of Disease Control and Prevention is to promote, initiate and lead innovation in public health emergency preparedness along with the prevention and control of reportable and emerging infectious diseases and environmental health threats within the city of Milwaukee and in partnership with the community.	A

Opportunities for Improvement

- or --	Category Item Number	Key Examiner Observations: Summary of Process/Evidence Gaps; Unclear or Non-Responsive to Criteria Requirement (List Each Key Process or Cluster of Methods Separately)	A L	D I
-	1.1.a(2)	The mission, vision, and values (MVV) states the MHD will be honest, respectful, and ethical in all of its activities and interactions. It is not clear how senior leaders demonstrate their commitment to legal and ethical behavior.		D
-	1.1.a(3)	The MHD will measure its success by achieving significant, sustainable improvements in health outcomes for all. It is not clear how senior leaders will build an organization that is successful in the future.		D
-	1.1.b(2)	The Community Health Improvement Planning (CHIP) Process will identify three to five priority areas for action. It is not clear how senior leaders will use these areas for action to achieve the organization's mission.		D
-	1.2.a(2)	It is not evident how the MHD evaluates the performance of senior leaders, including the chief executive, and governance board.	A	
-	1.2.b(1)	It is not evident how the MHD addresses adverse societal impacts of its products and operations.	A	
-	2.1.a(1)	According to the MHD, long-term systematic change is only possible when the community and its assets are part of the solution. The longer-term planning horizons of the MHD are not clear.	A	
-	2.1.a(2)	The vision of the City of Milwaukee Health Department includes that Milwaukee becomes the healthiest city in the nation through innovation in thinking and practice. It is not clear how the MHD strategy development process stimulates and incorporates innovation.		D
-	2.2.a(3)	America's Health Rankings identified low State-level public health funding as one of Wisconsin's challenges. It is not clear how the MHD allocates its limited financial resources.	A	
-	3.1.a(1)	It is not evident how the MHD uses social media and web-based technologies to listen to customers.	A	
-	3.1.a(2)	The MHD hosted a community meeting to bring together diverse agencies. It is not clear how the MHD listens to potential customers to obtain actionable information.		D
-	3.2.b(1)	Among Milwaukee's population age 5 and older, 8.6% are limited English proficient (LEP), equal to the national rate, but higher than the statewide rate of 3.2%. The inability to speak or read English well creates barriers to health care access, provider communications, and health literacy. It is not clear how the MHD addresses the LEP population in Milwaukee.	A	

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--	4.1.a(2)	Sexually transmitted infections (STIs) are associated with a significantly increased risk of morbidity and mortality, including increased risk of cervical cancer (Appendix D). The MHD identified sexually transmitted infections (STIs) as one key public health issue in Milwaukee. Comparative data and information for STIs included the following races: White, African American, Multiple Races, Other, and Unknown (Appendix C). It is not clear how the selected comparative data effectively supports operational decision making with regard to Hmong American residents of Milwaukee. United States cervical cancer incidence rate data for the Asian/Pacific Islander race group was presented in Appendix E. Neither State of Wisconsin nor Milwaukee County, Wisconsin cervical cancer incidence rate data for the Asian/Pacific Islander race group were presented. It is not clear how the selected comparative data effectively supports operational decision making with regard to Hmong American residents of Milwaukee. The Milwaukee City Community Health Survey Report—2015 prepared by JKV Research, LLC identified White, African American, and Other race groups in Milwaukee. It is not clear how the selected comparative data effectively supports operational decision making with regard to Hmong American residents of Milwaukee.	A
-	4.1.a(3)	Survey respondents noted the need for more culturally competent providers and culturally appropriate education, services, and programs to address top health concerns. Specific populations mentioned included Hmong Americans in Milwaukee (Appendix E). It is not clear how this voice of the customer data was used to build a more customer-focused culture with regard to Hmong American residents of Milwaukee.	D
-	4.2.b(1)	It is not evident how electronic and other data and information is managed to ensure their accuracy and validity, integrity and reliability, and currency.	A
-	5.1.a(1)	In 2015, forty-one key informants (providers, policy-makers, and other local experts and community members) suggested expanding access to health care services in Milwaukee County by adding staff. It is not clear how the MHD assesses the staffing levels it needs.	A
-	5.2.a(4)	It is not evident how the MHD workforce performance management system supports high performance and workforce engagement.	A
-	5.2.b(1)	Thirty-one of forty-one key informants ranked mental health as a top five health priority in Milwaukee County and identified an insufficient pediatric mental health workforce as a significant barrier. It is not clear how the MHD learning and development system addressed the need for a pediatric mental health workforce.	A
--	6.2.a	Trust for America's Health typically ranks Wisconsin's State public health spending in the bottom of all states in the nation in terms of state-level investments in public health. It is not clear how the MHD balances the need for cost control with the needs of its customers. According to the U.S. Census Bureau American Community Survey, a total of 598,078 people live in the	A

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		96.12 square-mile municipal boundaries of the city of Milwaukee. Per capita total investments in public health programs and services for the MHD are $41.28 of which $21.01 are from taxes. A 2013 national survey of local health departments conducted by the National Association of County and City Health Officials (NAACHO) found that health departments serving populations of 500,000 to 1 million persons had an average per capita investment of $78. It is not clear how the MHD balances the need for cost control with the needs of its customers.	
-	6.2.b	It is not evident how the MHD manages its supply chain.	A
-	6.2.c(1)	It is not evident how the MHD provides a safe operating environment.	A

Item Score Range:

- **Item 1.1 = 10%, Item 1.2 = 30%**
- **Item 2.1 = 20%, Item 2.2 = 10%**
- **Item 3.1 = 20%, Item 3.2 = 20%,**
- **Item 4.1 = 20%, Item 4.2 = 20%**
- **Item 5.1 = 20%, Item 5.2 = 20%**
- **Item 6.1 = 20%, Item 6.2 = 10%**

Process Scoring Guidelines

- **10% & 20%: The beginning of a systematic approach to the basic requirements of the item is evident (A). The approach is in the early stages of deployment in most areas or work units, inhibiting progress in achieving the basic requirements of the item (D). Early stages of a transition from reacting to problems to a general improvement orientation are evident (L). The approach is aligned with other areas or work units largely through joint problem solving (I).**
- **30% & 40%: An effective, systematic approach, responsive to the basic requirements of the item, is evident (A). The approach is deployed, although some areas or work units are in early stages of deployment (D). The beginning of a systematic approach to evaluation and improvement of key processes is evident (L). The approach is in the early stages of alignment with the basic organizational needs identified in response to the organizational profile and other process items (I).**

Definitions of Process Factors:

- **Approach (A) = Methods used to carry out the process, the appropriateness of these methods to the item requirements and your operating environment, the effectiveness of your use of the methods, and the degree to which the approach is repeatable and based on reliable data and information (i.e., systematic).**
- **Deployment (D) = The extent to which your approach addresses item requirements that are relevant and important to your organization, your approach is applied consistently, and your approach is used by all appropriate work units.**

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- **Learning (L) = The refinement of your approach through cycles of evaluation and improvement, the encouragement of breakthrough change to your approach through innovation, and the sharing of refinements and innovations with other relevant work units and processes in your organization.**
- **Integration (I) = The extent to which your approach is aligned with the organizational needs identified in the Organizational Profile and other process items; your measures, information, and improvement systems are complementary across processes and work units; and your plans, processes, results, analyses, learning, and actions are harmonized across processes and work units to support organization-wide goals.**

Definitions of Scorebook Symbols:

- **Double Plus (++) Process/Result presented is judged to be a significant Strength; strong linkage to Key Business and Strategic Factors; clear linkage to other Key Processes; could be a "best practice."**
- **Single Plus (+) Process/Result presented is considered to be a Strength; clear linkage to Key Business and Strategic Factors; clear linkage to other Key Processes.**
- **Double Minus (--) Process/Result not presented in response to the Criteria or as presented represent a significant Opportunity for Improvement; failure to address this requirement is likely to have an adverse impact on Key Business and Strategic Factors and other Key Processes.**
- **Single Minus (-) Process/Result presented is considered to be an Opportunity for Improvement; gaps in linkage to Key Business and Strategic Factors are evident; gaps in information and/or data needed by other Key Processes exist.**

(Complete a Separate Summary of Strengths, OFI's, and Score Range for Each Item)

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Baldrige Scorebook: City of Milwaukee Health Department

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Scorebook – Results Items (Category 7)

Examiner/Team Name: Donna M. Gillespie **Date: August 15, 2017**
Organization: City of Milwaukee Health Department
Milwaukee, Wisconsin
Seven Baldrige Criteria for Performance Excellence Categories:

- **Category 1, Leadership**
- **Category 2, Strategy**
- **Category 3, Customers**
- **Category 4, Measurement, Analysis, and Knowledge Management**
- **Category 5, Workforce**
- **Category 6, Operations**
- **Category 7, Results**

Key Business and Strategic Factors, City of Milwaukee Health Department:

- **Mission: The mission of the City of Milwaukee Health Department is to improve and protect the health of individuals, families, and the community.**
- **Vision: The vision of the City of Milwaukee Health Department is that Milwaukee becomes the healthiest city in the nation through bold leadership, effective partnerships, and innovation in thinking and practice.**
- **Values:**
  - **Excellence – Our activities will be primarily evidenced-based and will be delivered with the highest quality.**
  - **Equity – Our activities will address root causes of poor health outcomes and health disparities.**
  - **Integrity – We will be honest, respectful, and ethical in all of our activities and interactions.**
  - **Impact – We will measure our success by achieving significant, sustainable improvements in health outcomes for all.**

Key Themes, City of Milwaukee Health Department

- **Category 7, Results: Strengths in governance, Opportunities for Improvement in supply chain and workforce performance.**

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Strengths

+ or ++	Category Item Number	Key Examiner Observations: Summary of Performance Results Evidence Responsive to Criteria Requirement (List Each Key Process or Cluster of Methods Separately)	Le T C I
+	7.1.a	Trends are evaluated from the most recent 2-3 measurements (the most recent 3 are used if available). If the most recent measurements show mainly improvement in the indicator, a green plus sign (+) is shown under "trend." Conversely, if the most recent measurements show movement away from the desired outcome a red minus sign (-) is presented. A gray double arrow (↔) is displayed under "trend" if the recent measurements do not show consistent or notable movement in a single direction.	T
++	7.2.a(2)	Three perspectives of priority issues were identified (see Figure 6). Alcohol and drug use, chronic disease, mental health, and violence (Appendix B) were identified by the Milwaukee community through a stakeholder meeting, focus groups, phone survey and key informant interviews. Childhood lead poisoning prevention, healthy birth outcomes (infant mortality, low birthweight, pre-term birth, and stillbirth), sexually transmitted diseases, and teen pregnancy prevention (Appendix C) were identified by the MHD. Air pollution, alcohol use, chronic disease, education, employment, housing, infant mortality, mental health, obesity, poverty, sexually transmitted diseases, teen pregnancy, uninsured, unintentional injury, and violence were identified from national sources.	Le C
+	7.5.a(1)	In 2011, the MHD reported total revenue of $27,233,813 and total expenditures of 25,496,428. As of 2016, the MHD reported a total operating budget of $13,619,554.	Le

Opportunities for Improvement

- or --	Category Item Number	Key Examiner Observations: Summary of Performance Results Evidence/Gaps; Unclear or Non-Responsive to Criteria Requirement (List Each Key Process or Cluster of Methods Separately)	Le T C I
-	7.1.c	Results for key measures or indicators cover health factors and health outcomes. Results for supply chain performance are not evident.	Le
--	7.3.a(1-4)	Workforce-focused performance results related to workforce capability, climate, engagement, and development are not evident.	Le
-	7.4.a(1)	Results for senior leaders' communication and engagement with the workforce are not evident.	Le

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Item Score Range:

- **Item 7.1 = 10%, Item 7.2 = 10%, Item 7.3 = 5%, Item 7.4 = 5%, Item 7.5 = 10%**

Results Scoring Guidelines:

- **0% or 5%: There are no organizational performance results, or the results reported are poor (Le). Trend data either are not reported or show mainly adverse trends (T). Comparative information is not reported (C). Results are not reported for any areas of importance to the accomplishment of your organization's mission (I).**
- **10%, 15%, 20%, or 25%: A few organizational performance results are reported, responsive to the basic requirements of the item, and early good performance levels are evident (Le). Some trend data are reported, with some adverse trends evident (T). Little or no comparative information is reported (C). Results are reported for a few areas of importance to the accomplishment of your organization's mission (I).**

Definitions of Results Factors:

- **Level (Le) = Current performance on a meaningful measurement scale.**
- **Trend (T) = Rate of performance improvement or continuation of good performance in areas of importance (i.e., the slope of data points over time).**
- **Comparison (C) Performance relative to that of other, appropriate organizations, such as competitors or organizations similar to yours, and your performance relative to industry leaders or benchmarks.**
- **Integration (I) = The extent to which your results measures (often through segmentation) address important performance requirements relating to customers, products, markets, processes, and action plans identified in your Organizational Profile and in process items; your results include valid indicators of future performance; and your results reflect harmonization across your processes and work units to support organization-wide goals.**

Definitions of Scorebook Symbols:

- **Double Plus (++) Process/Result presented is judged to be a significant Strength; strong linkage to Key Business and Strategic Factors; clear linkage to other Key Processes; could be a "best practice."**
- **Single Plus (+) Process/Result presented is considered to be a Strength; clear linkage to Key Business and Strategic Factors; clear linkage to other Key Processes.**
- **Double Minus (--) Process/Result not presented in response to the Criteria or as presented represent a significant Opportunity for Improvement; failure to address this requirement is likely to have an adverse impact on Key Business and Strategic Factors and other Key Processes.**
- **Single Minus (-) Process/Result presented is considered to be an Opportunity for Improvement; gaps in linkage to Key Business and Strategic Factors are evident; gaps in information and/or data needed by other Key Processes exist.**

(Complete a Separate Summary of Strengths, OFI's, and Score Range for Each Item)

Table 1

Test-Retest Reliability: Split-Half with Spearman-Brown Adjustment

Survey Instrument Question	Participant 1	Participant 2	Participant 3	Participant 4	Participant 5
Gender	1	1	1	1	1
Age	1	1	0	1	1
Race	1	1	1	1	1
Ethnicity	1	1	1	1	1
Residency	1	0	0	1	1
Family Members	1	1	1	1	1
Health Insurance	1	1	1	1	1
Health Insurance Plan	1	1	1	0	0
Yearly Income	1	0	1	0	0
Hysterectomy	1	1	1	1	1
History of Cancer	1	1	0	1	0
HPV Vaccination	1	0	0	0	0
Last Pap Test	1	0	0	1	0
Last HPV Test	1	1	0	1	0

Note. Same test-retest response = 1. Different test-retest response = 0. Calculated split-half test-retest reliability coefficient = 0.81. The test-retest was performed no less than 4 months apart. Forty percent of any differences in the test-retest responses were attributed to the passage of time and changes in employment.

Table 2

Wisconsin Well Woman Program Income Eligibility Guidelines

	Number of Family Members	Yearly Income (USD)
Appendix 2	1	$30,150
	2	$40,600
	3	$51,050
	4	$61,500
	5	$71,950
	6	$82,400
	7	$92,850
	8	$103,300
	For each additional family member add:	$10,450

Note. Table 2 reflects 250% of the Federal Poverty Level (effective February 1, 2017, to January 31, 2018). Adapted from Appendix 2 of the 2010 Wisconsin Well Woman Program policy and procedures manual retrieved from https://www.dhs.wisconsin.gov/wwwp/index.htm

Table 3

Survey Respondent Income Eligibility

Participant Number	Number of Family Members	Yearly Income (USD)	Low Income? (Y)es (N)o
1	5	40,601 – 51,050	Y
2	3	30,151 – 40,600	Y
3	2	40,601 – 51,050	N
4	4	30,151 – 40,600	Y
5	3	30,151 – 40,600	Y
6	5	61,501 – 71,950	Y
7	1	0 – 30,150	Y
8	7	51,051 – 61,500	Y
9	1	0 – 30,150	Y
10	8	30,151 – 40,600	Y
11	6	40,601 – 51,050	Y
12	6	I don't know	Indeterminate
13	8	40,601 – 51,050	Y
14	6	150,000	N
15	6	51,051 – 61,500	Y
16	2	0 – 30,150	Y
17	6	0 – 30,150	Y
18	7	40,601 – 51,050	Y
19	4	0 – 30,150	Y
20	More than 8	I don't know	Indeterminate
21	3	0 – 30,150	Y
22	6	0 – 30,150	Y
23	2	0 – 30,150	Y
24	2	40,601 – 51,050	N
25	2	0 – 30,150	Y
26	4	0 – 30,150	Y
27	6	I don't know	Indeterminate
28	8	I don't know	Indeterminate
29	1	0 – 30,150	Y
30	More than 8	I don't know	Indeterminate

Table 4

Key Performance Indicator: CAP Foundation Debt Ratio

CAP Foundation IRS Form 990	2012	2013	2014	2015	2016
Total assets [Part 1, Line 20]	$2,912,218	$3,464,845	$3,549,131	$2,751,058	$2,754,212
Total liabilities [Part 1, Line 21]	$ 375,558	$ 487,517	$ 560,447	$ 479,972	$ 514,028
CAP Foundation calculated debt ratio	12.90%	14.07%	15.79%	17.45%	18.66%
Benchmark[1] calculated debt ratio	5.76%	5.76%	5.76%	5.76%	5.76%
Net assets [Part 1, Line 22]	$2,536,660	$2,977,328	$2,988,684	$2,271,086	$2,240,184
Number of grants using net assets	127	149	149	114	112

[1]*Note*. The Robert Wood Johnson Foundation benchmark debt ratio was calculated using the Internal Revenue Service (IRS) Form 990 information for the fiscal year ending December 2016. Retrieved from the ProPublica website: https://projects.propublica.org/nonprofits/organizations/226029397

Figure 1

Current State Process Map of Wisconsin Well Woman Program

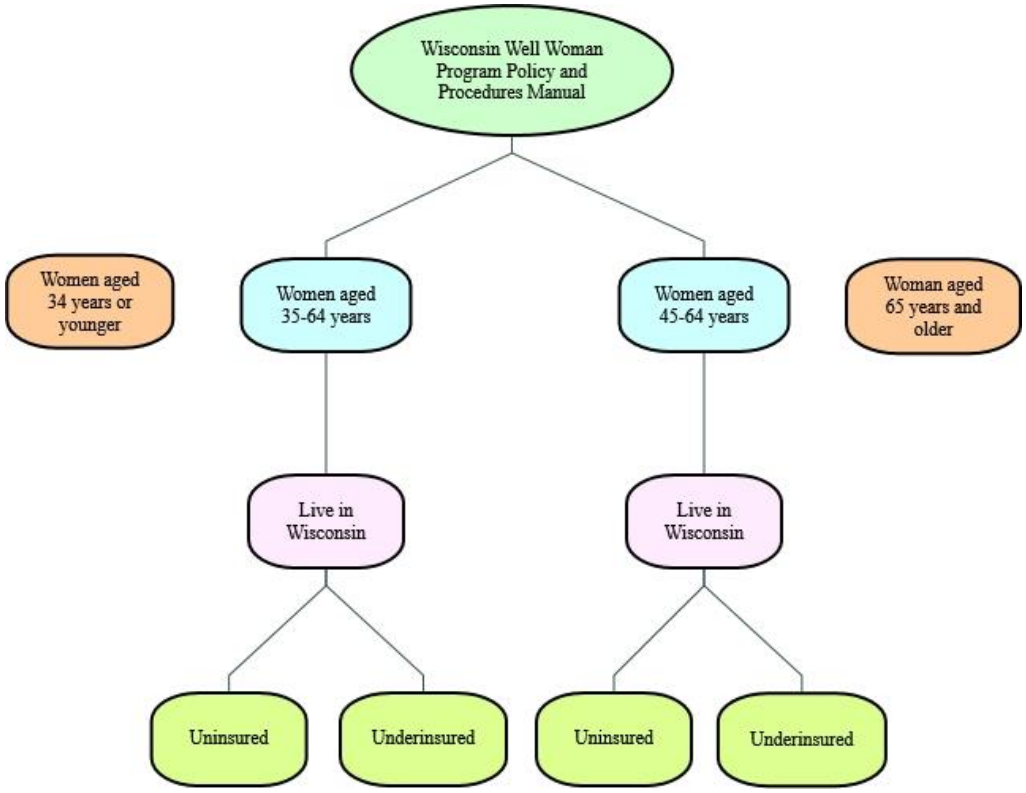

Figure 1. This figure illustrates the current state of the Wisconsin Well Woman Program.

Figure 2

Logic Model to Improve Community Preventive Services

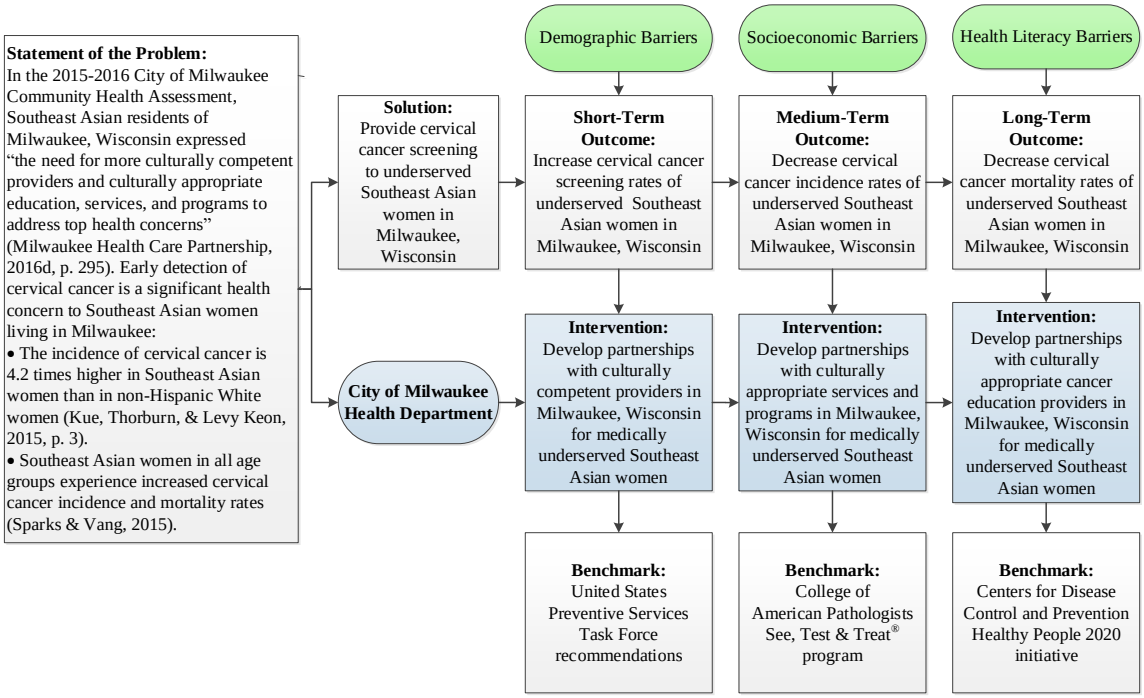

Figure 2. This figure illustrates the logic model created for this Action Research Project.

Figure 3

Define, Measure, Analyze, Design, and Verify (DMADV)

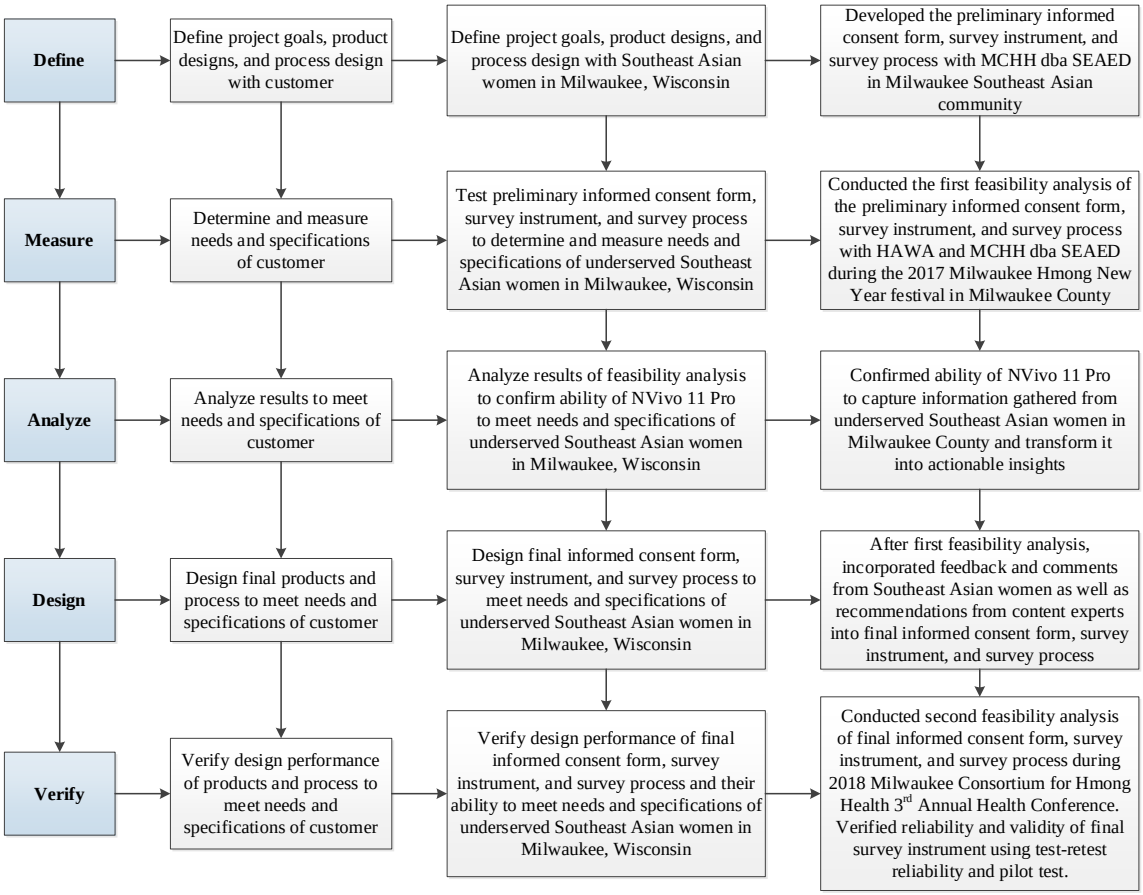

Figure 3. This figure illustrates the Design for Six Sigma DMADV approach used to develop the informed consent form, survey instrument, and survey process for this Action Research Project.

Figure 4

Distribution by Gender

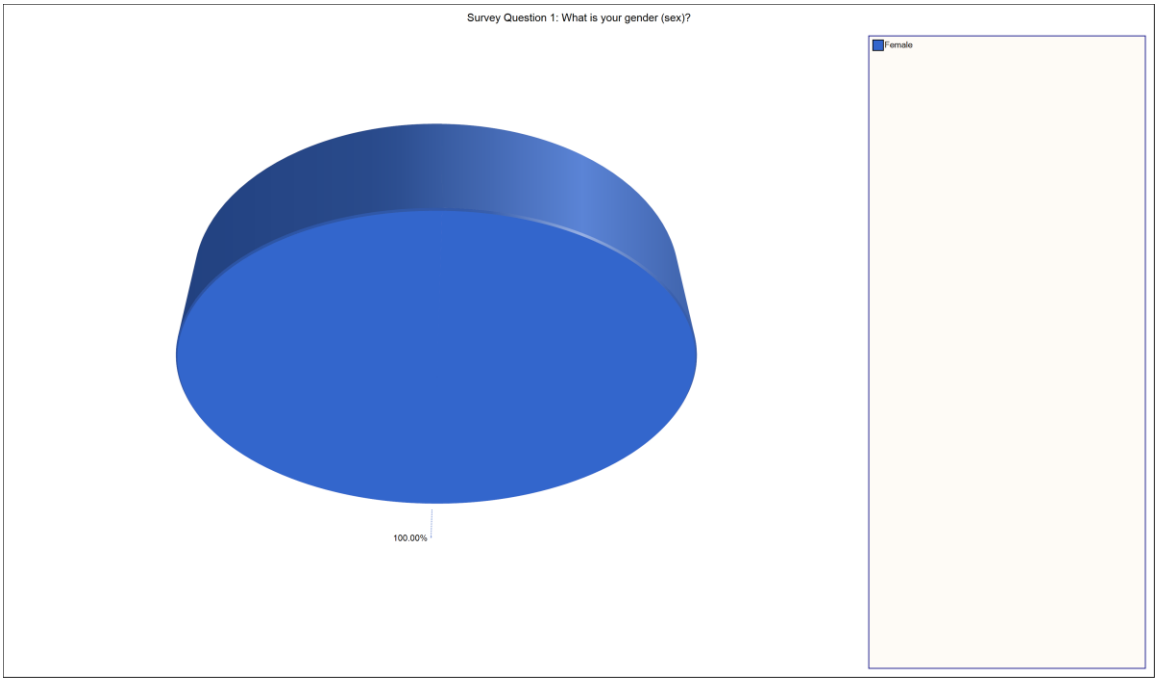

Figure 4. This figure illustrates the Project participant distribution by gender. One hundred percent of the participants selected female.

Figure 5

Distribution by Age Group

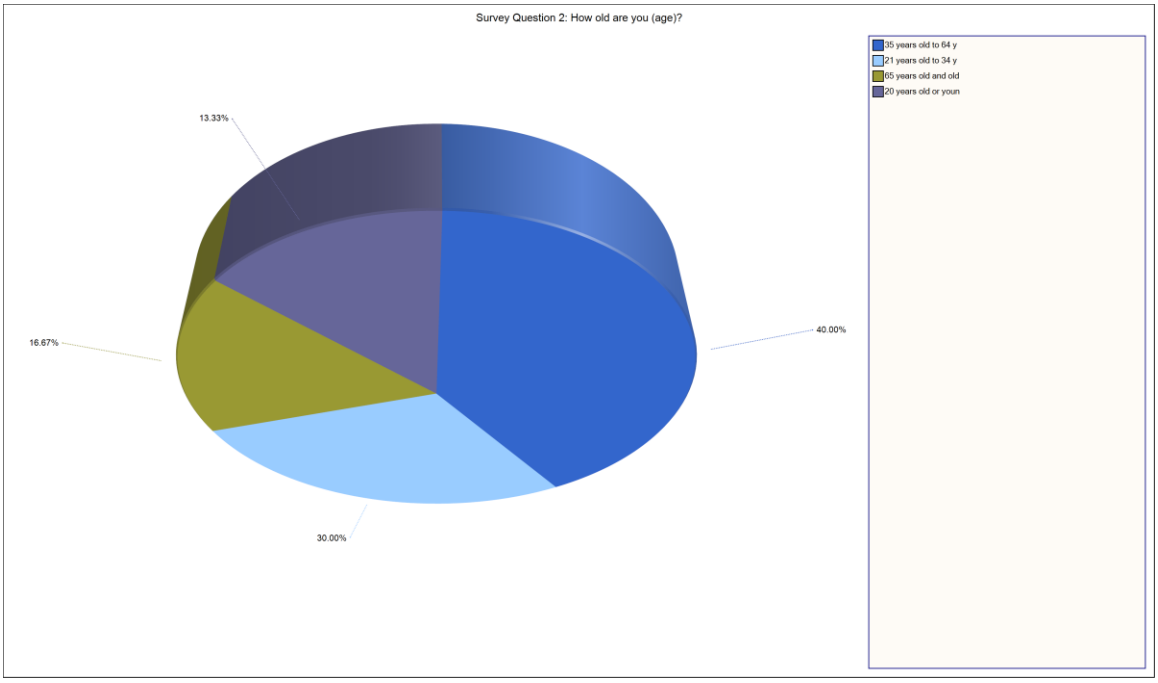

Figure 5. This figure illustrates the Project participant distribution by age group. Forty percent of the participants selected 35 years old to 64 years old.

Figure 6

Distribution by Country of Origin

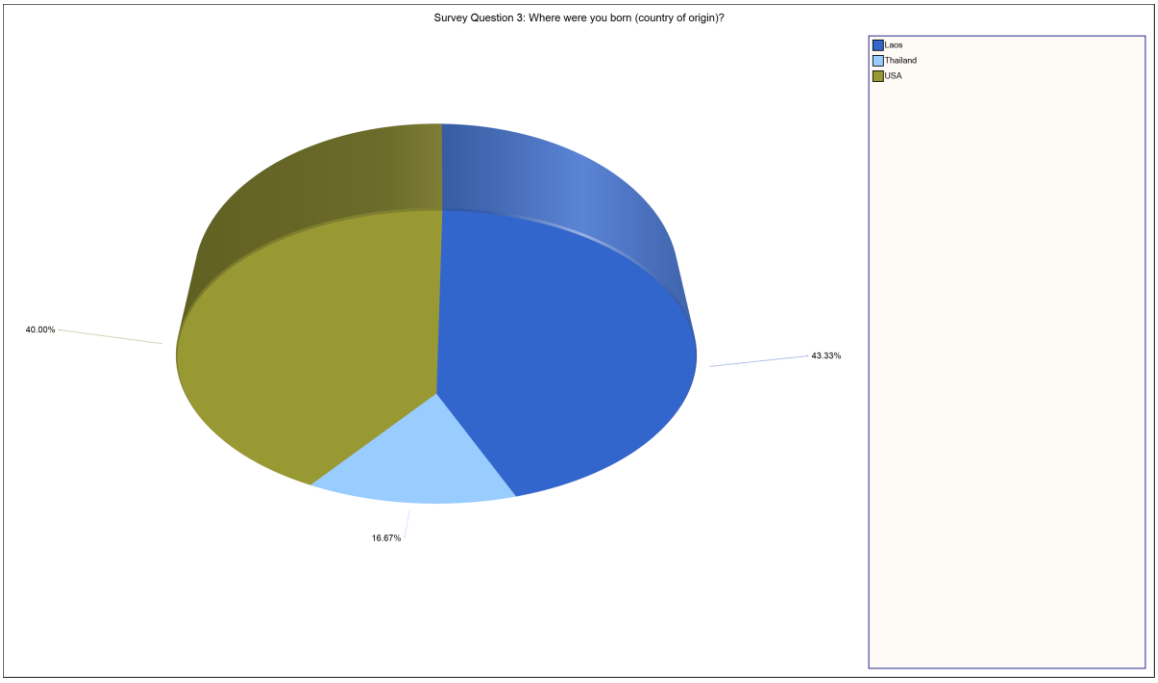

Figure 6. This figure illustrates the Project participant distribution by country of origin. Forty percent of the participants selected the United States of America (USA).

Figure 7

Distribution by Race

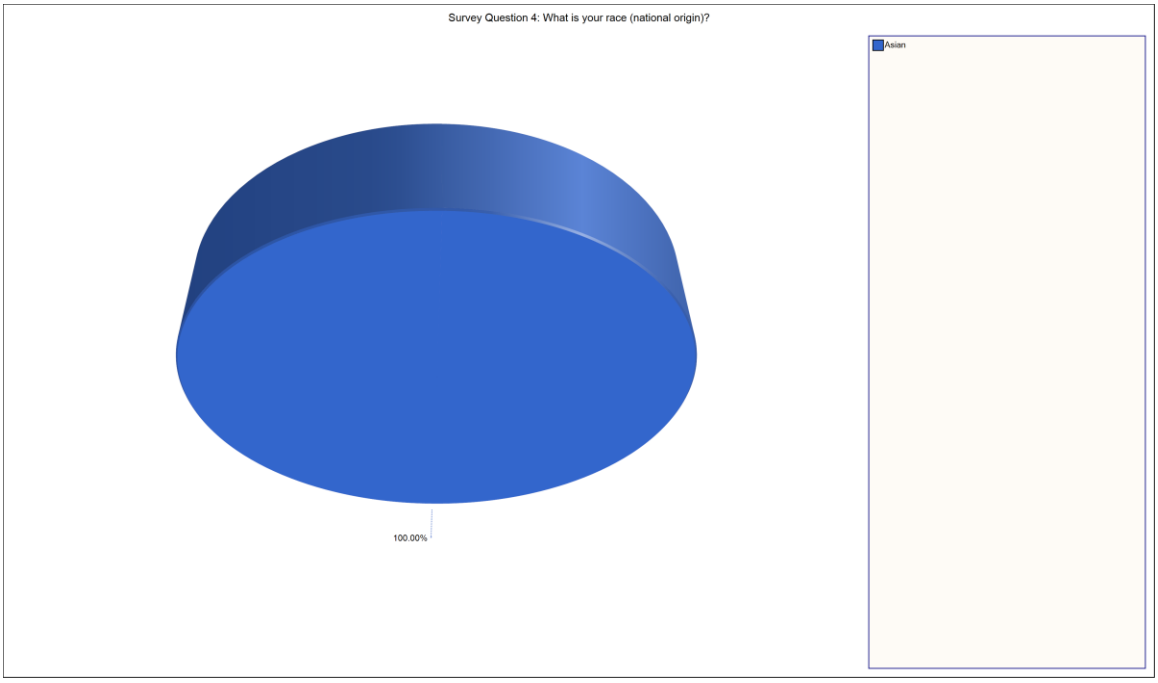

Figure 7. This figure illustrates the Project participant distribution by race. One hundred percent of the participants selected Asian.

Figure 8

Distribution by Ethnicity

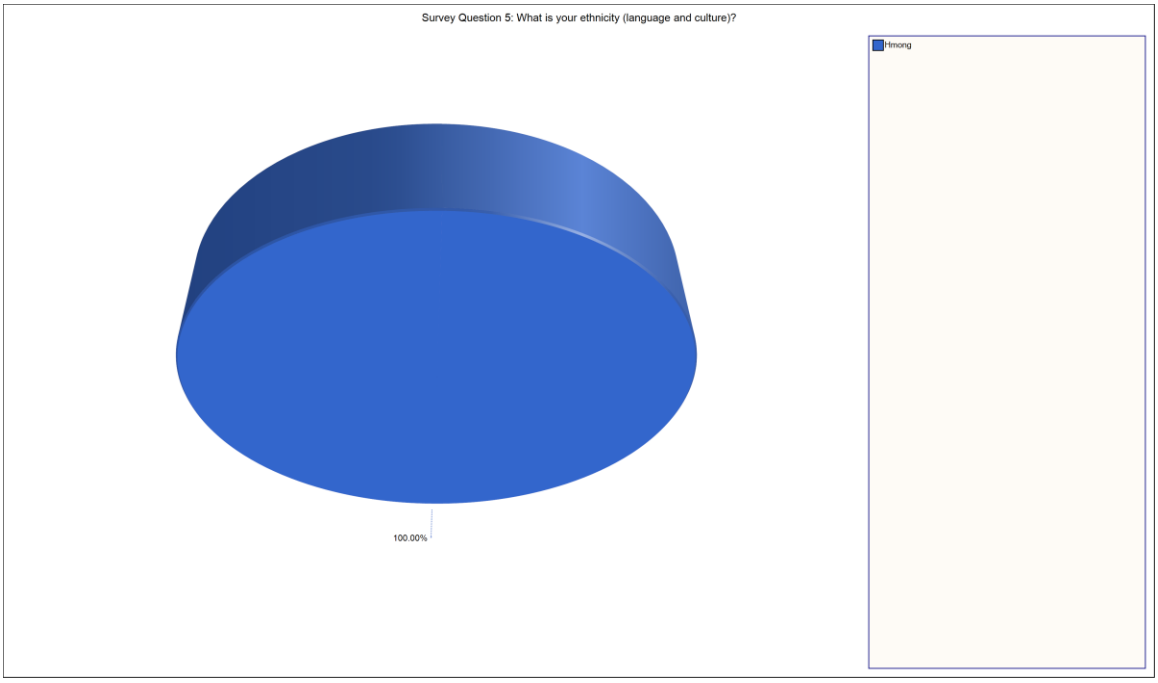

Figure 8. This figure illustrates the Project participant distribution by ethnicity. One hundred percent of the participants selected Hmong.

Figure 9

Distribution by State of Wisconsin Residency

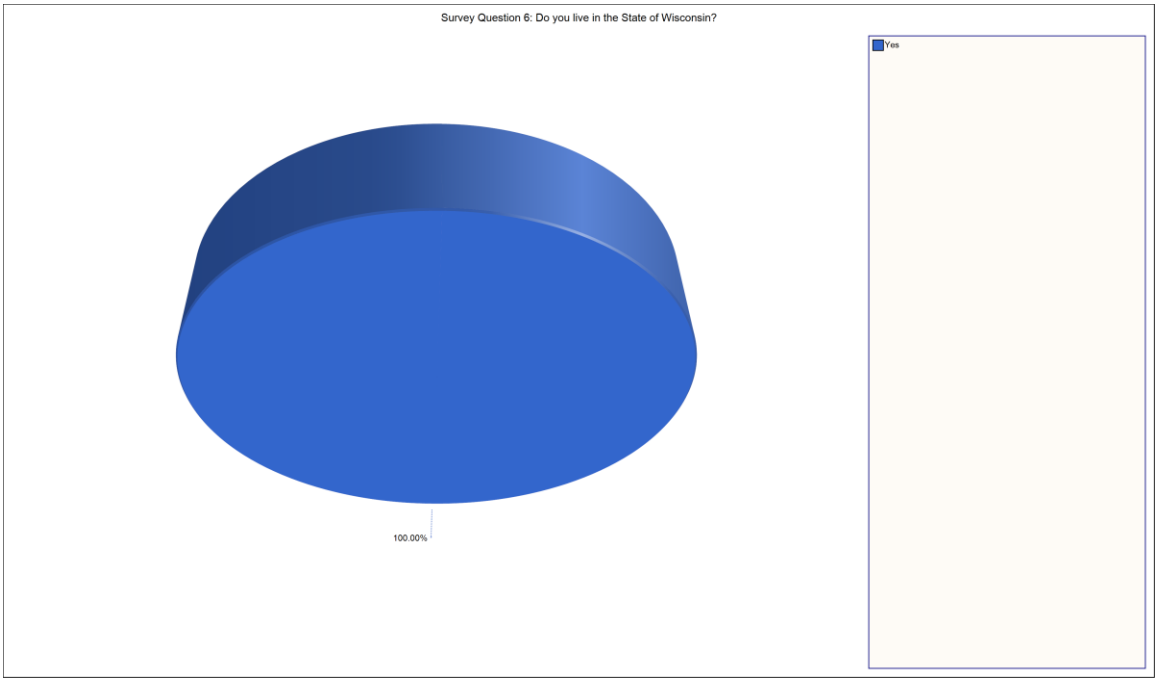

Figure 9. This figure illustrates the Project participant distribution by State of Wisconsin residency. One hundred percent of the participants lived in the State of Wisconsin.

Figure 10

Distribution by Number of Family Members

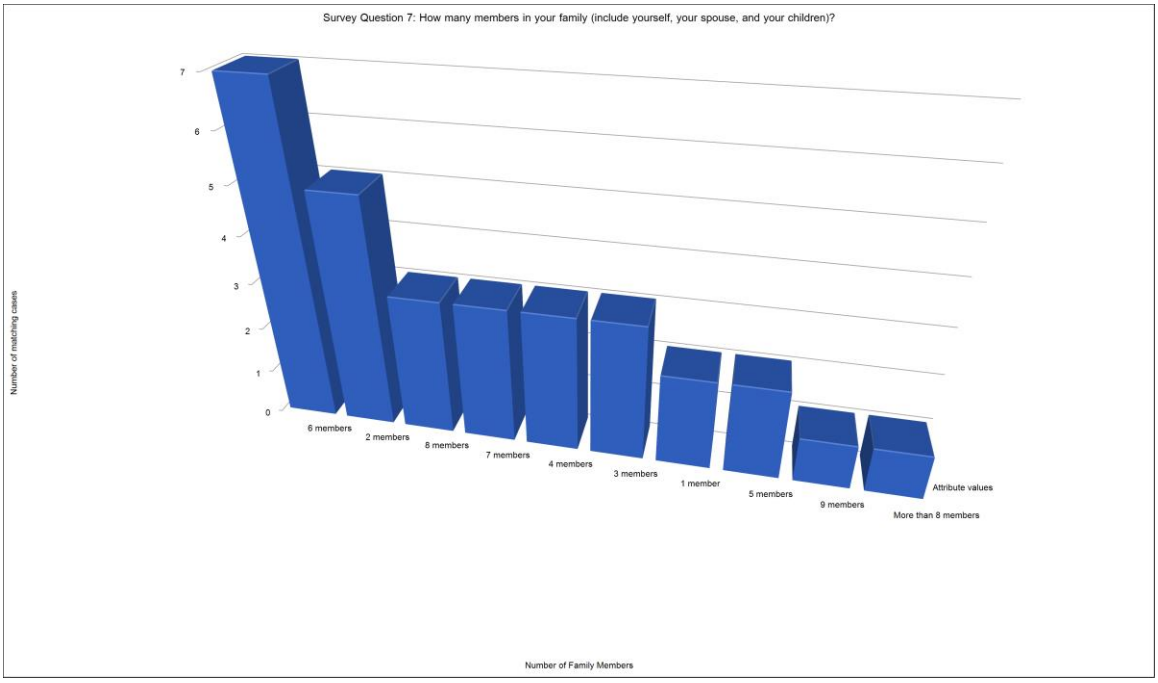

Figure 10. This figure illustrates the Project participant distribution by the number of family members. The calculated and adjusted median number of family members was four members.

Figure 11

Distribution by Health Insurance

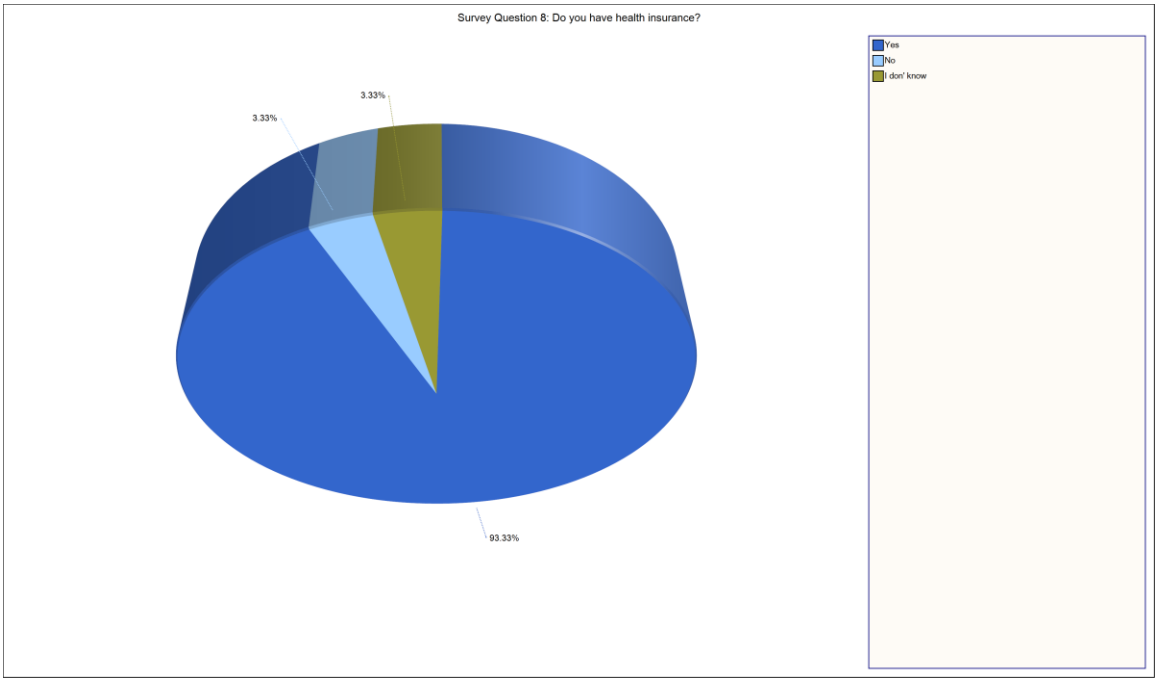

Figure 11. This figure illustrates the Project participant distribution by health insurance. More than 93% of the participants had health insurance.

Figure 12

Distribution by Health Insurance Plan

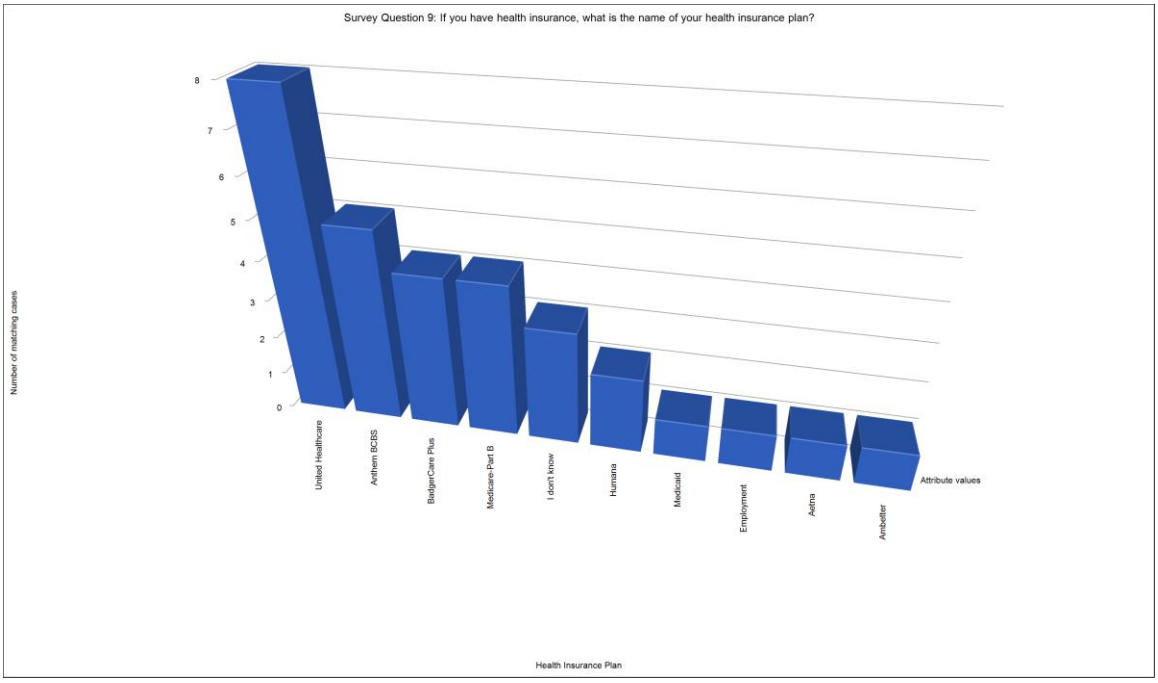

Figure 12. This figure illustrates the Project participant distribution by health insurance plan. Ninety percent of the participants named the health insurance plan. United Healthcare was the health insurance plan most often named by participants.

Figure 13

Distribution by Yearly Income (USD)

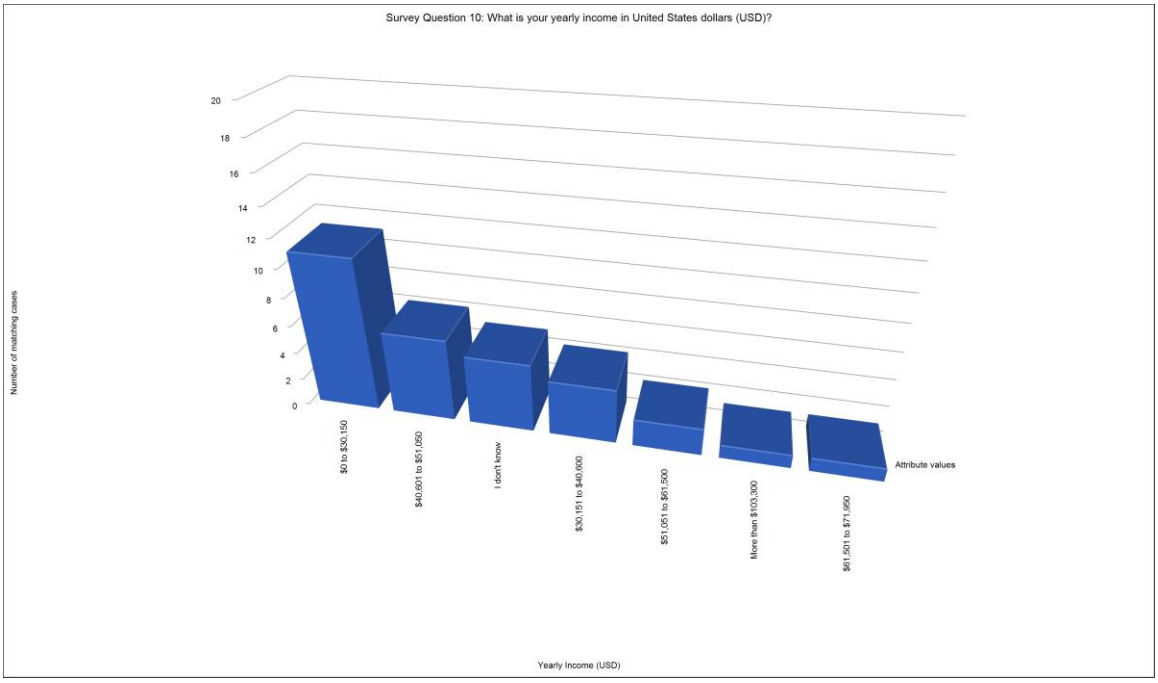

Figure 13. This figure illustrates the Project participant distribution by yearly income in United States Dollars (USD). The median yearly income in USD was $30,151 to $40,600.

Figure 14

Distribution by Hysterectomy

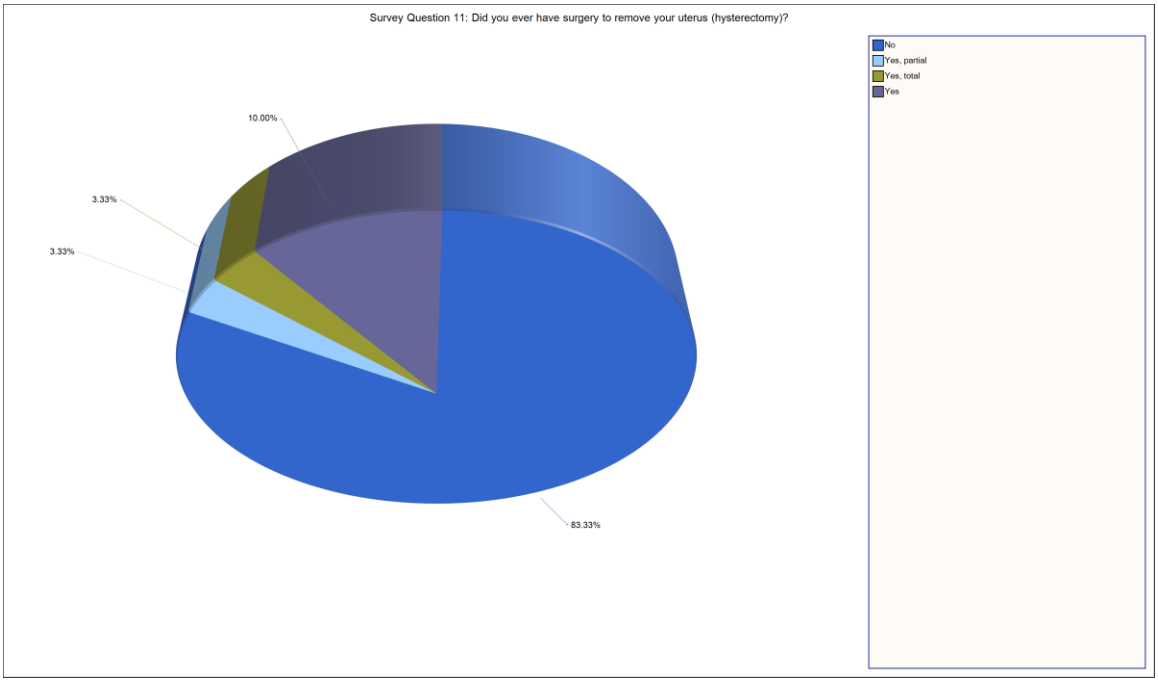

Figure 14. This figure illustrates the Project participant distribution by hysterectomy. More than 83% of the participants did not have a hysterectomy.

Figure 15

Distribution by Cervical Lesion or Cervical Cancer

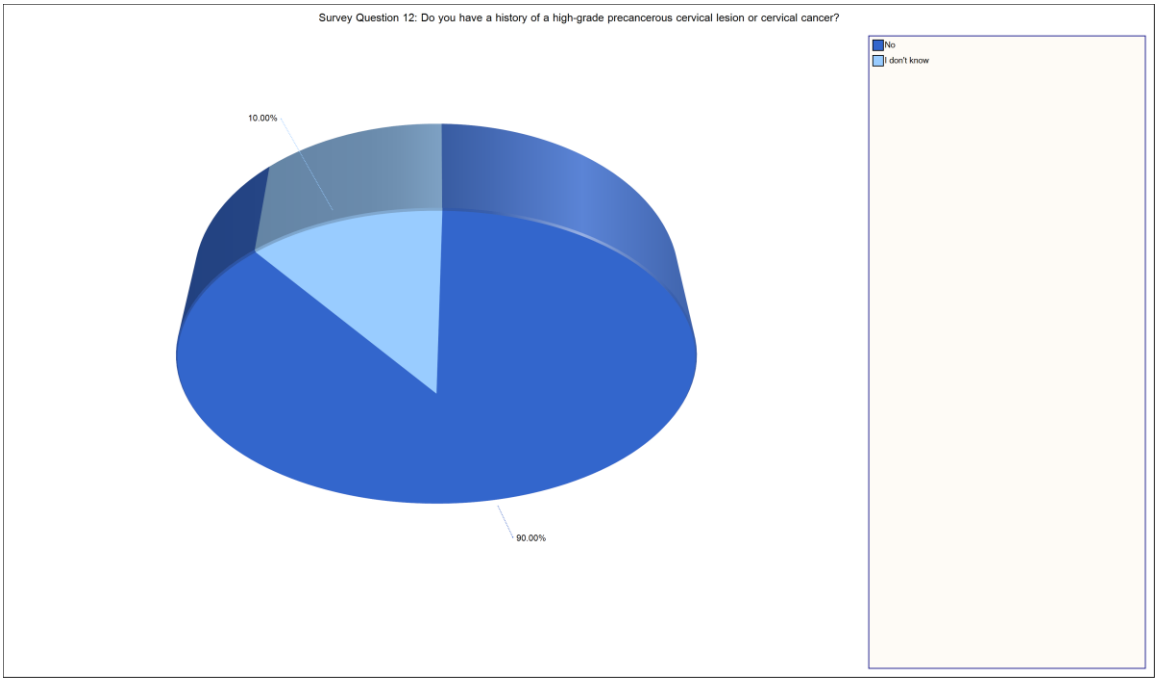

Figure 15. This figure illustrates the Project participant distribution by cervical cancer lesion or cervical cancer. Ninety percent of the participants did not have a history of cervical cancer lesions or cervical cancer.

Figure 16

Distribution by Human Papillomavirus Vaccination

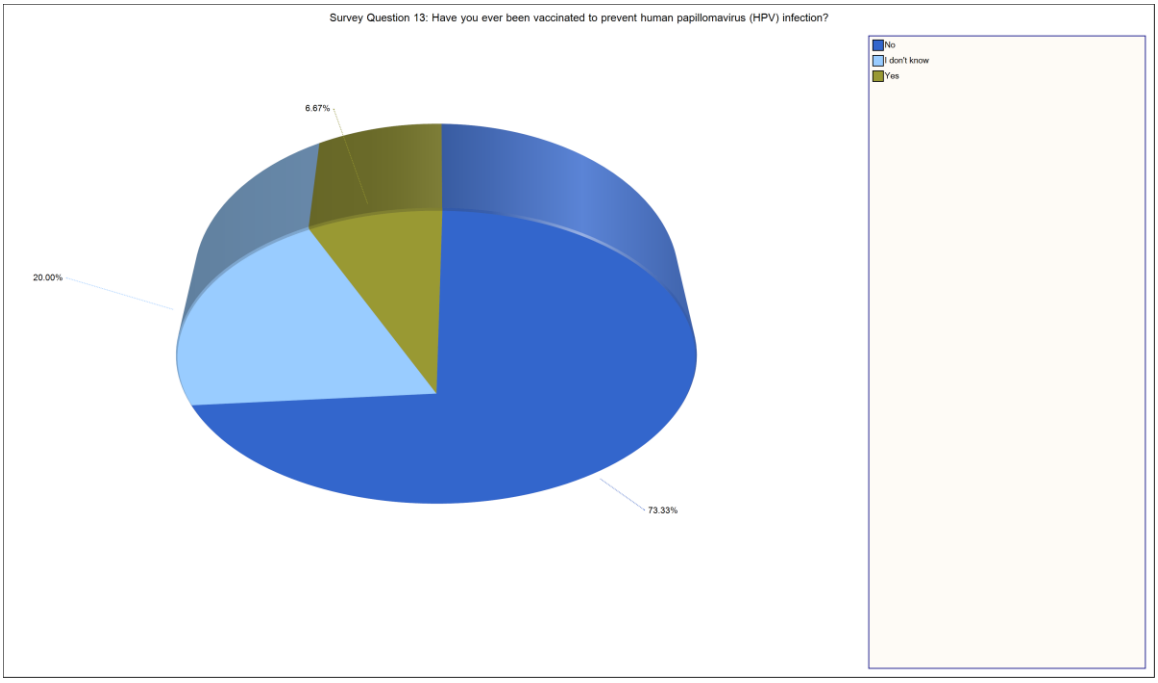

Figure 16. This figure illustrates the Project participant distribution by human papillomavirus (HPV) vaccination. Less than 7% of the participants reported vaccination to prevent HPV infection.

Figure 17

Distribution by Papanicolaou Test

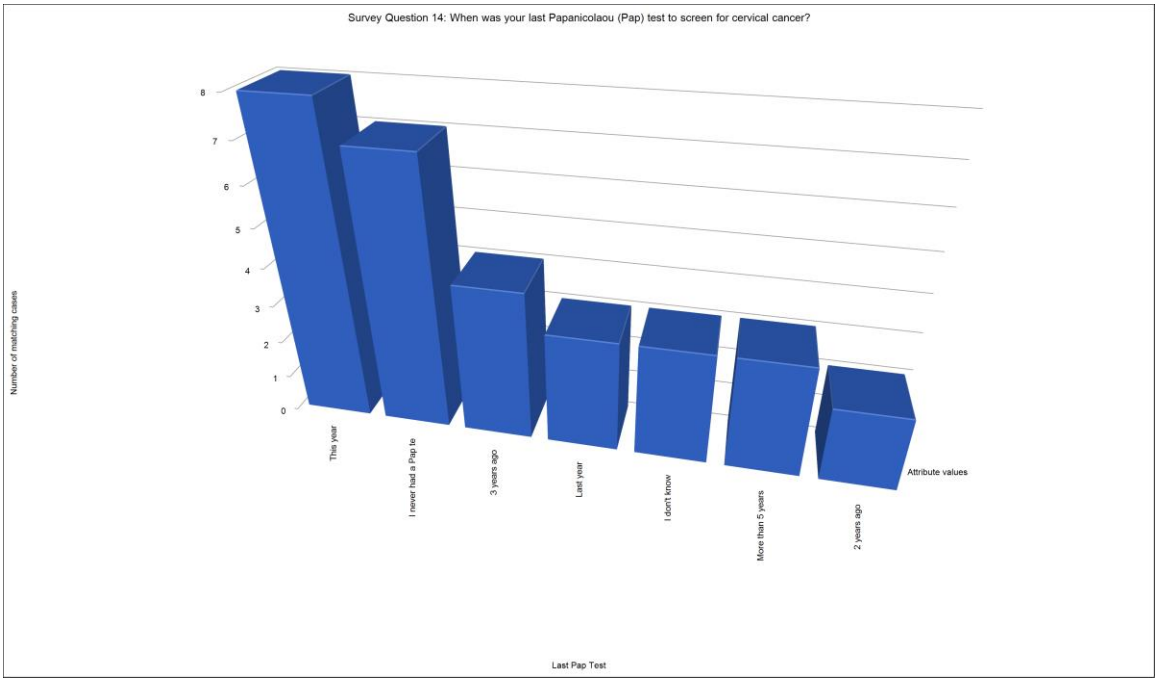

Figure 17. This figure illustrates the Project participant distribution by Papanicolaou (Pap) test. Less than 57% of the participants reported a Pap test within the past three years. The median number of participants reported a Pap test last year.

Figure 18

Distribution by Human Papillomavirus Test

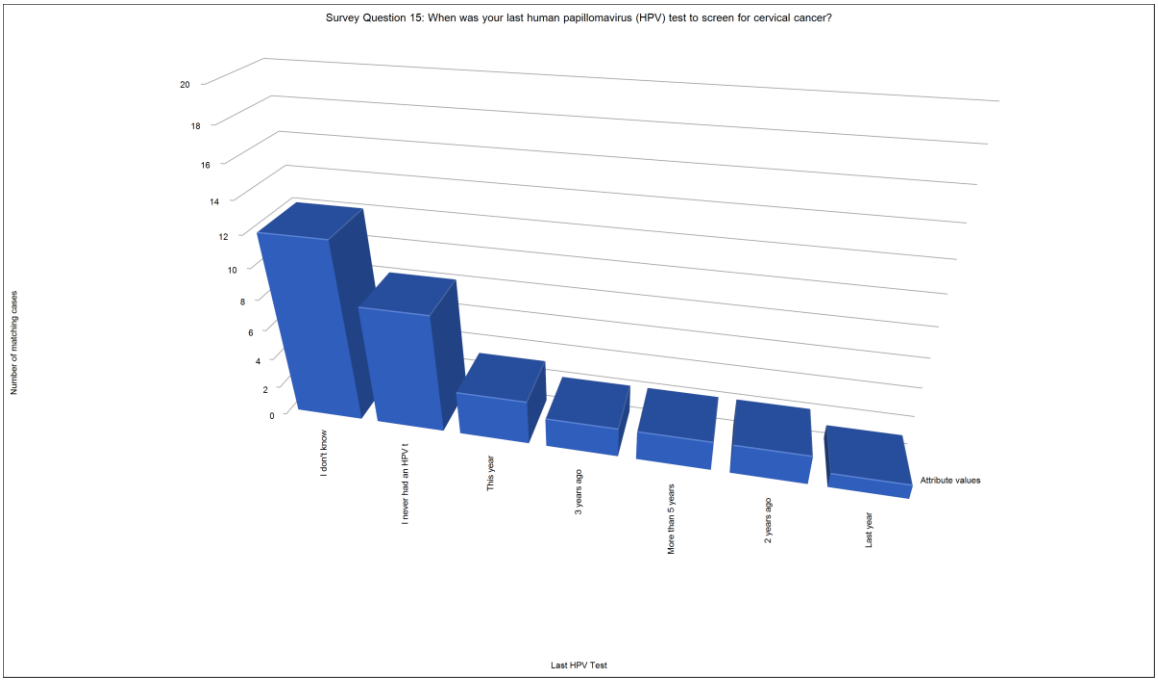

Figure 18. This figure illustrates the Project participant distribution by human papillomavirus (HPV) test. Less than 27% of the participants reported an HPV test within the past five years. The median number of participants reported an HPV test three years ago.

Figure 19

Distribution by Barriers to Cervical Cancer Screening

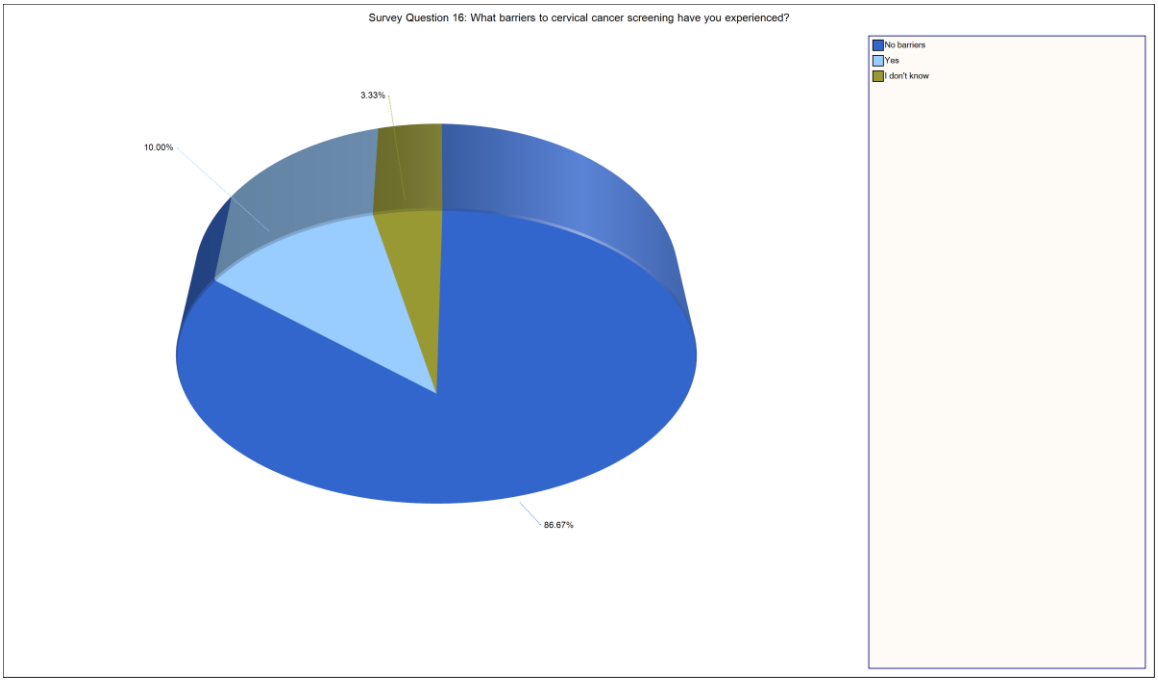

Figure 19. This figure illustrates the Project participant distribution by barriers to cervical cancer screening. Ten percent of the participants identified barriers to cervical cancer screening in Milwaukee, Wisconsin.

Figure 20

NVivo 11 Pro Word Cloud: Exit Interview Comments

Figure 20. This figure illustrates the frequency of the survey respondent exit interview comments.

Figure 21

Recurring Themes: Potential Barriers to Cervical Cancer Screening

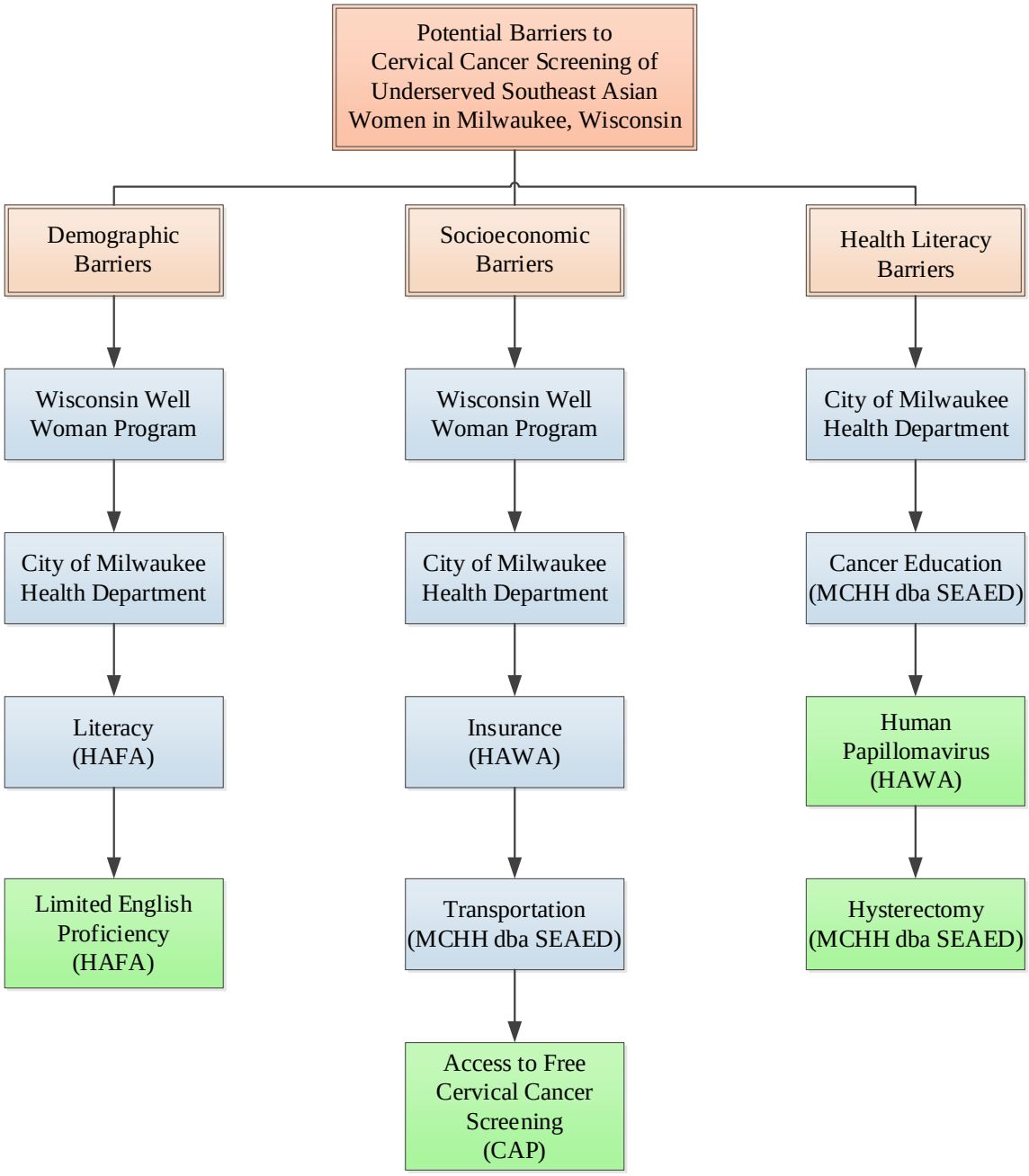

Figure 21. This figure illustrates the three recurring themes for the potential barriers to cervical cancer screening of underserved Southeast Asian women in Milwaukee, Wisconsin.

Figure 22

Flowchart of Action Research Project Results and Recommendations

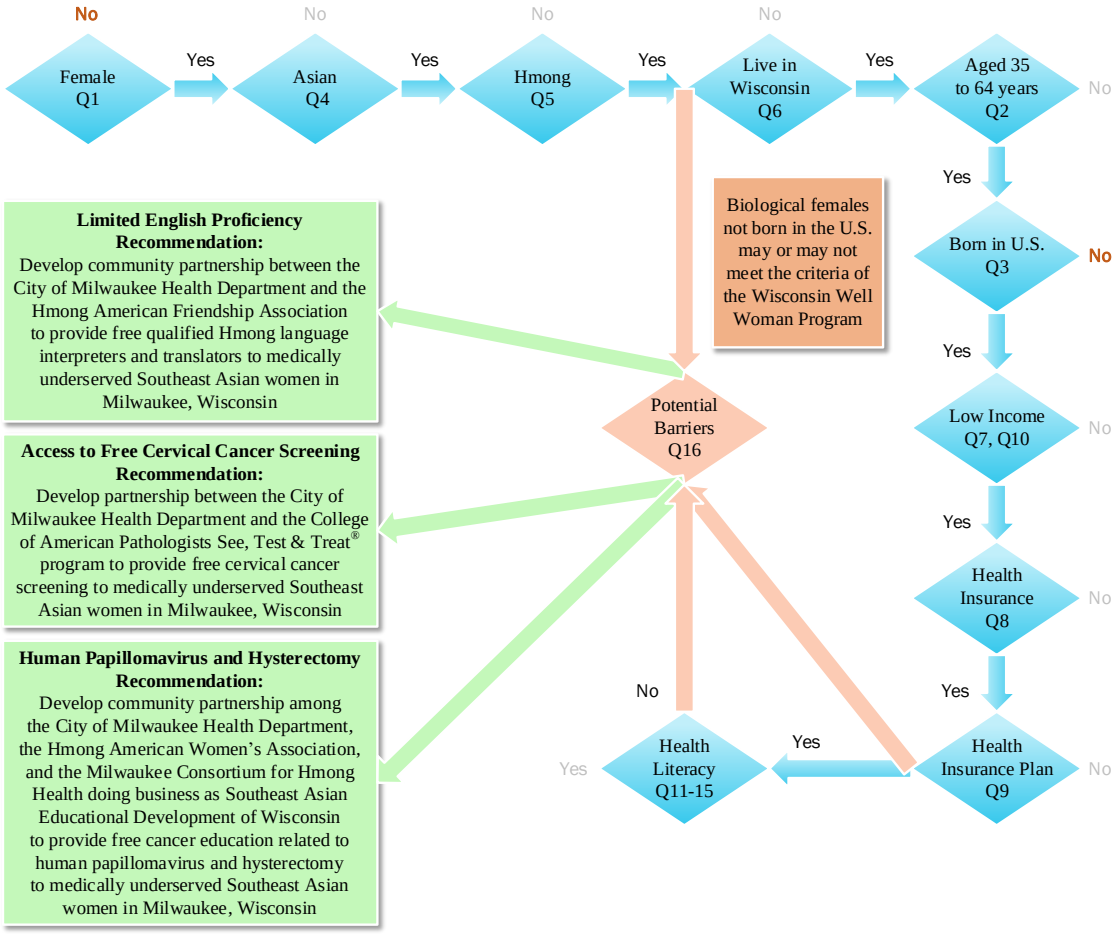

Figure 22. This figure illustrates the results of and recommendations for this Action Research Project.

Figure 23

Future State Process Map of Wisconsin Well Woman Program

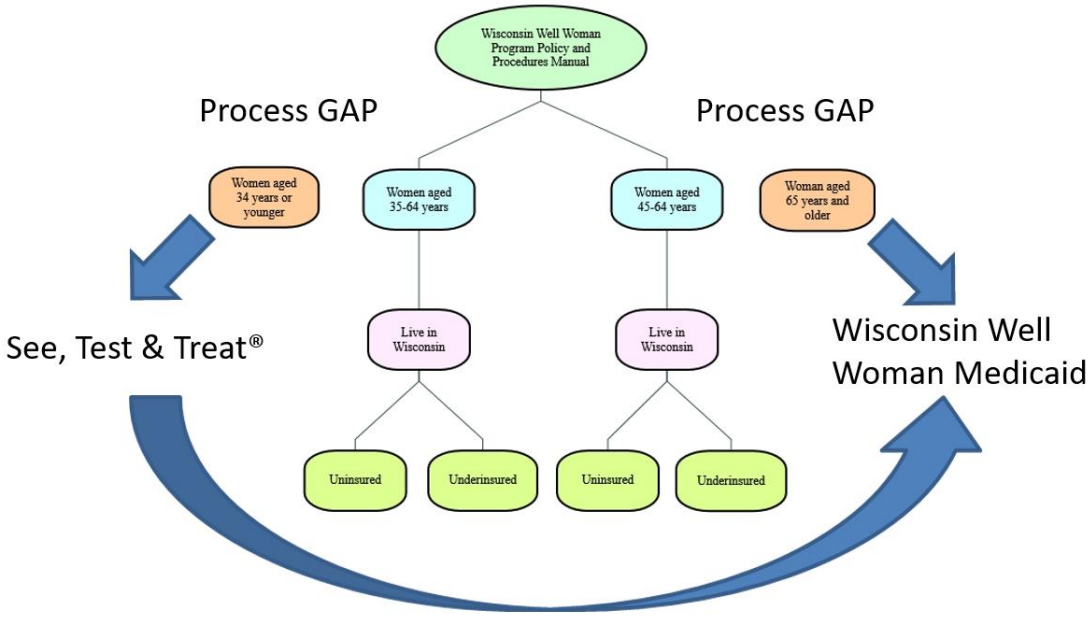

Figure 23. This figure illustrates the future state of the Wisconsin Well Woman Program.