

ORGANIZATIONAL CHANGE IN THE AGING NETWORK TO PROMOTE
EVIDENCE-BASED PROGRAMS

A DISSERTATION SUBMITTED TO THE GRADUATE DIVISION OF THE
UNIVERSITY OF HAWAI‘I AT MĀNOA IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE DEGREE OF

DOCTOR OF PHILOSOPHY

IN

SOCIAL WELFARE

AUGUST 2013

By

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ACKNOWLEDGEMENTS

I would like to express my deepest appreciation to my advisor Dr. Kathryn Braun for her kindness, guidance, support, and encouragement throughout my graduate studies at the University of Hawai‘i at Mānoa. She opened the door for my gerontology career and encouraged me to apply to the PhD program at Social Work to achieve higher academic success. The kindness, support, and the knowledge and experiences I gained from Dr. Braun are valuable and never forgettable.

My special thanks go to my dissertation committee: Dr. Colette Browne for her constant support and encouragement, not only for this dissertation study but also other gerontology-related activities, Dr. Noreen Mokuau for her continuous support from my first year in the PhD program and hands-on guidance in social work, Dr. Michael Cheang for his encouragement and guidance for continuation of my academic career, and Dr. Lori Yancura for her encouragement and valuable input.

I also express my thanks to Dr. Paula Morelli who continuously helped me to progress in the PhD Program at the School of Social Work, to Dr. Joel Fischer, Dr. Eddie Wong, and Dr. Susan Chandler for providing in-depth understanding of research in social work, to Ms. Shirley Kidani who introduced me to the Hawai‘i Aging Network when I was in the Master degree in Public Health and looked after me during my study in Hawai‘i, and to Dr. Valerie Yontz who provided me encouragement and helped me to improve my presentation skills.

Thanks also go to Dr. Jing Guo who supported me and to all the international students in social work, to Ms. Jennifer Kishida, and Ms. Sara Okamura who kindly took care of the administrative paperwork for me, to Mr. Nathan Chang and Mr. Ron

Matayoshi for cheering my school life and providing me an opportunity to meet with Japanese students interested in social work, and to Dr. Bum Jung Kim who kindly helped me gain my knowledge in international gerontology.

I thank all the participants in the study for sharing their experiences with me, especially the HHAP partners and their clients. Thanks to Ms. Lehua Choi for helping in the analysis of the dissertation study data, to Ms. Merlita Compton and Ms. Leslie Tanoue for welcoming me to the Hawai‘i Aging Network, educating me about minority older adults, and supporting me to enjoy Hawai‘i life, and to Ms. Naomi Sugihara for mentoring me and providing encouragement for academic success. Other supporters include Ms. Charlyn Nakamine, Ms. Kealoha Takahashi, Mr. Johnny Yago, Ms. May Fujii-Foo, Ms. Dani Tomiyasu, Ms. Valerie Ah Cook, Ms. Liz Meahl, Ms. Noemi Pendalton, Ms. Jeanine Yonashiro-Cho, Mr. Earl Bradbury, Mr. John Grant, Ms. Kristin Wertin, Ms. Jo Ryes, Ms. Mary Santa Maria, and Ms. Pauline Fukunaga, all of whom presented HHAP experiences with me at local and national conferences and made these conference memorable. Thanks also to Ms. Caroline Cadirao, Ms. Barbara Yamashita, and Ms. Cristina Vocalan for providing me support through the HHAP partnership and always inspiring me to find ways to improve HHAP.

I also would like to thank all those who have helped me achieve in-depth understanding of Hawai‘i Aging network including but not limited to all the people who previously mentioned, along with Dr. Wes Lum, Dr. Eldon Wegner, Dr. Tony Lenzer, Dr. Cullen Hayashida, Ms. Toni Hathway, Dr. Christy Nishita, Dr. Elizabeth Bethea, Mr. Craig Yamaguchi, Mr. Tony Baccay, Ms. Shannon Miyazaki, Ms. Suzie Schulberg, Ms. Michelle Sagucio, Ms. Eme Kim, Mr. Gary Simon, Ms. Dawn Meany, Ms. Pat

Sasaki, Ms. Felicia Marquez-Wong, Mr. Kyle Yanabu, Mr. Tony Wong, Mr. Dane Marcouiller, Mr. Percy Ihara, Ms. Deborah Arendale, Ms. Robin Pilus, Mr. James Mariano, Mr. John Tomoso, Mr. Alan Parker, Ms. Audrey Suga-Nakagawa, Ms. Chris Ridley, Dr. Harumi Karel, Ms. Cyndi Osajima, Ms. Luisa Wyant, Dr. Sarah Yuan, Ms. Trina Adaro, Ms. Pat Tompkins, and other members of HHAP and the Hawaii Pacific Gerontological Society. I also would like to thank all those who gave their time to provide me with their nationwide view of aging, including but not limited to Dr. Nancy Whitelaw, Dr. Basia Belza, Dr. Susan Snyder, Ms. Meghan Thompson, Ms. Julie Kosteas, Ms. Kristie Kulinski, Mr. Binod Suwal, Mr. Don Grant, Mr. Howard Bedlin, Mr. David Ishida, and Dr. Jeanette Takamura.

I also would like to thank all those who inspired me the international aging related research including but not limited to Dr. Takeo Ogawa Dr. Kita Estuko, Dr. Donghee Han, Dr. Makiko Tanaka, Dr. Aiko Tanaka, and Ms. Miyuki Goto.

My special thanks go to all those who studied and had fun with me for these years, including Dr. Palama Lee, Dr. Jessica Garlock, Ms. Seiko Sato, Mr. Vince Okada, Ms. Sharima Abbas, Dr. Mihye Choi, Ms. Shoko Nonaka, Ms. Akiko Uchikawa, Ms. Noriko Shiratori, Dr. Joji Uchikawa, Mr. Regan Krantz, Ms. Junko Krantz, Ms. Nozomi Yasui, Ms. Kumiko Hirose, Ms. Junko Matsunami, Ms. Yuko Nagai, Ms. Fumie Iwai, Ms. Ina Michiyo, Ms. Eriko Hiramatsu, Ms. Loreto Benavente, Ms. Hanna Schaufelberger, Mr. Kenji Higa, and Dr. Yoshiki Yamazaki.

Finally, deepest and warmest thanks go to my family Akinori, Hiromasa, Naoko, Ryoko, Mei, Tsutomu, and Aiko, who always share happy moments with me. I dedicate this work to my parents Masami and Etsuko Tomioka who provided me unconditional

support and encouragement throughout my life, and always believe in me and waited for this day to come.

Finally, I am grateful that grants from the U.S. Administration on Aging, the National Council on Aging, Atlantic Philanthropies (90AM3117/01, 90 AM3117/04, 90RA0009/01, and 90AM3117/05), and the Hawai'i Department of Health Diabetes Prevention and Control Program were awarded to support my Graduate Assistant Position over my course of study.

ABSTRACT

Demand for preventing, delaying the onset of, and managing chronic diseases has escalated. Attention is being given to expanding replication of evidence-based programs, those proven to work, to address chronic disease. Although federal agencies encourage communities to adapt evidence-based programs, studies on how organizations learn about and adapt such programs are limited.

The purpose of this research was to develop a roadmap for adapting the Chronic Disease Self-Management Program (CDSMP). Findings are based on five years of experience of the Hawai'i Healthy Aging Partnership (HHAP), a statewide coalition devoted to replicating evidence-based health promotion programs for older adults.

Planned adaptation theory and life cycle theory guided the exploration of processes in adapting, replicating, and sustaining CDSMP in eldercare providers in Honolulu, Hawai'i. Using an embedded case study design, this dissertation study collected data from multiple sources (including documents, interviews, and questionnaires) from three levels of participants (state/county offices, service providers, and program participants) at three phases of program adoption (initiation, delivery, and sustainment).

Findings describe conditions that contribute to or hinder organizational functioning in adapting, delivering, and sustaining evidence-based programs. Necessary ingredients are continuous support from government and strong coalition infrastructure. Successful adapters also had: 1) on-the-ground champions who examined program content, identified and applied modifications, had on-going commitment, adapted evaluation strategies, perceived benefits of the program, and worked well with other

organizations; 2) organizational champions, including supervisors, who bought-in to the program and perceived its fit with the organization; 3) sufficient organization capacity, including willingness to contribute or seek funding, develop internal champions, and market the program; and 4) good interactions with external organizations that could provide technical assistance or attain potential participants.

The theory-based framework developed to guide this dissertation study was supported by the data, but findings suggest ways to strengthen the framework. An 11-step guide for the initiation, delivery, and sustainment of CDSMP adoption by government officials and service providers emerged. These proposed guide should be helpful to other communities that want to adapt CDSMP, however it should be further tested to validate its usefulness in non-Aging Network coalitions and for other evidence-based programs.

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CHAPTER 1

INTRODUCTION

Both the United States (U.S.) and Hawai'i are experiencing substantial increases in the number of older adults, fueled by the aging of the baby boomers. Although improvements in medicine have enhanced life expectancy in the U.S., prevalence of chronic diseases is increasing (Centers for Disease Control and Prevention [CDC], 2009). Chronic conditions are associated with functional disabilities and poor quality of life for older adults; well as economic stress for family caregivers, health care systems, and government agencies (Agency for Healthcare Research and Quality [AHRQ], 2009; CDC & Merck Company Foundation, 2007; CDC, 2010; Grunfeld, et al., 2004; He, Sengupta, Velkoff, & DeBarros, 2005; Lam & Lauder, 2000; Sprangers, et al., 2000).

Although chronic conditions are rarely cured, research consistently validates the benefits of a healthy lifestyle. Several health promotion programs have been proven, through controlled trials, to increase self-management skills, effectively enhance fitness, and decrease health care costs (Altpeter, Bryant, Schneider, & Whitelaw, 2006). Several federal agencies recommend that service providers adopt evidence-based health promotion programs rather than trying to “reinvent the wheel” (Brownson, Baker, Leet, Gillespie, & True, 2011; U.S. Administration on Aging [AoA], 2010) in their efforts to help older adults maintain health and independent living for as long as possible. Yet, studies on how organizations learn about and adapt such programs are limited (Glasgow, Lichtenstein, & Marcus, 2003; Green & Glasgow, 2006).

Thus, the purpose of this dissertation is to reduce the gap between research and practice for community organizations that want to replicate and sustain evidence-based

programs, and to illustrate a roadmap for adapting evidence-based programs based on five years of experience (2007 – 2011) of the Hawai‘i Healthy Aging Partnership (HHAP), a statewide coalition devoted to replicating evidence-based health promotion programs for older adults.

CHAPTER 2

PROBLEM STATEMENT

This section discusses demographic changes, mortality and morbidity trends, impact of chronic diseases on quality of life and economic impact of chronic disease, and chronic disease risk factors. . It then describes the concept of chronic disease prevention and health promotion, evidence-based health promotion programming, and gaps associated with implementing evidence-based health promotion programs in the community. The last part of this section explains the purpose of this dissertation.

Demographic Changes – The Population is Aging

Both the U.S. and Hawai‘i are on the threshold of a substantial increase in the number of older adults, aged 65 and over, from 36 million (12%) in 2000 to an anticipated 87 million (21%) of the nation’s population in 2050 (He et al., 2005). By 2035, it is expected that close to one in every three people (30% of the total population) in Hawai‘i will be 60 years of age or older (Hawai‘i Executive Office on Aging [EOA], 2011). This increase is being fueled by the aging of the baby boomers. Additionally, Hawai‘i’s population is comprised of people of diverse ethnic backgrounds. More than 74% of the aging population in Hawai‘i is Asian, Native Hawaiian, and Pacific Islander (Hawai‘i State Department of Health [DOH], 2011; U.S. Census Bureau, 2011).

Mortality and Morbidity Trends

Older Americans today are living longer and healthier lives than elders of earlier generations. Life expectancy refers to expected years to live, as calculated by current mortality trends (Quadagno, 2005). Life expectancy has gradually increased in all older Americans (Arias, 2011). Between 1989 and 2004, life expectancy at birth increased

from 75.37 to 77.8 years. However, life expectancy varies by ethnicity and gender. In 2007, life expectancy was 78.4 years for White people and 73.6 years for Black people. Female life expectancy at birth is typically six years higher than male (Arias, 2011). In Hawai‘i, life expectancy varies substantially by race (Park, Braun, Horiuchi, Tottori, & Onaka, 2009), but has increased steadily over the past 80 years. In 2000, Chinese had the highest life expectancy, 86.1 years, whereas Native Hawaiians had the lowest at 74.3 years (DOH Chronic Disease Management and Control Branch, 2011).

The top three major leading causes of death among older adults are heart disease, cancer, and stroke. In Hawai‘i, more than 60% of all older adults’ deaths are due to those three major leading cause of death (EOA, 2006). These conditions also lead to disability. Fortunately, since 1981, the mortality rates among older adults (65+) declined by 21% for all causes of death and 50% for heart disease (Federal Interagency Forum on Aging Related Statistics, 2011). However, older people still are likely to experience chronic illness and disability, and to live longer with chronic diseases (Bunker, Frazier, & Mosteller, 1994; Goldberg, Larson, & Levy, 1996). Chronic diseases such as arthritis, heart disease, stroke, hypertension, and some forms of cancer are prolonged illnesses, rarely cured completely. In the U.S. the common chronic disease among older adults (65+) are hypertension (56%), arthritis (50%), heart disease (32%), cancer (23%), and diabetes (19%) (Federal Interagency Forum on Aging Related Statistics, 2011). The prevalence of chronic diseases in Hawai‘i is very similar to the U.S. In Hawai‘i, prevalence of hypertension is 58%, arthritis is 44% and diabetes is 18% (CDC Behavioral Risk Factor Surveillance System [BRFSS], 2011).

Starting in 2011, America's 72 million baby boomers, the people who were born between 1946 and 1964, started to become senior citizens. About 80% of baby boomers report that they have one or more chronic conditions (AARP, 2004). However, only 26% of baby boomers reported the activity limitations due to health programs, with 9% requiring equipment to compensate for disability, compared to 32% of people age 65 and older reporting activity limitation due to health problems, with 19% needing special equipment (CDC BRFSS, 2011). Hawai'i also shows the same trend, i.e., that the proportion of people age 65 or older reporting limitation due to health problems (25%) is higher than people age 55-64 (20%) (DOH Chronic Disease Management and Control Branch, 2011).

Not only do older Americans experience chronic illnesses and disabilities, the prevalence of chronic disease increases with advanced age. The evidence shows that 26.2% of people age 65-74 report having been diagnosed with heart disease, whereas 36.6% of people age 75 and older reported the same disease in 2006 (Pleis & Lethbridge-Çejku, 2007). The proportion of people with arthritis is higher for people age 75 and over (51.3%) than for people age 45-64 (28.7%) and for people age 65-74 (48.0%). The percentage of people age 75 and over reporting any type of cancer (25.7%) is higher than the percentage of people age 65-74 (17.2%) and of people age 45-64 (8.0%) (Pleis & Lethbridge-Çejku, 2007). The same trend is seen in Hawai'i. The proportion of people age 55-64 having high blood pressure is 45% (compared to 60% of people age 65+), arthritis is 35% (compared to 45% of people age 65+), and diabetes is 12% (compared to 18% of people 65+) (DOH Chronic Disease Management and Control Branch, 2011). The increasing prevalence of chronic diseases among older adults implies

need for additional health care support. Thus, programs to promote healthy behavior and delay onset of chronic diseases are greatly needed.

Chronic Disease and Quality of Life

Chronic disease can have a negative impact on quality of life (Lam & Lauder, 2000; He et al., 2005; Sprangers, et al., 2000). People who have chronic diseases report more severe and longer duration of pain, disability and loss of function and independence compared to the people who do not have chronic diseases (Federal Interagency Forum on Aging Related Statistics, 2011), and they are more likely to feel dissatisfied about their lives and have higher psychological stress than healthy individuals (Walker, 2007).

Chronic disease can reduce one's ability to live independently, further reducing quality of life (Quadagno, 2005). In 2007, 42% of older adults experienced one or more functional limitations (Federal Interagency Forum on Aging Related Statistics, 2011). Twenty five percent of people age 65 and over have difficulties in personal tasks (such as eating, bathing and walking), and 14% of people age 65 and over have difficulties in household tasks (such as using the telephone, light housework, and shopping). In Hawai'i, almost 20% of people age 60 and over have physical disabilities that prevent them from leaving the house alone, and about 11% of older adults reported mental disabilities that impair learning, memory, or concentration (EOA, 2006).

Chronic disease requires continuous treatment and sometimes frequent hospitalization (CDC, 2009). As chronic disease progresses, the degree of assistance needed usually increases (Grunfeld, et al., 2004). "Long-term care" includes assistance provided to people with disabilities who cannot function independently. It can be provided in the home, in community settings, and facilities such as nursing homes and

care homes (Medicare, 2009). It is estimated that 6.3 million elderly need long-term care in the U.S. (Rogers & Komisar, 2003), but only 5.6 million of them receive long-term care for formal service providers (AHRQ, 2009). The data imply that many disabled older adults who need long-term care services are relying on social support networks to provide them. The majority of informal care providers are women, who often need to balance caregiving with employment outside the home. Thus, quality of life of family caregivers (individuals caring for disabled family members) is indirectly associated with care recipients' chronic diseases.

The EOA (2006) in Hawai'i reported that Hawai'i caregivers spend 106.9 million hours per year (valued at \$874.6 million) on caregiving. Many caregivers report having less time than they used to have to engage in hobbies or travel, go on errands, or sleep; and many report modifying their work hours. More than half of care recipients live with caregivers, such as immediate family members or friends. About 29% of care recipients live alone (EOA, 2006). Some informal support services exist, such as in home services, adult day care, and short-stay respite, and these programs assist older adults in everyday tasks and provide support for their informal caregivers. These supports permit older adults to remain in the home and community, delaying entry into nursing homes.

Thus, chronic diseases can reduce individuals' functional abilities, contributing to a lower quality of life for individuals and their family members.

Economic Impact of Chronic Disease

Chronic conditions not only affect personal functional limitations but also dramatically increase the costs of custodial and medical care. As the number of older adults with chronic disease increases, demands for formal services will escalate.

Altogether, the U.S. government spent \$3.5 trillion on health care in FY2010 (Potetz, Cubanski, & Neuman, 2011), and health care costs continue to rise. Hawai'i spent \$3 billion on health care in 1991, and \$6.2 billion on health care in 2004 (DOHChronic Disease Management and Control Branch, 2011).

Most Americans 65 and older depend on Medicare for their health care. Medicare, established in 1965, is the federal health insurance program sponsored by the U.S. government and managed by the Centers for Medicare and Medicaid (CMS), part of the Department of Health and Human Services (Hoffman, Jr, Klees, & Curtis, 2005). In 2005, Medicare served 42 million Americans and accounted for 19.6% of the federal budget (U.S. Department of Health and Human Services, 2005). Medicare helps to pay for a variety of medical services, including physician care, acute care, some medical tests, and limited skilled nursing, rehab, and hospice days. Without major changes to the funding mechanisms or benefit structure for Medicare or a decrease in demand for expensive health procedures, the projected increases in the cost of Medicare may bankrupt the system by 2019 (Caplan & Housman, 2004).

Along with the prevalence of chronic diseases, out-of-pocket medical expenses for older adults also increased between 1977 and 2006 (Federal Interagency Forum on Aging Related Statistics, 2011). According to Potetz et al (2011), total medical expenses per Medicare beneficiary were estimated at \$17,232. Less than half was paid by Medicare (\$8,344), and the out-of-pocket expenses accounted for 25% (\$4,403). Third-party payments from Medicaid, private insurance, and other sources accounted for 26% (\$4,485).

The U.S. is the only developed country that does not have a universal health care system. To understand why, it is important to explore the ideology behind health care policy. In the U.S., health care policy reflects market ideology that tends to put more emphasis on business opportunity than public service (Davies & Marshall, 2000; Minkler & Estes, 1999). This ideology results in a more diverse, complex, and fragmented medical system that supports consumer participation and personal choices over equity. In fact, this ideology creates burdens for low-income populations and favors elite consumers because most services are based on a person's ability to pay. As a result of these market-based principles, the U.S. health care system promotes a proliferation of specialist services (Mechanic, 1975) and the development of new technologies and medications; these may or may not improve health but are definitely contributing to unequal access to and distribution of health services, as well as increasing health care cost (Light, 2000).

Chronic Disease Risk Factors

The exact causes of chronic disease remain unknown, but heredity, obesity, and physical inactivity are associated with many chronic diseases (American Diabetes Association, 2009). In the early and mid-20th century, health professionals investigated biological factors associated with chronic disease. In the last two decades, however, the focus of chronic diseases etiology has shifted from biological causative factors to environmental conditions and individual risk factors, and researchers have concluded that cumulative lifetime exposure to environmental and individual risk factors are the primary causes of chronic diseases (Diez-Roux, 1998; Kuh & Ben-Shlomo, 2004; Nieto, 1998; Schneiderman & Speers, 2001; Spitler, 2001).

Lifestyle factors are associated with onset of many chronic diseases. For example, smoking increases one's risk for cancer, chronic obstructive pulmonary disease, heart disease, and other chronic conditions. Lack of physical activity and unhealthy diet can lead to obesity, which has been implicated in early onset of diabetes, heart disease, stroke, cancer, arthritis, and many other conditions. These three factors—smoking, sedentary behavior, and unhealthy diet, are modifiable, however. Thus, to a large extent many chronic diseases are preventable (CDC, 2009). According to Centers for Disease Control and Prevention and the Merck Company Foundation (2007), about 35% of deaths are caused by smoking, poor diet, and physical inactivity. About 50% to 70% of deaths from cancer are caused by unhealthy lifestyles such as smoking, lack of exercise, poor nutrition, and exposure to the ultraviolet light in sunshine (National Cancer Institute, 2007). Changing to a healthier lifestyle, such as exercising regularly, eating healthy, and not smoking, may reduce the risk for and impact of chronic diseases (Vita, Terry, Hubert, & Fries, 1998). In Hawai'i, data show that, among adults age 65 years and older, more than 50% are overweight or obese, more than 55% do not meet recommended physical activity levels, and almost two-thirds consume less than the minimum recommended five fruits/vegetables daily (CDC BRFSS, 2011). The data implies that more than half of the older adults in Hawai'i are exposed to risk factors that increase their chances of developing chronic diseases.

Chronic Disease Prevention and Health Promotion

In understanding how to prevent chronic disease, it is important to think about three levels of prevention: primary, secondary and, tertiary prevention. Primary prevention targets people who are susceptible to a chronic disease, with the goal of

preventing the onset of disease or at least delaying its onset (Morton, Hebel, & McCarter, 2001). Examples of primary prevention include are providing immunizations (for example, to prevent Hepatitis B or to prevent cervical cancer related to the Human Papilloma Virus) and health education programs to increase physical activity and healthy eating (Fleshner & Chernett, 1997). Secondary prevention aims to identify chronic disease in its earliest stages and to intervene to prevent it from worsening (Morton et al., 2001). The leading example of a secondary prevention strategy is screening for cancers, such as breast cancer, that can be successfully treated when caught in an early stage. Screening for incontinence, depression, and polypharmacy are other examples of secondary prevention (Fleshner & Chernett, 1997). Tertiary prevention targets people who suffer from a chronic disease, with an aim to reduce the complications associated with chronic disease (Morton et al., 2001). Diabetes is a chronic disease that requires tertiary prevention; teaching individuals to control their diabetes through diet, medication, and self-checks can prevent complications of diabetic retinopathy and foot amputation. Other examples of tertiary preventions are rehabilitation and restorative therapies, for example, following a stroke (Fleshner & Chernett, 1997). All levels of prevention, which help prevent or control many of the health problems caused by chronic diseases, are necessary if we are to promote independent living and improve quality of life for older adults.

Over the past 30 years, the concept of “disease prevention and health promotion” has emerged in response to a major shift in the leading causes of death in the U.S. (Glanz, Rimer, & Lewis, 2002). This shift from infectious disease to chronic disease as the leading causes of death (also called the epidemiological transition) has had a great impact

on research, with an increased focus on health behavior and health education (Oldenburg, 2002). The notion of “health promotion” first gained prominence through the Lalonde report, published in 1974 in Canada (Lalonde, 1974). Titled *A new perspective on the health of Canadians*, it is considered the "first modern government document in the Western world to acknowledge that our emphasis upon a biomedical health care system is wrong, and that we need to look beyond the traditional health care (sick care) system if we wish to improve the health of the public" (Lemco, 1995, p. 237). The Alma Ata declaration in 1978 highlighted health as a fundamental human right, and stressed the importance of primary health care that includes health care delivery with principles of participation, community development, and health promotion (O’Connor-Fleming & Parker, 2001) as the key to the attainment of the goal of health for all (World Health Organization [WHO], 2003). This declaration outlines primary health care in the context of social justice, recognizing good health as a foundation of social, economic, cultural, and political development.

Commitment to health promotion was strengthened at the First International Conference on Health Promotion in 1986, later called the Ottawa Charter for Health Promotion. Health promotion was defined as “the process of enabling people to increase control over the determinants of health, and thereby improve their health” (WHO, 1986, p. i) by changing individual health behavior through improved social, economic and environmental conditions, including peace, shelter, education, adequate income, a stable ecosystem, sustainable resources, social justice and equity (WHO, 1986). Their underlying principles of health promotion were strengthening community action, developing personal skills, building healthy public policy, creating a supportive

environment, and reorienting health services from providing clinical and curative services to embracing cultural sensitivity and increasing attention to education and training for health research and professionals. Many countries including the U.S. were influenced by this conference in their development of health policies (WHO, 1998).

The concept of health promotion is important for all ages, especially among the elderly, for reducing premature mortality, enhancing quality of life, and maintaining functional independence. Such programs can help seniors delay disability and expensive health procedures, and decrease governmental health care expenditures.

Evidence-Based Health Promotion Programming

During the last decades, many studies have validated the benefits of implementing evidence-based health promotion interventions. Evidence-based programs are those that have been proven, through scientific study, to work for improving their health status and reducing of risk of disease, disability, and injury (AoA, 2010). Several evidence-based programs developed and tested in the U.S. have been shown to be effective in helping older adults improve their physical and mental fitness levels and gain control over chronic illnesses (Altpeter et al., 2006).

Randomized controlled trials of a widely known evidence-based program, Stanford's Chronic Disease Self Management Program (CDSMP), showed that participants increased exercise levels, improved coping strategies, experienced less pain and fatigue, and reduced hospital visits and cost (Lorig et al., 2001; Lorig et al., 1999). Embracing and replicating evidence-based health promotion (like CDSMP) promises to cut costs because providers do not need to spend time inventing interventions when they can adapt interventions already proven to work.

Gaps for Replicating Evidence-Based Health Promotion Programs

In replicating an evidence-based program, organizations need adequate knowledge and skills to obtain optimal outcomes as presented in the original research. However, there is limited literature on how organizations learn about and adopt such programs to new communities. Much of the extant literature outlines the many challenges of translating scientific knowledge to community practice (Doig & Simpson, 2003; Dunn & Blair, 2002; Elliott & Mihalic, 2004; Goodman, 2000; Simpson & Flynn, 2007). These challenges include: 1) resistance to practice modalities by professionals, 2) lack of organizational buy-in, 3) lack of specific goals and standards in translating the evidence, and 4) rigidity of evidence based practice that cannot be molded to meet specific needs of the applied setting or target population (Alkema & Frey, 2006; Glasgow et al. 2003; Grol, 2001).

In the replication of evidence-based interventions, providers must deliver the programs exactly as in the original study. This exactness in delivery is often called program fidelity. Fidelity is “the degree to which ... programs are implemented... as intended by the program developers” (Dusenbury, Brannigan, Falco, & Hansen, 2003, p. 237). Program fidelity is critical if replicators wish to achieve the same program effectiveness as did the original study.

Evidence-based programs provide implementation protocols to assure the delivery of the program. Failing to follow the protocols jeopardizes the effectiveness of the program (Dusenbury et al., 2003). However, some studies indicate the need to modify aspects of a program to fit local circumstances because most evidence-based interventions may have been developed and tested with people and in settings that are

very different from the people on settings of a new community. For example, CDSMP was developed and tested in California with Caucasians, African Americans, and Hispanics (Lorig et al., 2001; Lorig et al., 1999). It has taken time and work to adapt it to other countries and population groups. Now, the curriculum has been translated into Spanish, Chinese, Japanese, and French, and leaders are trained in these languages to maximize the delivery of this intervention. When the program was brought to Hawai'i, however, it was not known how well it would work among Native Hawaiian, Filipinos, Japanese, and other ethnic groups in Hawai'i, or what adaptations would be needed to make the program attractive to these groups.

Studies assessing the effectiveness of the CDSMP in other ethnic groups identified modifications that should be made to maximize the effectiveness of the program without jeopardizing core components of the program (Dongbo, Ding, McGowan, & Fu, 2005; Griffiths et al., 2005; Siu, Chan, Poon, Chui, & Chan, 2007; Swerissen et al., 2006). For example, Griffiths et al. (2005) recommended elimination of culturally inappropriate topics when replicating the program in Islamic populations, and Dongbo et al (2005) recommended including traditional relaxation exercise when offering the program in Chinese populations.

While there are no clear-cut rules about allowable and unallowable modifications for the program, the degree and type of modifications may influence the fidelity of the program. Thus, balancing program fidelity and reasonable implementation is a major challenge in the replication of evidence-based programs (Alkema & Frey, 2006; Glasgow, Klesges, Dzewaltowski, Bull, & Estabrooks, 2004).

Purpose of Dissertation

Although the improvements of medical technologies and health care system have enhanced life expectancy in the U.S., prevalence of chronic diseases continues to increase. Chronic diseases are associated with poor quality of life of individuals and caregivers, and economic stress for individuals, families, health care systems, and the government. Along with the empirical support of the effectiveness of health promotion/prevention programs, several federal agencies recommend the adoption of evidence-based health promotion/prevention interventions to support seniors in maintaining health and independent living for as long as possible. Yet, studies on how organizations learn about and adapt such programs are limited.

The purpose of this dissertation is to better understand the process of adapting an evidence-based program in the community based on five years of experience (2007-2011) of the HHAP. As of 2012, HHAP is a coalition of 67+ partners dedicated to embedding evidence-based health promotion programs into the Hawai'i's Aging Network (i.e., the network of public and private organizations that guide and deliver services to older adults in Hawai'i). HHAP believes that making health promotion programs widely available to older adults will help control chronic disease burden in Hawai'i.

At the beginning of the HHAP process, the EOA, the State Unit on Aging, identified issues associated chronic diseases and older adults and invited partners. By the end of 2005, the number of HHAP members had expanded to 40 partners with ties to aging services. Members developed a strategic plan, including goals and guiding principles, based on community needs. After assessing partner needs, training and hands-on technical assistance were provided to members in four countries. In 2005, HHAP

partners successfully piloted evidence-based programs in their counties that addressed local needs (Tomioka et al., 2009). In 2006, HHAP successfully competed for an AoA award to replicate evidence-based programs on a larger scale. HHAP selected two interventions (CDSMP and EnhanceFitness®) from among eight evidence-based health promotion interventions in the areas of chronic disease self-management, physical activity, fall prevention, nutrition and diet, and depression and/or substance abuse that recommended by AoA. This dissertation examines the initiation, implementation, impact, and sustainability of the CDSMP in Hawai‘i.

CDSMP was developed to empower people with various chronic diseases to take control of their health. Participants attend weekly sessions, facilitated by two trained leaders, one of which is a lay (peer) leader. CDSMP consists of a six-week workshop, two and a half hours each week. It is expected that elders who participate in this program will feel better, have better control over the symptoms of their chronic diseases, and be better able to talk to their physicians (Stanford University, 2006).

The aims of this dissertation are: 1) To describe and determine the important factors that support or hinder organizational change at each phase of CDSMP replication (initiation, delivery, and sustainment) and 2) To develop a road map for adapting evidence-based program by reviewing and summarizing findings about the “paths” of various agencies in Hawai‘i involved in adopting CDSMP and the key factors and critical turning points in their journeys. It is necessary to conduct this dissertation to help organizations to make better decisions for planning, designing, and adapting evidence-based programs in their communities.

CHAPTER 3

THEORETICAL FRAMEWORK ORGANIZATIONAL CHANGE

This section discusses theories and conceptual frameworks about organizational change. This section begins with the description of organizational change, including the concept of sustainability and factors that influence sustainability in the literature. The next part of this section analyzes four theories of organizational change, and finds the best fitting theories for organizational change for the evidence-based programs adaptation for this dissertation. This section concludes with the proposed theoretical framework for this dissertation.

Organizational Change

It is necessary to understand the whole process of how agencies adopt new evidence-based programs.. Organizational change is defined as "any alteration of activities in an organization that involves the structure of organization, the transfer of work tasks, the introduction of new techniques, systems, technologies, or behavior among and between providers, consumers, and family members" (Lewis et al., 2001, p23). Understanding how organizations change will help health practitioners in their efforts to adapt, replicate, and sustain evidence-based programs. Many community-based agencies may adopt new programs but discontinue them after the termination of initial funding (Bracht et al., 1994; Goodson, Smith, Evans, Meyer, & Gottlieb, 2001; Mancini & Marek, 1998; O'Loughlin, Renaud, Richard, Gomez, & Paradis, 1998; Steadman et al., 2002). Therefore the sustainability of programs becomes a great concern for providers, policy makers, and funders (Shediac-Rizkallah & Bone, 1998).

Many researchers believe organizational capacity is a backbone of program sustainability. An organization is comprised of subsystems that produce certain outputs and achieve the common goals (Glanz et al., 2002). Organizations are also considered an integral component of capacity building (Crisp, Swerissen, & Duckett, 2000). Organizational capacity refers to the “adequacy of inputs (knowledge, financial resources, trained personnel, well-managed strategic partnerships, etc) necessary to carry out a program and achieve desired outcomes” (Cassidy, Leviton, & Hunter, 2006, p. 149). Inadequate organizational capacity inhibits organizational function and ability to obtain sufficient resources to perform effectively. Thus, building organizational capacity strengthens organizations to maximize program effectiveness and to ensure sustainability.

How are New Programs Sustained by Organizations?

Organizations need to understand how to sustain new programs because most federal/state funding is not continuously allocated. Identifying sustainability factors is critical when planning to adapt new programs. In response to the need for standardizing definitions and measurement related to sustainability, many researchers have put efforts on advancing and summarizing definitions of program sustainability, identifying factors associated with sustainability, and developing conceptual framework to describe the sustainability of the program (Akerlund, 2000; Johnson, Hays, Center, & Daley, 2004; Light, 1998; Mancini & Marek, 2004; Scheirer, 2005; Shediak-Rizkallah & Bone, 1998).

In general, the definition of sustainability in the context of health promotion programs has three conceptual categories; 1) maintenance of health benefits and health outcomes for individuals/populations achieved through the initial program; 2) degree of institutionalization of a program within an organization; and 3) increased capacity to

deliver a program in the recipient community (Beery et al., 2005; Scheirer, 2005; Shediak-Rizkallah & Bone, 1998; Stevens & Peikes, 2006). Each part of the definition aims at a different level of sustainability, respectively, client's behavior change, organizational change, and community change. Shediak-Rizkallah and Bone (1998) identified that many of the studies use only one of these three definitions. This dissertation focuses primarily on organizational change and then individual's behavior change. Thus, in this dissertation, sustainability is defined as the process of institutionalization of an evidence-based program that ensures the health benefits for seniors across organizations.

Although some studies suggest taking action to sustain a program after adaptation of innovation, this dissertation examined the role of sustainability starting in the initial phase of the program adaptation as recommended by Johnson et al. (2004). To understand the entire process of evidence-based program adaptation, this dissertation operationalized and tracked sustainability as recommended by Pluye, Potvin, Denis, & Pelletier (2004) and Weiss, Coffman, & Bohan-Baker (2002). In the social sciences, two frameworks have contributed to operationalize sustainability: Yin's cycles and passage, and Goodman and Steckler's passage, routine, and niche saturation.

Proposed by Yin (1979), the Theory of Routinization postulates that "a successful innovative practice should be the establishment of the practice as a routine and normal part of agency (organization) operations" (Yin, 1979, p. 22). His framework was developed from observations of several innovations in public organizations and illustrates the process of organizational change: improvisation stage; expansion stage; and disappearance stage. The improvisation stage is the phase when organizations begin to

adapt innovation. The expansion stage included formal integration of the innovation into an organization's daily operations. The disappearance stage implies that the innovation is no longer regarded as a new. Based on observation study, Yin (1979) found that the internal conditions of the organization lead the innovation into regular activity, referred to as routinization. The level of routinization is determined by two factors; passage and cycles. The passage implies the symbolic one-time event that changes from temporal to permanent, such as funding, and cycles is the repeated organizational events caused by the innovation. The routinization occurs during the expansion and disappearance stages.

The second well-known framework for sustainability is proposed by Goodman and Steckler (1989). Goodman & Steckler (1989) built on the Yin's theory and integrated the typology of organizational subsystems developed by Katz and Kahn (Johnson et al., 2004). They identified that an innovation's institutionalization is determined by two dimensions; extensiveness and intensiveness. Extensiveness refers to the degree of integration into subsystems of a host organization. In intensiveness, there are three stages: 1) passage, 2) routines (cycles), and 3) niche saturation. In the beginning of institutionalization, the organization formally documents the program (passage). After being formally integrated in the organization, the program should be continuously implemented and find stable funding (routine). The last stage occurs when the program is expanded beyond the subsystem (niche saturation) (Robertson, 2005). This extensiveness and degree of intensity provides the level of institutionalization of the innovation. The organizational subsystem typology has contributed to develop a measure of the degree of institutionalization (Johnson et al., 2004).

In reviewing a variety of health promotion programs, Scheirer (2005) identified five factors related to sustainability, including program modifiability, program-organization fit, perceived program benefits, having a champion, and having access to assistance. Program modifiability is concerned with whether program adapters can modify the program to fit their community without jeopardizing core components of the program. In the organizational setting aspect, having a champion, the fit of the program in the organization, and perceived program benefits are the most influential factors. These factors are similar to Yin's routinization factors. A champion is the leader(s) who play(s) key roles in the process of adapting the new intervention and planning the sustainability. Program-organization fit refers to the similarity between the new intervention and the parent organization's mission and culture. Ability to adapt the program refers to the organization's capacity to start and implement a new program. Perceived benefits refer to whether the organization's staff and program participants realize or feel benefits from the program. Lastly, having access to assistance focuses on the community environment surrounding the program and refers to the availability of support from other stakeholders in the community. It reflects availability of the resources and technical assistance over time from other organizations in the community.

Organizational Change Theories

Organization-level models and theories describe how organizations function and change to meet changing conditions and needs. In building a road map for adapting and institutionalizing evidence-based programs, multiple theories/models are necessary to increase understanding of the entire process (Goodman & Steckler, 1989). To this date, several theories/models describe the entire organizational change process of adapting new

health promotion programs (Goodman & Steckler, 1989; Rogers, 1983; Scheirer, 2005; Steckler & Goodman, 1989; Yin, 1979). Four major theories are often identified in the field of organizational change: Organizational Development Theory, Diffusion of Innovations Theory, Life Cycle Theory, and Planned Adaptation Theory. Although these theories are similar to one another due to the complexity of organizational change, this dissertation used these theories to develop its' theoretical framework.

Organizational Development Theory. Organizational Development Theory, developed by Lewin (1951), suggests that the degree of equilibrium between the forces driving for change (driving forces) and striving for the status quo (restraining forces) determines the occurrence of change. When the forces driving for change increase, and the forces striving for the status quo decrease, organizational change is likely to occur. He proposes that the process of change has three steps: 1) unfreezing; 2) moving; and 3) refreezing. During the unfreezing phase, the organization resists change and maintains its current activities. Increasing members' desire to change can be helped by increasing their understanding of the benefits of change. The moving phase is the transitional phase, when the organizational structures and processes change and the organization's behavior, values, and attitudes change to accommodate structural and process changes. This phase is actual the implementation of change. The final stage is to refreeze the organization in the "changed" position by establishing norms, policies, and structures to stabilize the new change.

Diffusion of Innovations Theory. Diffusion of Innovations Theory, developed by E. Rogers (1983), is a widely known Organizational Stage Theory. Organizational Stage Theories are a class of theories focused on how an organization passes from one

stage to another. Although this theory is originally focused on the individual level, today's Diffusion of Innovations theorists apply this theory to organizational level (Glanz et al., 2002). Innovation adaptation decision-making process is applicable to organizational levels because this theory considers the innovation decision-making is made by the few individuals with high position of power within the organization; often these individuals refers to as champions (Rogers, 2003). The Diffusion of Innovations Theory addresses the process of adaptation of new ideas and practice. The central concepts of this theory are innovation and diffusion. Innovations refer to new ideas, objects, or practices for the individual, organization, or community. Diffusion refers to the process of communicating about an innovation, and maximizing the exposure to and reaching of the innovation.

The process of diffusion involves five stages: 1) innovation development; 2) dissemination; 3) adaptation; 4) implementation; and 5) maintenance (Glanz et al., 2002). The other scholars consider the process as three stages: 1) adaptation; 2) implementation; and 3) sustainability (Bartholomew, Parcel, Kok, & Gottlieb, 2006). During the innovation development stage, an organization begins to explore innovation. They identify the relevant audience, providing the information and feedback on the innovation's content, design, and presentation. Dissemination is the stage in which the organization explores effective way to deliver the innovation to a given audience. The third stage, adaptation, involves evaluation of the pros and cons of the innovation i.e. how the targeted audience responds to the innovation, what factors increase the likelihood of adaptation, etc. Implementation is the stage when the organization tries out the innovation.

The last stage, maintenance, refers to the ongoing implementation or continued use of the innovation in practice by the organization.

Life Cycle Theory. Similarly to other theories of organizational change, the Life Cycle Theory suggests that organizational change is a process. According to this theory, the change process is a cumulative and conjunctive natural sequence. The organizational characteristics acquired in earlier phases affect organizational function in later phases, and the events happening in the earlier processes may resolve in the final phase (Poole & Van de Ven, 2004). Unlike other theories, however, this theory does not emphasize the importance of completing the tasks at each phase, sees no clear distinction between phases, and avers that some of the phases overlap. The phases include the: 1) start-up (initiation) phase; 2) growth (implementation) phase; 3) harvest (continuous implementation) phase; and 4) termination (institutionalization or replacement) phase. Then the cycle restarts at the beginning with the addition of new activities or knowledge or modifications to the original activity for continuous change.

Scheirer (2005) extended the Life Cycle Theory to describe how health promotion program are adopted within organizations. She summarized the organizational change process under the title Program Life Cycle. This Program Life Cycle describes program adaptation from initiation to sustainability and points out that the conditions of implementation affect the sustainability condition. The identified process is similar to the others: 1) initiation; 2) implementation; 3) level of use (full use or incomplete use - activities are fully carried out or partially carried out); and 4) sustainability. Scheirer (2005) reviewed empirical literatures from project design and characteristics, organizational setting, and community and environmental aspects to identify factors

associated with sustainability. These factors are related to external environment, organizational setting, and program content. The review confirms the influence of sustainability across the Program Life Cycle.

Planned Adaptation Theory. Planned Adaptation Theory describes how organizations adapt evidence-based programs. The theory supports the initial process of evidence-based interventions and emphasizes capacity building within the organizations to speed the process of transferring research findings into practice. Using this theory in the processes of adapting evidence-based intervention to a new target population, Lee, Altschul, & Mowbray (2008) followed four major steps: 1) examining evidence-based program; 2) identifying population differences; 3) adapting program content; and 4) adapting evaluation strategies. Here, the Planned Adaptation Theory ends. During the examination of evidence-based program phase, the stakeholders examine the program contents to clearly identify key elements of the evidence-based program. The second phase, identify population differences, requires stakeholders to verify that core elements of the program theory are applicable to the new population. During the third phase, adapting program content, the stakeholders examine the implementation plan or program content and consider adaptations that may be necessary to modify for new target population with keeping the program's core elements. The last phase, adapting evaluation strategies, is the process which the stakeholders develop a new evaluation plan that reflects the core mechanisms of change within the original program (Lee et al., 2008).

Summary. In sum, organizational change can be promoted through changing organization structure, adapting new programs or services, and collaboration with other organizations to achieve common goals. All these theories explain the process of

organizational change as a sequence. They propose that processes that occur before implementation have some impact on sustainability. Table 1 summarizes the process of organizational change in the organizational change theories presented in this section.

Table 1. Summary of Organizational Change Theories and Models

Theories	Initiation →	Delivery →	Sustainment		
Lewin (1947) Organizational Development Theory	Unfreeze		Moving (Change)	Re-freeze	
Rogers (1983) Diffusion of Innovations	Innovation Development	Dissemination	Adaptation	Implementation	Maintenance
Bartholomew et al. (2006) Diffusion of Innovations	Adaptation		Implementation	Sustainability	
Van de Ven (2004) Life Cycle Theory	Start-up	Growth	Harvest	Terminate	
Scheier (2005) Program Life Cycle	Initiation		Implementation (level of use)	Sustainability (Sustained, discontinued, replaced)	
Lee et al. (2008) Planned Adaptation Theory	Examine theory of change	Identify population differences	Adapt program content	Adapt Evaluation Strategies	

Which theories best explain the evidence-based program adaptation process?

This dissertation was intended to investigate the adaptation by the Hawai‘i’s Aging Network of an evidence-based program, called CDSMP. The combination of Scheier’s Program Life Cycle Theory and the Planned Adaptation Theory was appropriate for this dissertation for four reasons. First, the examination of the change processes associated with evidence-based program adaptation is complex and multilevel

(individual, organizational, and communitywide). Organizational Development Theory focuses only on how the initial phase of the organizational structure influences workers' quality of life. Diffusion of Innovations Theory focuses only on the characteristics of early and late adopters and their decision-making process. These theories were too limited for the purposes of this dissertation, which were describing important factors in initiation of evidence-based program from HHAP, evaluating the impact of the evidence-based program, determining the factors that influence sustainability of the programs, and developing a roadmap for adapting such programs.

Additionally, HHAP partners represent a variety of organizations. Their adaptation processes were guided by HHAP, rather than by their own organizational initiative (although organizational buy-in was necessary). Organizational Development Theory and Diffusion Innovations Theory did not easily accommodate the complexity of HHAP's inter-organizational change processes.

Third, this dissertation aimed to investigate the factors influencing the sustainability of the CDSMP and considered that change is the continuous process. Organizational Development Theory and Diffusion of Innovations Theory put more emphasis on the factors that might be influencing the adaptation (initial phase) and implementation of programs, but not their sustainability.

Thus, this dissertation was guided by a "composite" framework that combines Scheirer's Program Life Cycle Theory and the Planned Adaptation Theory to examine CDSMP initiation, implementation, and sustainability phases. This was because the initial phase of the organizational stage is not well articulated in the Program Life Cycle Theory, while the Theory of Planned Adaptation (which provides a better fit for the

examination of evidence-based program adaptation in a number of organizations rather than a single organization) stops short of the sustainment phase. This framework was applied to describe how a community gets a number of organizations to adapt CDSMP in Hawai‘i’s community settings. Figure 1 illustrates the full CDSMP adaptation process.

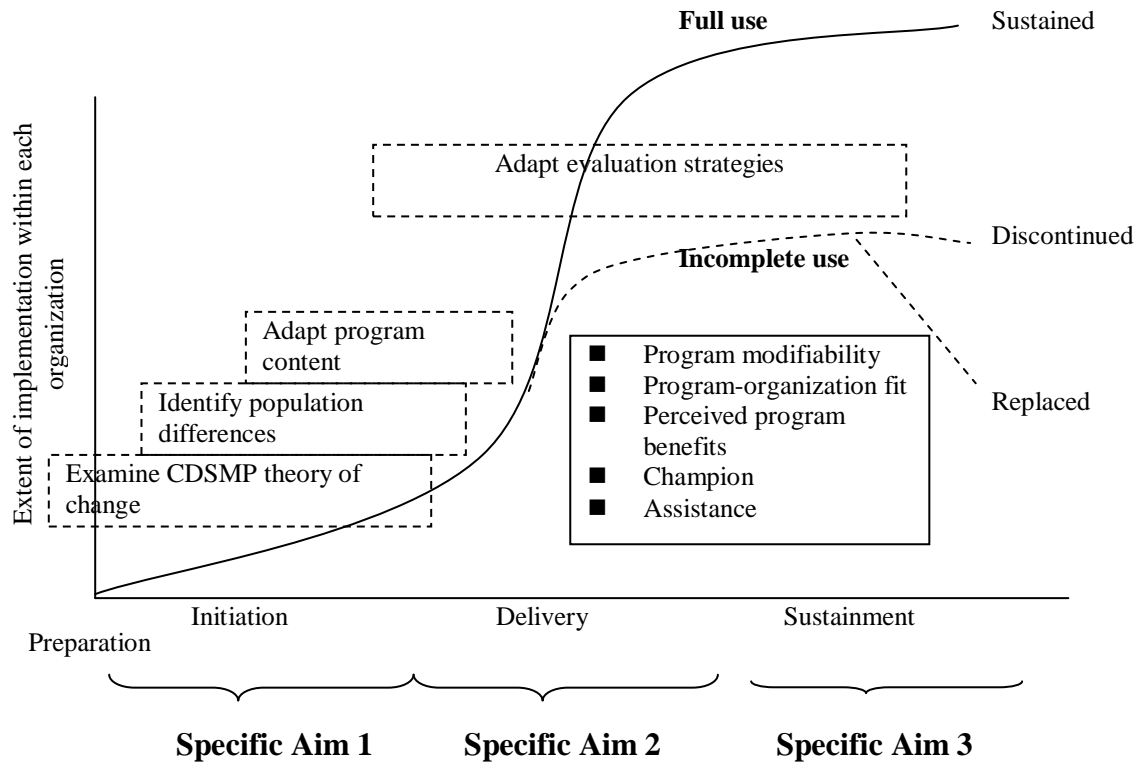


Figure 1. CDSMP Adaptation Process

Although depicted as linear, adaptation of evidence-based programs is not a simple process of organizational change. However, the framework suggests that the CDSMP adaptation process includes three phases: 1) initiation; 2) delivery; and 3) sustainment. The initiation phase describes the process of planning/designing the adapting of CDSMP, such as searching for information about the program, identifying the necessary modifications, confirming the appropriateness of the program, examining readiness to implement the program, and planning implementation and evaluation. The

delivery phase includes the process of actual delivery of the CDSMP to older adults, the monitoring of program fidelity and evaluation indicators, and the discussion of perceived benefits of the program. The sustainment phase is ongoing, but the result of this phase is the organization's decision to sustain, discontinue, or replace the program. Key in these phase are the specific strategies and factors related to sustainability of CDSMP by Hawai'i's aging network.

Conclusion

The issues associated with adapting evidence-based programs are very complex. This section presented an overview of organizational change. First, the concept of organizational change and sustainability were explored. Four major organizational change theories were described, all attempting to explain how organizations function and change to meet new conditions and needs. The change processes associated with evidence-based program adaptation are also dynamic and complex. Many theories are focused on the implementation phase of program adaption, rather than on the sustainability phase. This section concludes with description of theoretical framework that guided this dissertation. This dissertation employed a composite framework built from the Program Life Cycle Theory and the Planned Adaptation Theory to explore the whole process from initiation to sustainability of evidence-based program adaptation.

CHAPTER 4
METHODOLOGY

This section provides an overview of the dissertation research methodology, including the research questions, research design, sample, measures, data analysis procedures, and human subjects protection issues.

As previously described, this dissertation was undertaken to understand the process of adapting evidence-based program in the community, based on 5 years of experience (2007-2011) of the HHAP. The HHAP timeline and the three phases for this dissertation are illustrated in Figure 2.

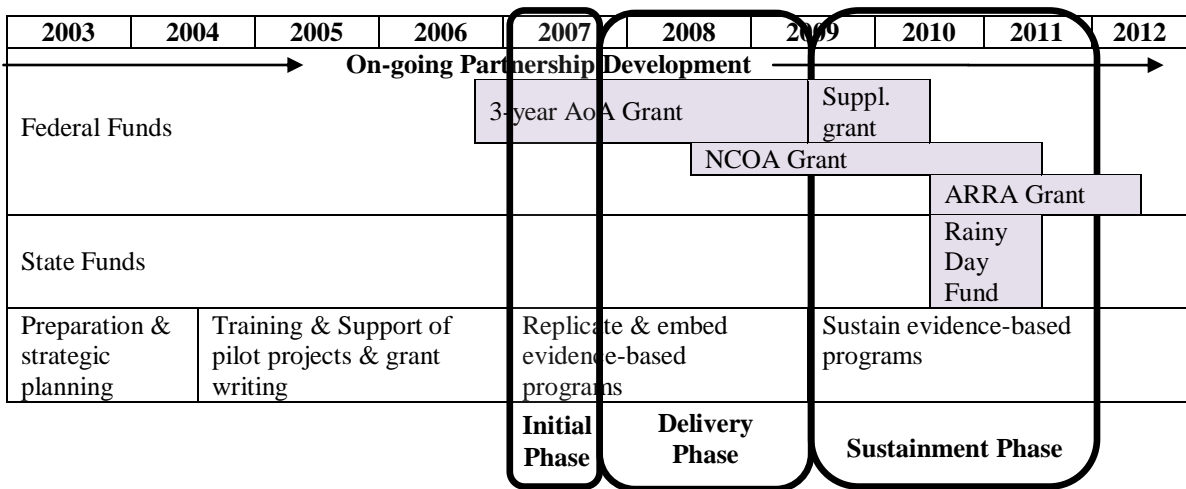


Figure 2. HHAP Timeline and Phases for Dissertation

As noted earlier, the HHAP was established in 2003, with membership from the Hawai‘i DOH, the EOA, the Area Agencies on Aging (AAA), University of Hawai‘i (UH), and various provider agencies. Between 2003 and mid-2004, HHAP partners developed a strategic plan, *On Creating a Legacy: Healthy Aging Project—A Strategic Plan on Achieving Outcomes (2005-2009)*, based on community needs. Between 2004 and 2006, the EOA offered several trainings and technical assistance for HHAP partners to pilot evidence-based programs in their communities. Experiences in developing the

strategic plan and piloting health promotion programs increased the skills and confidence levels of the HHAP partners. In August 2006, HHAP submitted to the AoA a grant proposal titled *Empowering Older People to Take More Control of their Health through Evidence-Based Prevention Programs*, which was subsequently funded for three years (awarded in late-2006) to replicate evidence-based programs on a larger scale. HHAP selected two evidence-based programs: CDSMP (which was a requirement of the grant) and EnhanceFitness®.

Preparations for implementing CDSMP began in 2007. In early 2007, HHAP members developed CDSMP implementation and evaluation plans (February to March) and assessed readiness to implement CDSMP (July to September). In June 2007, CDSMP master trainers from Stanford came to Hawai'i to provide the first training for local providers. The CDSMP was originally adopted in Honolulu and Maui Counties (in 2007). In 2008, HHAP received a grant from the National Council on Aging (NCOA) to help offer CDSMP statewide, and Hawai'i and Kaua'i Counties then adopted CDSMP. In 2009, HHAP received a supplemental grant from the AoA to continue the original three-year grant for another year (until June 2010). In 2010, HHAP was awarded another federal grant, funded through ARRA, as well as state funds to support CDSMP and EnhanceFitness®.

This dissertation focuses on the experience of replicating CDSMP from the time that HHAP was awarded the first three-year grant from AoA (in late 2006). The initiation phase began early 2007 to mid-2007, when HHAP began developing plans and began training agencies in CDSMP delivery. The delivery phase ran generally from June 2007 to June 2009, during which time multiple agencies gained skills and delivered

CDSMP to older adults across the state. The sustainability phase began in July 2009 and continues today, as agencies attempt to keep CDSMP operating. The time period from January 2007 through July 2011 is the focus of this dissertation.

Aims and Research Questions

The research had two broad aims:

1. To describe and determine the important factors that support or hinder organizational change at each phase of CDSMP replication (initiation, delivery, and sustainment).
2. To develop a road map for adapting evidence-based program by reviewing and summarizing findings about the “paths” of various agencies in Hawai‘i involved in adopting CDSMP and the key factors and critical turning points in their journeys.

The research questions addressed in this dissertation were:

1. Which conditions and processes contribute to or hinder organizational well-functioning in the initial phase of evidence-based program adaptation? And why?
2. Which conditions and processes influence program implementation? Does this evidence-based program work in our population?
3. How can we maintain effective delivery of the evidence-based program, achieved through initial implementation? Which conditions and processes contribute to the institutionalization of evidence-based program?

Each question was paired with the time phase. The first set of questions was addressed by data related to the program initiation phase, the second set was addressed by

data related to the program delivery phase, and last set was addressed by data related to the program sustainability phase. These questions were developed to identify supportive and hindering strategies, to allow illustration of “paths” taken by various agencies involved in CDSMP adoption, and to lead to the development of guidelines for adopting evidence-based program in real-life settings to promote elder health.

Research Design

The research questions described in the previous section guided the selecting of the research design and methods. According to Yin (2002), the case study is an appropriate research design when the research questions include “how” and “why” and examine contemporary events. Thus, this dissertation used case-study design, which enables us to understand the process of organizational change for CDSMP adoption in depth and to investigate “how” and “why” several organizations in Hawai‘i adapted and sustained evidence-based program successfully or unsuccessfully.

Yin (2002) explains that there are four types of case studies based on a 2 X 2 matrix. The types of case study designs are presented in Figure 3.

The first distinction in designing a case study is between single- and multiple-case designs. A single case study is an appropriate design when the case represents a critical, unique or extreme, typical or representative, revelatory, or longitudinal case to the understanding of a phenomenon or problem. A multiple-case study is an appropriate design when the study contains more than a single case. For example, when research is concerned about outcomes of multiple experiments that are intended to achieve the same goals, it becomes a multiple-case study as a whole.

Another design characteristic of a case study is whether the design is holistic or embedded. A holistic case study examines the nature of phenomenon. This type of case study uses a qualitative approach that relies on narrative, phenomenological descriptions. The embedded case study involves more than one major entity or group of individuals that is being analyzed under the targeted case, called unit of analysis, and can employ qualitative and quantitative approaches.

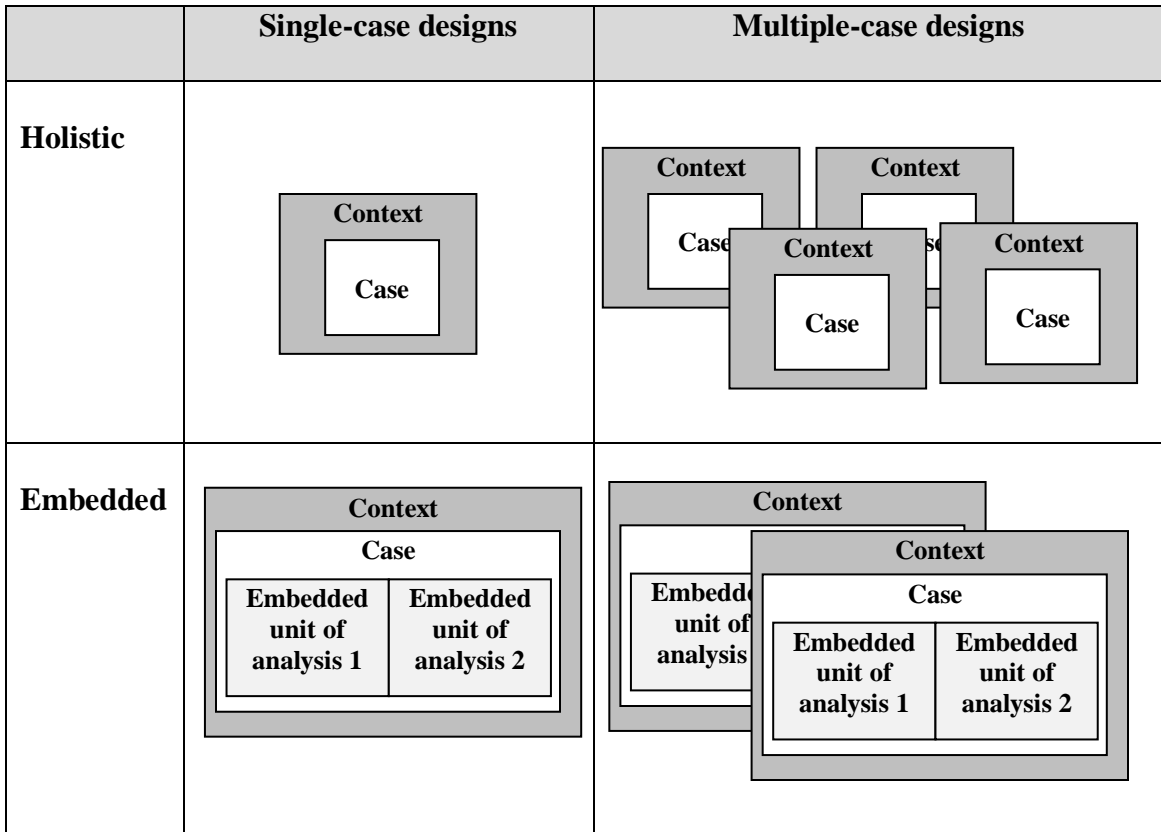


Figure 3. Types of Case Study Designs

Based on the typology, a single embedded case study was chosen as the best study design to address research questions because it is applicable to a descriptive study intended to illustrate the features, context, and processes of the adoption of CDSMP by multiple agencies in Hawai‘i. This design also allows researchers to use multiple data

collection methods and analysis of data from multiple levels of participants in the same process (Yin, 2002). Thus, this dissertation employed different methods to understand each of the three process of organizational change in adopting an evidence-based program: initiation; implementation; and sustainability.

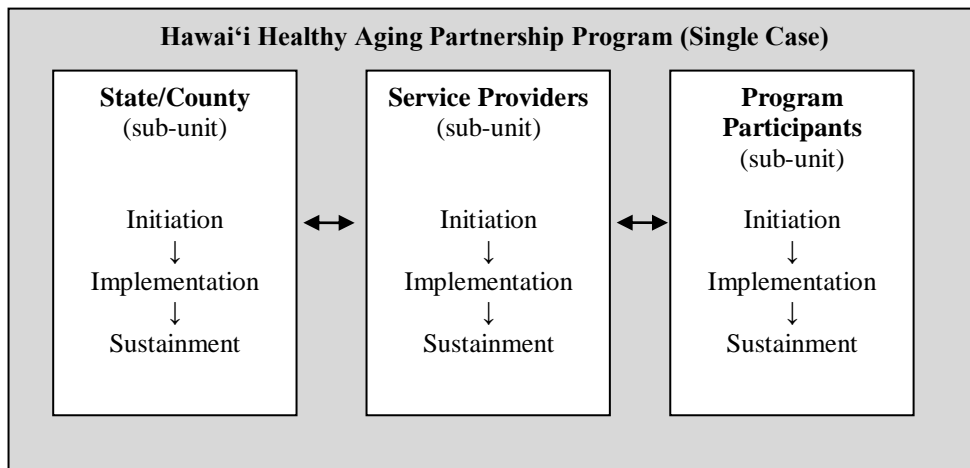


Figure 4. Sub-units and Phases within the Single Case Study Design

Three sub-units were studied. First is the state/county sub-unit. This unit is important because the AoA funds could only be granted to the State EOA (under the DOH), which distributed funds to the county AAAs. Another critical sub-unit is the service providers, many of which received funds and other support from their county AAAs for training and implementation of CDSMP. The third sub-unit was the CDSMP participants who were recruited by service providers and AAAs to participate in this health promotion opportunity. In this dissertation, service providers from Honolulu County were the focus of organizational change because they represent the organizations delivering CDSMP to older adults in the communities. State/county officials and program participants were considered as external factors, although data from these individuals were analyzed to understand the roles they played to influence the service providers to

adapt, deliver, and sustain CDSMP successfully and unsuccessfully. The sub-units within the case study are presented in Figure 4.

This dissertation examined each phase (initiation, implementation, and sustainment) to identify factors associated with “success” at each phase and how the service providers adapted or did not adapt CDSMP over time and to illustrate the various paths taken by individual organizations on their organizational change journeys.

Measurements

The case study design involves reviewing multiple sources of evidence. Data have been collected since 2007. A summary of the data collected during each phase and from each level of participant is presented in the Table 2.

Initiation phase. In this phase, the focus was on describing the important factors in the initiation of evidence-based program replication through assessment in two levels: state/county and service providers. Qualitative and quantitative data were collected from training checks, the annual survey of providers, agency readiness interviews, documents and archival records, and casual direct observation. To enrich the understanding of the successful conditions and process to adapt CDSMP, this dissertation study used multiple sources of data to examine Honolulu County service providers.

Table 2. Summary of the Data Collection Tools for Each Phase and Participant Level

Units	Initiation What conditions and processes support or hinder organizations in adapting CDSMP?	Delivery Does CDSMP work in our population?	Sustainment How can we maintain effective delivery of CDSMP?
State/ County	<ul style="list-style-type: none"> • Readiness interview • Annual survey (1st YR) • Documents & records • Direct observations 	<ul style="list-style-type: none"> • Annual survey (2nd & 3rd YR) • Documents & records • Direct observations 	<ul style="list-style-type: none"> • Semi-structured interview • Documents & records • Direct observations
Service Providers	<ul style="list-style-type: none"> • Training checks • Readiness interview • Annual survey (1st YR) • Documents & records • Direct observations 	<ul style="list-style-type: none"> • Annual survey (2nd & 3rd YR) • Fidelity checks • Documents & records • Direct observations 	<ul style="list-style-type: none"> • Semi-structured interview • Documents & records • Direct observations
Parti- cipants	<ul style="list-style-type: none"> • Documents & records 	<ul style="list-style-type: none"> • Outcome surveys: <ul style="list-style-type: none"> ○ Baseline ○ 6-month FU ○ Satisfaction • Documents & records • Direct observations 	<ul style="list-style-type: none"> • Semi-structured interview • Documents & records • Direct observations

Training Checks. Before implementing CDSMP, potential leaders and coordinators of CDSMP were required to complete training provided by Stanford University certified trainers. The measurements developed by other states to assess the impact of training were adapted and pretested with three people in Hawai‘i before using them here. An 11-item questionnaire was administered prior to and following the training. The questions tested understanding of CDSMP content, confidence in leading the workshop, and skills acquired in workshop training. Changes between the pre-post-test survey responses were analyzed by paired t-test.

Readiness Tool (Interview). A semi-structured readiness interview was used to assess organizational readiness to implement CDSMP. A lead person from each organization was interviewed by the HHAP evaluator via telephone. All the participants in these interviews were asked the same questions in the same order to increase

comparability of responses and reduce interviewer influence. The interviews were conducted after the organizational representatives completed the CDSMP leader training and before they implemented their first CDSMP workshop. The interview questions were developed from the “self-assessing readiness for implementing evidence-based health promotion and self-management programs” developed by NCOA (NCOA Center for Healthy Aging, 2007). The questions consisted of eight items, including positive/negative factors associated with implementing the program, availability of other resources, accessibility of technical assistance, availability of support from other partners, and ability to use the evaluation forms. The interviews were transcribed into text files and were analyzed by content analysis.

Annual Survey. Since 2007, organizational representatives from government officials and service provider agencies have completed a self-administered survey. The survey was modified from the “Getting To Outcomes” tool (CDC PSBA Evaluation Workgroup, 2007) and assessed: length of involvement with HHAP (1-item); participation in training (4-items); members’ perceived gains in knowledge (9-items), confidence (4-items), and skills (4-items) related to replication of evidence-based programs; satisfaction with HHAP (6-items); challenges (1 open-ended item); and perceived accomplishments (1 open-ended item). The training experiences questions asked about past training experience within the HHAP and outside the HHAP, and recommended areas for future training for HHAP members. For analysis of the initiation phase, the first year’s annual survey result (from 2007) was used. The quantitative sections of the survey were analyzed by descriptive statistics and paired t-test. The qualitative sections of survey were analyzed by content analysis to identify themes or

ideas that emerged from the transcription. Content analysis is the systematic and rigorous evaluation of words of text into specific categories (Berelson, 1952; Krippendorff, 1980; Stemler, 2001). This analysis is a way of transforming qualitative material into quantitative data (Rubin & Babbie, 2005) in order to characterize and compare documents (Denzin & Lincoln, 1994) such as transcribed documents.

Documents & Archival Records. Documents available for analysis in this case study included implementation and evaluation plans using the “Track Change Tool” adapted by the National Council on Aging (NCOA, n.d.) from Peterson (2003) to deconstruct CDSMP into its components, e-mail communications, semi-annual reports to AoA, monthly and first-year annual report from the evaluators to state or county agencies, abstracts for conferences, meeting agenda and minutes, and brochures and flyers. Archival records included the HHAP’s grant proposal and strategic plan, personnel or financial records, media stories, and other relevant materials. These documents included information on organizational characteristics, community supports, partners’ perceptions of the program, and suggestions for improvement. These were used with other evidence gathered from other sources to triangulate and contextualize findings.

Casual Direct Observations. Field notes were recorded, documenting unique events or conditions that occurred during the meetings, interactions with AoA and NCOA site visitors, and regular informal conversations with partners. These notes were used with other evidence to triangulate the findings.

Delivery phase. In this phase, CDSMP impact was assessed on three levels: state/county, service providers, and participants. Data available for analysis included the annual survey of state/county and service provider knowledge, skills and confidence to

deliver CDSMP (described in the previous section) as well as data from the tracking of fidelity of CDSMP delivery and from the tracking of program impact on older adult participants. These data helped us examine the effectiveness of the program as it was offered in a variety of community settings, and to understand the partners' and participants' perspectives on the program. To elicit the successful conditions and process to adapt CDSMP, this dissertation study used multiple sources of data to examine Honolulu County service providers.

Annual Survey. This is the same tool presented above. Organizational representatives were asked to complete this self-administered survey annually. For the implementation phase (2008-2009), data from the second and third year's annual survey results were available.

Fidelity Checks (Fidelity of Delivery). This assessment was applicable only to service providers. CDSMP is an evidence-based program. As such, the key components of intervention should be delivered exactly as designed by the original study to obtain the same effectiveness. In HHAP, the fidelity of intervention delivery was monitored by the evaluator using a ten-item assessment form developed by Stanford University (2006). The form, which used items scored on a 4-point Likert scale (1= poor to 4= excellent), contained questions that evaluate leader adherence to the Stanford Leader's Manual, appropriate modeling of Stanford CDSMP activities and techniques, and compliance with CDSMP leader protocols. Each six-session workshop was monitored either one or two times. The findings were analyzed by descriptive statistic techniques.

Outcome Surveys. This assessment was applicable only to program participants. HHAP used participant outcome measurement tools that were already developed and

validated by Stanford University. HHAP gathered data from participants at baseline (pre-test), immediately upon completion of the CDSMP 6-week workshop (satisfaction survey), and 6-months after the workshops (post-test) using self-administered questionnaires. The pre- and post-test questionnaire assessed participant's demographic characteristics, health status, health behaviors, self-efficacy, communication with physician, and health care utilization. Program satisfaction was assessed at the last session of the CDSMP 6-week workshop. The satisfaction survey was adapted from a survey by Stanford University (15 items). It asked participants how they heard about the workshop, reasons for attending the workshop, satisfaction with the leader and the workshop, and their perceived skills, knowledge, and confidence to use self-management tools. For pre-post survey, participants younger than 60 years old as well as those who did not attend more than 4 out of 6 sessions were excluded. Changes from baseline to 6-month follow up were analyzed by paired t-test. Because findings on participant outcomes have been presented elsewhere, they are not reported in this dissertation (Tomioka, Braun, Compton, & Tanoue, 2012). Overall, participants who attended at least four of six sessions reported significant decreases in social/role activity limitation and significant increases in communication with physicians 6 months following the intervention. They also realized increases in self-rated health, time spent engaging in stretching/strengthening exercise, reductions in health distress and self-reported physician visits, and increases in time spent in aerobic exercise, ability to cope with symptoms, and self-efficacy.

Documents & Archival Records. As described above, documents available for analysis for the implementation phase included e-mail communications, semi-annual

report to AoA, monthly and second and third year's annual reports to state or county agencies by evaluators, abstracts for conferences, meeting agenda and minutes, and brochures and flyers. Archival records included general staffing and budget information, print media articles, and other relevant materials. These were used with other evidence gathered from other sources to triangulate the findings.

Casual Direct Observations. As in the initial phase, field notes included mention of unique events or conditions happened during the meeting, of site visits, and of regular informal conversations with partners. This evidence was used with other evidence to triangulate the findings.

Sustainment phase. Original funding from AoA for HHAP ended in June 2009. However, some supplemental funds were received from AoA to support HHAP through June 2010, with a clear message that HHAP must work to sustain CDSMP without guarantees of future funding. During this phase, the conditions associated with program sustainability were assessed from three levels: state/county, service providers from Honolulu County, and participants. The service providers from Honolulu County were selected for the interview because other counties started to deliver CDSMP through AAAs rather than contracting with each service provider. Data were collected using a sustainability interview.

Sustainability Interview. This dissertation defined sustainability as the institutionalization of CDSMP in an organization in a way that leads to health benefits for seniors served by the organization. To understand sustainability, face-to-face, semi-structured sustainability interviews were conducted with a purposive sample of participants from the three levels, including service providers that were and were not

successful in fully implementing CDSMP. Between October and December 2010, government officials and service providers were interviewed. Between April and July 2011, program participants were interviewed.

Interview questions were developed from the literature (e.g., Aitaoto, Tsark, & Braun; 2009; Scheirer, 2005) and from theories guiding program sustainability, with modifications appropriate to the level of participant being interviewed. For government officials and service providers, the open-ended questions asked: 1) organization's participation level (whether they are actively engaged or not) and reasons for their level of involvement; 2) the number of champions who fostered the program implementation and sustainment and how they contributed to program sustainment, 3) the degree of match between the organization's goal, CDSMP's content, and HHAP's mission; 4) perception of CDSMP and HHAP; 5) access to resources and technical assistance over the course of HHAP, and how resources helped or did not help, and 6) perceived flexibility and benefits of CDSMP. In addition to collecting verbal responses to these questions, respondents were asked to score each component on a 5-point Likert scale, with a 5 indicating: 1) greatest organizational readiness; 2) greatest level of commitment; 3) very successful delivery; 4) a high level of acceptability of CDSMP; 5) a high level of benefits of CDSMP and 6) very effective champions; 7) the highest degree of match with CDSMP and HHAP; 8) excellent access to resources and technical assistance; and 9) a high level of sustainability.

For program participants, the interview questions focused more on program benefits. Participants were asked how their self-management behavior changed overtime

through taking the CDSMP workshop, the types of activities that were helpful for them to maintain their health, and ideas for organizations to sustain CDSMP into the future.

Each interview was audio taped and transcribed into text files. Then, the data were analyzed by two researchers using content analysis. Two researchers read each transcript, established codes from the reading, and categorized the data. Then, the two researchers discussed the findings. If there were differences encountered, the differences were resolved by re-reading the transcripts and furthering discussion until consensus was reached. Triangulation was used to compare the results from multiple data collection methods.

Documents & Archival Records. As noted for the earlier phases, documents included e-mail communications, final reports to AoA, new grant proposals, annual reports to state or county agencies, abstracts for conferences, meeting agenda and minutes, and brochures and flyers. Archival records included general staffing and budget information, print media articles, and other relevant materials. These were used with other evidence gathered from other sources to triangulate the findings.

Casual Direct Observations. As in the other phases, field notes were kept of unique events or conditions, site visits, and regular informal conversations with partners. This evidence was used with other evidence to triangulate the findings.

Sample

In all three phases, participants were recruited through a purposive sample of three levels of participants: 1) government officials, i.e., representatives from the EOA/DOH and the AAA; 2) service providers in agencies delivering CDSMP, especially from Honolulu County; and 3) older adult program participants in CDSMP.

Government officials. The EOA serves as the lead advocate, planner, and facilitator relative to all aging and family caregiving issues in the state. It allocates federal and state funding and provides program and policy direction and technical assistance to the state's four AAAs, one in each of four counties in Hawai'i. The AAAs develop, fund, and advocate for senior services in their distinct geographic planning and service area (Hawai'i DOH, 2009). In HHAP, EOA was responsible for statewide coordination with the support from DOH, and the county AAAs were responsible for county-level coordination of HHAP activities.

Service providers. Service providers are the agencies that deliver services and programs for older adults and caregivers, funded through contracts from the AAA and other sources. In this dissertation, the service providers were the agencies that actually delivered the CDSMP. For the detail examination, this dissertation used Honolulu County providers to explore the conditions and process of CDSMP adaptation.

Participants. Program participants were the older individuals (age 60 or greater) who enrolled in CDSMP. This dissertation study used the participant data as supportive information for government officials and service providers.

Data Analysis Procedures

Data from initial and delivery phases were collected in the course of program implementation and evaluation. The sustainability interview data were collected after the dissertation proposal was approved.

Initial phase (January to July, 2007). During this phase, data were collected by four methods (Track change tool revealed from other documentation, readiness interview, training checks, and first year annual survey). Data were collected mostly from

government officials and service providers (Table 3). Five government officials (three from EOA/DOH and four from AAA) and three service providers from two agencies participated in a special Project Implementation meeting on February 14, 2007. They received briefings on the project, roles and responsibilities, and administrative structure. This meeting was also dedicated to applying the “Tracking Changes” tool. Between June and September 2007, two government officials (from AAA) and ten service providers (from six agencies) were interviewed on their readiness to replicate CDSMP in their communities. During the AoA three-year grant period, HHAP offered seven leader trainings, and training checks were completed by 76 individuals (16 from governmental officials, 53 from service providers from 19+ agencies, and 12 unknown). In 2007, the annual survey was completed by nine government officials and eight service providers from five agencies.

Table 3. Initial phase assessment methods and sample size

	Track Change Meeting N	Training Checks N	Readiness interview N	Annual Survey N
Government Officials	7	16	2	9
Service Providers	3	53	10	8

Delivery phase (August 2007 – June 2009). During this phase, data were collected by four methods (Table 4). Specifically, the annual survey was conducted twice (second and third years), 16 individuals (six government officials and 11 service providers from six organizations) completed the 2008 annual survey, and 14 individuals (eight government officials and six service providers from five organizations) completed the 2009 annual survey. Service providers led 53 workshops, with 519 participants.

Included in this analysis were 510 (98%) of participants from 52 workshops, as nine participants from one workshop was not able to use the HHAP evaluation forms. During this phase, 510 participants (449 older adults and 18 missing age data) enrolled, and 442 participants (403 older adults) completed the workshop (attending more than four out of six sessions). The workshops were offered by 16+ organizations: Two workshops were led by solely government officials' organizations, 13 workshops were led by government officials' organizations with their service providers, and 37 workshops were led by solely service providers. Of the 52 workshops, fidelity monitoring data were available for 51 (98%), reporting on 43 different leaders (6 government officials and 37 service providers from 15+ organizations).

Table 4. Delivery phase assessment methods and sample size

	YR2 Annual Survey N	YR 3 Annual Survey N	Fidelity Checks (51 workshops) N	Participant Outcomes (52 workshops) N
Government Officials	6	8	6	(Tomioka et al., 2012)
Service Providers	10	6	37	

Sustainment phase (July 2009 – July 2011). During this phase, data were collected through the semi-structured sustainability interview, designed to assess the conditions associated with program sustainability (Table 5). Ten government officials (one from EOA, two from DOH, and two from each AAA except Maui County which had 3) 12 service providers (from seven agencies), and 12 participants from four agencies were interviewed. Annual surveys for Years four and five were available from 23 government officials and 18 service providers.

Table 5. Sustainment phase assessment methods and simple size

	Sustainability Interview N	Documents & Archival Records	
		YR4 Annual Survey N	YR 5 Annual Survey N
Government Officials	10	10	13
Service Providers	12	8 (7 orgs)	10 (7 orgs)
Participants	12	-	-

Human Subjects Procedures and Ethical Issues

This case study involved reviewing multiple sources of evidence such as documents, interview transcripts, survey data, and field notes. The data collection forms and protocols were approved by UH Institutional Review Board. Their approval ensured that the research process was ethical and maximized protections for study participants. Individuals who were asked to participate in the dissertation study received an explanation of the purpose of the study, its methods, and its potential benefits and risks. If participants agreed to participate in the study, they were asked to signify so by signing a consent form. All the information that can identify the individuals was kept confidential by storing it in a locked cabinet.

CHAPTER 5

RESULTS

Three research questions proposed by this dissertation were guided by a “composite” framework that combined Scheirer’s Program Life Cycle Theory and the Planned Adaptation Theory to examine CDSMP initiation, implementation, and sustainability phases.

Initial Phase

The first research question explored the conditions and processes that contributed to or hindered organizational well-functioning in the initial phase of CDSMP adaptation and why. Data were gathered using four tools—the Track Changes tool, the readiness interview, training checks, and the first-year annual survey.

Track change meeting results. According to our documents, the first step HHAP took for preparation was deconstructing CDSMP and developing implementation plans. The HHAP team met on February 14, 2007 to initiate the preparation. In this meeting, government officials and service providers applied the “Track Changes” tool. This tool prompts adapters to deconstruct the evidence-based program into domains, for example marketing, recruiting enrollees, identifying staff, training, scheduling, implementation, and evaluation (NCOA, n.d.; Peterson, 2003). During this meeting, HHAP identified how major CDSMP domains were originally implemented. HHAP discussed how HHAP could replicate each element within a domain as proposed in the CDSMP procedure, or if HHAP wanted to adapt it.

Then, each desired change was examined using the “adaptation traffic light” to judge which elements of the evidence-based program could be modified (Centers for

Disease Control and Prevention Division of Reproductive Health & ETR Associates, n.d.). Red-light changes are those that cannot be made, such as substantially shortening the program or deleting activities. Green-light changes, such as creating a local name for the program, can be freely made. Yellow-light changes are those that can be made with caution, because there is a chance that they could decrease program effectiveness. One of the activities in the replication plan is to review potential yellow-light changes with the original developers of the evidence-based program.

HHAP CDSMP adapters identified how major program components were originally implemented and how HHAP wanted to replicate or adapt CDSMP. In the original study, the participants were adults with chronic conditions and many of them were White, the program was called “Chronic Disease Self-Management Program,” and participants were recruited from an HMO. CDSMP was offered over a 2.5-hour session, once a week, for 6 weeks. Leaders followed a scripted manual. Data were collected on participant demographics, attendance, self-management behavior, self-efficacy, health status, and health care utilization.

HHAP decided to open the class to older adults throughout the community, and expected most of participants to be Asians and/or Pacific Islanders. To market the program, HHAP changed the name of the program to Ke Ola Pono and adopted a bamboo logo. Also, local program adapters recruited participants using a presentation developed by HHAP, and many Hawai‘i service providers recruited older adults they already were serving in other ways. These changes were considered green-light changes. To the CDSMP class length was added an opening prayer for Pacific Islander groups, as prayer normally is used by start Pacific Islander gatherings (Braun, Tsark, Santos, Aitaoto, &

Chong, 2006). A certificate of completion was added, especially motivational to Asian participants, who felt like they were “graduating from Stanford.” Most importantly, CDSMP leaders were trained from the communities within which we wanted to offer the program. These were considered green-light changes as well.

HHAP wanted to add a “Session 0” to help elders with completing consent and data collection forms and a 6-month reunion to help assure collection of six-month follow-up data. As these were considered yellow-light changes, HHAP consulted with Stanford University, which approved the changes. Offering session 0 and six-month reunion helped overcome health literacy and vision barriers experienced by some program participants, and allowed participants to share their successes at the reunion.

For the content of the program, HHAP asked Stanford for permission to deliver CDSMP in the participants’ native language (e.g., Ilokano or Samoan) or in Pidgin (Hawaiian English). Stanford recommended delivering CDSMP in Standard English only, but to add opportunities to explain terms and clarify concepts using local examples. Thus, leaders made special efforts to teach unfamiliar English words related to self-management (like fatigue and self-efficacy) and use local examples. Leaders also used native language to review program content during breaks and after each session. In addition, in most Asian and Pacific Islander cultures, it is not customary for a younger person to tell an elder what to do. Thus, HHAP asked Stanford if we could start sessions with an “apology” by the leaders, who asked group members not to be offended if the leaders asked them to finish their comments and let another elder speak.

From the CDSMP training and manual, it was clear that red-light changes would include shortening the program, using untrained leaders, and deleting or changing any

self-management practices such as brainstorming, action planning, and the motivational approach. HHAP did not make red-light changes.

Following the program deconstruction and adaptation process, HHAP identified major activities for training, implementation, and monitoring fidelity. HHAP partners added “due dates,” and identified the “responsible party” for each activity, and transformed the tool into a plan for action. HHAP also prepared an evaluation-specific plan to provide clear guideline for evaluation forms that includes when and how to use the forms.

Training checks results. The initial CDSMP training was held on the island of Oahu in June 2007 by Stanford University. By the end of AoA three-year grant period, HHAP offered seven leader trainings. Of the 103 individuals attending training, 101 individuals completed it (22 government officials, 72 service providers, and seven unknown). One of the trainings was not able to conduct the pre-post training checks. Thus, data for 76 individuals (16 government officials, 53 service providers and seven unknown) were available for analysis.

From pre-post questionnaires, HHAP demonstrated that leaders made significant improvements in knowledge (to list the essential CDSMP $t=-13.77$, $p<.001$ and explain differences between acute and chronic diseases $t=-9.76$, $p<.001$), skills (to assist participants with making action plan $t=-16.30$, $p<.001$; assist participants using problem solving process $t=-14.65$, $p<.001$; and to track attendance $t=-13.86$, $p<.001$), and confidence (to answer questions $t=-10.30$, $p<.001$; to handle participants who talk too much $t=-6.78$, $p<.001$; and to handle participants who refuse to participate $t=-8.10$, $p<.001$).

Other documentation confirmed that trained leaders worked with co-leader from the same agency to implement the program. However, a few agencies from Honolulu County reported that they faced with challenges to find co-leaders due to limited number of leaders trained within their agencies. On the other hand, Maui County decided to offer the CDSMP workshops by utilizing leaders from variety of agencies. They did not have a problem teaming up leaders to offer CDSMP in their communities.

Readiness interview results. The third method HHAP used was assessing organizational readiness to implement CDSMP. Two government officials and ten lead individuals from participating agencies in Honolulu and Maui counties were interviewed by telephone. All 12 (100%) reported that they were willing to implement CDSMP and stay true to the model being implemented. They identified barriers and supports to implement CDSMP. They reported that they had potential participants (n=11), felt that technical assistance was readily available from HHAP members (n=10), and had adequate funds to offer CDSMP workshops (n=11). Eight of 12 respondents were working with new partners by participating with HHAP. All (n=12) agreed to follow the HHAP evaluation protocol.

Eight representatives reported difficulty with resources [e.g., limited number of leaders trained (n=6), difficulty getting program materials from the publisher (n=2)]. Five representatives reported difficulty with marketing CDSMP (e.g., explaining the program, motivating participants to come, the requirements to offer CDSMP in English only, limited transportation availability). Those that identified barriers were helped by the HHAP team to identify ways to overcome these barriers.

Annual survey results. The first-year annual survey was completed by 17 individuals (9 government officials and 8 service providers) in August 2007. The majority of government officials (n=8) had participated in HHAP before 2004, whereas the majority of service providers (n=7) joined HHAP after the AoA grant in 2006. Many of the government officials had attended trainings related to CDSMP planning and coordination, such as needs assessment, evaluation, and logic model (range from n = 5-8) where as majority of service providers reported no trainings prior to HHAP involvement (range from 0-1). On the other hand, many service providers (n=7) had received CDSMP training, where as only one government official reported he/she had attended CDSMP training. Both government officials and service providers felt they wanted more training in evaluation, grant writing, and fidelity monitoring. Both government agencies and service providers reported high level of satisfaction with HHAP, perceived knowledge gain about evidence-based programming and CDSMP, and increased skills related to CDSMP implementation and evaluation (Figure 5).

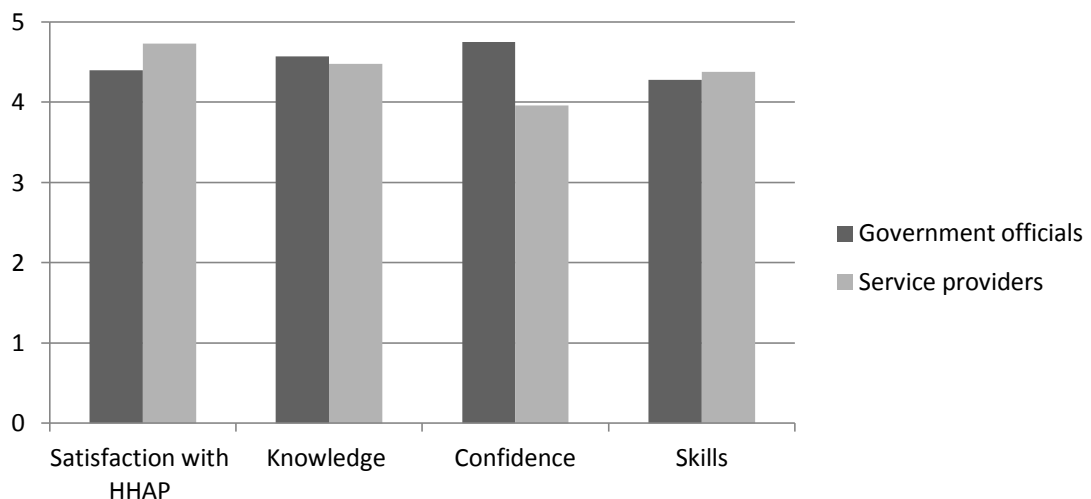


Figure 5. First year annual survey results

Open-ended questions from the first-year annual survey revealed the HHAP positively impacted HHAP members themselves (e.g. they reported learning a lot about CDSMP, had benefited so much, were taking charge of own health), that they had expanded their networks (e.g. were working with more providers, were working more closely with other agencies, had made great contacts), and appreciated sharing information (better understood what was happening at the state level, and better understood each program's needs). They also felt HHAP should prepare for sustainability by expanding partnerships with other organization, offering more training, formalizing the program, marketing to the general public, finding more funding, and disseminating findings.

Initial Phase Road Map. Using multiple sources of available data, the case of Honolulu service providers' initial phase conditions and process in CDSMP adaptation were analyzed. Table 6 summarized the available data for initial phase.

Table 6. Initial phase conditions among Honolulu County service providers

CDSMP Oahu Partners		Initial											
		Enrolled	Participation in planning (Y/N)*	Readiness level (1-5; 5 high)	# trained	Identify potential participants (Y/N)*	Key findings from other documents	Support from boss	Enthusiasm level	Mtg attendance %	Mtg usefulness (1-5; 5 high)	Commitment level (1-5; 5 high)	Prg. accept level (1-5; 5 high)*
Provider A	Funded	'06	Y	5	8	Y	Very active; frequent contact with EOA, DOH, UH, & EAD First time to work with other providers	High	High	Local 100% State 100%	4.5	5	4.25
Provider B • Div1 • Div2 • Div3	Funded for Div1	'06 '07	Y	5	9	Y	Concerned with language issues for their clients: Came up with pre-session. Frequent contact w/ UH. First time to work with other providers	High	High	Local 100% State 20%	5.0	5	5
Provider C	Funded	'04	N	3	8	Y	Wanting more mtgs/trngs, Monitoring was not clear First time to work with other providers. Concerned with language issues for some of clients	Mild	Mild	Local 50% State 0%	5.0	3	4.5
Provider D	Funded	'07	N	4	5	Y but not easy	Problem getting seniors to participate in the program Connected them w/ other providers	Mild	High	Local 50% State 0%	5.0	5	5
Provider E	Not funded/ Org \$	'07	N	5	4	Y but not easy	Did not have group Problem finding sites and seniors. First time to work with other providers	Neu-tral	High	Local 100% State 60%	-	5	4

Table 6. (Continued) Initial phase conditions among Honolulu County service providers

CDSMP Oahu Partners		Initial											
		Enrolled	Participation in planning (Y/N)*	Readiness level (1-5; 5 high)	# trained	Identify potential participants (Y/N)*	Key findings from other documents	Support from boss	Enthusiasm level	Mtg attendance %	Mtg usefulness (1-5; 5 high)	Commitment level (1-5; 5 high)	Prg. accept level (1-5; 5 high)*
Provider F	Not funded/ Org \$	'08	N	2	3	Y	HHAP expectation was not clear. Connected w/ DOH only	Un-known	High	Local 0% State 0%	(unclear expectations)	2.5	3
Provider G	Not funded	'08	N	1.5	4	Unsure	Did not know about licensing fee. Concerned with language issues for their clients Connected w/ DOH only	Not	High	Local 0% State 0%	- (unclear fee)	1	2
EAD • Grant • Otrch	Funder	'03 '07	Y	2	12	Y	Need additional funding for sustainability. Market to general public. New program so had concern. Limit to 60+	Not	Mild	Local 100% State 100%	3.5	2	5
EOA	Funder	'03	Y	5		-	Director was new	High	High	Local 100% State 100%	4.5	5	5
DOH	Not funded	'03	Y	4	2	-	Expand partnership for sustainability	High	High	Local 0% State 100%	4.0	4	4.3

Note. Under Oahu partners: Div = Division

*(Y/N): Y = Yes, N = No

Meeting: Two local meeting were offered, six statewide meeting were offered

Providers A to D were funded by EAD beginning in 2006, whereas Provider E and F were able to secure funds through their organization. Only Provider G could not find funds to initiate CDSMP. DOH provided linkage for public health partners to participate in HHAP, and Provider F and G began to participate in HHAP from the second year of AoA three-year grant. When HHAP held its two-day planning and adaptation meeting (described above), Provider A and B were invited to participate because Provider A expressed high interest and Provider B had a leader who went to training in Stanford and had experience offering CDSMP.

Providers rated their readiness before they conducted their first workshop, and Providers F and G rated themselves as low. The low rating may be reflecting that they did not fully understand the HHAP expectation and CDSMP requirements. All the providers sent staff members to CDSMP training during the initial phase. The number of trainees varied by organizations because each organization had a different size and scope of service.

During the initial phase, providers were asked whether they could identify elders as potential participants. All providers except Provider G were able to do so. Providers D and E reported that they identified potential participants, but that it might not be easy to motivate them to participate in CDSMP.

The level of supervisor support for CDSMP varied by agency. Providers A and B had strong support, whereas Provider C and D had mild support from their supervisor. Provider E had neutral support, and Provider G did not have support. Provider F's condition was unknown since the staff who was in the initial phase moved to the mainland. Five out of seven providers were very enthused about CDSMP. Two

providers were mildly enthused, possibly because of uncertainty of HHAP requirements and expectations.

Although both statewide and local HHAP meetings were open for all partners, five out of seven providers attended HHAP meetings. Two providers (F and G) were not able to participate in the meetings at all. Provider F had a conflicting meeting at the same scheduled time. Provider G could not find time to participate in the meetings (no commitment). Providers that participated in the HHAP meeting felt the meetings were well-organized and useful, their opinion was taken seriously, and the group made decisions and took appropriate follow-up actions. The level of the meeting usefulness was noted as “unsure” for Provider E because they were not able to complete the annual survey.

Four providers were fully committed in HHAP. Two providers (F and G) had low commitment level, but one was able to pass the initial phase. This may related to the level of support from their supervisor. Although a few providers felt language may be a barrier for implementing CDSMP, six of seven providers felt that CDSMP was acceptable to their clients after minor modifications. Provider G felt CDSMP many not be the good fit for their clients.

After reviewing all of the data from initial phase, key conditions for CDSMP adaptation were identified (Table 7).

Conditions supporting or hindering state and county in adapting CDSMP. To develop supportive conditions for service providers to adapt CDSMP, the EOA developed a strong leadership for Aging Network. Under the strong leadership from EOA, the AAAs felt confident to embrace evidence-based programs in Hawai‘i. Securing

grant funds clearly helped the network, as it provided funds to local service providers, and helped everyone understand the plan and goals. Hawai'i AAAs felt CDSMP matched with needs in their communities and naturally fit their existing providers.

Table 7. Key Conditions for Initiating CDSMP

Units	Initiation: Key Conditions What conditions and processes support or hinder organizations in adapting CDSMP?	
	Supports	Hindrances
State/ County	<ul style="list-style-type: none"> • Provided strong leadership • Provided funds and looked for additional fund • Had a clear plan • Used existing networks/knowning each other • Conducted regular meetings • Sponsored training opportunities 	<ul style="list-style-type: none"> • Did not have prior training to understand evidence-based programming • Had limited funding or felt constrained by funding restrictions • Had limited time to provide technical assistance to providers • Did not see enough training opportunities
Service Providers	<ul style="list-style-type: none"> • Participated in the planning and developed a plan • Had a strong partnership • Had access to funds • Had open communication between partners • Had access to participants & sites to offer CDSMP • Felt a high level of readiness • Had strong support from the supervisor • Had a high level of commitment • Agreed that CDSMP is acceptable for the clients 	<ul style="list-style-type: none"> • Did not examine how the program fits with their community, or felt CDSMP wouldn't fit • Unaware a the plan for implementation • Had limited funding • Was not fully engaged with HHAP • Did not have regular clients in the agency who can participate in CDSMP • Felt unready • Did not have buy-in from supervisor • Had low level of commitment
Successful Processes	<p>State & County</p> <ol style="list-style-type: none"> 1. Secured funding for service providers 2. Developed a clear plan for implementation 3. Started working with existing networks 4. Held regularly scheduled meetings 5. Developed strong leadership 6. Offered training <p>Service providers</p> <ol style="list-style-type: none"> 1. Participated in the planning process 2. Ensured the program matches with needs in their clients (examine the program) 3. Secured funds (from AAA or other) 4. Got buy-in from their supervisor 5. Regularly participated in partnership meetings 6. Sent people to the training 	

An advantage was that local partners were recruited through existing county partnerships so that it was easy to get buy-in from them, and they already knew the community and could identify potential CDSMP sites and participants. Communication among majority of local partners was easy because they knew each other well. AAAs were able to provide technical assistance even if the providers were not able to attend the HHAP meetings. To provide better technical assistance, AAA staff participated in the CDSMP training. In addition, it was later noted that having experienced counties offering CDSMP helped Hawai‘i and Kauai counties (which adopted CDSMP after Honolulu and Maui counties) to anticipate problems. In order to move to the next phase, AAAs conducted trainings for service providers to increase their ability to implement CDSMP.

Conditions supporting or hindering organizations in adapting CDSMP.

There were seven service providers from Honolulu County that went through the initial phase. Of those, one agency (Provider G) dropped out before the end of the initial phase. This agency was neither funded nor attended any of the HHAP meetings. However, the other six service providers (A-F) were successful in initiating CDSMP. Shown in Table 8, supportive conditions for these organizations were: participation in the planning; development of a plan; having a strong partnership; access to funding; good communication among partners; access to targeted group of participants or sites; a high level of readiness, a high level of support from their supervisor, a high level of commitment from their organization or staff/adaptors; and acceptability of CDSMP in the community.

Participation in planning and develop planning. The two service providers who participated in the two-day planning and development of plan meetings understood

CDSMP and HHAP goals and expectation clearly, so that they were able to support new agencies that came on board later. Also those agencies were able to easily plan how to implement CDSMP in their community and identify strategies to make the program attractive (e.g. having a prayer before class, offering pre-session to help participants to understand the importance of self-management). However, as long as the providers were informed by AAAs about the objectives of the AoA three-year grant and strategies to adapt CDSMP without making major changes, actual participation for the two-day planning meeting was not critical for adaptation.

Partnership between agencies. Five of the seven providers also described that the HHAP was the first project that really connected them with other providers, so participation in HHAP increased their ability to leverage resources and obtain technical assistance. For example, one agency was not able to secure program materials from the continental U.S., but the agency was able to secure materials from another provider in HHAP.

Funding. More than half of providers (four of seven) received funds through the AoA three-year grant to implement CDSMP. One agency (G) was not funded through the grant and was able to secure other funds to implement the program, but also decided to charge elders to participate in CDSMP. Funding was a very important factor for adapting CDSMP because each participant must purchase (or be supplied with) a companion book (\$16) and a relaxation CD (\$10).

Communication among partners/monthly meeting participation. Two agencies that did not participate in either local or statewide HHAP regularly meetings had a challenge understanding the evaluation protocol and program requirements. Participating

in the regular meetings helped most of the partners (four out of five) to understand HHAP expectations, evaluation forms and protocol, and program requirements.

Accessibility of and identification of participants. Most of the providers (six out of seven) were able to identify potential participants from their community and had access to a location to offer the program. Two providers reported difficulty finding participants and/or sites. Knowing the potential participants prior to implementation also helped agencies understand how to make “green light changes” to CDSMP delivery to improve its fit with their target group.

Level of readiness. Although all agencies that participated in the initial Readiness Interview were allowed to offer CDSMP, the provider (G) that reported the lowest level of readiness dropped out in the initial phase and did not offer any CDSMP workshops. Four providers that showed high levels of readiness were able to fully examine what it takes to fully adapt CDSMP.

Support from supervisor. Buy-in from the supervisor was critical to an agency’s ability to implement CDSMP. One provider (G) that reported they did not get support from supervisor was not able to pass this phase.

Level of commitment. Having a high level of commitment was associated with passing through the initial phase. The provider (G) that dropped out in the initial phase indicated that the staff had a very high level of commitment, but their agency had a very low level of commitment. It was very clear that low commitment on the part of the agency is an obstacle to initiating an evidence-based program. In the initial phase, Honolulu County reported a low level of commitment because CDSMP was new. But

adaptation was successful because the five providers that implemented CDSMP had high levels of commitment.

CDSMP acceptability. The provider (G) who felt CDSMP did not fit was concerned about lack of fit of CDSMP with their clients' culture or language. For example, they said that their clients preferred talk story style, rather than a scripted class, that they didn't like the circle table format, and that they may feel forced to share stories. On the other hand, Provider B and C felt the program was acceptable even though clients were not fully fluent in English. These were solved by offering a pre-session to educate clients in terminology used in the workshop, re-explaining concepts in client language outside the class time, and using many local examples. Therefore, they perceived high level of acceptability.

Successful processes for organizations in adapting CDSMP. The successful processes for the initial phase for service providers included foundational efforts by the state and county government to secure funding, develop a clear plan for implantation, start working with existing networks, develop strong leadership in the state and county levels, hold regular meetings, and offer training opportunities for providers (Table 8).

With the supportive environment from the state and county, providers contributed to the development of the implementation plan and learned about the CDSMP. After seeing that CDSMP worked in the community, the service providers secured funds either through the AAA or other sources. At the same time, service providers got support from their supervisor to increase the level of commitment. They regularly participated in the meetings to get to know other partners and get updates on CDSMP and HHAP. This process enhanced open communication among partners and helped them to ask for

support when barriers were encountered. These steps enabled service providers to increase their readiness, skills, knowledge, and confidence to initiate CDSMP and to prepare for successful program implementation.

Delivery Phase

The second research question explored the conditions and processes influencing program implementation and whether the evidence-program worked in our population by analyzing data from the second and third year annual survey of service provider knowledge, skills and confidence to deliver CDSMP (described in the previous section), data from the tracking of fidelity of CDSMP delivery, and from the tracking of program impact on older adult participants.

Summary of major activities during the phase. Many activities related to organizational change happened during this phase. As HHAP expanded partnerships, the number of people served increased. While HHAP operated under EOA and DOH leadership, each AAA deployed CDSMP slightly differently in a way that had worked for their county. For example, Maui, Hawai‘i, and Kauai counties recruited partners from communities and coordinated the workshops at the county level. Honolulu County contracted with Title III and VI providers and also invited other partners who were interested in CDSMP and had their own funds to implement CDSMP. Honolulu service providers were responsible to coordinate the workshop in their community.

During this phase, HHAP began to utilize video conferencing technology to hold HHAP Steering Committee meetings, as restrictions in employee inter-island travel and higher travel cost did not allow for face-to-face meetings. EOA was able to secure video

conference rooms for each county. In the earlier time, HHAP had technical issues, but the challenges were resolved by the end of the delivery phase.

HHAP began to plan for sustaining CDSMP, and the effort was enhanced with additional resources from the NCOA Sustainable System grant. HHAP conducted a two-day Strategic Planning meeting in January 2009, inviting potential partners and state lawmakers to educate them about evidence-based programming and the work of the HHAP. It helped HHAP to develop clear program goals and next steps for sustainability. In addition to the planning meeting, AoA and NCOA representatives conducted two site visits in Hawai‘i. During one of their visits, the representatives were invited to present the benefits of evidence-based programming, and many legislators, county leaders, state Medicaid and labor union representatives and service providers from the Aging and Public Health Networks attended the informational meeting. This event strengthened HHAP partners’ commit to sustaining CDSMP.

HHAP also spent many hours assuring high fidelity of CDSMP delivery by developing a CDSMP fidelity protocol and offering trainings for fidelity monitoring and data collection. The initial fidelity protocol was very strict and nationally recognized as a “Cadillac” fidelity model. However, with the shortage of people on all islands to monitor fidelity, HHAP revised the protocol to reduce the frequency of CDSMP workshop monitoring to better match the capacity of HHAP.

In terms of staffing, a key statewide program coordinator from EOA moved to another agency, but EOA secured another planner to take her place. In addition, the DOH co-chair of HHAP changed. Hawai‘i and Kauai Counties AAAs began to implement

CDSMP, adding their representatives to HHAP meetings and committing to support program coordination.

Annual survey results. The annual survey was completed by 17 individuals (six government officials and 11 service providers) in the second year and 14 individuals (eight government officials and six service providers) in the third year. During the delivery phase, HHAP grew in size and service provision. The annual survey revealed that new representatives had joined since 2008, including two government officials (Kauai County assigned a county program coordinator for CDSMP and another was hired as a planner at EOA) as well as three new service providers from Hawai'i County. By the end of the third year, findings showed that both government officials and service providers attended trainings related to evaluation (government officials n=5 out of eight; service providers n=2 out of six) and CDSMP (government officials n=5 out of eight; service providers n=6 out of six).

Over the years, both government agencies and service providers reported reduction in satisfaction with HHAP, and skills to coordinate and implement CDSMP (Figure 6). Knowledge about evidence-based programming remained at the same level over the years. The government officials reported reduced confidence to expand CDSMP, whereas service providers reported an increase in their confidence.

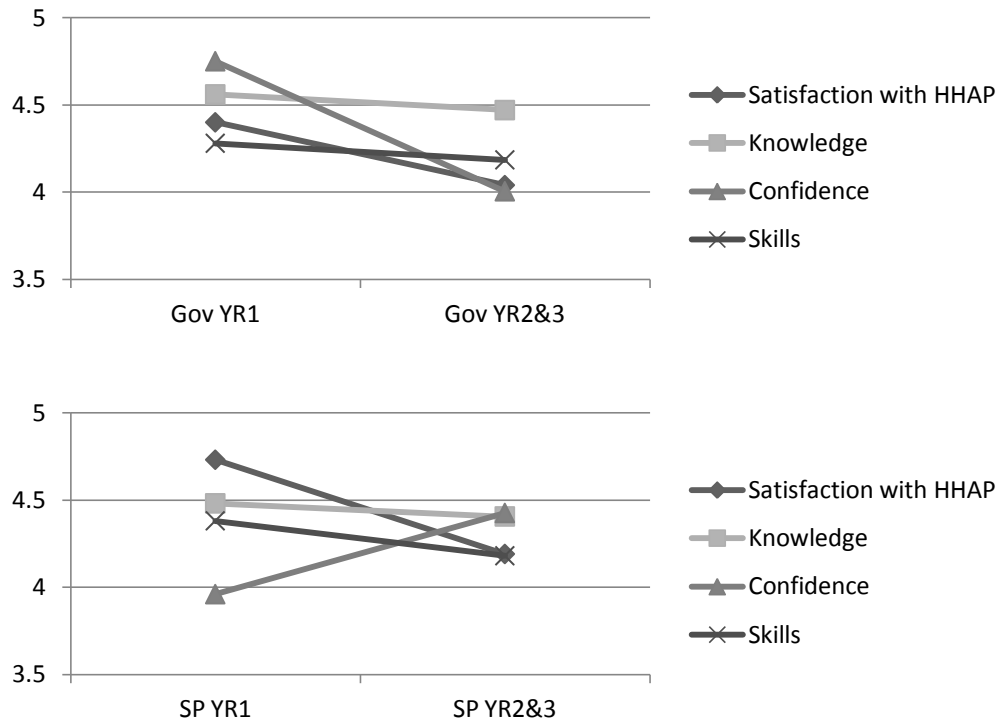


Figure 6. Annual Survey Results from YR1 to YR3.

Open-ended questions from the second and third year annual survey revealed that HHAP partners appreciated its partnership, recognized expansion of the program with non-aging partners, and received high quality technical assistance. However, the finding suggested HHAP needed to improve the meeting structure and infrastructure at both the state and county level (e.g., they needed to have clearer action steps, create strong task forces, and follow-up on finding solutions to challenges) and needed to train partners on sustainability (how to expand CDSMP, training, and funding).

Throughout the delivery phase, HHAP partners’ satisfaction level dropped. It was noted that HHAP could grow better if their infrastructure were stronger. HHAP maintained stable partnerships with AAA, UH, and DOH, with are actively involved with the field of aging and chronic disease. However, EOA experienced turnover of lead staff and contracted out for a statewide coordinator, resulting in confusion of roles and lack of

strong leadership. Lack of knowledge of CDSMP sustainment, and low retention rate of leaders and trainers made AAAs feel less confident to continue implement CDSMP. On the other hand, service providers felt more confident to continue implement CDSMP because many of their staff/ volunteers were trained and they became comfortable with offering CDSMP.

Fidelity Checks. As mentioned earlier, during the AoA three-year grant period, HHAP developed total of 101 leaders and trainers (22 government officials, 72 service providers, and seven unknown). Most of Hawai'i CDSMP leaders were employees of AoA-funded service providers. Only 43 of the 101 CDSMP trainers and leaders went on to provide CDSMP workshops to elders. Working in pairs, these 43 leaders offered 53 workshops across 6 islands. Workshops were held in senior centers, community centers, churches, senior housing, and service providers' offices. Of the 58 that did not offer a CDSMP workshop after training, 16 said they attended training only to learn about CDSMP, 13 because they were encouraged by partner or forced by their boss, three to meet some minimum requirements, two because they did not get approval from their agency to conduct CDSMP workshop during their working time, seven because they did not clearly understand HHAP expectations, three because they moved before they could conduct a workshop, four because they lost interest, and ten unknown.

Fidelity information was collected for 51 workshops (98%) of the 53 workshops. Trained evaluators who are culturally competent provided immediate feedback for improvement to the leaders and filed a written report with the lead evaluator. One workshop from Hawai'i County was not able to monitor fidelity because of a geographical challenge. However, the workshop was able to secure peer-evaluation to

ensure some degree of fidelity. During the earlier delivery phase, HHAP revised the CDSMP protocol to monitor one session (either first or second session), and all workshops were monitored, even those of experienced leaders because it was noted that some decreased their fidelity over time. Per the protocol, if a leader scored lower than 3 in any of the items, a fidelity monitor revisited for follow-up. Trained leaders who continued to score lower than 3 on any of the 10 evaluations items were asked to re-attend training. During this time period, three leaders were so asked, and one of them improved by co-leading with a strong leader and two of them dropped out of CDSMP. Summing fidelity findings across all leaders, the mean score was high (3.73 out of 4), suggesting that leaders were leading their classes with a high degree of fidelity (Figure 7).

Finding from fidelity monitoring evaluation suggested that leaders from a variety of backgrounds (lay, professional, male, female, Native Hawaiian, Filipino, Caucasian, and Japanese) could lead CDSMP workshops, and that the green-light changes made to increase CDSMP's fit with their clients did not jeopardize program effectiveness. As noted earlier, service providers utilized minor modifications to the program's appearance and presentation (i.e. changing its name, training leaders of the same ethnicity as the elders, and supplementing sessions with activities appropriate and appealing to the local culture).

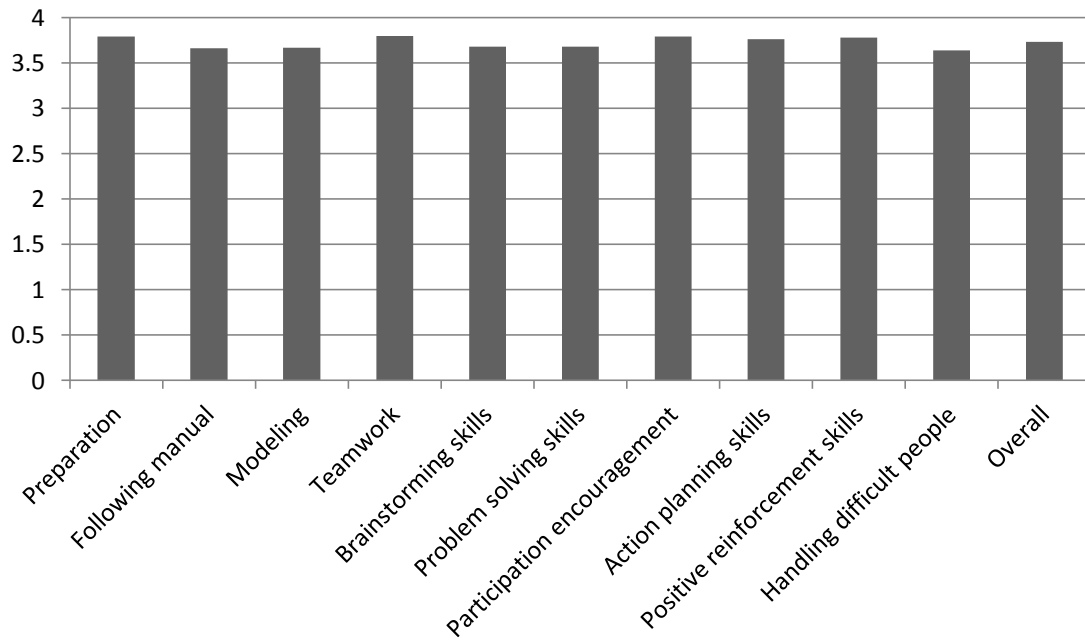


Figure 7. Fidelity Monitoring Results

Outcome surveys. As mentioned in the method section, the Hawai‘i participant outcomes findings have been presented in Tomioka et al (2012). During this phase, participant outcomes were gathered from 492 participants of the 510 enrollees at baseline, 391 participants of the 442 completers at the end of the workshop, and 322 of the 442 completers at 6-month follow-up.

Delivery Phase Road Map. Multiple sources of data were available to examine the conditions and processes of Honolulu service providers’ during the delivery phase in implementing CDSMP (Table 8).

There were six providers that moved to delivery phase (Provider A to F). All providers had active leaders (from one leader to 5 leaders). Leader’s retention rates varied among organization. Providers C and F had lowest retention rate. All the providers perceived benefits of CDSMP. All providers reported that CDSMP was greatly beneficial to their clients (scored 4 or higher). Five out of six providers fully adapted HHAP’s

evaluation plan and committed to follow the plan. Provider F had problem with the consent form indicating “research” and they did not feel comfortable with fidelity monitoring so that they were not able to fully adapt the evaluation plan. The providers who were able to collect data tried to ask all the participants to complete the self-administered survey. All providers collected the baseline, but some providers were challenged to collect data from participants at six-month follow-up. Provider B always used a “re-union” to collect 6-month data, whereas other providers mailed the survey.

All providers offered at least one workshop during the phase. Providers A and B offered many workshops during this phase. It may be because they had enough pool of participants. All providers’ led their classes with a high degree of fidelity (range: 3.55 – 3.91 out of four).

All service providers had good completion rates for the workshop. They were able to keep participants to be motivated to come back to the weekly session. Perceived level of success in CDSMP implementation was rated 1 to 5, with Providers A to D rated as successful or very successful, and Providers E and F rated lower because they did not continuously offer workshops. Meeting attendance was also recorded from ten local meeting and 12 statewide meetings. All the providers were able to attend more than 50% of the meetings either through local or statewide. Provider F had low attendance rate because they had scheduling conflicts.

Table 8. Delivery phase summary

CDSMP Oahu Partners	Delivery									
	# active (%)	Prvcd. Benefi t (1-5; 5 high)*	Data coll.*	Data retention	# works hop (# srvd)	Fidel. score (1-4; 4 high)	Comp . % (n)	Impl. succes s level (1-5; 5 high)*	Key issues	Mtg attendance %*
Provider A	5 (63%)	4.75	Fully adapted	Base: 97% Sat: 89% 6M: 66%	9 (92)	3.91	85% (78)	4.50	Became a statewide coordinator; Became T- Trainers; Obtained other \$; Avoid using “chronic disease” and used “living healthy”	Local 80% State 75%
Provider B • Div1 • Div2 • Div3	5 (56%)	5	Fully adapted	Base: 100% Sat: 99% 6M: 89%	8 (100)	3.55	92 % (92)	4.50	Division 1: Started w/ big class size; learned lessons Division 2: Low fidelity (a few don’t understand English); came only for food/ socialize Division 3 are served as support Avoid using “chronic disease” and used “living healthy”	Local 100% State 50%
Provider C	2 (25%)	4.5	Fully adapted	Base: 100% Sat: 71% 6M: 57%	2 (24)	3.81	88% (21)	4.00	Organization change; Supervisor left; Conducted a training with Pr. C, but no fidelity (offered 8 days not 4 ½ days); Avoid using “chronic disease” and used “living healthy”	Local 50% State 50%
Provider D	2 (40%)	5	Fully adapted	Base: 94% Sat: 89% 6M: 45%	4 (44)	3.67	80% (35)	4.00	Had challenge retaining participants at 6mo; Conducted training with Pr. C, but no fidelity (8 days); Avoid using “chronic disease” and used “living healthy”	Local 50% State 50%

Table 8. (Continued) Delivery phase summary

CDSMP Oahu Partners	Delivery									
	# active (%)	Prvcd. Benefi t (1-5; 5 high)*	Data coll.*	Data retention	# works hop (# srvd)	Fidel. score (1-4; 4 high)	Comp . % (n)	Impl. succes s level (1-5; 5 high)*	Key issues	Mtg attendance %*
Provider E	2 (50%)	4.25	Fully adapted	Base: 100% Sat: 100% 6M: 80%	2 (9)	3.87	100% (9)	3.00	Expressed issues in recruitment Charging fee; A few refused be part of research	Local 80% State 8%
Provider F	1 (25%)	yes* (no level)	Not adapted	-	1 (9)*	-	89% (8)*	2.00	Concerned with HHAP expectations (forms, monitoring, etc); Charging fee	Local 10% State 8%
Provider G										
EAD • Grant • Otrch	0 (0%)	4.5	N/A	-	N/A	-	N/A	3.75	Expand the program using other division; Secured books for AoA funded providers; Felt not enough MTs (growing faster than they can accommodate)	Local 100% State 92%
EOA	-	5	N/A	-	N/A	-	N/A	5.00	Left key planner; lead staff has changed	Local 0% State 92%
DOH	1 (50%)	4.5	Fully adapted	Base: 89% Sat: 100% 6M: 63%	1 (9)	3.96	89% (8)	4.25	Introduced CDSMP to staff	Local 70% State 100%

Notes. *: from other documents

Meeting: Ten local meeting were offered, 20 statewide meeting were offered but 12 meetings created minutes.

In reviewing data from delivery phase, key conditions for CDSMP delivery were identified (Table 9). Successful implementation requires multi-level supportive conditions for transitioning from adaptation to fostering CDSMP throughout the state.

Table 9. Key Conditions for Delivery Phase

Units	Delivery: Key Conditions Which conditions and processes support or hinder organizations in implementing CDSMP?	
	Supports	Hindrances
State/ County	<ul style="list-style-type: none"> • Unified/semi-unified operating system • Strong leadership • Dedicated staff in state and county levels • Adequate pool of leaders and trainers • Commitment to evaluation and fidelity 	<ul style="list-style-type: none"> • Diverse operating systems • Limited leadership • Shortage of staff in state and county levels • No strategies to recruit and retain leaders and trainers • Did not find benefits of evaluation and fidelity
Service Providers	<ul style="list-style-type: none"> • Support from partners and AAA • Supportive organization environment • Marketing strategies that work in the community • Embraced evaluation plan • Perceived benefits of CDSMP 	<ul style="list-style-type: none"> • Not part of the grant/ limited funding • Insufficient support from partners • Staff shortage and work overload • Not having a good marketing plan/ different fee structure from the coalition partners • Did not see value of evaluation and fidelity • Did not see the benefit of CDSMP
Particip- ants	<ul style="list-style-type: none"> • Satisfied with the CDSMP • Kept using skills learned from the CDSMP 	<ul style="list-style-type: none"> • Did not like to share personal stories with the group • Did not apply skills they learned from the CDSMP
Process	<p>State and county levels</p> <ol style="list-style-type: none"> 1. Establish unified operation system throughout the state 2. Secure dedicated staff at state/county level and provide strong leadership 3. Develop strategies to retain leaders (offer frequent trainings) 4. Keep developing skills in evaluation and fidelity <p>Service providers</p> <ol style="list-style-type: none"> 1. Train many leaders and trainers 2. Try out the program with small scale 3. Continuously attend local partnership meetings 4. Develop effective marketing strategies 5. Adapt evaluation plan 	

State/County conditions. During this phase, collaborative effort among state and county levels needed to foster providers to deliver CDSMP in the community. From multiple data sources, HHAP learned that developing a strong infrastructure for AAAs to integrate CDSMP into their services was a critical driving force to support providers. Identified supportive conditions for CDSMP implementation at state and county levels were directly related to HHAP's infrastructure such as: operation mechanisms (efficient operation system), leadership (availability of continuous leadership), staffing (availability of dedicated staff), training resources (leader's retention), perceived value of fidelity and evaluation (positive attitude and evidence-based programming), and partnership (partners cohesiveness, openness of communication). They were not fully met with all of the successful conditions to strengthen the HHAP's infrastructure. However, they found ways to meet these conditions to foster the growth of CDSMP delivery.

Operation mechanisms. HHAP thought a strong infrastructure could be developed if each AAA constructed an efficient operating system. It was recognized that each county is unique and can find an appropriate approach to carry out the plan for CDSMP implementation. HHAP partners reported that the AAA's unique approaches to CDSMP delivery made it successful in their counties. However, the diverse operating systems across counties created complicated issues and made it hard to develop a standardized referral process. It also made it hard to get buy-in from insurers or other state departments. The diversity made HHAP hesitate in developing unified marketing strategies and materials.

Leadership. The continued strong state level leadership with clear work roles was a critical factor to deliver and promote the program in the state. Other documents

recorded that the EOA's leader for CDSMP implementation changed five times during this phase. Each change in staffing was accompanied by a slowdown in the work as the new person learned about HHAP (as in the case of contracted HHAP coordinators) and/or added HHAP to their other work responsibilities. Although contracting with someone outside of EOA to coordinate CDSMP reduced the burden of CDSMP on EOA, HHAP members got confused about the roles of the coordinator and EOA. When the lead staff position was vacant, other major partners had to juggle it with other responsibilities. This complicated the HHAP infrastructure. As other investigators have found, developing strategies to reduce turnover and maintain a leader for the coalition are critical components of program sustainability (Scheirer, 2005). At the end of this phase, partners asked the state to clarify roles and re-structure meetings. It was very clear that having strong state leadership was a key to moving to the sustainability phase.

Staffing. There was a shortage of staff at the four AAAs, but all the AAAs were continuously committed and recruited new partners from the community. All the AAAs had very stable staff that clearly helped local partners to receive consistent guidance. Even though CDSMP became a widely known evidence-based program, the concept and benefits of CDSMP were harder to visualize than, say, for a physical activity program. AAA had to spend extra effort to educate potential partners and participants about the concept of CDSMP. AAAs conducted regularly scheduled meetings in their counties to provide technical assistance and support throughout the delivery phase, because adaptation of evidence-based program was new to many of their providers. Strong commitment and support from their partners for delivering and expanding the program

was very rewarding for AAAs, but limited time with a lot of extra effort increased a chance of burn out.

Partnership. Throughout the delivery phase, state and county representatives from HHAP developed stronger partnerships, which enhanced cohesiveness that helped them to achieve the AoA three-year grant goals. AAAs appreciated easy accessibility to their partners to learn effective strategies and solve challenges together. Partnership with the EOA and DOH helped them to secure additional federal funds. Partnership with the academic institution, UH, helped them to strengthen the skills in evaluation and fidelity.

Training resources. Another critical factor for program delivery documented during this phase was maintaining a pool of good quality of trainers and leaders willing to offer CDSMP. Many of the leaders in Hawai‘i were AoA-funded service providers who sometimes had difficulty finding time to lead the workshops or were not able to serve outside of their agencies. HHAP lost leaders who changed jobs and/or relocated to the Continental U.S. The departure of high-quality leaders and trainers required HHAP to step up efforts to find and train new leaders and nurture more experienced leaders for CDSMP. Some leaders embraced the program and demonstrated amazing commitment. For example, the coordinator of CDSMP on Maui, who was trained as a leader in 2007, lost 100 pounds by applying CDSMP skills in her own life. Some service providers added CDSMP to staff members’ job descriptions and assured they had time to lead several workshops each year.

Perceived value of fidelity and evaluation. HHAP partners developed skills and ability to monitor fidelity and delivered CDSMP with fidelity through their service providers. The evaluation findings were shared with HHAP members at least every

quarterly meeting. It reaffirmed to HHAP members the importance of collecting data. HHAP partners used the findings to improve programs delivery and to recruit new partners from their community. For example, one county appreciated the evaluation findings especially when HHAP shared the results by county. It helped county leaders to show how the program works in their counties, and this helped them bring new partners on board. When AAA shared results with their providers, the results were rewarding for providers and made them more willing to collect data. From the documentation, it was important to share evaluation results with partners to show appreciation for their extra efforts in collecting data according to HHAP evaluation plan.

At one point, a HHAP evaluator found that a few leaders had difficulty following the Hawai‘i evaluation plan and needed refresher sessions on the protocols. Because of good understanding of fidelity, HHAP members decided to screen leader candidates before the training and encouraged them to come in pairs. They also made an agreement form to include HHAP expectations. To increase the understanding of fidelity and help leaders gain skills in data collection before they conducted CDSMP workshops, HHAP incorporated the training for using HHAP evaluation forms in the original Stanford leader training.

Summary of successful state/county conditions. From the case of Hawai‘i, having the effective infrastructure is needed to foster grow of CDSMP for HHAP partners in all levels. This dissertation found that the unified operation system and continuous stable leadership at state and county levels by securing dedicated staff. State should allocate the funding for all counties so that the opportunity for achieving the grant goals also develops strong partnership. In addition, state and county should encourage and provide resources

for conducting on-going trainings to retain CDSMP leaders and trainers. Sharing evaluation results also helped state and counties to understand why they were able to obtain/ not obtain the positive findings from the original study conducted by Stanford University. It encouraged them to maintain fidelity of the program and valued the evaluation efforts.

Service provider conditions. To describe the successful conditions and process in the delivery phase process, this dissertation examined the process among the six Honolulu County service providers. Table 11 summarized the findings from the delivery phase. There were six service providers from Honolulu County that went through the delivery phase. Of those, two agencies (Provider E and F) were not able to complete the phase. Those two agencies were not funded by AoA three-year grant. Providers A to D blossomed in their CDSMP delivery from serving existing clients to new participants. The supportive conditions and processes for organizations in CDSMP delivery were: support from partners and AAA, organization environment, marketing, and maintaining fidelity.

Resources and support from partners and AAA. Many partners appreciated the collaborative partnership, especially when they attended meetings to share challenges and successes. It promoted continuous improvements by learning the progress. During this phase, both statewide and local partnership meetings were open for HHAP partners. The meeting attendance rate may be influenced by funding situation because funded providers were required to attend local HHAP meetings. The non-funded partner, Provider F, had the lowest attendance rate (Table 11). However, another non-funded provider, Provider E, continuously attended local HHAP meetings (80% attendance rate for local HHAP

meeting) to find ways to work together. By attending these meetings, partners showed high level of satisfaction with HHAP, and built knowledge and confidence in evidence-based programming (Figure 8). The providers that successfully passed through the delivery tended to attend both state and local meetings than the providers that did not pass the phase.

In addition, the service providers funded by AoA-grant had more access to support from AAA, especially when they offered workshops and had problems getting buy-in from agency supervisors. Non-funded providers had to find a way to self-sustain CDSMP or charge for CDSMP workshops, where funded providers offered CDSMP workshops free and received free supplies from the AAA. Both of the providers who dropped out during this phase reported that lack of funding was a big hindrance for CDSMP delivery.

Organization environment. A supportive organization environment was another factor influencing CDSMP delivery. Three of the six organizations reported that they were motivated because of the supportive environment at work, which let the staff offer CDSMP workshops during work hours. One agency added CDSMP to their workers' job descriptions to make the CDSMP more available to the community. On the other hand, one service provider reported that staff shortage and work overload limited their ability to fully expand CDSMP in their community.

Marketing. After the first or second workshops they conducted, service providers were able to reaffirm the benefit of CDSMP. This motivated them to expand marketing strategies. For example, they developed presentations, used graduates from their workshop to promote CDSMP, provided an informational session, promoted CDSMP at

sites where seniors gathered, and did not using the term “chronic disease” to increase acceptability of CDSMP workshops in the community. However, as previously mentioned, the non-funded providers had difficulty with marketing because funded-providers offered workshops for free. This inconsistent fee structure in the same island created a huge marketing disadvantage for them.

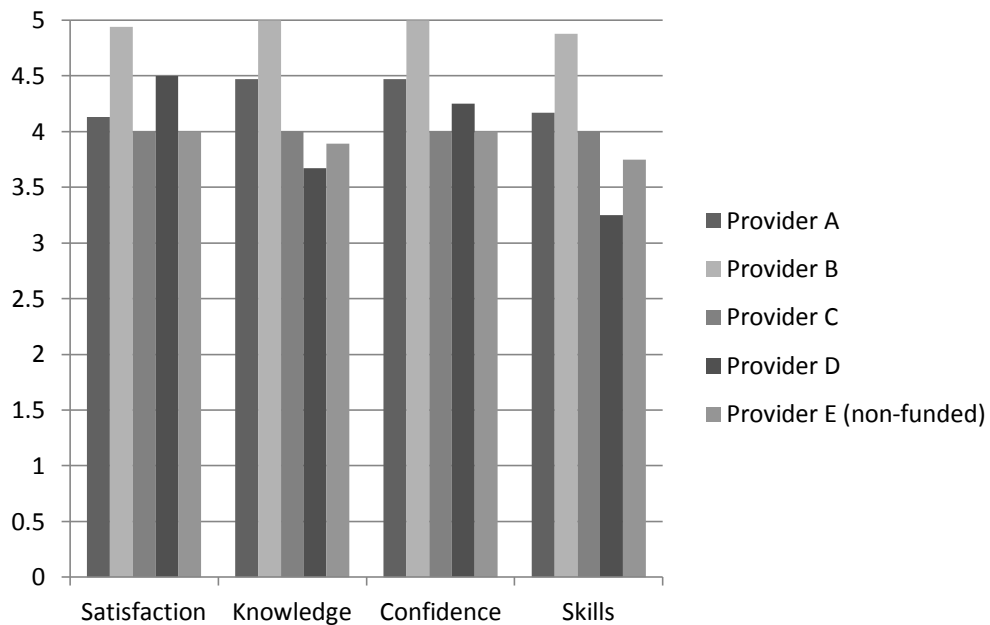


Figure 8. Annual survey results from year two and three by providers

Maintaining fidelity. Evaluation and fidelity assurance were important parts of HHAP’s work plan. Therefore, HHAP consistently educated partners on the importance of collecting evaluation and fidelity data. Most of service providers (five out of six) were committed to deliver CDSMP with high level of fidelity and fully adapt HHAP’s evaluation plan. Those agencies were able to collect data according to HHAP evaluation plan and worked with their clients to complete the evaluation forms (baseline and six-month questionnaire and satisfaction survey). They found six-month follow-up data

difficult to collect so that they conducted six-month reunion to attract participants to come back. As the annual survey results by providers (Figure 8) showed, provider D felt they did not have enough skills to collect data (similar finding to six-month data retention rate in Table 11).

Perceived benefits. All of providers perceived benefits of CDSMP and obtained high completion rate. Similar to HHAP's participant outcome and satisfaction results, many of the participants benefited by attending the workshop and maintained their healthy lifestyle over the six months. Many partners heard successful stories from participants who lost weight, were walking more, and were feeling more comfortable with their chronic conditions. The participants who dropped out reported that they did not like to share their personal issues with the group. The successful stories from participants motivated providers (five out of six offered more than one workshop) to continue offering CDSMP.

Summary of successful provider conditions. At the end of this phase, two service providers (Provider E and F) that were not funded by AoA grant were dropped out. The availability of financial resources or being a part of the grant opportunity was one of the critical factors for both providers. Provider E reported the limited funding also was a challenge. Not having the existing clients and site made it difficult for them to market the CDSMP. The two workshops they offered did not attract the recommended class size. This agency also felt it did not get enough support from partners when it had problem with recruiting.

Provider F had problem with adapting the HHAP fidelity protocol and evaluation forms. This agency originally sent a staff to Stanford to get trained so that they were not

clear about HHAP expectations. This agency was later told of HHAP by DOH, but they had a problem with the word “research” in the consent form and did not feel comfortable with the monitoring process. At the end of the phase, they decided to dropout from HHAP partnership. It clearly showed importance of explaining HHAP expectation before they join the HHAP.

Successful process for organizations in adopting CDSMP. The process for program delivery is not clear-cut, but a guideline for successful delivery was identified. The key process for the state and county levels is developing a strong infrastructure by establishing unified (or semi-unified) operation systems with consideration of expansion and sustainment, and continuing to provide strong leadership by preventing turn over, developing strategies to retain leaders, and developing strong evaluation and fidelity knowledge and skills.

The successful process for the delivery phase for service providers starts with continuing to send staff and volunteers to training to maintain a pool of leaders, continuously attending meeting regularly to network and get support from partners as well as AAA, developing effective marketing strategies, and fully adapting the evaluation plan.

Sustainment Phase

When the AoA three-year grant was ending, HHAP was able to secure AoA supplemental funds, Rainy-day funds (state appropriation), and an ARRA grant. The additional funding supported HHAP to significantly expand capacity to reach more communities. As Table 10 shows, all government officials reported their activities increased over the years and contributed to sustain the CDSMP by training more leaders

and/or securing county coordinators. After the AoA three-year grant, HHAP partners conducted 14 trainings and trained 133 new leaders and trainers (34 government agencies, 44 service providers from 12+ organizations, and 25volunteers; 30 unknown), and conducted 93 workshops and served 944 new participants.

The state found new partners and resources from other aging-related organizations and health care organizations. Each county found unique ways to sustain CDSMP. For example, Maui County secured additional funds to hire a coordinator. Honolulu County supported service providers to utilize other providers' leaders to offer workshops, if needed. For example, if an agency was not able to secure another leader for the workshop, they could ask for help from another agency. However, the Honolulu service providers' participation level varied. Service providers A, B, and D successfully passed the delivery phase. During this phase, Provider A was actively engaged and involved in state level activities. Although the one of the key champions moved to different division, the champion was able to support the original division. After delivery phase, provider B adapted a division-driven approach to deliver CDSMP within their agency. Specifically, Division 1 increased activity level through increasing number of leaders. Division 2 was not ready to implement CDSMP, and after a few workshops, they discontinued. Division 3 decreased activity level and replaced CDSMP because they began to focus on younger people, and one of the disease-specific CDSMP program was not well-received by both staff and clients. Provider D kept their engagement level and maintained CDSMP activity at their agency. Provider C had a new director for their organization and the director did not buy-in the CDSMP, and the agency lost their trained leaders and champions. The

assigned staff from Provider F changed. This person had a good relationship between existing Aging Network and began to re-engage with HHAP.

Table 10. Level of activity since initiation and reasons

Level	Org	Participation level	Reasons for the level of involvement change
State	EOA	↑	More staff involved (more familiar with CDSMP), continue to apply for grant, continue to collaborate with partners and expand partnership; but lost 2 key staff
	DOH	↑	Involved multiple levels (from implantation to partnership development), trained more staff, try to expand the health care systems, became part of major project
County	Kauai	↑	More familiar with CDSMP, assigned coordinator for CDSMP, trained more leaders
	Honolulu	↑	Trained more leaders including in-house staff, more partners engaged, providers partnered with other organizations to offer workshops
	Maui	↑	Improved delivery process, find additional fund, hired county coordinator, schedule system in place, and trained more leaders
	Hawai'i	↑	Putting more time for CDSMP, trained more leaders

Table 10. (Continued) Level of activity since initiation and reasons

Level	Org	Participation level	Reasons for the level of involvement change
Service Providers	Provider A	↑	More staff trained, actively look for additional funds, serving younger population, became T-Trainer, involve in the state level; But, the champion moved to different division and spent time on transition
	Provider B Division 1	↑	Hard working staff, trained more staff, actively participated in HHAP meeting and brought staff to meetings
	Provider B Division 2	dropped at delivery phase	Wasn't ready to implement, lack of commitment to CDSMP, not fully understood the concept of CDSMP
	Provider B Division 3	↓ (replacement)	Began to focus younger people, DSMP didn't match with their clients (information disagreement with the Stanford), wanted to make it 12 sessions and use dietician to teach.
	Provider C	↓ (termination at sustainment phase)	Limited staff time, a few leaders were not interested in the program, lack of understanding of evidence-based (not familiar with evaluation, a few did not stick to fidelity, cannot see the value of the program), required staff to be trained, primary duty is different, lost leaders and champions.
	Provider D	=	Trained more staff, but the number of workshops did not increase, developed marketing materials for expansion
	Provider E	dropped at delivery phase	Treated differently from the funded agencies (no funding, not enough support, etc), had issues with recruiting participants (always small size; had to charge whereas others are free), concerned about staff time, disagreement with not charging and sustain, financial strain (fee didn't cover much of their time), got busy with other activities at their organization.
	Provider F	dropped at delivery phase; but re engaging	Original team was not able to adapt evaluation component, understand the commitment (staff time, relationship with other organizations), and changed the focus to children; However, the new team decided to re-engage.
Provider G	dropped at initial phase	Organization faced with organizational change, most of the trained leaders and a champion left, no administrative support, confusion about license and commitment, no funding to offer	

The last research question was about sustainability. This dissertation examined how to maintain effective delivery of the evidence-based program, achieved through initial implementation, and which conditions and processes contribute to the institutionalization of evidence-based programs.

The sustainability interview analysis was conducted by two independent PhD students. Two researchers independently read and coded the interview transcripts, and then when differences were encountered, these were resolved by re-reading interview transcripts and having further discussion. There was no major disagreement during the analysis process. We both agreed with excluding the one individual from the Hawai‘i County because the individual was a new volunteer county coordinator so that the results were much different from the Hawai‘i County representative reported (Table 11).

Table 11. Sample size for sustainment analysis

	Sustainability	Documents & Archival Records	
	Interview N	YR4 Annual Survey N	YR 5 Annual Survey N
Government Officials	10 → 9	10	13
Service Providers	12	8 (7 orgs)	10 (7 orgs)
Participants	12	-	-

Annual survey results. The annual survey was completed by 18 individuals (11 government officials and seven service providers) in the fourth year and 23 individuals (13 government officials and ten service providers) in the fifth year. During the sustainment phase, HHAP expanded in size and service provision. The annual survey revealed that new representatives joined since 2009, including eight government officials. EOA coordinator left the agency so that they assigned new representative (n=1), DOH

increased the number of assigned staff for CDSMP (n=4), and EAD also increased the number of assigned staff for CDSMP (n=2). In addition, seven new service providers from Kauai, Honolulu, and Maui Counties joined HHAP. By the end of the fifth year, finding showed that both government officials and service providers attended CDSMP training (government officials n=8 out of 13; service providers n=9 out of ten).

Over the years, both government agencies and service providers reported gains in confidence to expand CDSMP (Figure 9). Government officials reported reduced satisfaction with HHAP, skills to coordinate and implement CDSMP, and knowledge about evidence-based programming. However, service providers reported an increase in satisfaction and knowledge, and maintain skills.

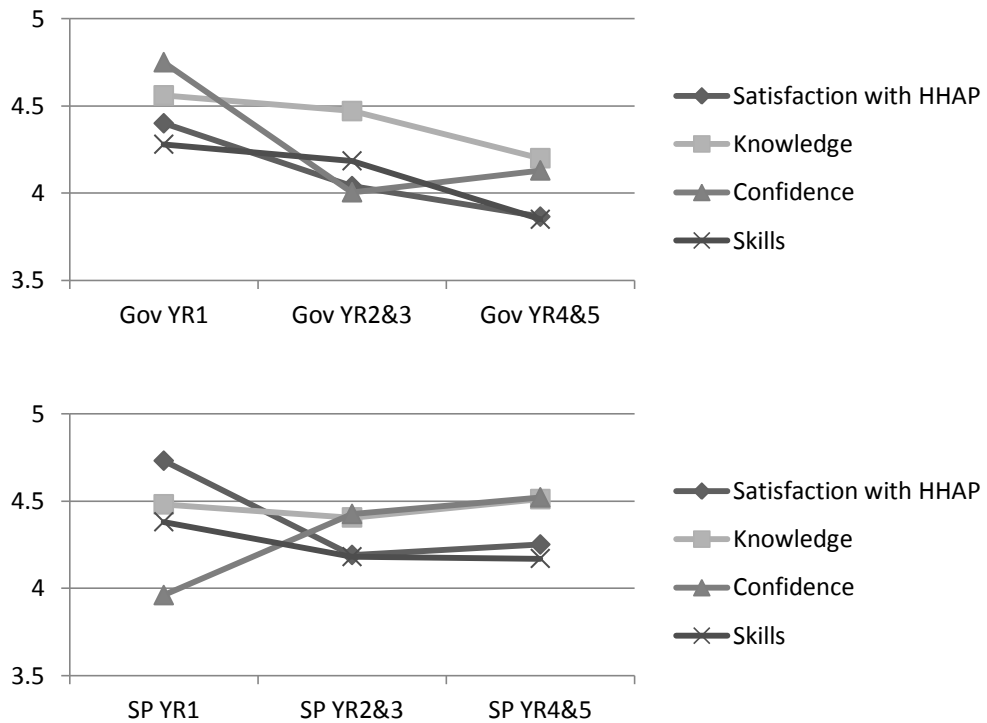


Figure 9. Annual Survey Results from YR1 to YR5.

Open-ended questions from the fourth and fifth year annual survey revealed that HHAP partners continuously appreciated its partnership (especially that they could rely

on each other in many aspects of implementation), recognized expansion of the program with non-aging partners locally and throughout the state, perceived benefit of CDSMP, and secured funding for sustaining CDSMP. The confidence gain may reflect these successful efforts. However, the finding suggested HHAP needed to: 1) improve marketing strategies and develop statewide marketing tools to raise awareness of benefits of CDSMP; 2) develop stronger leadership at the state level for better guidance and decision making to move forward in timely manner; 3) increase leader training to compensate for lost leaders and offer periodic networking opportunities for retain existing leaders; and 4) continue advocate for funding and establish a sustainable funding source for the CDSMP.

Sustainability Interview. Three units (government officials, service providers, and participants) were analyzed separately to closely capture the sustainability factors in each unit.

Government officials. After analyzing the government official interview transcripts, six major themes and 13 sub-themes were identified (Table 12).

Creative financing. All the government officials identified that continuous funding is the major crucial factor for sustaining CDSMP. Funds are needed to support program delivery and infrastructure costs. Unfortunately, each grant is available for limited years. Receiving the ARRA grant was greatly appreciated by HHAP partners to ensure the CDSMP was deliverable for at least two years. One worried about depending on federal grant; “*right now, it is pretty much sustained by funding (ARRA) and unless that last forever.*” Another pointed out “*Because if you do not have funding, all these ideas (ideas to sustain CDSMP) are just gone.*” In addition, AoA and NCOA encouraged

state to utilize the Title IIID funds (Older American Act for disease prevention and health promotion services) to add funding streams for CDSMP continuous delivery. One indicated “*EOA gave permission to use Title IIID. So, we look forward to long-term sustainability. Funding amount may make a difference as to what degree we can sustain CDSMP on the island.*” However, Title IIID fund is proportionally smaller amount than other Older American Act allocation (Napili & Colello, 2010).

Table 12. Major themes and sub-themes for sustainable factors and recommended actions for government officials

Major theme	Sub-theme (related component from the framework)	Explanation (bullet is obstacles)	Recommended HAP Roles
Creative Financing	Continuously look for fund from variety of sources	Secured an additional grant, ensured using federal fund (i.e. Title IIID), and discussed with health plans for possible reimbursement to support CDSMP delivery <ul style="list-style-type: none"> Limited funding and uncertain of future funding are hard to sustain the CDSMP 	<ul style="list-style-type: none"> Secure continues funding (apply grants, request major funders, etc) Use grant fund as seed money Discuss about charging Not stopping efforts to keep pursuing Medicaid and health plans
	Knowing budget and expenses	Helped finding a ways to save cost and estimating cost per person <ul style="list-style-type: none"> Not clear budget for co-led agency has been difficult to guide partners 	<ul style="list-style-type: none"> Create a workgroup for overseeing distribution of the funds and develop a mechanism for handling the finances <ul style="list-style-type: none"> Consider having a common fiscal agent Review how much invested in the program
Partnership*	Continued buy-in from HHAP partners to increase capacity for continuity	Provided support to gain buy-in from AAAs (more staff involvement, secure funds to hire coordinator) Brought non-Aging Network partners (DOH)	<ul style="list-style-type: none"> Continue to be very committed
	Work with variety of organizations to maximize resources (technical assistance)	Participated in national initiative Had high level of willingness to support each other to reach diverse community. <ul style="list-style-type: none"> Limited number of partners; cannot maximize the reach. 	<ul style="list-style-type: none"> Continue team work and build trust Develop a better infrastructure to work with non-aging organizations Not stopping efforts to keep pursuing potential partners such as Department of Park and Recreations, physicians, and YMCA.

Table 12. (Continued) Major themes and sub-themes for sustainable factors and recommended actions for government officials

Major theme	Sub-theme (related component from the framework)	Explanation (bullet is obstacles)	Recommended HAP Roles
Marketing	Develop uniformed marketing plan*	Developed uniformed name for CDSMP Discussed securing a lead person to develop a strong marketing plan <ul style="list-style-type: none"> Marketing CDSMP in each county provided inconsistent message 	<ul style="list-style-type: none"> Develop better marketing strategies Develop common promotional and marketing materials
	Utilize variety of media and community events for dissemination	Disseminated the CDSMP efforts to increase awareness in the community. <ul style="list-style-type: none"> Did not have a capacity to respond the needs 	<ul style="list-style-type: none"> Offer TV campaign
Evaluation and quality assurance*	Secure evaluation entity (perceived benefit)	UH was able to ensure fidelity, and monitor progress and CDSMP delivery. It allowed partners to perceive benefit and acceptability of the program, improve quality of delivery, and use the report to disseminate the efforts.	
	Establish evaluation workgroup	Recruited representatives from each county to form an evaluation workgroup. The workgroup allowed each county to input suggestions and make recommendations toward feasible data collection and fidelity monitoring.	

Table 12. (Continued) Major themes and sub-themes for sustainable factors and recommended actions for government officials

Major theme	Sub-theme (related component from the framework)	Explanation (bullet is obstacles)	Recommended HAP Roles
Policy	Incorporate into organization's work plan (program-organization fit)	Built credibility by presenting how HHAP and CDSMP align with variety of organizational goals for policy makers	<ul style="list-style-type: none"> Encourage local partners to incorporate CDSMP into their offering or other programs
	Educate and obtain buy-in from policy makers	<p>Increased visibility of CDSMP among policy makers by sharing the success of CDSMP.</p> <ul style="list-style-type: none"> Not all county prioritize the elderly nor health promotion 	<ul style="list-style-type: none"> Work to develop a high profile/visible champion like Governor (invite Governor to participate) Continue to work with AoA/ NCOA to request need for CMS reimbursement and more funding opportunities
Infrastructure and delivery system	Develop champions at multiple levels (champion)*	<p>Developed many champions at state and county levels to secure stable coordination and infrastructure of HHAP</p> <ul style="list-style-type: none"> Losing strong state level champions made problems with making good decisions or solving problems 	<ul style="list-style-type: none"> Have a good leadership from the state level
	Identify sufficient staffing and training*	<p>Had committed and dedicated staff</p> <ul style="list-style-type: none"> Not having a clear work plan (degree of involvement and required time) Not knowing the optimal number of workshops and number of trainers Not having strategies to recruit and retain leader, and maintain existing leaders with good quality 	<ul style="list-style-type: none"> Have a statewide staff that can dedicated to look for funds and writing grant Encourage AAAs to have more staff involvement, if there is turn over Encourage to secure county coordinator Leaders <ul style="list-style-type: none"> Provide stipends Look for volunteers Retain and have leaders in place Provide on-going training

Table 12. (Continued) Major themes and sub-themes for sustainable factors and recommended actions for government officials

Major theme	Sub-theme (related component from the framework)	Explanation (bullet is obstacles)	Recommended HAP Roles
Infrastructure and delivery system (Continued)	Develop a clear sustainability plan	<ul style="list-style-type: none"> • Not having clear sustainability plan makes partners to develop inconsistent as well as inadequate operation and procedures 	<ul style="list-style-type: none"> • Develop a plan that reflect the local context • Develop a system for managing the growth (i.e. be able to respond needs from new partners) • Develop a mechanism to bring volunteers
	Continue to conduct regularly scheduled meeting (technical assistance)*	Helped partners to develop consistent perception about the program needs and able to share challenges and successes. It allowed the partners to obtain technical assistance and share resources to expand the CDSMP in their communities.	<ul style="list-style-type: none"> • Continue offering HHAP meetings to keep all connected <ul style="list-style-type: none"> ○ Share ideas how to find a way to share resources • Develop good decision making process

Note. *: Identified earlier phases

Demonstrating HHAP's statewide efforts and impact for policy makers secured funding; HHAP secured Rainy day funds to continue CDSMP. Kauai and Maui County were able to secure some funds from their county governments to maintain CDSMP activities. EOA and DOH have been trying to obtain buy-in from Medicaid as well as health plans. However, they reported that it has been a challenge.

The recommended actions for HHAP for financing were identified: secure continuous funding, use grant fund as seed money, and discuss about charging for the workshop. To secure the funds from variety of sources, the state leader of HHAP should continue to disseminate how CDSMP can potentially save money by learning skills in self-management for third party payers (e.g., HMSA, Kaiser, Medicaid) and ask them to cover the cost of the workshops for eligible clients and discuss possible opportunities for reimbursement. The county lead of HHAP should continue to advocate for CDSMP needs in the county to secure county appropriation. Other recommended action for HHAP was using grant money as seed money. It will eventually let CDSMP be run by providers and keep expanding on its own. Partner also suggested charging for workshops to generate funds.

In addition, HHAP partners identified they should have a clear understanding of budget and expenses to develop good financial strategies and a strong sustainability plan to guide local partners. Unfortunately, HHAP lost an EOA champion early in the program, and another busy staff member had to add HHAP duties to her workload, so at times it was difficult to get timely information related to the budget. Therefore, DOH and contractors had challenges to guide partners. However, HHAP was able to assess CDSMP expenses as needed. For example, at one point, HHAP reviewed expenses for

CDSMP and realized they could save money by purchasing CDSMP license that matches with their offering, and then developed a plan to purchase license by each AAA and serve as their providers' umbrella rather than asking their providers to purchase their own. At the end of the sustainment phase, HHAP was able to estimate cost per person for CDSMP by compiling all the partner's spending in the FY 2010.

The one recommendation shared by government officials was to create a fiscal workgroup to oversee the distribution of the funds and expenses and develop a mechanism for handling the finances. Another idea shared by government officials was having a common fiscal agent to allow them to track non-government dollars and to be able to receive tax deductible contributions. HHAP partners should review the benefits of program so that funders are able to see that CDSMP not only improved participant health but also saved cost of future health care.

Partnership. Existing HHAP partners were very committed to pursue CDSMP delivery and expansion. All reported continued support and commitment from HHAP partners, and working with variety of providers was an important factor to sustain CDSMP.

First sub-theme under partnership indicated that continued buy-in from state and county leads made for HHAP to increase operational capacity for CDSMP continuity. The level of buy-in by AAAs varied, but all the assigned staff bought-in to the program and provided continuous leadership for their providers. EOA had provided support to gain buy-in from executive directors at AAAs by inviting them to participate in HHAP face-to-face meeting and including email list for updates. Kauai and Maui AAAs gained buy-in within the agency and secured additional funds to hire a county-coordinator for

CDSMP. Hawai'i AAA obtained support from co-workers to promote the CDSMP and found a way to get more staff involved. Honolulu AAA increased number of staff involved in CDSMP from other divisions. DOH bought-in to CDSMP and continued to remain an active partner with HHAP. They brought partners from non-Aging Network to expand the capacity of HHAP. In addition, all government officials reported they could not keep up CDSMP without the local partners' support.

Second sub-theme under partnership was working with variety of organizations to maximize resources. HHAP government officials reported that working with variety of organizations enabled them to reach an ethnically diverse community. Being a part of the national initiative was beneficial for HHAP to learn other states' efforts on expanding CDSMP and to obtain technical assistance for building HHAP capacity to reach broader audience. EOA and DOH were able to access other states leaders and federal project officers and obtain guidance and suggestions. AoA and NCOA also created a website that includes resources to support ARRA funded states. EOA and DOH served as conduits for national level resources.

As previously mentioned, HHAP developed 60+ partners over the years. Each partner leveraged resources to support HHAP to reach broader audience in the community. Each organization offered anything that could help HHAP such as providing sites, offering transportation, finding participants, sharing leaders, promoting the program, and setting the classroom for leaders. All government officials and contractors also served as good resources for HHAP partners. All HHAP partners had a high level of willingness to help each other and provide technical assistance. One described *“regardless whatever the frustrations are with, coming along with the program, the*

partners just self are very supportable of everybody else.” For example, when Kauai, Maui, and Hawai‘i Counties did not have much experience of conducting the training, Honolulu AAA worked with Honolulu trainers who had the most experience and sent them to other islands. When AAAs needed for more trainers in their own county, DOH provided funds for HHAP to offer trainings to meet the needs. In another time, Maui County could not find a substitute for workshop and emailed all the HHAP partners for help. It made easy for Maui County to find substitute for the workshop. AAAs also bought program materials in bulk to save some cost and shared these materials with their local partners. All these efforts contributed to reach diverse community.

However, HHAP was not successful in reaching a younger population (60 years or younger). All the federal funds that secured by HHAP were only for Aging Network partners, so that non-aging partners on their own to secure resources. Majority of HHAP members were with the Aging Network, and one pointed out *“we’ve got to be able to go beyond aging and be willing to work with others and to partner.”* HHAP could sustain better, if there were a strong infrastructure to mobilize resources between Aging Network and Public Health partners.

The recommended actions for HHAP partnership efforts were to continue to be very committed, work as a team, and build trusted relationships. The HHAP partnership should develop a better infrastructure to provide consistent support for non-aging partners as well as aging partners to build a new partnership with more diverse partners to reach younger population. HHAP partners understood that getting potential partners to the table is not easy, but they requested HHAP to keep pursuing potential partners such as Department of Park and Recreation, physicians, and YMCA.

Marketing. Since delivery phase, marketing became one of the key components to continue the CDSMP offering. HHAP took a few years to develop a statewide branding for CDSMP. HHAP discussed assigning or securing a lead marketing representative with a strong skill in marketing, and developing a plan how to disseminate the CDSMP statewide. Because each county developed own materials and own strategies to disseminate the efforts, HHAP could not send a consistent message throughout the state to increase awareness of CDSMP. One pointed out *“it doesn’t make sense to use limited resources to develop our own resources to develop our own marketing materials when could just tap into a common source.”* Another indicated *“we need good marketing and promotion techniques to demonstrate the quality of the program and that we are uniformed.”* HHAP learned that creating a template that includes core message and gives flexibility for county to insert their county-specific information was a key to disseminate the efforts.

HHAP hesitated to use variety of media to market CDSMP because they did not have enough capacity to respond the needs. In Honolulu County, when they posted their CDSMP impact on the Honolulu Star Advertiser (formally called Honolulu Advertiser), more than 100 people asked for workshops. However, there were no workshops scheduled, and these individuals were not served. Thus, HHAP learned to have a better coordination with workshop schedule and marketing plan.

Partners recommended HHAP to develop strong marketing strategies that all county can adapt and develop common promotional marketing materials to show “the same look” for CDSMP. Once the HHAP establishes a system of scheduling the workshops, they can use the TV campaign to recruit participants, engage interest, and

increase awareness among wide range of organizations as well as to increase interest among participants in Hawai‘i.

Evaluation. Evaluation is a key component for evidence-based programming (Lee et al., 2008). HHAP established a strong evaluation entity, UH, to develop systematic collection and analysis of data. UH provided on-going evaluation reports to track if CDSMP was delivered with fidelity, participants were satisfied with CDSMP and benefit from the program, and HHAP made progress. It had been beneficial for HHAP partners to improve the overall quality of HHAP performance and prepare HHAP to grow. Having an evaluation entity to store the CDSMP “lessons learned” became a resource to new partners over time. From the sustainability interview, perceived benefit and having the evaluation result by county helped them to disseminate the efforts in their county to increase interests among potential partners.

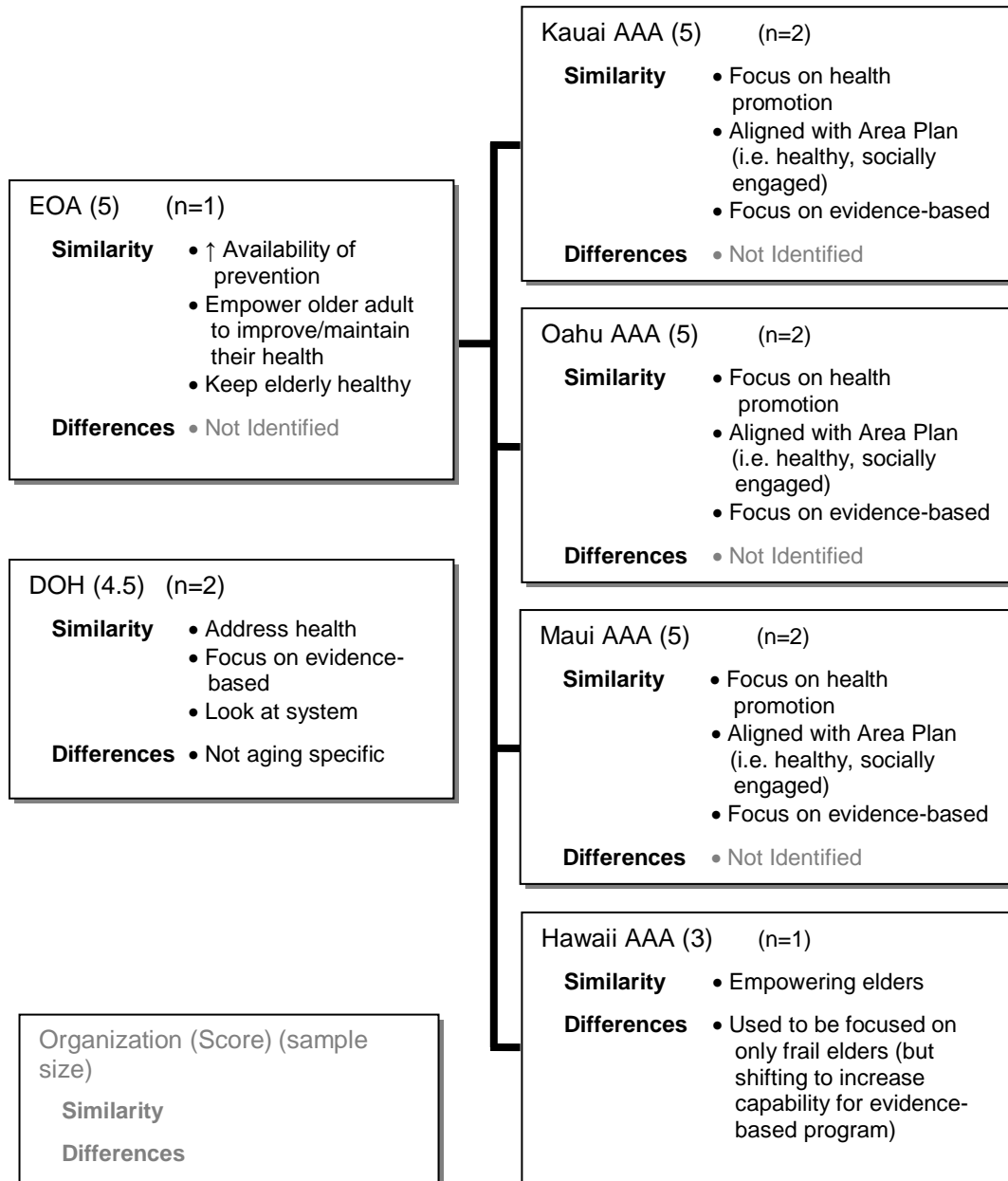
All the government agencies reported that they saw the program effectiveness through HHAP evaluation reports. Government officials were able to see the participant benefits reported in the data. They also felt that their organization and their staff including themselves benefited through participation in HHAP. Their organization achieved their organizational mission, built better infrastructure between aging and public health sectors, and attracted potential partners. Their staff including themselves also became familiar with evidence-based programming, increased interested in CDSMP (i.e. participating the classes or trainings, willing to find additional fund), increased skills in team work and promotion (i.e. used data to sell the program), increased capacity of offering CDSMP (i.e. more staff trained, engaged other providers, hired county coordinator), perceived acceptability of CDSMP in Hawai‘i, and developed champions.

UH also encouraged and supported HHAP partners to showcase their progress at local and national conferences.

It was also a key to form a workgroup to obtain input from a variety of representatives on the evaluation tools and fidelity protocol. UH took the lead with support from EOA and DOH for the HHAP fidelity workgroup to meet monthly. The workgroup provided opportunities for each representative to discuss improvements on the evaluation tools and fidelity protocol. All the representatives were able to contribute to the CDSMP improvements. One government official described as *“we all discussed what the data collection sheets would look like, what kind of information should be on there. So, it was very engaged group. So, it wasn’t done by the couple of people. I think everybody sort of had handled it and understood. What was being collected and why it was being collected, and how we could see the differences being made.”* HHAP partners were committed to evaluation and fidelity and satisfied with the evaluation services so that there were no recommendations were identified in the interview results.

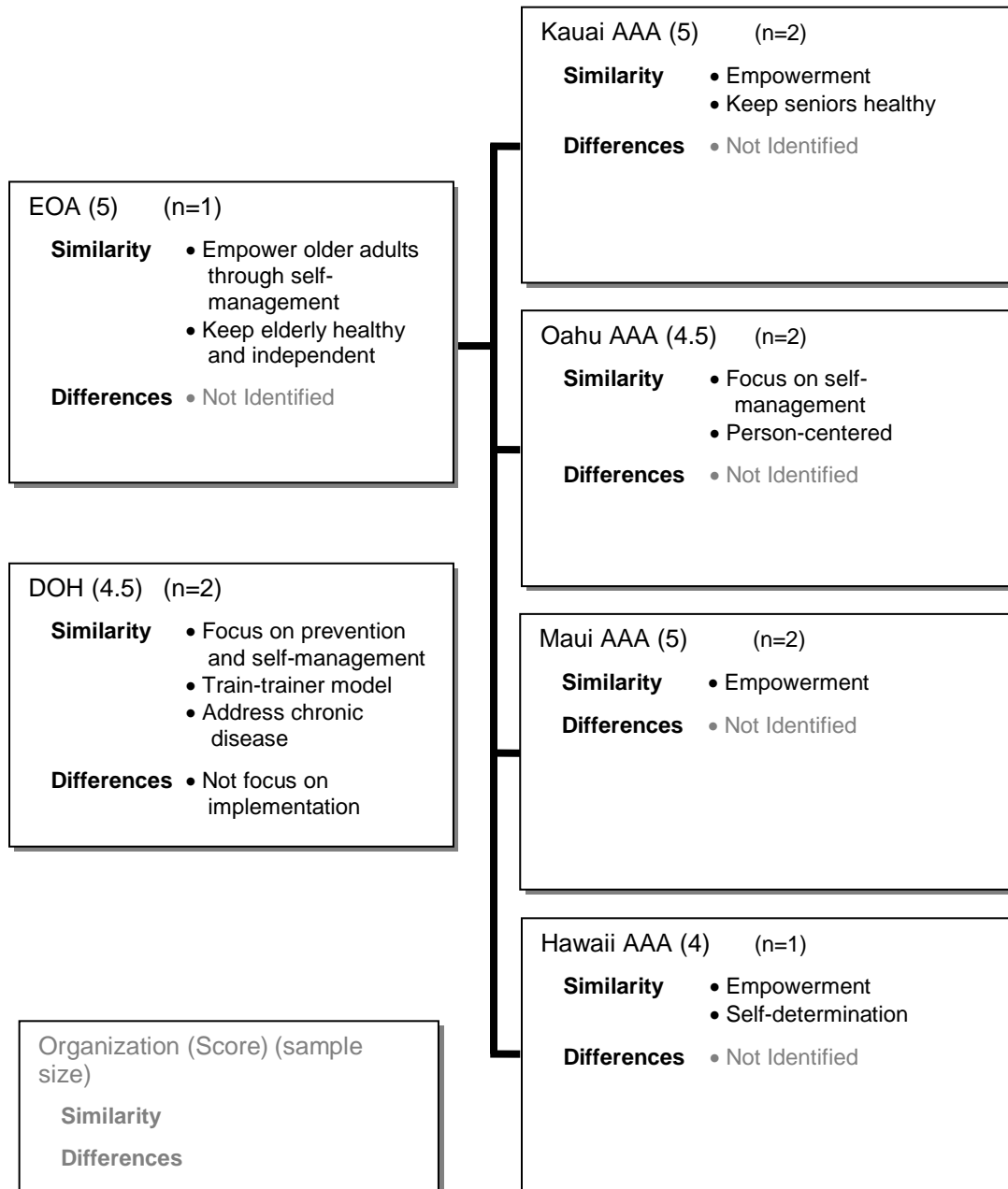
Policy. HHAP mission and CDSMP service were integrated into HHAP government officials’ organization mission or their strategic plan. HHAP mission became one of their goals so that it made their aging service providers easily could incorporate the HHAP mission into their services. Having the HHAP mission in their goals, they were able to stay engaged and develop strategies and guidance for their providers. By demonstrating how HHAP and CDSMP aligned with variety of organizations, policy makers perceived HHAP and CDSMP as credible. The sustainability interview revealed that most of the government officials felt that HHAP

mission and CDSMP matched with their organizational missions and goals (See Figure 10 & 11).



Black line: AoA funding stream

Figure 10. HHAP and Organization match in government levels



Black line: AoA funding stream

Figure 11. CDSMP and Organization match in government levels

Hawai'i County AAA (HCOA) reported that the organization had been focused on frail older adults but now recognized the need to help healthier seniors and baby

boomers to maintain or improve their health. Thus, the degree of match of organizational mission and goals with HHAP and CDSMP purposes has been increasing.

Presenting current effort of HHAP and impact on CDSMP at legislative meetings (i.e. Kupuna Caucus, Kokua Council, etc) made HHAP and CDSMP visible to some of the policy makers. Unfortunately, EOA and DOH had limited chance to visit the county mayors. However, they visited the Kauai County mayor to increase awareness of importance of CDSMP and show state support for this effort. It helped their mayor to buy-in to HHAP, and he helped Kauai AAA promote the evidence-based programs.

The recommended action for HHAP was presenting how HHAP and CDSMP match with the lead organizations and encouraging their local partners to incorporate HHAP mission and CDSMP into their strategic plan or existing programs. They recommended HHAP invite the governor or other policy makers to attend the workshops or observe the workshops in the community to provide fist-hand understanding of the CDSMP. They can become high profile, visible champions for CDSMP. EOA and DOH should continue to work with federal agencies to request the need for CMS reimbursement and to increase funding opportunities.

Infrastructure and delivery system. All the government officials reported that HHAP should have a strong coalition infrastructure and delivery system to sustain CDSMP. Since delivery phase, HHAP experienced challenges with existing operational system. HHAP revisited their operational system and adapted “hybrid model” for coalition infrastructure and delivery system. However, many government officials (n=6) felt the model is not efficient enough to sustain CDSMP. One described as “*the hybrid model. It was kind of a joke because I think we really ended up exactly where we started*”

with this whole sustainability exercise.” Another mentioned *“we need a system like a how do organizations run, how do people find out about the program, how do they get refereed to places, who do they call, who does the lead for that...”* It implies HHAP should discuss with partners to refine the hybrid model to be able to maximize the resources, develop an efficient sustainability plan, and coordinate overall HHAP activities rather than adapting the model that maintain status quo. After developing the refined model, the county HHAP representatives can develop a well-coordinated delivery system to match with HHAP infrastructure.

The sub-themes identified to make a sustainable infrastructure and delivery system by government officials were: 1) developing champions at multiple level to positively influence other HHAP partners; 2) identifying sufficient staffing and training to develop optimal workforce; 3) developing a clear sustainability plan for guidance; 4) and having regularly meeting to provide opportunities to keep inform HHAP activities updates and provide technical assistance.

First sub-theme derived from the infrastructure and delivery system was developing many champions at multiple levels. HHAP developed champions at both the state and county levels and contributed to program improvement and sustainment. These champions made the journey of sustainment easier for all the HHAP partners.

All of the government agencies could identify at least one champion, but EOA lost all champions by the end of the sustainment phase (Table 13). It was difficult to prevent champion’s turnover, but having more than one champion helped stable leadership to sustain CDSMP. HHAP government officials felt these champions were greatly effective (rated the champion’s effectiveness either 4 or 5 out of 5).

Table 13. Number of champions in government agencies

Unit	Organization name	# identified	# recognized by other org	Reported # lost
State	EOA	0 to 2	2	2
	DOH	2 to 8	4	1
County	Kauai	1	1	0
	Oahu	1 to 3	1	0
	Maui	2	2	0
	Hawai'i	1	1	0

The finding indicates the characteristics of champions for state and county level were slightly different (Table 14). The similar characteristics were gaining buy-in within the organization to bring more staff in the HHAP, identifying and linking potential partners to expand the partnership, participated in the CDSMP to increase understanding of the program, being supportive and enthusiastic about the program to increase motivation among the HHAP partners, securing and sharing resources to support sustaining the program, disseminating the efforts for policy makers to advocate for program needs, being highly committed to the program, believing that CDSMP can really help many people in Hawai'i, and putting efforts in improving HHAP infrastructure and operation. Interviewees felt that state level champions should put efforts into improving the HHAP coalition, participate fully, and make things happen. Interviewees felt that county level champions should put efforts into improving CDSMP operation, retaining leaders and providers, providing support for evaluation, expanding the reach of CDSMP, and serving as role models.

Table 14. Government champion characteristics

	State	County
Gaining buy-in within the organization	✓	✓
Providing linkage with other organization/ Finding new partners	✓	✓
Participating in the program activities	✓	✓
Being supportive and enthusiastic about program	✓	✓
Securing and share resources	✓	✓
Disseminating efforts/ Advocate for the program needs	✓	✓
Being highly committed	✓	✓
Believing in the program/ being familiar with the program	✓	✓
Putting efforts in improving HHAP infrastructure and operation		
Coalition		
-systemizing	✓	
-provide input how to improve/ have expertise area		
Daily operation		
-maintain link with leaders and providers		✓
-help completion of evaluation forms		
-expanded the reach		
Participate from the beginning	✓	
Serving as a role model		✓

Recommendation to HHAP coalition regarding the developing champions is to keep developing more champions at the state level, since HHAP lost key champions from EOA and had trouble with making decisions.

The second sub-theme under infrastructure and delivery system derived from the interview was identifying sufficient staffing and training. As time passed, HHAP became aware of the need for at least one staff dedicated to HHAP. To date, all the AAAs have at least one representative for HHAP. Coordination of CDSMP daily operation took a lot of time. One representative said “*we are still putting in a lot of time on put CDSMP on ground. I think it’s officially 20% of my time, but wow, I think am about like 70%.*” Because the representatives from AAAs were very committed to the CDSMP, they were willing to add more time on CDSMP operation. All HHAP partners were new to evidence-based programming in the beginning so that they had to develop operation

systems and procedure through trial and error. Therefore, they have a clear understanding of how much time is required for personnel engaged in CDSMP. Government officials felt they wanted to know the degree of involvement and time before they joined so they could prepare for the journey with other partners. In addition, government officials were confused about work roles and responsibility during the sustainment phase. When EOA lost key personnel, because of the strong dedication to continue HHAP, they contracted a statewide coordinator and a sustainability consultant to sustain the HHAP activities. At that time, EOA managed finances and made final decisions, the HHAP statewide coordinator was developing strategies to sustain the CDSMP, the sustainability consultant worked with AAAs to develop a sustainability plan, the DOH supported for infrastructure development and program delivery, and each AAA operated differently to deliver CDSMP. It clearly implies that HHAP should develop a clear work plan that includes specific work roles and responsibilities with the degree of involvement. For example, EOA should have a .50FTE for overall coordination (i.e. coordination with ADRC, finding new partners from other state departments, finding potential funders, advocating for legislature, etc) and AAA should have .60 FTE for county coordination of CDSMP delivery (i.e. recruiting and retaining leaders, scheduling workshops, making referrals, etc).

The recommendations for HHAP were to secure statewide dedicated staff that can not only coordinate HHAP but also vigorously look for additional funding, secure long-term financial sustainability, and encourage more AAA involvement to stabilize the delivery system. A clear work plan helps all the partner organization to assign the right

number of staff with the skills needed for CDSMP. This would lead to continuity in CDSMP delivery if there is staff turnover.

In terms of sustainable delivery of CDSMP, most of the government officials (n=8) reported that they need more leaders and trainers to sustain the CDSMP. As the delivery phase results showed, recruiting and retaining leaders were challenging. A variety of materials was developed for leader recruitment (i.e. brochure, poster, flyer, direct communication) and different strategies were utilized (i.e. participants from the workshops, in-house staff from organization, making it requirements for their work). After HHAP experienced the whole process of implementation, they began to look for organization that might be interested in training their volunteers or existing community volunteers who can lead the workshops. However, number of trained volunteer leaders has been limited (Kauai 7+ people, Honolulu a few people, Maui 20+ people, and Hawai'i a few people).

HHAP also spent a lot of effort to retain leaders in a variety of ways. For example, they gave lei to newly trained leaders, provided certificates to certified leaders, set up room for first class so leaders didn't have to haul supplies and materials, offered a face-to-face Q & A, and provided stipends. Leaders want to stay as leaders because of encouragement from other leaders, because feedback from participants or positive change in participants is rewarding, and because he/she believes in the program and wants to help people. However, by the end of sustainment phase, HHAP's average retention rate was low (40%) and it varied by county (Kauai 48%, Honolulu 31%, Maui 51%, and Hawai'i 31%). Maui County had the highest retention rate, and this may be because they provide small stipends to their leaders. One expressed "*we need to establish a good pool*

of trainers... I still have hard time getting trainers because we don't have pools to resort to." HHAP trained many leaders and trainers since 2007. However, not all trained people offered CDSMP workshops.

Government officials recommended HHAP to develop a systematic approach to conduct trainings and continually recruit and train new leaders. More specifically, HHAP should consider offering stipends, look for more volunteers who has time to facilitate the workshops. It was obvious that HHAP should balance the number of workshops and optimal number of leaders. HHAP may need to develop a formula to estimate optimal number of leaders and trainers by inputting how many workshops they want to offer annually, how many are expecting to dropout, and availability of leaders.

In addition, maintaining good quality leaders was also identified as one of the sustainability factor. Those with the good quality provided technical assistance for other trained leaders to improve the delivery of CDSMP. From Honolulu County's experience, providing on-going refresher training created opportunities for existing leaders to network, share their success, reaffirm the importance of maintaining fidelity of delivery, and keep motivated. Securing additional fund to provide stipends and mileage for leaders who facilitate workshops was also one of the key strategies to retain leaders and commit to the quality of delivery.

The recommended action for HHAP was maintaining good quality of CDSMP delivery through providing on-going refresher course for existing leaders. It will increase the retention rate and make CDSMP available to all interested parties throughout the state.

The third sub-theme under the infrastructure and delivery was developing a clear sustainability plan. After success and challenges in earlier phases, HHAP developed a preliminary business plan with the support from the sustainability consultant that contracted from EOA. However, HHAP partners realized a need for a more comprehensive sustainability plan. One described that not everyone is on the same page and indicated as *“we need clear goals and clear structure on how we see ourselves working together or not working together. Some people see themselves as independent entities and others see the value of partnerships. ... what we all see is sometimes different, like sustainability, for some might be just money. For others it is actually the place that is still coordinating it or housing it...”*

Therefore, by the end of the sustainment phase, HHAP decided to revisit the sustainability plan and began to include more specific infrastructure development and delivery system using the template developed by NCOA. Multiple key personnel are going to be invited to leverage their strengths to develop the sustainability plan (i.e. working with the EOA and DOH to follow the national level movements, the evaluation entity to estimate cost effective analysis, AAAs to articulate the needs, etc). The refined plan will guide HHAP partners to request feasible amount of funding, to define clear goals and objectives, to increase coalition capacity, to develop a well-coordinated delivery system that all counties can adapt, and to show the value of CDSMP using cost benefit analysis.

The recommended actions for HHAP were to refine the sustainability plan to reflect community needs and develop a system that can manage growth, including innovative and cost-saving tactics. HHAP should have a mechanism to train volunteers to

offer CDSMP. Refining the sustainability plan will help HHAP partners to adapt financially sustainable model and show the CDSMP is a worthwhile investment.

The last sub-theme under infrastructure and delivery system was continuing regularly scheduled meeting. Regularly scheduled meetings helped keep government officials on the same page. One described “*we should continue to meet so that we keep each other charged, I think every time we met is kind of like a recharge.*” Every month, the meeting follows the same format, tracking activities proposed in the grant’s work plan, sharing updates, challenges, and successes, and making decisions. Partners were able to find opportunities for sharing resources, and obtaining technical assistance.

The recommended actions for HHAP were continue offering HHAP meetings to keep all partners connected and encouraging all HHAP partners to attend these meetings and contribute to decision making. In addition, HHAP meetings should establish a better decision making process and do problem solving.

Summary of sustainable conditions for government officials. At the end of this phase, all government agencies were able to sustain CDSMP activities. Although HHAP was not able to meet all the successful sustainable conditions, this dissertation study found the ideal conditions for the government agencies to sustain CDSMP were: establishing creative financing system through looking for variety of sources of funds and have transparent budget between HHAP partners; developing a strong partnership by continuously gaining buy-in from HHAP partners and working with variety of organizations; having a uniformed marketing plan and utilizing variety of media to increase awareness of CDSMP; developing strong evaluation skills by obtaining support from academic partners and creating a workgroup; demonstrating credibility of HHAP

and advocating for HHAP; creating a efficient infrastructure and well-coordinated delivery system that align with sustainability plan to develop champions, secure optimal workforce, and provide technical assistance and resources.

Service Providers. By the end of the sustainment phase, Provider A, D, and one Division in Provider B’s agency were still offering CDSMP, and Provider C stopped offering CDSMP (but still participating in HHAP to find a way to sustain CDSMP). During the analysis process, it became clear that sustained organizations had fewer obstacles throughout the process than the un-sustained organizations. After analyzing the interview transcripts of the service providers from Honolulu County’s, 6 major themes and 10 sub-themes were identified (Table 15).

Financing. Service providers said the same thing reported by government officials, that securing fund from variety of sources was a circuital factor for sustainability. One stated “*in the long-term, always funding is needed, things cost money and staff time plus money for licensing when the new books come out next year... all of those things cost something.*” All the providers that passed the delivery phase were Aging Network service providers and continue received funds from Honolulu AAA. However, the allocated funding was insufficient to cover all the costs of CDSMP, so that all the service providers found ways to secure other funds (e.g., getting donations, and including CDSMP in other grant proposals submitted by the organization). Charging participants was not an option for one organization because they serve low-income older adults, so that they put extra efforts to look for additional funds to sustain CDSMP at their organizations.

Table 15. Major themes and sub-themes for sustainable factors and recommended actions for service providers

Major theme	Sub-theme	Explanation (bullet is obstacles)	Recommended HAP Roles
Financing	Secured fund from variety of sources	Secured funding to support the on-going implementation. <ul style="list-style-type: none"> • Have to charge participants, if the funding is limited • Due to serving low-income, cannot charge participants 	<ul style="list-style-type: none"> • Find grant • Work on reimbursement from health plans • Develop financially sustainable model (charging, set fee, etc)
Partnership*	Continued buy-in from own organization (perceived benefit/ program acceptability)	Maintained support from supervisor to maximize the reach Reaffirmed the CDSMP match with needs; more staff trained and promoted in other divisions. <ul style="list-style-type: none"> • Unclear understanding of requirements and expectations create a chance of discontinuation of program. • Discontinued working with other divisions to improve the quality 	<ul style="list-style-type: none"> • Provide continuous support to educate their supervisor • Be clear about goals, plans, and expectations
	Developed skills to work with other organizations (technical assistance)	Worked other organizations to support each other through open communication and sharing resources. <ul style="list-style-type: none"> • Not having a clear coordination when offering workshops with other organizations 	<ul style="list-style-type: none"> • Keep the coalition and continue HHAP meetings • Develop a strong infrastructure to support providers • Find new partners • Continue technical assistance from UH
Marketing*	Coordinated marketing strategies	<ul style="list-style-type: none"> • No more potential participants • Not having a clear coordinated efforts among providers creates competition 	<ul style="list-style-type: none"> • Continue to disseminate the efforts at conferences • Use evaluation results in marketing strategies
Organization Policy (org culture)*	Incorporated into organization's service (program-org fit)	Included CDSMP activity in the job description or integrated CDSMP into organization's existing services. <ul style="list-style-type: none"> • Not all organizations priority is health promotion (Provider C) 	

Table 15. (Continued) Major themes and sub-themes for sustainable factors and recommended actions for service providers

Major theme	Sub-theme	Explanation (bullet is obstacles)	Recommended HAP Roles
Infrastructure and delivery system	Developed champions (champions)	Had more than one champion involved with operation of CDSMP (recruiting, collecting data, scheduling workshops, securing leaders, marketing, etc). <ul style="list-style-type: none"> • Losing champion created discontinuation for CDSMP delivery. 	
	Identify sufficient staffing and training*	Continuously developed CDSMP leaders Secured dedicated staff for the program coordination. <ul style="list-style-type: none"> • Lack of time and commitment from the staff, trainers, and leaders lead to failure of CDSMP delivery. 	<ul style="list-style-type: none"> • Offer more trainings to secure leaders and evaluation monitors • Consider providing stipends for leading workshops
CDSMP Offering	Program requirements (modifiability)*	Was able to attract their participants. <ul style="list-style-type: none"> • Using two facilitators are difficult to find (“Replaced” agency: Provider B Division 3) 	*Only from the “replaced” agencies reported: <ul style="list-style-type: none"> • Consider make it 12 sessions or use a professional to deliver workshop (e.g., RN)
	Participants*	Had large pool of potential participants Opened to younger than 60 years old to reach new participants <ul style="list-style-type: none"> • Not all agencies can serve younger than 60 	
	Quality of leaders	Had good quality of leaders to improve program delivery <ul style="list-style-type: none"> • Not everyone had ability to teach the CDSMP workshop. 	<ul style="list-style-type: none"> • Offer refresher trainings for existing leaders to maintain quality • Recruit leaders from community to be served

Note. *: Identified earlier phases

The recommended actions for HHAP from service providers were the same as those described by government officials. HHAP should continuously secure a sustainable financial system by finding new grants, working with health plans for reimbursement, discussing a sliding fee structure for participants, and determining how to allocate funds to non-aging providers in the future.

Partnership. The second theme derived from the sustainability interview among the Honolulu service providers was effective partnership to maximize resources and receive and provide technical assistance. Effective partnership was developed by continued buy-in from local partners and their willingness to help other organizations.

The first sub-theme identified under the partnership was continued buy-in from their organization to expand their capacity to deliver CDSMP. Among the providers who moved to the sustainment phase, three out of four were able to maintain support from their supervisor. One indicated that *“I think we have been very lucky to have [these bosses] that have buy-in because I’ve seen other organizations like they don’t get buy-in from, “how come you are spending so much time on this?, what are you doing?”, and then we were able to work with others so we don’t have to only serve, we’ve allowed to only just serve our target group.”*

Maintaining the boss’s support and reaffirming the program acceptability and impact enabled for the providers to put efforts into expanding the organizational capacity to offer CDSMP. Sustained organizations sent more staff to be trained as leaders during the sustainment phase. In terms of affirming the program acceptability, one service provider said *“I really see it is the tools that we really need to implement in a wider audience. And I have talked to other divisions in our agency about the possibility of*

offering the classes within their divisions for their clients...our program can offer it to people over 60, but other divisions can offer under 60.”

On the other hand, another service provider said *“For DSMP (CDSMP’s disease specific program, called Diabetes Self-Management Program), it has a lot of good strategies and information... From the beginning I had issues with the food information in DSMP, we delivered as it is. So, patients asked “how come this food size is different from what you told us” and they asked those kinds of questions. So, they know that I am teaching wrong information. So, we decided we are not going to do this unless they (Stanford) change it.”* It implies that the CDSMP’s disease specific program was not acceptable, so that he/she decided to not to offer the program. It prevented expansion of the program at his/her organization.

Provider B initially planned worked together with three divisions to adapt CDSMP. After the delivery phase, Division 2 dropped out because they felt the program did not well accepted by clients and the staff was not fully committed. Division 3 replaced the program during the sustainment phase because they did not have enough resources to conduct workshops and felt it was hard to deliver CDSMP as is. Because Division 1 was committed to HHAP, they felt it was better to pursue CDSMP without the other two divisions. Interestingly, each division took different path of carrying out the CDSMP after the initial phase. Provider B’s reach became limited but the quality of CDSMP increased.

The recommended actions for HHAP were providing continuous support to educate their organization for gaining recognition of HHAP and increasing the capacity

to offer CDSMP. In addition, providers recommended HHAP to be clear about goals, plans, and expectations to find ways to bring in other divisions.

Because all the sustained service providers were committed to HHAP and had shared visions/goals, they worked well with other organizations. To have sustainable delivery and develop effective partnership, Honolulu AAA continued offering regularly scheduled local HHAP meetings to build trust among providers and guide them how to work with other organizations.

For example, when Provider B's license was expired, Provider A suggested that they use Provider A's license to save the cost. When Provider C could not find a co-leader for workshop, Provider D allowed their leader to help with a workshop for Provider C. When one provider's leader needed to conduct a workshop to maintain her leader's certification, another provider invited her to lead the workshop with them. When Provider C (which dropped out at sustainment phase) had problem getting support from the new supervisor, Honolulu AAA met with the supervisor and provided encouragement for continuation. All the sustained partners appreciated the partnership because they were able to share resources and to receive technical assistance from HHAP partners.

The other documentation indicated there were a few times the workshop schedule was not well-coordinated across organizations. Providers got confused as to who should be credited for the workshop, whose license covered the workshop, and who was responsible for collecting the evaluation forms. Thus, it was not always well-coordinated to work with other organizations.

The recommended actions for HHAP were keeping the coalition, continuing the local HHAP meetings, developing a strong infrastructure to support providers, finding

new partners to expand the CDSMP reach, and providing the resources for all the providers. They also recommended continue technical assistance from UH for evaluation area.

Marketing. The third theme derived from the sustainability interview was marketing which was also identified as a successful condition during the delivery phase. Throughout the process, service providers were using their regular clients to test out CDSMP. However, after serving existing clients, three out of four providers reported problems with recruiting participants and sites. There was variety of ways to promote CDSMP. Some organizations developed presentation slides and presented CDSMP at potential sites. Other organizations developed a brochure and disseminated it at health fair or community events. A few organizations reported that graduates from CDSMP used word-of-mouth to bring people to the coming workshops.

One provider pointed out that the county should have a clear guidance and should coordinate the dissemination efforts, if providers are going to promote together. It helps them to know where they should market CDSMP to maximize the reach (i.e. which organizations have already marketed where and to which groups, and which sites/targeted groups haven't been reached).

Similarly to the government officials, service providers felt that having uniform marketing materials will help potential partners see CDSMP as a statewide effort. HHAP should have a statewide uniform look for CDSMP and send consistent messages throughout the state. Well-coordinated marketing strategies will secure new resources (i.e. implementation site, participants), obtain support from broader community, and improve accessibility to CDSMP. After HHAP's government officials developed an

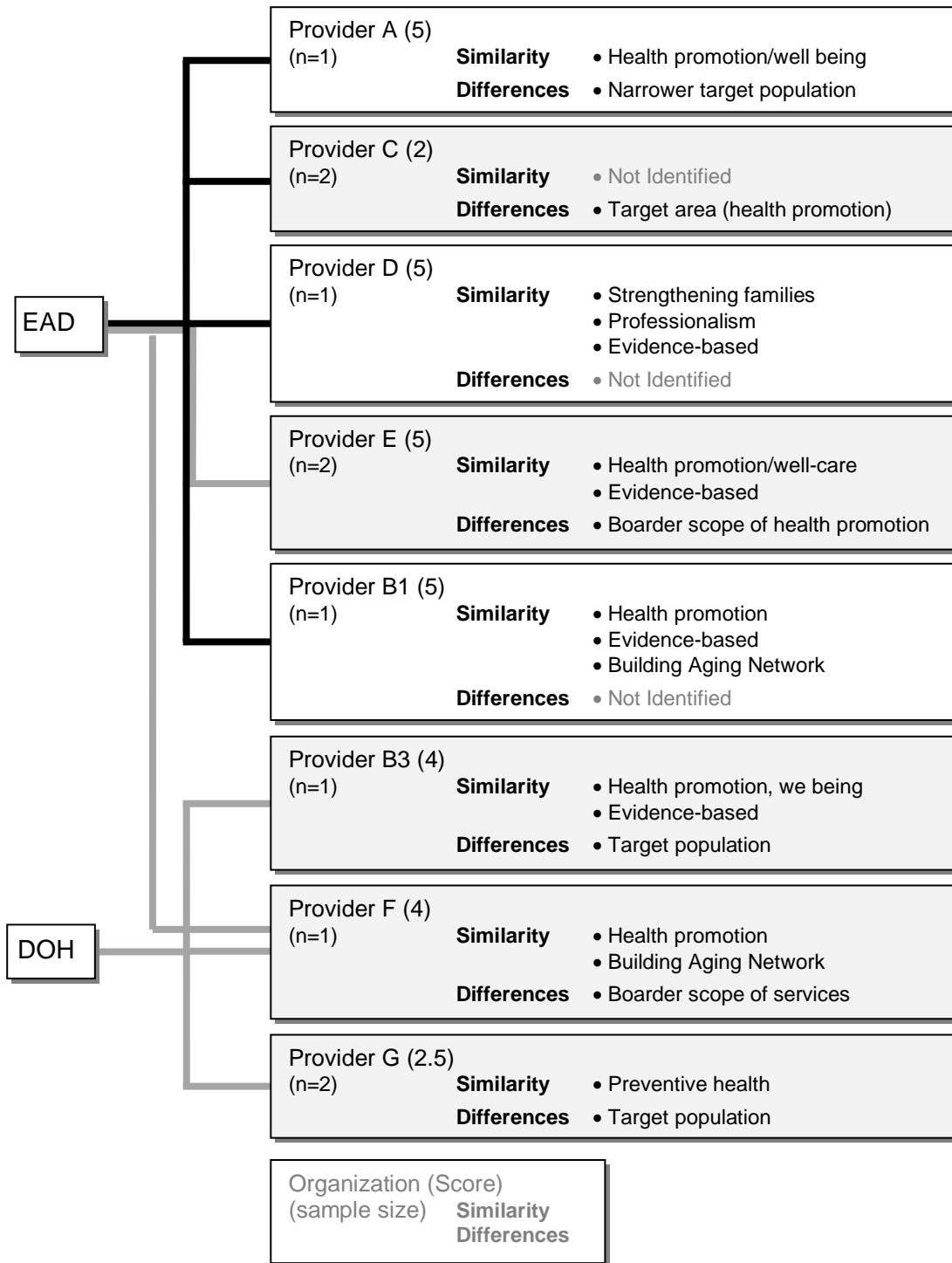
effective marketing plan and unified marketing templates, each AAA should coordinate with their local providers to optimize marketing efforts in the county. They can discuss which testimonials, pictures, and evaluation data should be included in these promotional materials. They can also list of the targeted audience and who should take a lead to approach them.

The recommendations for HHAP were to continue to disseminate information on CDSMP locally, to present on HHAP at national conferences to increase awareness, and to include evaluation results in marketing materials.

Organization policy. Once the service providers obtained support from their supervisor and organization, they began to incorporate CDSMP into their existing services for sustainment. Sustained providers A, B, and D added CDSMP activities to staff job descriptions so that staffing was secured.

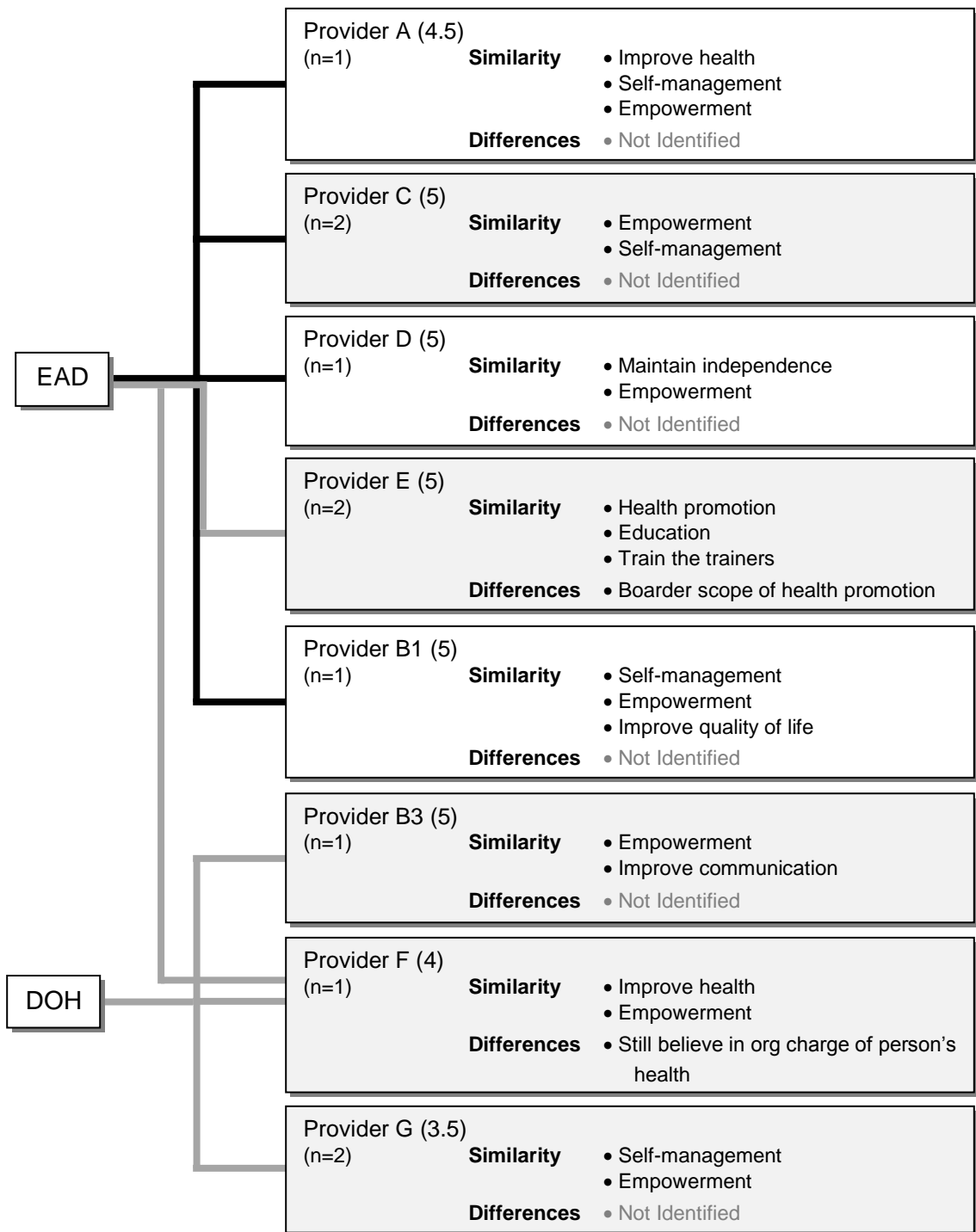
However, not all organizations had missions that matched with HHAP and CDSMP mission (Figure 12 and 13). As Figure 12 shows, Provider C reported that their organization priority was not health promotion, so it was difficult to integrate the HHAP work into their services. However, this agency had been trying to align with HHAP because they wanted to expand into offering wellness services. Although other organizations that dropped earlier phases reported differences that they did not only serve older adults, they felt HHAP mission fit their organizational missions.

There were no recommendations identified by the service providers for this comment. However, it clearly indicated that HHAP should recruit partners whose mission is aligned with HHAP and/or CDSMP or refine the HHAP mission to be more acceptable to potential partners.



Black line: AoA funding stream; Gray line: technical assistance only; Gray box: dropped out from HHAP

Figure 12. HHAP and Organization match in service provider levels



Black line: AoA funding stream; Gray line: technical assistance only; Gray box: Dropped out from HHAP

Figure 13. CDSMP and Organization match in service provider levels

Infrastructure and delivery system. Like government officials, service providers also developed champions and tried to have sufficient staffing and trainings to sustain CDSMP. As described in the government officials section, developing champions who can influence the sustainability of CDSMP is one of the keys to sustain CDSMP. All service providers identified at least one champion in some point of the CDSMP adaptation process (Table 16). Some of the champions were more visible than other champions. Sustained service providers developed more than one champions, and these champions were noted to contribute directly to program sustainment.

Table 16. Number of champions in government agencies

Organization name	# identified	# recognized by AAA	Reported # lost	# of active champions	Notes
Provider A	2	2	-	2	
Provider B 1	1-4	1	1	1-3	
Provider B 2	-	-	-	0	No champions
Provider B 3	1	-	-	1	
Provider C	0-1	1	1	0	
Provider D	2	2	-	2	
Provider E	0-2	-	2	0	
Provider F	1	-	-	1	Supported to re-engage
Provider G	1	-	1	0	Supported to initial start-up

For the most part, the champions at the service provider level played very similar roles to champions at the government official level (Table 17). They were enthusiastic about CDSMP. They were willing to help other staff be successful in CDSMP. They worked hard to expand CDSMP capacity by encouraging staff to be trained, being persistent to gain buy-in from organizations, seeking additional fund, and finding innovative ways to keep CDSMP. They were also good team players. They had great

partnership skills and were willing to share resources and collaborate with other organizations to offer CDSMP workshops. They also put extra efforts to promote the CDSMP in the community. They were willing to share information about CDSMP with potential partners and disseminate CDSMP information at local community event or conferences. They understood the benefits of the program and partnership, attended the local HHAP meetings regularly, and committed to evaluation.

Table 17. Service provider champion characteristics

	Government officials	Providers
Being supportive for staff and enthusiastic about program	✓	✓
Work hard to expand capacity (seek funding, gaining buy-in within the organization)	✓	✓
Share resources/ Team player	✓	✓
Disseminating efforts/ Advocate for the program needs	✓	✓
Believe in the program and its benefits	✓	✓
Have skills for program implementation		✓

A difference is that champions at the service provider level also had skills for program implementation. They took on the tasks of bring CDSMP into their organization and hosting workshops. They have personal examples to share with participants during the workshops, and they can provide technical assistance to other individuals and organizations that want to offer CDSMP. There was no recommendation for HHAP regarding the developing champions.

The second sub-theme identified in the infrastructure and delivery system was identifying sufficient staffing and training. Like the government officials, the providers felt a need for more leaders and trainers within organizations to sustain CDSMP over the long-term. Sustained organizations were able to train new leaders within the agency. As one of the provider indicated: “*definitely the program is important enough to continue it.*”

As long as we still have leaders and trainers on board. I am sure we will continue to do it.” It was clear that having enough number of leaders and trainers is a critical sustainability factor. Providers were glad that a program coordinator was secured to work closely with Honolulu AAA to schedule workshops and training to recruit, train, and retain CDSMP leaders. Having clear “reach” objectives for each provider helped everyone coordinate efforts to meet objectives. A provider commented that commitment from staff, trainers, and leaders is important to sustaining CDSMP at their organization. In terms of monitoring, as previously described HHAP required monitoring of at least one out of six classes of every workshop. UH took a lead to develop ten fidelity monitors across the state. However, not all monitors were able to monitor workshops. The recommended action for HHAP is to offer more training to secure and retain leaders and evaluation monitors. In addition, the providers felt HHAP should provide stipends to help retain leaders.

CDSMP Offering. The last theme identified from the sustainability interview related to CDSMP offering. As described in the initial phase, most of the HHAP partners felt the CDSMP matched client needs and was flexible enough to attract their participants with minor modifications to the intervention. However, the agency that dropped out from HHAP during the sustainment phase reported that using two leaders are difficult and wanted to either use a professional leader (like an RN) or split the CDSMP 6-week workshop into 12 weeks which was red-light modification for CDSMP. The organization offered as is until the delivery phase, however, they felt it was hard to meet the program requirements to continue and dropped out. Another agency that dropped out during the delivery phase also mentioned that CDSMP required more staff time than they could

afford (using two leaders) and wondered if HHAP could develop a scaled-back version of CDSMP that would require less time and only one leader. This finding implies that HHAP should do more to educate providers on the concept of evidence-based practice and describe possible ways to adapt CDSMP in the community.

Second sub-theme identified under the CDSMP offering was the participant. One sustained provider, Provider A, indicated that without enough participants, the reach may be limited; *“since it (CDSMP) does fit in so well ... I am sure we will continue to offer the program. Then, again, I don’t know whether it will be to new participants, but say if we had one workshop a year at each site, we have ten sites, I am sure we will have someone repeating, but we will have someone new, too”*. This organization obtained a local grant to offer CDSMP and started to serve a younger population. Another sustained organization, Provider D, reported that their division can only provide CDSMP to seniors, but that they are working with other divisions within the agency to reach a broader population.

Although there was no recommendation for HHAP, Honolulu AAA should discuss with the providers how to expand the reach considering each organization’s regulation (e.g., some can only serve people age 60+ and caregivers, some Native Hawaiians, some people from certain catchment areas, etc). These strategies should be included in the statewide marketing plan.

The third sub-theme under CDSMP offering was quality of leaders. Having high quality leaders is for sustainability. Sustained providers had excellent leaders who believed in the program, delivered it with fidelity, perceived benefit of the program, and developed good connections with participants. These leaders were willing to provide

technical assistance to other leaders to improve performance. However, not all trained leaders were of high quality and had to be retrained or asked to support CDSMP in other ways. The recommended action for HHAP was to offer refresher trainings to maintain the quality of program delivery. In addition, they requested HHAP to recruit leaders from the community that they are going to serve.

Summary of sustainable conditions for service providers. At the end of this phase, Provider C and Provider B's division 2 dropped out from HHAP, and Provider B division 3 replaced CDSMP with another program. The sustained organizations (Provider A, D, and Provider B division 1) were more likely than un-sustained providers to secure additional funds to provide CDSMP, to contribute to a strong partnership between organizations, to maintain support from their supervisor, to bring more staff to the HHAP table, to have own marketing strategies to recruit participants, to include CDSMP activities in the staff's job description, to have more than one champions, to know how to make minor modifications to make CDSMP attractive for their clients, have enough pool of participants or open the CDSMP to younger than 60 years old, and have more high quality leaders.

Participants. In terms of program participants, this dissertation assessed whether they maintained health benefits and how their organization can sustain CDSMP. Those participants were identified by providers that moved to sustainment phase (A to D). This dissertation study aimed to interview three participants from each provider, but the final distribution was slightly different due to loss to follow-up. Thus, interviewed participants were from Provider A (n=3), Provider B (n=5), Provider C (n=3), and Provider D (n=1). They were asked what they learned or liked about the workshop (workshop impact),

whether they applied their skills in their life after the workshop (application of skills), how their organization can sustain the CDSMP (sustainability ideas).

Workshop Impact. Participants liked many things about the workshops. They mentioned action planning (n=9), exercise (n=6), program materials (n=6), distraction techniques (n=5), problem solving (n=4), relaxation technique (n=4), positive thinking (n=4), healthy eating (n=4), and communication (n=2). At least one participant appreciated learning about medication management, breathing techniques, and buddy system, the chronic disease symptom cycle, and that medicine cannot cure everything. Some participants felt easy to be in the class because the class had similar peers. They appreciated transportation help to the program, and they felt the privilege of seniority in the class. These findings were very similar to the quantitative findings. Participants rated the helpfulness of the CDSMP workshop. The mean score was high (4.55 out of 5), suggesting that the CDSMP workshops was very helpful for them to manage their chronic conditions.

Application of skills. Even six months to one year after the workshop, participants felt the workshop helped their day-to-day living with chronic condition. Although the level of change varied, participants reported learning new self-management techniques and became active self-managers. The program impacted on participants from small things such as increasing awareness or completing advance health directive to losing 50 pounds, reduced blood sugar level, or reduced number of medications. All participants reported that their behaviors had improved (e.g., they increased exercise, were eating a healthier diet, had more effective communication with doctors and families, were taking medication properly, and felt more motivation to be active). Participants rated their

confidence in managing their chronic conditions before taking the workshop and after taking the workshop. The mean score was low before the workshop (2.03 out of 5) and increased after the six months to one year from the workshop (4.53 out of 5), suggesting that they were more confident managing their chronic conditions.

Sustainability ideas. Participants were asked to rate their organization in sustaining CDSMP, and the mean score was high (4.88 out of 5), suggesting that their organization was successfully sustaining CDSMP activity. There were no differences in participant perceptions by provider with which the participant was associated. Participants shared ideas to sustain CDSMP at their organization. Participants suggested that their organizations develop effective recruiting strategies including personal contact with participants and referrals from doctors, improve marketing strategies to reach broader audience, increase accessibility by offering transportation, serve food, provide flexible scheduling of classes, make CDSMP attractive by conducting annual recognition event, find additional funds, and increase organization capacity to train more leaders within the agency.

CHAPTER 6

CONCLUSION

Evidence-based health promotion programs are developed in research settings, and replicating them in real-world settings can be challenging (Glasgow et al., 2003; Green, & Glasgow, 2006). Having a standard protocol or guideline for adapting evidence-based programs to new communities can be very useful.

This dissertation study examined five years of the journey of CDSMP adaptation among HHAP partners. From the data, an illustrative road map of the Hawai‘i experience was developed (Figure 14). The figure includes curves that show the trajectory of each of seven Honolulu County service providers (labeled A to G) through the five years. The adaptation process was not a simple process of organizational change. Although the major process included three phases: 1) initiation; 2) delivery; and 3) sustainment, the adaptation was more complicated than theories of organizational change and innovation sustainability suggest.

The successful initiation process began by examining CDSMP and adapting it to Hawai‘i communities without jeopardizing the key components responsible for stimulating behavior change in participants. After making small adaptations to better “fit” CDSMP to Hawai‘i elders, service providers began to build organizational capacity by obtaining buy-in from their supervisors. After securing funding from AAA or their own organization, providers identified and supported candidates for CDSMP training.

Engagement in all these steps (assure program fit with clients, obtain buy-in supervisors, gain access to funds and technical assistance, and demonstrate a high level of commitment and readiness to implement CDSMP) helped providers successfully pass the

initial phase of CDSMP adoption. One provider (G), which did not have commitment and supervisor buy-in, dropped out during the initial phase of CDSMP adoption.

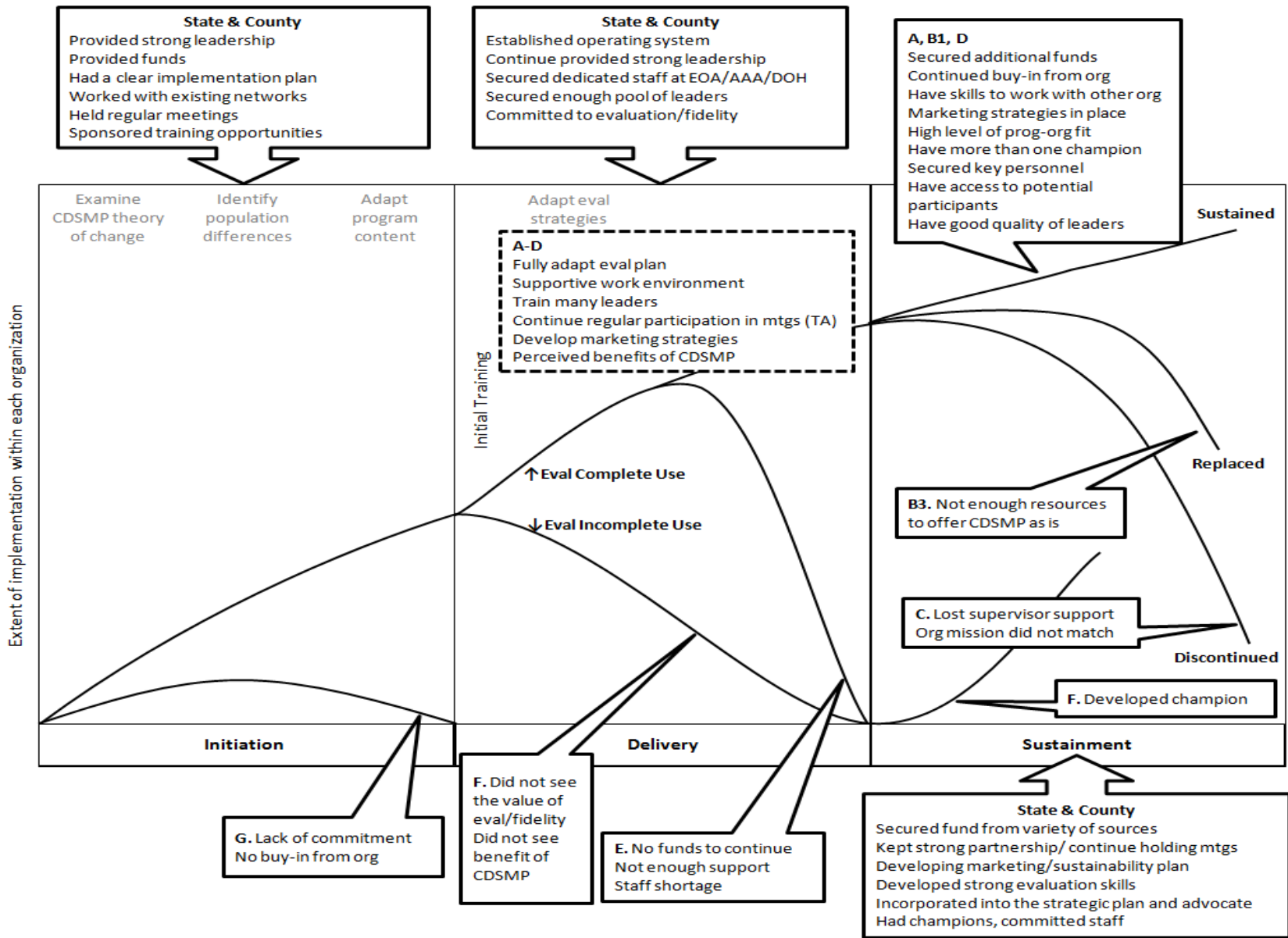


Figure 14. HHAP Roadmap

State and county agencies were supportive throughout the initial process by providing strong leadership, securing funds for the providers, sharing a clear implementation plan, holding regular meeting, and sponsoring CDSMP training.

The delivery phase began with preparation of and education about the evaluation plan and actual implementation of the CDSMP with clients. Successful providers started small, testing the evaluation forms and program acceptance by clients. Then they began to train more staff and conduct CDSMP workshop regularly. They were able to offer CDSMP with high fidelity. They continuously participated in the HHAP meetings to obtain technical assistance from other partners. They began to develop marketing strategies to find more participants. This process helped providers to have conditions that contributed to well-functioning in the delivery phase of CDSMP adoption.

Because they fully adopted the evaluation plan, they were able to ensure high fidelity of their delivery of CDSMP, and their clients realized benefits of CDSMP. They were also able to obtain evaluation reports from UH, so that they were able to convince more staff to participate in CDSMP and were able to secure more leaders from their organization. They also used evaluation results in marketing efforts. Therefore, as the composite framework described, the adoption of evaluation strategies was key to continuing the delivery of CDSMP.

However, funding, support from other organization, and sufficient staffing were also key to move on to next phase. During this phase, state and county agencies supported providers to effectively operate CDSMP activities, secure dedicated staff to provide strong leadership and technical assistance, ensure number of leaders, and support the evaluation plan. The provider (E) that dropped out during the delivery phase noted no

funds to continue, not enough support, and staff shortages. Another provider (F) dropped out in the delivery phase because it was not able to fully adopt the evaluation strategies.

The sustainment phase started when the first AoA three-year grant ended. Providers ended up in a variety of positions in Figure 14. Organizations (A, B1, and D) that successfully sustained CDSMP paid strong attention to expanding their organizational capacity to offer CDSMP regularly at their organization. Successful providers secured additional funds, obtained continued buy-in from their organization, perceived CDSMP fit with their organizational mission, developed skills to work with other organizations to share leaders, established marketing strategies to attract new participants, developed more than one champions, and secured key personnel to coordinate CDSMP at their organization. Also, their CDSMP leaders were of high quality.

The provider (B3) that “replaced” CDSMP with another program had difficulty maintaining fidelity of CDSMP delivery, and it did not have enough resources such as leaders and funds to be able to offer CDSMP as is. The provider (C) that “discontinued” CDSMP reported that the organization’s mission was different from HHAP’s mission, so that their supervisor was not supportive enough to continue CDSMP. Interestingly, one provider (F) that discontinued in delivery phase later began to reengage in HHAP, and is trying to re-start CDSMP at that organization. This champion was strong enough to convince their agency to reengage. They are currently in the process of integrating CDSMP into their services.

During the sustainment phase, a lot of activities happened at the state and county level to support the providers. State and county agencies looked for additional funds from

a variety of sources, kept strong leadership by developing many champions, developed strong evaluation skills, and kept strong partnership through hosting and attending HHAP meetings with their providers.

Confirmed with Composite Framework

The dissertation findings generally confirm the composite framework proposed in this dissertation study, although the road map suggests that pathways are varied and complex. We learned that sustainability was influenced by activities performed and commitments secured in earlier phases (i.e., the delivery phase and the initial adaptation phase). As the Planned Adaptation Theory described, successfully sustained organizations expanded their organizational capacity by examining CDSMP, identifying population differences, adapting the program content, and adapting evaluation strategies in the initial phase (Lee et al., 2008).

Moreover, those organizations that sustained CDSMP followed the process and developed sustainability conditions proposed by Scheirer (2005). Specifically, they applied Scheirer's five strategies: 1) they fully adopted evaluation strategies; 2) they perceived fit of the program in their organization; 3) they perceived program benefits; 4) they developed champions; and 5) they had access to assistance from external organizations such as state and county governments.

However, this dissertation research found that the CDSMP adoption framework should be more specific and expanded to include more conditions to achieve successful sustainment. To Scheirer's (2005) five factors, we add nine more: 1) buy-in from supervisor and organization to develop a supportive work environment; 2) accessibility to funds for initiation and continuation; 3) high commitment to offer the program; 4) high

level of readiness before program delivery; 5) many good-quality leaders to offer CDSMP; 6) effective and localized marketing strategies; 7) skills to work with other organizations; 8) support of key personnel within the agency; and 9) continuous access to potential participants.

There 14 factors can be categorized into four domains: 1) adapter characteristics (they examined the program content, identified and applied modifications, had a high level of readiness, were highly committed, adopted evaluation strategies, perceived benefit of the program, and developed skills to work with other organizations); 2) organizational characteristics (buy-in from the supervisor and organization, organizational fit of the program, and contributions of support by key personnel); 3) organization capacity (access to funds, champions, many high- quality leaders, and effective marketing strategies); and 4) interaction between external organizations (successfully accessed technical assistance and accrued potential participants). The providers that demonstrated more of these “successful sustainability” factors were more likely sustain CDSMP.

Moreover, this dissertation study found that the discontinuation of the program does not mean the providers completely terminate the program offering. Developing sustainable conditions after discontinuation helps organizations to reengage in the coalition to re-start the program at their organization.

Guideline for Successful Adaptation: 11-Step.

The clear message from this research is that planning for sustainability should start before implementing the evidence-based program. To prepare successful sustainable CDSMP programs, this dissertation study recommends an 11-step guideline. This

guideline will help state and county government officials to effectively prepare to offer and sustain CDSMP. These guidelines also will help service providers develop successful conditions to sustain CDSMP at their organizations. Table 18 summarizes the guideline.

Table 18. Ideal steps for adapting and sustaining evidence-based program

Steps • Sustainability Factor	State	County	Service Providers
1. Engage key stake holders (Medicaid, DHS, DOH, etc) and form a steering committee	✓	✓	
2. Develop a plan and strong coalition infrastructure <ul style="list-style-type: none"> • Examination of the program content • Identify program modifications 	✓	✓	
3. Recruit local partners <ul style="list-style-type: none"> • Commitment • Educate how the providers can apply the modifications 		✓	
4. Identify partners who are ready <ul style="list-style-type: none"> • Buy-in from supervisor and organization • High level of readiness • Adaptation of evaluation strategies • Develop champions (on-going) 	✓	✓	✓
5. Secure funding <ul style="list-style-type: none"> • Access to funds 	✓	(✓)	(✓)
6. Train leaders and monitors <ul style="list-style-type: none"> • Have access to assistance (on-going) • Develop many leaders 		✓	✓
7. Pilot evidence-based program <ul style="list-style-type: none"> • Apply program modifications • Develop skills to work with other organizations 		✓	✓
8. Review evaluation results <ul style="list-style-type: none"> • Perceived benefits • Perceived program-organization fit • Develop many good quality leaders 	✓	✓	✓
9. Develop uniform marketing plan/ Sustainability plan <ul style="list-style-type: none"> • Develop marketing strategies • Secure key personnel • Have continuous access to participants • Continuously offer participant workshops and leader training/refreshers 	✓	✓	(✓)
10. Secure additional fund and advocate <ul style="list-style-type: none"> • Access to funds 	✓	✓	✓
11. Find new partners	✓	✓	✓

Step 1: Engage key stakeholders. The successful steps for adapting and sustaining evidence-based program begins with EOA engaging key stakeholders from other state departments as well as county organizations, and forming a steering committee. Each organization should appoint a representative who can be dedicated to the coalition or it should be in the job description.

Step 2: Develop a plan and strong coalition infrastructure. During this process, the coalition should develop clear goals, operational structures, work roles, and understanding of cost and time involvement for each partner. Then the coalition should discuss a unified operation system across all counties. The coalition should choose the program, research which organizations/states are already doing it, and examine the program. The coalition should secure an evaluation entity to develop an evaluation plan and fidelity protocol for the evidence-based program.

Step 3: Recruit local partners. The county coordinator should recruit local partners who are committed and willing to offer the program and have staff members trained as leaders. The county coordinator should also explain how easily the evidence-based program can be implemented.

Step 4: Identify partners who are ready. County coordinator should ensure that all local partners understand the plan and expectations of the coalition and encourage them to obtain buy-in from their organizations. County coordinators or their supervisors could help talk to leadership in the provider agency to help assess and encourage buy-in. Overall readiness should be assessed, identifying agencies readiness to implement the evidence-based program with fidelity and fully adopt evaluation strategies. The county coordinator should move forward with “ready” providers.

Step 5: Secure funding. The state and counties should look for funding to deliver the evidence-based program. Then, funds should be allocated to providers. The coalition also should support providers to look for their own funds.

Step 6: Train leaders and monitors. The coalition should sponsor training and invite local partners to be trained. At the same time, the coalition should work with the evaluation entity to train people to monitor the delivery of evidence-based program.

Step 7: Pilot evidence-based program. The county should hold a meeting with all the local providers that are going to offer the program. Local providers should attend this meeting to discuss which entity will hold the CDSMP license (it is recommended that this be held at the county level, which should cover most providers in the county), to set fees for participants, and to identify which organization want to offer CDSMP leader training only, CDSMP participant workshops only, or both. After establishing standardized operating procedures, providers should pilot the program. During this piloting process, the providers apply the program modifications proposed to increase program fit with their participants. Having a meeting helps providers to know other providers and begin to develop skills to work with other organizations to make the program implementation successful.

Step 8: Review evaluation findings. After several cycles of program delivery, the coalition should review the initial evaluation results and identify what the coalition wants to sustain. This is a good time to figure out the cost of the program. If a local partner charges more for the program than what it costs to deliver, county coordinator should discuss with local partners to change the program fee. As was the case in Honolulu, however, the program costs more to deliver than the amount charged to or

donated by participants, which meant that providers needed to continue to receive grant funding. With information on cost, the coalition should secure a sustainability consultant to develop reliable funding streams. Local providers should continue offering workshops to reach more participants, training to develop more leaders, and refresher courses for existing leaders to keep them motivated and to improve quality.

Step 9: Develop marketing plan and sustainability plan. While local providers offer workshops, trainings, and refresher trainings, state and county should work closely with the sustainability consultant to establish methods for participant and leader recruitment. Marketing plans are needed for both. This will help providers to seriously consider how to schedule future program offerings. They may be able to secure key personnel for the program.

Step 10: Secure additional fund and advocate. During this process, state, county, and local providers should work together to secure additional funds and to advocate for the evidence-based program. State representatives can meet with county mayors and advocate at the state legislature. County representatives should educate county administration. Local providers should support the education of policy makers and also conduct fundraising events for the program. All partners should join together to meet with providers of health insurance, with the goal that these entities consider reimbursing for CDSMP services. If there is limited funding, the coalition should discuss how to reduce costs.

Step 11: Find new partners. Keep contacting medical partners such as health plans, doctors, and hospitals to support the coalition to sustain evidence-base program.

It requires tremendous effort to translate evidence-based programs, to build provider capacity, to implement a new program (or new practice) statewide, and to sustain it. This proposed 11-step guideline can help organizations to prepare for evidence-based program adoption that can be sustained. However, these proposed steps should be further tested to validate the usefulness in other states, in non-Aging Network coalitions, or with other evidence-based programs.

Limitation of the study

This dissertation research had limitations. Although this dissertation was guided by a theoretical framework and used multiple sources of evidence to enhance the generalizability of findings, it focused on Honolulu providers, not on providers in the entire state. This limits the generalizability of the findings to neighbor islands and other rural areas on the continental U.S. Also, not all agencies participated in HHAP or CDSMP over this entire time period, so some data were missing. Subjects or organizations interviewed were the ones who were willing to participate. Those unwilling to participate may have different perceptions or interests than those who were willing.

Survey and interview data were gathered through self-report, and respondents may have spoken for themselves and not objectively represented their organization's experience. Although multiple sources of evidence were used to triangulate findings, a few organizations had staff turnover so that some of the information may not be correct. Because the sustainability interview asked about the entire adoption process, the data may have been compromised by inability to remember the past correctly. Also, the interviewer went through the entire process with the coalition members, and respondents may have provided answers they felt would please the interviewer.

It was also challenging to properly analyze the large amount of complex data. This dissertation study tried to reduce subjectivity by have two researcher independently code the interview transcripts. Subjectivity bias may have been further reduced with more than two independent researchers.

Based on the dissertation findings, successful CDSMP adoption is very complicated. Sustaining an evidence-based program depends on more factors than outlined in Scheirer's article on sustainability, and sustainability factors need to be attended to throughout the process of initiation, implementation, and sustainment.

Implication for Social Work

The field of social work focuses on enhancing the understanding and resolution of social problems, not only from a case work approach but also by analyzing social institutions and facilitating social change. The field of social welfare focuses on governmental programs for people in need. The National Association of Social Work's (NASW) Code of Ethics states the roles of social workers are to improve human well-being and assure meeting basic needs, especially for people who are vulnerable, disadvantaged, and poor (National Association of Social Workers, 2008).

The problem of chronic diseases among the elderly is related to the fields of social work and social welfare because these fields are concerned with facilitating social change and improving quality of life for people of all ages in all conditions. Social work also is interested in helping organizations make a change, for example in adopting new programs. In terms of preventing and managing chronic disease, social work is concerned with expanding access to effective evidence-based health promotion programs for all people, including the vulnerable, to enhance the quality of program delivery, and to

overcome organizational barriers for programming (Goldman et al., 2001). The fields of social work and social welfare emphasize a pluralistic approach to enhance well-being of individuals, including older adults, and to meet their basic needs such as equal access to care. Social workers need to respond to the rapid demographic change and epidemic transition, reinventing ways to improve the healthcare system, including developing strategies for effective health promotion adoption and reorganization and improving funding mechanisms for healthcare delivery.

Thus, this dissertation study contributes to the field of social work and other fields related to health. It helps guide health-related workers to design and plan evidence-based programs to promote positive change within and across organizations. It offers an 11-step plan for adopting and sustaining evidenced-based health promotion programs on a statewide level.

APPENDIX A

Consent Form

Agreement to be Interviewed

Michiyo TOMIOKA
Principal Investigator
mtomioka@hawaii.edu

This research project is being conducted as a component of a dissertation for a PhD degree at School of Social Work at University of Hawai'i at Mānoa. The purpose of the project is to better understand the process of adapting an evidence-based program in the community based on 5 years of experience of the Hawai'i Healthy Aging Partnership.

You are being asked to take part in this interview because you agreed with be interviewed when I contacted you by phone or email. I contacted you because you are a member of the Hawai'i Healthy Aging Partnership and have participated in the replication of the Chronic Disease Self-Management Program in Hawai'i.

During the interview, you will be asked to answer some questions as to how you felt about adapting the Chronic Disease Self-Management Program. These questions were sent to you when you agreed to participate in the interview. This interview is designed to be approximately an hour in length. However, please feel free to expand on the topic or talk about related ideas.

I would like to record this interview using an Integrated Circuit recorder. This way, I can refer to your words as I proceed with this study. I will not record this interview without your permission. If you do grant permission for this conversation to be recorded, please know that the tape will be destroyed one year after the end of the study. Also, you have the right to revoke recording permission and/or end to the interview at any time.

All the information from the interview will be confidential. No personal identifying information will be included with the research results. This study might use direct quotes to more clearly show meaning in reported findings, but quotes will not be attributed to specific individuals. This consent form also will ask your permission to use direct quotes. I will not use direct quotes without your permission. Approximately 45 people will be interviewed for the study.

As the investigator, I believe there is no risk to participating in this research project. However, participating in the project may be inconvenient for you as it will take time to answer the questions. There is a possibility that some questions may be sensitive. Remember that this interview is voluntary. You have the right not to answer any question, and to stop the interview at any time or for any reason. Thus,

if there are any questions you feel you cannot answer or that you do not feel comfortable answering, feel free to say so and I will move on to the next question.

Participating in this research may be of no direct benefit to you. I believe, however, that your responses will help us gain more knowledge about how evidence-based programs are adopted and sustained in community settings.

All research data will be kept confidential. However, agencies with research oversight, such as the UH Committee on Human Studies, have the authority to review research data.

This project will be completed by December 2010. All interview recordings will be stored in a secure work space until (1 year) after that date. The files will then be destroyed.

Your participation in this interview is completely voluntary. You are free to withdraw from participation at any time during the duration of the project with no penalty, or loss of benefit to which you would otherwise be entitled.

If you have any questions regarding your rights as a research participant, please contact the UH Committee on Human Studies at (808) 956-5007.

CONSENT

I understand the procedures described above. My questions have been answered to my satisfaction, and I agree to participate in this study. I have been given a copy of this form.

Please print your name _____

Please sign your name

_____ Date: _____

I also give permission for this interview to be recorded on audio cassette.

YES NO

Please sign your name

_____ Date: _____

I also give permission for the direct quotes from this interview to be included in publications resulting from this study:

YES NO

Please sign your name

Date: _____

If you have any questions regarding this research project, please contact the researcher, Michiyo Tomioka, at mtomioka@hawaii.edu or my research supervisor Dr. Kathryn Braun at kbraun@hawaii.edu.

APPENDIX B

Sustainability Interview Guide

Sustainability Interview Questions for State/County representatives

A. Readiness

Who approached your organization to get involved in offering CDSMP? How was the decision made for to get involved in offering CDSMP?

Before you started offering CDSMP, did you receive adequate training in the program and in the data collection and program monitoring forms?

Before you started, how supportive was your supervisor?

What would you say was your level of enthusiasm for CDMSP at the beginning?

On scale of 1 to 5, how ready was your agency to implement CDSMP? 1 being “not at all ready” and 5 being “very ready”.

B. Program Commitment Level

Is your organization actively engaged in CDSMP? If so, what is the level of activity and how has it changed over the year?

If not, when was the last time your local partners implemented the workshop? And why did your engagement level drop?

Is there any funding to offer CDSMP now? If so, who funds it, and how did you find the funding?

On scale of 1 to 5, how committed was your agency to implementing CDSMP when you first started offering it? 1 being “not at all committed” and 5 being “very committed”. How committed is your agency now?

C. Program Implementation Success

What have been the major obstacles or hindrances that you have encountered when introducing CDSMP in your county/state?

What have been the major factors that have made implementation efforts related to CDSMP successful?

On scale of 1 to 5, how successful was your agency in CDSMP implementation? 1 being “not at all successful” and 5 being “very successful”.

D. Program Modifiability

Please describe the ways that CDSMP fit (or didn't fit) your service providers or clients. Could you modify CDSMP in ways that made it acceptable and attract to your service providers or clients?

On scale of 1 to 5, how acceptable was CDSMP to your services providers? 1 being “not at all acceptable” and 5 being “very acceptable”.

E. Perceived Benefits

How did your organization feel about the CDSMP impact?
How do you think CDSMP benefited the people you or your local partners served?
In what ways has your involvement in CDSMP benefited clients? staff? Your organization?

On scale of 1 to 5, how beneficial was CDSMP to your local partners? 1 being “not at all beneficial” and 5 being “greatly beneficial”.

On scale of 1 to 5, how beneficial was CDSMP to your elderly clients (if applicable)? 1 being “not at all beneficial” and 5 being “greatly beneficial”.

F. Program Champion

Does your organization have a champion for CDSMP? Do your local partners have a champion for CDSMP? How many champions do your local partners have? What are the qualities of this person? Give examples of how this person supports or encourages CDSMP.

On scale of 1 to 5, how much did your agency rate your CDSMP champion’s effectiveness? 1 being “not effective” or “non-existent” and 5 being “greatly effective”.

G. Project-Organization Fit & Program-Organization Fit

What are the goals of your organization? In what ways do your organization’s goals match or conflict with the HAP-EE mission?

On scale of 1 to 5, how compatible are HHAP goals with your organization’s goals and culture ? 1 being “not at all compatible” and 5 being “very compatible”.

How does CDSMP match your organization’s culture?

On scale of 1 to 5, how compatible are CDSMP goals with your organization’s goals and culture? 1 being “not at all compatible” and 5 being “very compatible”.

H. Having Access to Assistance

How does your organization have access to resources and technical assistance to sustain the program? How do your local partners have access to resources and technical assistance to sustain the program?

On scale of 1 to 5, how useful was the technical assistance your agency received for CDSMP? 1 being “not at all useful” and 5 being “greatly useful”.

I. Sustainability

How do you think CDSMP will be sustained by your agency? What are the major factors that contribute to long-term sustainability? What are the major obstacles? What do you or the HAP-EE coalition need to do to help your local partners sustain

CDSMP? If you are beginning to work to sustain CDSMP in your county/state now, what steps would you take to best prepare for this?

On scale of 1 to 5, how successful is agency in sustaining CDSMP activity? 1 being “not at all successful” and 5 being “very successful.”

Sustainability Interview questions for Service Providers

A. Readiness

Who approached your organization to get involved in offering CDSMP? How was the decision made for your organization to get involved in offering CDSMP?

Before you started offering CDSMP, did you receive adequate training in the program and in the data collection and program monitoring forms?

Before you started, how supportive was your supervisor?

What would you say was your level of enthusiasm for CDMSP at the beginning?

On scale of 1 to 5, how ready was your agency to implement CDSMP? 1 being “not at all ready” and 5 being “very ready”.

B. Program Commitment Level

Is your organization actively engaged in CDSMP? If so, what is the level of activity and how has it changed over the year? If not, when was the last time your local partners implemented the workshop? And why did your engagement level drop?

Is there any funding to offer CDSMP now? If so, who funds it, and how did you find the funding?

On scale of 1 to 5, how committed was your agency to implementing CDSMP when you first started offering it? 1 being “not at all committed” and 5 being “very committed”. How committed is your agency now?

C. Program Implementation Success

What have been the major obstacles or hindrances that you have encountered when introducing CDSMP in your organization?

What have been the major factors that have made implementation efforts related to CDSMP successful?

On scale of 1 to 5, how successful was your agency in CDSMP implementation? 1 being “not at all successful” and 5 being “very successful”.

D. Program Modifiability

Please describe the ways that CDSMP fit (or didn't fit) your clients and your agency. Could you modify CDSMP in ways that made it acceptable and attract to your clients?

On scale of 1 to 5, how acceptable was CDSMP to your seniors? 1 being “not at all acceptable” and 5 being “very acceptable”.

E. Perceived Benefits

How did your organization feel about the CDSMP impact? How do you think CDSMP benefited the people you served?

In what ways has your involvement in CDSMP benefited clients? staff? Your organization?

On scale of 1 to 5, how beneficial was CDSMP to your clients? 1 being “not at all beneficial” and 5 being “greatly beneficial”.

F. Program Champion

Does your organization have a champion for CDSMP? How many champions does your organization have? What are the qualities of this person? Give examples of how this person supports or encourages CDSMP.

On scale of 1 to 5, how much did your agency rate your CDSMP champion’s effectiveness? 1 being “not effective” or “non-existent” and 5 being “greatly effective”.

G. Project-Organization Fit & Program-Organization Fit

What are the goals of your organization? In what ways do your organization’s goals match or conflict with the HAP-EE mission?

On scale of 1 to 5, how much did your agency feel similarity with your organization culture with HAP-EE purpose? 1 being “not at all similar” and 5 being “very similar”.

How does CDSMP match your organization’s culture?

On scale of 1 to 5, how much did your agency feel similarity with your organization culture with CDSMP purpose? 1 being “not at all similar” and 5 being “very similar”.

H. Having Access to Assistance

How does your organization have access to resources and technical assistance to sustain the program?

On scale of 1 to 5, how useful was the technical assistance your agency received for CDSMP? 1 being “not at all useful” and 5 being “greatly useful”.

G. Sustainability

How do you think CDSMP will be sustained by your agency? What are the major factors that contributed to long-term sustainability? What are the major obstacles?

What does the state or the HAP-EE coalition need to do to help your agency sustain CDSMP?

If you are beginning to work to sustain CDSMP in your organization now, what steps would you take to best prepare for this?

On scale of 1 to 5, how successful is agency in sustaining CDSMP activity? 1 being “not at all successful” and 5 being “very successful.”

Sustainability Interview questions for Program Participants

A. Before the program

Please tell me how you dealt with your chronic disease prior to attending the program?

On scale of 1 to 5, how confident were you that you can manage your chronic condition prior to attending the program? 1 being “not at all confident” and 5 being “totally confident.”

B. During the program

What did you learn from the workshop? What did you like best about the workshop? What do you remember the most?

On scale of 1 to 5, how helpful was the CDSMP workshop in helping you manage your chronic condition? 1 being “not at all helpful” and 5 being “very helpful.”

C. After the program (application what they learned- perceived benefits of the program)

Could you tell me how you are currently getting along with your illness after having completed the CDSMP? How did what you learned help you? Give examples.

On scale of 1 to 5, how confident are you that you can manage your chronic condition now that you have completed the program? 1 being “not at all confident” and 5 being “totally confident.”

D. Sustainability Strategies

Could you share with me your ideas how the agency can deliver the CDSMP for a long time?

What would you think if you were asked to pay to attend CDSMP? What do you think would be a fair price?

What do you think about the idea of training seniors to deliver CDSMP to their peers for free?

On scale of 1 to 5, how successful was your agency in sustaining CDSMP activity? 1 being “not at all successful” and 5 being “very successful.”

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