

ACADEMIC NURSE MANAGED STUDENT HEALTH CENTER

KAPĪOLANI COMMUNITY COLLEGE HAWAII

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Keywords: Academic Nurse Managed Health Center, Student Health, Advanced Practice Nurse

## **DEDICATION**

This dissertation is dedicated to all sentient beings:

May they be healthy and their sufferings be less.

## **ACKNOWLEDGMENTS**

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## **ABSTRACT**

The purpose of this evidence-based Doctor of Nursing Practice (DNP) change initiative is to develop a Strategic Plan and mobilize stakeholders toward adoption of an Academic Nurse Managed Health Center (ANMHC) at Kapi`olani Community College (KCC) on the island of Oahu in Hawai`i. The ANMHC is an academically based clinic under the leadership of a n Advanced Practice Nurse (APRN) who works in partnership with interdisciplinary health-care teams and the communities they serve. ANMHCs emphasize health education, health promotion, and disease prevention.

The Center will provide accessible, affordable on-site health and wellness services and training to students enrolled at the college. The DNP project is designed in support of the University of Hawai`i system goal to improve the quality of life and well-being of future Hawai`i generations. The ANMHC offers a means to provide services to a student population on the largest community college campus in Hawai`i. The clinic provides an opportunity to meet Hawai`i's growing health-care and training needs, which in turn positively influences health-care outcomes and addresses growing national health concerns. The proposed nurse-led DNP change initiative will serve to establish Kapi`olani Community College Student Health Center as a leader in providing accessible health services to their students.

*Keywords:* academic nurse managed health center, student health, advanced practice nurse.

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## LIST OF ABBREVIATIONS

ACA	Affordable Care Act
ACO	Accountable Care Organizations
ACHA	American College Health Association
ANMHC	Academic Nurse Managed Health Center
APRN	Advanced Practice Registered Nurse
BON	Board of Nursing
DNP	Doctorate of Nursing Practice
DOI	Diffusion of Innovation
EBP	Evidence-Based Practice
HHS	Health and Human Services
HMSA	Hawaii Medical Service Association
IOM	Institute of Medicine
KCC	Kapi'olani Community College
NCHA	National College of Health Assessment
NNCC	National Nursing Centers Consortium
NMHC	Nurse Managed Health Centers/Clinics
PICO	Population, Intervention, Comparison, Outcome
PPACA	Patient Protection and Affordable Care Act
QI or QIP	Quality Improvement or Quality Improvement Project
ROI	Return on Investment
UNDP	United Nations Development Program
WHO	World Health Organization

## CHAPTER 1. INTRODUCTION

This chapter develops the context for the findings presented in subsequent chapters and provides a rationale for the project proposal. This chapter presents a literature review and project methods. Chapter 2 is the logic model conceptual planning model framework of the project, appraisal of relevant evidence, and literature review. Chapter 3 utilizes Rogers's (2003) elements of innovation theory and the logic model as a framework for activities and evaluation to describe the methods for the innovation practice change proposal. This chapter will end with a brief summary.

### **Introduction**

*Healthy People 2010 and 2020* identify access to care as a leading indicator of health. Access to health care is influenced by (a) whether or not people have health insurance, (b) whether there is an adequate health provider workforce, (c) how long the travel distances are to reach providers, (d) whether there are language and/or cultural barriers, and (e) cost. Barriers in any of these areas can result in lack of access, delays in care, higher costs, and worse outcomes.

Healthcare services are not accessible for students on Kapi`olani Community College (KCC) campus. Today's healthcare system is increasingly unable to meet the needs of the growing population. As the U.S. transforms its healthcare system under the affordable care act for the newly insured 32 million people the resulting increase in access to care will play a vital role in the health of individuals and of populations (Institute of Medicine, 2001).

On the KCC campus, a second area of concern is clinical placement sites for some of the college's ten Allied Health programs in a small state, with limited access to training facilities coupled by a large demand from multiple schools of nursing on the island of Oahu in Hawai`i (KCC Faculty Meeting, 2013). KCC has never had a health center on its campus. In 2009, the

Office of Student Activities (OSA) identified the lack of a health-care center on campus a major concern (Needs Assessment: KCC Student Health Center Report, 2010). The results of the 2010 KCC student needs assessment survey provides evidence of a student felt need for an on-site campus student health center (Needs Assessment: KCC Student Health Center Report, 2010). . In 2015, there is still no student health center on KCC campus.

The adoption and mobilization by decision makers and stakeholders of the project's plan to implement an Academic Nurse Managed Health Center (ANMHC) on KCC campus will directly reach and serve the students of the college. Campus Health Center partner with students to empower them to make informed choices by providing a holistic approach to student health, education, wellness and outreach services in a confidential, inclusive and respectful environment (Healthy Campus, 2015). During informal discussions stakeholders such as the KCC Dean of Health Sciences and other key college administrators, students, faculty, Hawai`i based Advanced Practice Registered Nurse providers, funders, national supporting organizations, and decision makers have expressed support for the concept of a student health center on KCC campus.

An evaluation plan for consideration is included. The process evaluation will measure and evaluate outputs of dose, fidelity, and reach, which in turn will help track the outcomes of the project. The ANMHC process evaluation outputs will focus on these program activities: (a) the number of people receiving services, (b) the type of services used, (c) the number of trainings given, (d) the type of coding utilized and, (e) patient satisfaction. The outcome evaluations are used to determine the degree to which the program is achieving its goals. Currently, the proposed project has not been implemented and therefore only preliminary needs assessment data has been collected.

## **Nurse-Led Clinics**

The notion of Academic nurse managed health centers is not new. The first centers were established in the early 1970s and paralleled the development of nurse practitioner educational programs and the focus on faculty practice (Walker, Baker & Chiverton, 1994). Since that time, ANMHCs have grown slowly in numbers, services, and impact. ANMHCs are defined as primary care, ambulatory care clinics. They may be free-standing businesses or may be affiliated with universities or other service institutions such as home health agencies or hospitals. The majorities (74%) of nurse-managed health clinics are affiliated with university-based schools of nursing (Hansen-Turton, Ryan, Miller, Counts & Nash, 2007).

Primary care providers are committed to assuring that all services are “integrated, accessible health care services (provided) by clinicians who are accountable for addressing a large majority of personal health needs, developing a sustained partnership with patients, and practicing in the context of family and community” (Institute of Medicine, 1996, p. 32).

Today’s nurses are in a strong position to work independently and be leaders as providers of primary care. APRNs in the state of Hawai`i and across the country are free to practice independently within the scope of their license, see patients as primary providers, prescribe medications, and bill insurance independently for their services (American Academy of Nurse Practitioners, 2015).

KCC students seen by advanced practice nurses on campus will benefit from specialized health and wellness services tailored to the needs of college students by health-care providers trained and experienced in managing student health concerns. By offering preventive and acute health-care treatments possible and by adjusting the traditional healthcare model to the unique

needs of students, campus health centers keep students on campus and in the classroom (National Association of Student Personal Administrators, 2013).

The impact of legislation and the Affordable Care Act (ACA) has empowered college health. Section 2713 of the Public Health Services Act states that for most health insurance plans/policies, beginning on or after September 23, 2010, an extensive number of healthcare services must be covered by health insurance without requiring patients to make copayments, have co-insurance, or meet a deductible (Public Health Services Act, Prevention of Health Services, Section 2713). In other words, there are no out-of-pocket costs for common preventive health services ranging from vaccinations to depression screening. A more detailed description of preventive student health center services will be provided in Chapter 4.

### **Patient-Centered Care**

Patient-centered care arranges the health-care system around the patient (Jayadevappa & Chhatre, 2011). It encompasses informed decision making, which can improve treatment choice, quality of care, and outcomes. Patient-centered care is in direct alignment with Healthy Campus 2020, as health problems are not viewed in isolation, but within the context of societal, environmental, and cultural influences. Access to patient-centered health-care services on the KCC campus supports the student's ability to navigate concerns of health promotion including behavioral health, healthy lifestyle choices, and disease prevention. All ANMHCs, regardless of location, share a common philosophy of providing holistic care that allows patients (individuals, family, population groups, or community) to provide input to decisions regarding their care (Hansen-Turton et al., 2007). As a result, patient-centeredness is a key concept in all NMHCs (Hansen-Turton, Bailey, Torres, & Ritter, 2010).

Fundamentally, a student struggling with health issues may not achieve an optimum academic outcome. Health issues may force students to take time off from college or to discontinue their studies entirely. This in turn harms the student, the institution, and ultimately the community.

For college students, patient-centered care is both a resource tailored to their unique life stressors, health habits, behaviors, perceptions and medical conditions as well as a place where privacy can be expected (National Association of Student Health Personal Administrators, 2013). Unique student health needs range from acute anxiety and stress to unsafe sexual habits, substance abuse and a range of acute and chronic medical conditions (National College Health Assessment, 2012). According to the 2013 American College Health Association National College Health Assessment II colds, flu and sore throats, depression and alterations in sleep are identified as factors that affect their individual academic performance.

Academic pressure can have a negative impact on health (Schoenherr, 2004). National studies have shown that one in three college students are depressed and one in four contemplates suicide (Schoenherr, 2004). Student health services supports the mission of the college by providing a climate of learning and living by helping students lessen barriers that interfere with their academic, personal, and social education. Recognizing that health is a vital part of learning works to create and sustain a healthy campus community in which students can achieve their personal and academic goals. Accessible patient-centered student health care on college campus is a core component of the success of the college (Student Affairs Administrators in Higher Education, 2013). Stakeholders need to give priority to this vital support toward students' academic achievement so that they can mobilize support to move toward adoption of an

academic nurse managed student health center on campus, which will serve to benefit students and reflect the campus culture.

### **Purpose**

The purpose of this evidence-based Doctor of Nursing Practice change initiative is to develop a Strategic Plan and mobilize stakeholders toward adoption of an Academic Nurse Managed Health Center at Kapi`olani Community College on the island of Oahu in Hawai`i. The ANMHC is an academically based clinic under the leadership of an Advanced Practice Registered Nurse (APRN) who works in partnership with interdisciplinary health-care teams and the communities they serve. ANMHCs emphasize health education, health promotion, and disease prevention. The Center will provide accessible, affordable student health-care services and training to KCC students on campus and a potential location for clinical skills training for relevant health professional campus programs.

The DNP project is designed in support of the University of Hawai`i system goal to improve the quality of life and well-being of future Hawai`i generations. The ANMHC offers a means to provide health care services to a student population on campus to the largest community college student body in Hawai`i. In turn, the clinic provides an opportunity to meet Hawai`i's growing health-care and training needs.

The student health center is in direct alignment with national reports and scholarly literature as an effective, efficient, accessible means to provide primary care services to a student population on the campus of the largest community college in Hawai`i. The ANMHC's mission is to enhance the health and well-being of KCC college students by providing and promoting primary preventive care and health education services in support of the University's goals and in response to the nation's current health needs. The vision is to develop a student-focused,

innovative, accessible, affordable, evidence-based model APRN-run clinic in order to advance college health as a vital part of the academic experience and establish the KCC Student Health Center as a leader in the field (see Appendix A).

## **Background**

### **U.S. Health Status**

Health-care spending in the United States is characterized as being the most costly per person compared to all other countries, and despite this spending the overall quality of care measures low in many areas (Roehr, 2008). In 2000, the World Health Organization (WHO) ranked the U.S. health-care system 37th in overall performance and 72nd in overall level of health.

According to the United Nations Human Development Report, while the United States (U.S.) leads in spending on health care, countries spending substantially less than the U.S. have healthier populations (2010). Infant mortality is considered an important indicator of the health of a nation. According to Stoll (2012), the United States ranked 30th in infant mortality.

### **Health Care Access**

*Healthy People 2010 and 2020* identify access to care as a leading indicator of health and legislation that represents the broadest health-care overhaul since the creation of Medicare and Medicaid programs in the '60s (Healthy People 2010 & 2020). Access to health care is influenced by (a) whether or not people have health insurance, (b) whether there is an adequate health provider workforce, (c) how long the travel distances are to reach providers, (d) whether there are language and/or cultural barriers, and (e) cost. Barriers in any of these areas can result in lack of access, delays in care, higher costs, and worse outcomes.

The United States is the only industrial country in the world without a universal health system (United Nations Development Program, UNDP, 2010). In 2010, the U.S. Census reported that 46 million people had no health insurance. Over a third (36%) of families living below the poverty line are uninsured. Hispanic Americans (34%) are more than twice as likely to be uninsured as White Americans (13%), while 21% of Black Americans have no health insurance (UNDP, 2010). More than 40 million adults stated that they needed, but did not receive, one or more of these health services: medical care, prescription medicines, mental health care, dental care, or eyeglasses in 2010 because they could not afford it (National Center for Health Statistics, 2010). According to the Harvard Medical School Study (2009), a lack of health insurance is associated with as many as 44,789 deaths per year in the United States.

For approximately 61% of those Americans who do have private health insurance, the system is also not working, as they report spending more than a quarter of their annual paychecks on health care because of the high deductible insurance policies (Kaiser Family Foundation, 2010). The U.S. spends substantially more on health care than other developed countries. As of 2009, health spending in the U.S. was 90% higher than in many other industrialized countries. According to the Kaiser Family Foundation (2012), the most likely causes are higher prices, more readily accessible technology, and greater obesity.

The 21st-century American health-care demise is plagued with mounting evidence that today's health-care system is unable to meet the health-care needs of its growing population. Ninety percent of Americans report that they believe the health-care system needs fundamental change or a rebuild and two-thirds of Americans believe the federal government should guarantee universal health care for all citizens (CBS News Survey, 2007).

The national health-care dilemma, coupled with the demand that the healthcare system be modified, led to the initiation of national healthcare reform. The Patient Protection and Affordable Care Act (PPACA) was signed into law in 2010 and upheld by the Supreme Court on June 28, 2012 (Affordable Care Facts, 2012). According to the U.S. Department of Health and Human Services, the change in health-care law means that in 2014 all Americans will have access to affordable health insurance options. For the majority of KCC students who are under the age of 26 years old, they can now stay on their parents' insurance (HHS.gov/HealthCare, 2014). As the U.S. transforms its health care for the newly insured 32 million people, the resulting increase in access to care will play a vital role in the health of individuals and of populations (Patient Protection and Affordable Care Act, PPACA, 2012).

### **Kapi`olani Community College**

Kapi`olani Community College (KCC) was initially established in 1946 as a technical school (Kapi`olani Community College, 2008). The campus is located on the slopes of Diamond Head in the Kaimuki area of Honolulu, Hawai`i. KCC offers a variety of certificate and associate degree programs including health sciences (nursing, emergency medical services, technical health careers, etc.).

KCC is comprised of diverse origins, including in-state, U.S. continent, pan-pacific, nontraditional, and international students. With an enrollment of 7,994 undergraduate students, there is a variety of on-campus activities being conducted on a daily basis (Kapi`olani Community College, Fall 2014).

Most of the Kapi`olani students are insured but have no available on-site, campus health care services. KCC does not currently have a health center on campus and has never had one. The Office of Student Activities identified the lack of a health-care center on campus as a major

student issue (Student Health Center Report, 2010). The health needs assessment of KCC students in 2010 provided evidence of a need for a campus health center. Furthermore, major KCC stakeholders, including several deans, have expressed recent verbal support of the idea of a health and wellness center on campus.

### **Nurse Training**

With more than three million members, the nursing profession is the largest segment of the nation's healthcare workforce (Institute of Medicine Consensus Report, 2010). The Institute of Medicine's (IOM) 2010 report, *The Future of Nursing: Leading Change, Advancing Practice*, emphasizes the importance of nurses working to their highest potential in order to meet the health-care needs of rural populations. Designing a nurse-run clinic for implementation is in direct alignment with IOM, which suggests that nursing is positioned to have a significant impact on the healthcare system (Porter-O-Grady, 2011).

The need to access affordable, accountable, quality healthcare is the impetus for my proposed DNP capstone project. The purpose of this project is to mobilize stakeholders at Kapi'olani Community College toward adoption to develop of a student-focused, Advanced Practice Registered Nurse managed student health center on campus.

The mission is to enhance the health and well-being of college students by providing and promoting primary, preventive care and health education services in response to student health-care needs. The vision is to develop a student-focused, innovative, evidence-based Advanced Practice Registered Nurse (APRN)-run clinic in order to advance college health as a vital part of the academic experience and establish the Community College Student Health Center as a leader in the field. This clinic will serve an undergraduate population of 7,994 culturally and ethnically diverse students (Kapi'olani Community College, fall 2014).

The IOM report recognizes the need for strong and capable leadership if the vision for transforming health care is to be realized (Porter-O'Grady, 2011). The student health center will be designed to meet this nursing leadership goal by providing APRNs the opportunity to manage a clinic. The clinic's plan includes developing a partnership with human resources (on campus and other departments) to promote buy-in and assist in ensuring a seamless, long-term leadership plan (AONE Nurse Executive Competencies, 2011).

The IOM (2010) report outlines many initiatives for nurses, one of which includes providing more opportunities for nursing education. The coming decade of health-care reform will see many changes in the health-care industry. These changes impact and challenge the nursing profession and nursing education. Effective decision making is the cornerstone of professional nursing practice and the principle criterion by which expertise is judged. The use of evidence-based practice (EBP) is an imperative of the Affordable Care Act and mandates EBP by connecting reimbursement to its use (Department of Health and Human Services, 2011).

In support of the approximately 250 existing nurse-managed health clinics across the nation and the hope of encouraging other advanced practice nurses to open more clinics, the U.S. Department of Health and Human Services (HHS) has announced a \$15 million dollar federal funding initiative for fiscal years 2010 through 2012. The proposed student health center will use this model, as the APRNs will serve not only as care providers but as preceptors and role models to the many health science students on campus. In addition to providing care to patients, nurse-managed health clinics also play a role in education. More than 85 of the nation's nursing schools operate nurse-managed health clinics that serve as clinical education and practice sites for nursing students and faculty; KCC's health clinic would follow this model.

The development of a strategic plan will be used in order to guide stakeholder decisions toward adoption of an Academic Nurse Managed Health Center (ANMHC) on Kapi`olani Community College (KCC). The health center will be designed to provide accessible, affordable, primary and preventive health and wellness services to associate degree college students at the college. Planning for the future of a nurse-run clinic is difficult when the current health-care environment has never been more unpredictable. However, the delivery of competent, effective, and efficient nursing care needs to be strategically orchestrated to ensure the highest level of quality at the most prudent cost (Hader, 2011). Embracing the possibilities of a clinic means taking a risk and working through many layers of bureaucracy, yet the American health-care system is evolving and patients as well as nurses need to accept and grow with the system.

### **Question Guiding Inquiry (PICO)**

In this Doctor of Nursing Project the following PICO (population, intervention, comparison, and outcome) criteria are identified to articulate the project question. **Problem:** What considerations need to be determined in order to mobilize and adapt toward a student health center on KCC campus? **Population:** KCC students, administration, and other stakeholders. **Intervention:** Determine the methodology to identify evidence-based models that will serve to guide the establishment of a student-focused APRN-run health and wellness center on Kapi'olani Community College campus. **Comparison:** Health center umbrellas, structures, services, and business model comparisons of APRN-managed student health centers utilized on U.S college campuses examining the viability, feasibility, and financial sustainability of the proposed clinic. **Outcome:** Develop a strategic plan grounded in nursing practice evidence to

facilitate decision making and guide toward mobilization and adoption of an APRN-run, accessible, on-site Student Health Center on Kapi`olani Community College (KCC) in Hawai`i.

### **Significance**

Campus student health centers help keep students in the classroom and are instrumental in efforts to engage and retain students (NASPA, 2013). Campus health is a specialized field of medicine that actively facilitates partnership between patients and their on-campus providers based on student stressors and medical conditions. On-campus healthcare offerings are different from community healthcare offerings. Campus experiences demonstrates that providers (a) appreciate students' unique life stressors and medical conditions, (b) spend longer with each client 15 to 20 minutes per student visit verses the rapid pace 10 minute provider model and (c) offer prevention and wellness education (National Association of Student Personal Administrators (NASPA), 2013). A 2006 study conducted at Bowling Green State University, for instance, demonstrated that 82 percent of the student respondents reported their visits to the campus-based Student Health Services helped them avoid missing classes to receive medical treatment. A 2012 study by Farmingdale State College in New York demonstrates that if students had not sought treatment at the Campus Health and Wellness Center, 10.5 percent might not have completed the semester and 16 percent would not have completed the semester.

The adoption of an ANMHC at KCC would serve to support the Healthy Campus 2020 Committee initiatives as well as the strategic goals of the campus. Providing access to student health and wellness services on campus has been directly correlated with student engagement, retention, progress, and success Bowling Green State University Study (2006) & Farmingdale State College Study (2012). According to the American College Health Association (ACHA), National College Health Assessment (NCHA) student academics are adversely affected by stress,

sleep disorders, depression, finances, and relationship difficulties (2013). A student health center would prompt the KCC student to consider better ways of advancing the quantity and quality of life, healthy places and environments, health equity, and disease prevention. By nurturing a unity of purpose and vision that will serve to mobilize KCC to adopt ANMHC. With the strong KCC spirit, a Healthy Campus 2020 committee, and tireless champions to mobilize support, implement the assessment and planning, and articulate the vision, an on-site student health center will ensure a bright future for student health and wellness of the people of Hawai`i.

### **Summary**

The needs assessment survey report (2010) at KCC provides evidence that a student health center on campus is needed (see Appendix B). Scholarly evidence clearly documents that a lack of access to care is the biggest barrier to health care. The literature supports that an ANMHC will provide efficient, accessible, affordable health-care and training services for students on Kapi'olani Community College's campus.

## **CHAPTER 2. PROBLEM**

This chapter presents the conceptual framework of the project and describes how this framework will guide the project along with the current evidence in a systematic literature review and synthesis of findings. In this section, the database search engines used to retrieve the current state of knowledge will also identify the major trends, patterns, and gaps found in the literature.

### **Conceptual Framework**

#### **Conceptual Model**

Concepts in nursing represent ways of thinking about a problem and ways of representing how complex things work the way they do and why (Newhouse, Dearholt, Poe, Pugh, & White, 2005). Conceptual models inform thinking and give meaning and direction to nursing practice and research. Concepts give meaning to a phenomenon, allow observable facts to be knit together, guide understanding, facilitate the ability to predict, and create a road map to guide thinking.

#### **Logic Model**

A logic model is a graphical and textual representation of how a program is intended to work and links outcomes with processes and the theoretical assumptions of the project (WK Kellogg Foundation, 2004). A logic model based on Diffusions of Innovation was chosen to help guide an evidence-based practice project to create a strategic plan for a Nurse Managed Health Clinic (NMHC) at Kapi`olani Community College. This is an organizational excellence model because it focuses on the entire organization, with attention to the context in which the evidence-based practice will be used, and requires the commitment of all leaders at every level as well as a clear vision and strategic plan (MacPhee, 2009).

The logic model provides a comprehensive structure for assessing health and quality of life needs and for designing, implementing and evaluating health promotion and other public health programs to meet those needs (McDavid, 2013).

The logic model guides health program planners, policy makers, and evaluators to analyze the external situation relevant to the program to design programs efficiently. This planning model is a framework for describing the relationships between resources, activities and results as they relate to a specific program or project goal. The logic model also helps to make underlying assumptions about the project. Logic models are visual representations of programs that show how resources for a program are converted into activities and, subsequently, into intended results (MacPhee, 2009).

Program logic models also serve as a framework for the evaluator's efforts to understand whether and in what ways the program was effective and whether the program actually produced the outcomes that were observed, and whether those outcomes are consistent with the program objects. These models are meant to capture the logical flow and linkages that exist in a performance story.

The logic model follows a pathway of outcomes to implement and evaluate. "Inputs" are what will be needed to invest in designing a Strategic plan for my DNP project; the "activities" are what will be done, participation is who we reach, the "short term outcomes" represents learning, the "intermediate outcomes" are results and the "long term outcomes" are the ultimate impact resulting from the project.

The logic model explains health-related behaviors and environments. Campus ecology identifies environmental factors and influences, which interact and affect individual behavior. These factors may be the physical setting or place, the human aggregate or characteristics of the

people, organizational and social climate, and or characteristics of the surrounding community National Association of Student Personal Administrators (NASPA), 2004). The model also focuses on the needs of the community and, in the case of this project, to address the issue from both the college and the students' perspectives. The creation of a model for evidence-based ANMHC practice to guide clinical nursing inquiry is a prime example of an organizational support that fosters the implementation of research into practice (Newhouse et.al., 2005).

The most fundamental assumption of the model and the critical component for a student health center is the active participation of its intended audience: that is, the participants will take an active part in defining their own problems, establishing their goals, and developing their solutions. This DNP project will be guided by the logic model to define, plan, identify and evaluate all aspects of my proposed capstone in a systemic planning process. The logic model provides a comprehensive structure for assessing health and quality-of-life needs and for designing, implementing, and evaluating this DNP project.

### **Situation**

The first steps in developing the logic model are to discuss the situation being studied, identify the key stakeholders, and create a network of willing participants in the project. This step is also known as the "inputs" phase of the logic model. The first step also includes an assessment of the resources requires for a project and included time, supplies, money, equipment, facilities, and volunteer time (Huston-Powell & Henert, 2008). In this project, the situation to be studied is the development of a strategic plan to mobilize stakeholders toward adoption of an ANMHC at Kapi'olani Community College.

## **Priorities**

The priorities for this project are to create an ANMHC strategic plan in order to facilitate stakeholder discussions and prompt informed decision making regarding ANMHC determinations that may need to be considered prior to adopting a student health center on Kapi`olani Community College.

## **Assumptions**

The assumption is that innovations in healthcare such as an ANMHC on Kapi`olani Community College will support a positive a practice change for students. And that ANMHC in other college communities will produce similar results at KCC.

## **External Factors**

According to the 2010 KCC student health needs assessment survey 84.2 % (out of 545 students responders) identified believing KCC should have a health center on campus. 27% identified using the emergency room as a primary provider and 25% to missing school to seek medical care. Healthy People 2010 identify access to care as a leading indicator of health. National and campus based Healthy Campus 2020 initiatives advocate for the alignment of health with academic goals to create a campus ecology that connects, health, learning productivity and campus structure (Healthy Campus 2020, 2015).

Under legislation benefits of the Affordable Care Act, which was upheld by the Supreme Court in 2012, all students are eligible and required by law to have health insurance. This coupled with the fact that in 2015 Nurse Practitioners in the state of Hawai`i, and across the nation, were granted the right to practice and bill independently creating a potential ANMHC economic model of well-being and financial sustainability.

## **Outputs**

The second step in the logic model is called ‘outputs’ which identifies activities and interventions to be enhanced or changed within the current program/system. This step documents the program/system enhancements, includes the intended receiver of the services, and has significant impact on the outcome of the project (Dillion et al., 2012).

Output activities include training, developing protocols or workshops, assessing through observation, one to one communication, and partnering with others (Dillion et al., 2012). The activities for this DNP project include reviewing and evaluating the results of 2010 student needs assessment survey (see Appendix C). Other output project activities include (1) building a network of informed contacts and local and national partners (2) engaging a team of invested stakeholders (3) identifying potential organizational structure, umbrellas, funding, accreditation bodies and identifying an on campus student health center site location.

The immediate intended receivers of the proposed interventions are the project stakeholders and champion decision makers of Kapi`olani Community College. The projects strategic plan is intended to be utilized as a step by step guide to informed decision regarding starting and sustaining a student health center facilitating informed decision making and empower steps of the mobilization and adoption of an ANMHC on Campus.

## **Outcomes**

After the action model is implemented, the third step in the logical model is evaluation of the outcome. Evidence of successful planning and implementation is determined by the plan’s goals and if they were successfully met (MacPhee, 2009). This step identifies the outcomes and documents the goals to be achieved, including short-term, medium-term, and long term outcomes.

Short-term outcomes for this project include the development of an ANMHC strategic plan to guide stakeholders in an informed decision making process and the needed steps to mobilize toward the adoption of an ANMHC on KCC campus. The strategic plan will be designed to be in direct alignment with the University of Hawai`i Community Colleges (UHCC) Strategic Directives (Kapi`olani CC: Aligning Strategic Directives and Outcomes, 2015-2021). Medium-term outcome include the establishment of a student health center on campus. Long-term outcomes are to enhance the health and wellbeing of KCC students thereby support engagement, learning, achievement and student success on campus.

In summary, the logic model will be used to create a road map to guide thinking for this DNP project and expected results. If this project is successful a strategic plan will be developed to facilitate informed decision making and mobilize stakeholders toward the adoption of an Academic Nurse Managed Student Health Center on Kapi`olani Community College.

## **Literature Review and Synthesis**

### **Search Strategy**

The search strategy of this multifactorial systematic review includes two main categories and five key focal areas. The two categories are Nurse Managed Health Clinics (NMHC) and Academic Nurse Medical Centers (ANMC) (see Table 1 below). The five focal areas include entrepreneurship, policy, resources, service, and the APRN role. An electronic search was completed over several months using keywords or variables, using a variety of search strategies such as truncating, MESH terms, Boolean building blocks, and Bates model of “berry picking” in commonly used databases like the Cumulative Index of Nursing and Allied Health Literature (CINAHL), MEDLINE/PubMed, Cochrane Library, Synergy, OVID, EBSCOhost, the National Research Register databases, and related websites including but not limited to the Department of

Health and the Bureau of Health Professionals, Division of Nursing. Search terms included the words “nurse managed health clinics” along with “academic nurse medical health centers,” “college health clinics,” “health services,” “student health services,” “APN primary care,” “health policy,” “Affordable Care Act,” “Nursing Faculty Practice,” “nursing/economics,” “reimbursement,” “coding,” and “advanced practice nurses.”

**Table 1*****Changing Practice, Systematic Reviews***

Phase One	Initial Search of Literature	Search Cochrane Library For existing reviews.  Determine what databases should be searched.  Become familiar with the topic.  Identify key search terms For each database.  Develop and document a search strategy.
Phase Two	Conduct Search	Search all databases using Identified search terms.  Use inclusion criteria to determine which papers should be retrieved.
Phase Three	Biography Search	Search the reference list And bibliographies of all papers for additional studies.

*Note.* Briggs Institute, Comprehensive Systematic Review (2013)

## **Studies Obtained**

The electronic database search yielded over 35,000 titles and abstracts. Following the removal of duplications, 15,600 titles remained. Search limiters applied included scholarly, peer-reviewed journals, American health centers, and publications in English. Abstracts were screened by this reviewer for applicability to the proposed project, leaving a relevant total of 38 articles which have been reviewed to date. Of these, full texts were examined to verify relevance of content to the project area of interest. Inclusion criteria for the review of literature included primary focal topic areas of American-based Nurse Managed Health Centers and Academic Nurse Medical Centers in which primary and/or preventive care was provided by a nurse.

## **Articles Synthesized**

Of the 38 articles assembled, 20 were synthesized for the purpose of this review. The articles' dates of publication span from 2003 to 2013. With the growth and development of this DNP Project, a vast amount of literature has been read after 2013, with multiple resources included and referenced in this paper. The population searched was adults 18 years and older representing the majority age group of college students.

## **Literature Grading Tool**

The critiquing tools utilized were the Mosby's Level of Evidence (2004) and Titler et al., Research Quality and Outcome Tool for systematic reviews (2001). Mosby was used to grade the level of evidence and internal validity of individual studies. The Mosby Research Critique Tool has eight levels of evidence, as represented in Table 2. The hierarchy of evidence serves as a ladder of increasing filtering and processing. The highest levels include references where evidence is the most rigorously processed and filtered in reliable ways, with the most specific being the decision-support systems. Systematic reviews and meta-analyses can also be very

useful, as they have reviewed the evidence and provide original sources. Middle levels of evidence include well-designed and well-conducted randomized controlled trials (RCT). RCTs provide less biased estimates of potentially harmful effects than other study designs because randomization is the best way to ensure that groups are balanced with respect to both known and unknown determinants of outcome.

**Table 2*****Mosby Research Tool and Synthesized Articles***

<b>Level of Evidence</b>	<b>Description</b>	<b>Number of Articles</b>
I	Meta-analysis	
II	Experimental design/Randomized Control Trial	
III	Quasi-experimental design	
IV	Case controlled, cohort studies, longitudinal studies	
V	Correlation studies	
VI	Descriptive studies including surveys, cross sectional design, developmental design, and qualitative studies	5
VII	Authority opinion or expert committee reports	12
Other	Performance improvement, review of literature	3

*Note.* (Mosby, 2004)

Other types of clinical trials can provide a high level of evidence as well. These include observational studies with case-control or cohort designs. As you move up the ladder of evidence, the publications demonstrate stronger filtering and evaluation of the evidence. The lowest levels of evidence come from case reports, reasoning from principles of pathophysiology, and expert opinion based on clinical experience. These sources of evidence guide much of our practice and cannot be ignored when making practice recommendations, especially for evidence-based questions where there are no RCTs. The majority of the evidence in this body of evidence is Mosby's Level VII authority opinion or expert committee reports, yet significant and important as a guide for this practice initiative. It is also necessary to incorporate existing clinical expertise with the clinical setting, resources, and patient preference.

### **Findings from the Evidence**

The scholarly literature on Nurse Managed Health Centers mainly examined three major points: (a) access to care, (b) affordability of care, and (c) quality of care provided by NMHCs. Studies examined the impact, feasibility, and practicality of advanced nursing roles on various dimensions of NMHCs' delivery of care, organization, and sustainability. The roles of the various types of clinics; the relationships among the clients, community, and providers; the structure of NMHCs; policy; services; practice; and effectiveness were areas of interest.

### **Access to Care**

Multiple bodies of literature, including three expert reports, demonstrated that NMHCs provide accessible care (Cooper, 2010; Institute of Medicine, 2010; National Nursing Centers Consortium (NNCC), 2009; Pohl et al., 2010; Pohl, 2011; The Affordable Care Act, 2010). Increased access to care positively influenced the relationship among advanced practice providers and their clients (Badger, 2003). This in turn was recognized to be an important

indicator of the practitioner's problem-solving approaches and patient advocacy (Wilson, Whitaker, & Deirdre, 2012).

### **Affordability of Care**

Four studies indicated that NMHCs are beneficial or have the potential to prevent a further rise in health-care costs (Cooper, 2010; Department of Health and Human Services, 2012; Institute of Medicine, 2010; King, 2008); however, other studies failed to confirm this evidence and reported the need for more financial data (Pohl et al., 2010), better understanding of financial clinic data (Vonderheid, Pohl, Tanner, Newland & Gans, 2009), and improved use of coding for billing of services (Barkauskas, Pohl, Tanner, Onifade & Pilon, 2011). Funding sources through grants, national investments in inter-professional education (IPE), Robert Wood Foundation, federal monies through HRSA under Title VIII funds of the Public Health Services Act, donations, and others funding sources are available (Affordable Care Act, 2010; Cooper, 2010; Department of Health and Human Services, 2012; National Nursing Centers Consortium, 2009).

Other literature suggested the need for health centers to be self-supporting by generating their own revenue versus dependence on outside funding sources (Barkauskas et al., 2011; Vonderheid & King, 2009). Pohl et al. (2007) demonstrated that NMHCs located at academic institutions were likely to be supported by the School of Nursing with substantial research, practice, faculty, and student resources. Multiple studies indicated a strong link between financial transparency through accurate data collection, analysis, and reporting (Barkaus et.al, 2006, King, 2008, Vonderheid et.al, 2009; Wilson et al., 2012) and clinic independence and sustainability.

## **Quality of Care**

Several studies reflected that NMHCs are integrally important to today's health-care system (AONE, 2011, Barkauskas & Coddington). Three studies concluded that NMHCs provide good to very good primary and preventive care services and compare favorably to national benchmarks (Barkauskas et.al. 2011; Cooper, 2010; Pohl, 2009; Tanner & Piolon, 2011). One study found that nurse-led clinics provide no poorer outcomes than MD-run clinics (Wilson et al., 2012). Another study reported fewer hospitalizations and use of emergency services for those patients utilizing NMHCs as their primary care facility (Badger & McArthur, 2003). It is worth noting that none of the studies indicated that NMHCs provided less than quality care.

## **Summary**

Five descriptive studies that include surveys, cross-sectional designs, developmental designs, and qualitative studies; twelve authority opinion or expert committee reports; and three performance improvement or reviews of literature are used in the literature synthesis. Some sample sizes reported were in numbers of clinics reviewed, the number of surveys completed, the numbers of articles reviewed, and the number of people by title interviewed, while others reported the number of states with Nurse Managed Clinics that were reviewed. The sample sizes ranged from nine to 122 NMHCs, from one state to 23 states, from 683 deans and 93 schools of nursing to 12 deans and four schools of nursing. The literature review search strategy included variables on the effectiveness of NMHCs and ANMCs, including dimensions of accessibility and acceptability to patients, safety, costs, recruitment and retention, coding, and financial sustainability.

Knowledge developed through an evidence-based approach is the starting point for the development of a practice change designed to implement an advanced practice nurse-run and

managed student health center on the campus of Kapi`olani Community College in Hawai`i.

This review of the literature has found that the state of the science about advanced practice nurse managed clinics has not reached full maturity and there remains a gap in the professional literature due to the need for more studies to be done. It is clear, however, that nurse managed health centers have the potential to provide accessible, affordable, quality primary and preventive health care services.

The preliminary steps for practice change based on the literature synthesis are to explore NMHC funding resources, the need for data coding systems, strategies for sustainability, and to engage with change agents outside of Kapi`olani Community College for support. Making connections with other NMHCs on the U.S. continent to exchange ideas and information about what has worked and what has not is also important. Options need to be explored for a clinic site on campus in hopes of securing a central physical location in close proximity to other student services. Developing a sustainable financial plan for an ANMHC on the KCC campus is critical to its success. Finally, this project will need a team of invested stakeholders who are interested in and support the project's mission and goals.

## **CHAPTER 3. METHODS**

### **Introduction**

This chapter will describe the diffusion of this Doctorate of Nursing project, the description of innovation and practice change, the conceptual and operational definitions, setting and sample size, the instruments, including the data collection tools and analysis, the procedure, marketing plan, program evaluation plan, timetable, limitations, and the chapter summary.

### **Overview of the Doctorate of Nursing Project**

The purpose of this evidence-based Doctorate of Nursing Practice (DNP) change initiative is to develop a strategic plan and mobilize stakeholders toward adoption of an Academic Nurse Managed Health Clinic (ANMHC) at Kapi`olani Community College (KCC) on the island of Oahu in Hawai`i. The ANMHC is an academically based clinic under the leadership of an Advanced Practice Nurse (APRN) who works in partnership with interdisciplinary health-care teams and the communities they serve. ANMHCs emphasize health education, health promotion, and disease prevention. The Center will provide accessible, affordable health-care services and training to college students, faculty, and support staff at the college.

The DNP is designed in support of the University of Hawai`i system goal to improve the quality of life and well-being of future Hawai`i generations. The ANMHC offers a means to provide services to a student population on the largest community college campus in Hawai`i. In turn, the clinic provides an opportunity to meet Hawai`i's growing health-care and training needs, which in turn positively influences health-care outcomes and addresses growing national health concerns.

## **Situation**

Access to health-care services is not available on the KCC campus. The KCC ANMHC will address health disparities by providing accessible, affordable comprehensive preventive and primary health services and education on a college campus of 7,994 undergraduate students (Kapi'olani Community College, fall 2014) .

## **Issue**

There is mounting evidence that today's health-care system is unable to meet the health-care needs of the growing population. As the U.S. transforms its health-care system under the Affordable Care Act, there will be 48.6 million Americans (3,000 more in Hawai'i) seeking access to primary care, which will put an increased strain on a health-care system under pressure with increased demand for services (ACA, 2012). Access to care plays a vital role in the health of individuals and populations and is a leading indicator of health; access is influenced by whether or not people have insurance, whether there is an adequate health provider workforce, the travel distance to reach providers, whether there are language and cultural barriers, and cost per service (Healthy People, 2010, 2020). There is a burden of finding clinical placement in a state with limited access to training facilities coupled by a large demand from multiple schools of nursing on the island of Oahu in Hawai'i (BON, 2011).

## **Purpose of Diffusion of Innovation**

The processes of this Doctorate of Nursing Project will do the following:

- Ensure students and faculty will have the option to receive health care directly on campus.
- Work to address the needs of the 87.4% surveyed students on campus who believe that KCC should have a health-care center on campus (KCC Student Survey, 2010).

- Employ APRNs versus physicians to decrease costs and to serve as core safety net providers for Oahu. Utilize the ANMHC as a training center for the college's nursing students and allied health program students on campus.
- Invest in student centered model of care where costs are lower than a hospital, particularly an emergency room, which 27% of students identified as a place to seek care (KCC, Student Survey 2010).
- Link health plans (HMSA) to accountable care organizations (ACOs), to provide safety nets which reward providers for working together to improve quality and to control costs.

### **Description of Innovation/Practice**

The student health center is an academically based clinic under the leadership of the Advanced Practice Nurse (APRN) who works in partnership with interdisciplinary health-care teams and the communities they serve. ANMHCs emphasize health education, health promotion, and disease prevention. The center will provide accessible, affordable health-care services and training to some 7,994 college students at the college (Kapi'olani Community College Fall 2014)..

The purpose of this evidence-based Doctorate of Nursing Practice is to adapt and mobilize support of an Academic Nurse Managed Health Center (ANMHC) strategic plan for Kapi`olani Community College (KCC) on the island of Oahu in Hawai`i. The project will address equitable access to healthcare by providing patient-centered, comprehensive preventive and primary health services and education on campus.

### **Design**

The ANMHC is a Doctor of Nursing Practice project using an evidence-based practice approach design. The ANMHC is designed in support of the University of Hawai`i system strategic plan to improve the quality of life and well-being of future Hawai`i generations. The ANMHC offers a means to provide services to a student population on the largest community

college campus in Hawai`i. In turn, the clinic provides an opportunity to meet Hawai`i's growing health-care and training needs, which in turn positively influences health-care outcomes and addresses growing national health concerns.

The student health center is in direct alignment with national reports and scholarly literature as an effective, efficient, coordinated means to provide primary healthcare services to a student population on the campus of the largest community college in Hawai`i. In turn, the clinic provides an opportunity to meet Hawai`i's growing health-care and training needs. The ANMHC's mission is to enhance the health and well-being of KCC college students, faculty, and support staff by providing and promoting primary, preventive care, health education services in support of the University's goals and in response to the nation's current health needs. The vision is to develop a student-focused, innovative, accessible, affordable evidence-based model APRN-run clinic in order to advance college health as a vital part of the academic experience and establish the KCC Student Health Center as a leader in the field.

## **Method**

The ANMHC's DNP project will be used to determine if the project is meeting targets in the preparation, conceptualizing, and planning stage of the proposed development initiative. The questions include but are not limited to (a) what interventions activities are taking place, (b) who is conducting the intervention activities, (c) who is being reached through the intervention activities, (d) what inputs or resources have been allocated to mobilize for program implementation, and (e) what are possible program plan strengths, weakness, and areas that need improvement. This design is an appropriate means to build a program and is necessary for checking the progress of the creation of a plan of the program. The plans include a number of indicators that are directly linked to program and service inputs and program and service outputs.

The project's activities, participants, and outcomes are identified in the logic model conceptual framework.

### **Conceptual Model**

With review of my DNP's purpose and a close examination of the choices of models, the logic conceptual model appears to be the most applicable. The logic model is a framework that guides health program planners, policy makers, and evaluators to analyze the situation and design programs efficiently (MacPhee, 2009). This model provides a comprehensive structure for assessing health needs and for designing, implementing, and evaluating health programs (Kreire, 2006). One purpose and guiding principle of the logic model is like a road map it shows the Projects steps taken to reach a certain destination.

The conceptual model focuses on the needs of the community and, in the case of this project, to address the issue from both the college and the students' perspective. The creation of a model framework for evidence-based practice to guide clinical nursing inquiry is a prime example of an organizational support that fosters the implementation of scholarly evidence into practice.

### **Elements of Innovation**

Elements of innovation for quality improvement include organizational systems and social changes in awareness, thinking, behavior, environment, policy, and services (see. Breakthrough thinking in health care and education requires transformation. The elements of innovation to create a practice change from a lack of available health-care services on the KCC campus to having available student health-care services on the KCC campus are tabled (see Appendix D).

## **ANMHC Application of Characteristics of Innovations**

### **Relative Advantage**

Relative advantage is the degree to which an innovation is perceived as being better than the idea it supersedes, as the following shows (Rogers, 2003):

- Access to health care on Kapi‘olani Community College [Supersedes no access to health care].
- Access to on campus for training student health professionals [Supersedes no available health-care training facilities for students on campus].
- College student health center perceived by students to be needed (KCC, Needs Assessment Survey 2010). According to the Dean of Health Sciences a Student Congress Representative on the Healthy Campus Committee noted that they may carry out a student survey in spring 2016 that could confirm the perceived need for a campus student health center.
- Time saving: On-site campus health care decreases travel time, decreases costs for additional gas, and increases convenience.

## **Compatibility**

Compatibility is the degree to which an innovation is perceived as consistent with the existing values, past experiences, and needs of potential adopters, as the following shows

(Rogers, 2003):

- An on-campus NMHC is a known, consistent, valued concept with most students.
- An on-campus student health center has been self-identified by KCC students as a needed resource (KCC, Needs Assessment Survey 2010).
- An on-campus NMHC is in direct alignment with the strategic goals of the college (KCC Strategic Plan, 2014).
- On-campus NMHC will be similar in operation to off-site health clinics and therefore consistent with existing experiences and expectations.
- On-campus health providers will offer familiar services compatible to those the student receives in the community.

## **Complexity**

Complexity is the degree to which an innovation is perceived as relatively difficult to understand and use, as the following shows (Rogers, 2003):

- Knowledge of an on-campus NMHC and its services will require student education and advertising.
- Changing behaviors of students from seeking outside providers' services to on-campus health provider services.
- Building trust of on-campus health center provides will take time as students transition from outside providers to on-campus providers.
- Offering competitive, cost-effective on-campus health-care services utilizing coding and fee for services will take time and training to develop and implement successfully for financial stability.

## **Trialability**

Trialability is the degree to which an innovation may be experimented with on a limited basis, as the following shows (Rogers, 2003):

- The on-site KCC-NMHC could plan to open its doors first to students as a 1-year pilot before consideration of including access for faculty, support staff, and the community.
- The on-site KCC-NMHC could plan to pilot a standard set of college health services prior to expanding services to evaluate what is working/needed and what is not.

## **Observability**

Observability is the degree to which the results of an innovation are visible to others, as the following shows (Rogers, 2003):

- A NMHC on KCC campus will be a visible, well-located, identified structure.
- Visual information about the NMHC will be posted in highly populated student areas on campus such as the cafeteria, student health center, and the library.

This DNP project requires multiple practice change activities as shown below in Table 3.

**Table 3*****Innovation of Diffusion Practice Change Activities***

<u>Practice Change</u>	<u>From</u>	<u>To</u>	<u>Innovation</u>
Change in Awareness	Stakeholders less aware of student need for a health center on KCC campus.	Stakeholders more aware of student need for a health center on campus per result of 2010 Survey Monkey.	Facilitate and evaluate student health center needs assessment.
Change in Knowledge	Limited knowledge of scholarly evidence supporting/limiting an ANMHC on campus.	Increased knowledge of scholarly evidence supporting/limiting an ANMHC on campus via literature search and synthesis.	Present scholarly evidence from the literature with Stakeholders.
Change in Organization	No organizational umbrella identified.	An organizational umbrella identified via informed decision making of stakeholders.	Identify and report types of organization umbrellas with required regulations.
Change in Perception	Limited understanding of the role, function, services, access, relevance, educational possibilities, cost, and limitations of having an ANMHC on KCC campus.	Greater understanding of the role, function services, access, relevance, educational possibilities, cost, and limitations of having an ANMHC on KCC campus via networking with national and local informed contacts.	Educate and engage a team of invested stakeholders and users about ANMHCs.

(continued)

**Table 3***Innovation of Diffusion Practice Change Activities (continued)*

<u>Practice Change</u>	<u>From</u>	<u>To</u>	<u>Innovation</u>
Change in Attitude/Opinion	Limited funding available for an ANMHC on KCC campus.	Potential funding resources identified for an ANMHC on KCC campus.	Identify funding types and implications for stakeholder considerations.
Change in Environment	No space for an ANMHC KCC campus.	Launching a search for an ANMHC on KCC campus.	Identify a location for an KCC campus.
Change in ANMHC Services	No student healthcare Services offered KCC campus.	Offering onsite student healthcare services on KCC campus	ANMHC Strategic Plan proposed.
Change in Behavior	Students seeking healthcare services off campus.	Students seeking healthcare services on KCC campus.	Student health services will be available on campus.
Change in Action  <b><u>Who:</u></b> Students, Administration and Stakeholders. <b><u>What:</u></b> Access to onsite health and wellness services. <b><u>Where:</u></b> KCC Campus. <b><u>When:</u></b> Spring 2016	Stakeholders and users without plan to adopt and mobilize a health center plan on campus.	Stakeholders and users adopt health center strategic plan and readiness to mobilize toward an ANMHC on KCC campus.	A health center strategic plan will be developed to mobilize stakeholders toward the adoption of an ANMHC on KCC campus.

## Definitions

Apart from ensuring clarity in understanding, the following definitions are presented as a reminder that the whole area of evaluation and evidence-based practice is founded on issues to do with judgment, values, and the perception of truth; that it is defined by notions of currency of best available information and the integration of information with other knowledge and experience; that it is dependent on knowing what it is you are setting out to do and being able to measure how it is that you have gotten there. *Conceptual definitions* offer a commonly used, generic term found in nursing and education to give the reader a general understanding of frequently used and discussed ideas and practices, whereas *operational definitions* are the actual method, tool, or technique of how the concept will be measured (Kousser, 2014). Operational definitions help to make the leap from a subjective impression to an objective measure (Kousser, 2014). The following definitions are focused characteristics of Academic Nurse Managed Health Centers and nursing clinic practices.

### Conceptual Definitions

*Nurse Managed Health Center (NMHC)* is an academically based clinic under the leadership of an Advanced Practice Nurse (APRN) who works in partnership with interdisciplinary health-care teams and the communities they serve. *Academic Nurse Managed Health Centers (ANMHCs)* emphasize health education, health promotion, disease prevention, and training for *health professional students* including nursing and other health disciplines. Kapi`olani Community College (KCC) ANMHC is affiliated with the University of Hawai`i (UH) and shares a common vision to provide accessible, affordable health-care services and training with on-site opportunities for clinical experiences for college students, faculty, and support staff at the college. Although the ANMHC could include a range of healthcare

professionals on staff, the core services are provided by *Advanced Practice Registered Nurses (APRNs)* with advanced education and training that allows them to make independent clinic decisions and provide high quality comprehensive health care. ANMHCs, like all health-care practices, must create a culture of *quality and safety* with a strong commitment to monitoring and improving health-care quality. To this end, quality improvement processes, outcomes, and evidence-based clinical practices are incorporated into the ANMHC practices and are used to ensure high quality patient/consumer-driven health care.

The ANMHC on KCC's campus recognizes the importance of providing both primary care services and wellness services. Embracing the Institute of Medicine's (2010) definition of *primary health care services*, the ANMHC will strive to provide integrated, accessible health-care services by clinicians who are accountable for addressing a large majority of personal health-care needs, developing a sustained partnership with patients, and practicing in the context of family and community. ANMHCs are often referred to as *Wellness Clinics* with a focus on *primary prevention* (health promotion, disease, and injury prevention), *secondary prevention* (screening and disease and injury management), and *tertiary prevention* (prevention of complications and maintaining optimal wellness in the presence of chronic health problems) appropriate for the health problems of the populations served, based upon current needs assessments.

All ANMHCs, regardless of services provided, share a common philosophy of providing holistic *patient-centered care* that allows the *patient* (individual, family, population group, or community) needs to be central to all practice decisions and includes collaborative patient-provider care decisions, with integration of self-management support strategies regarding their care. As a result, a *nursing model of care* is consistent with the *nursing philosophy of care* that

is patient centered, holistic, and *community based and oriented* with focused interventions including coalition building, advocacy, and policy development based on identified needs of the community.

The KCC ANMHC would serve students who come from such areas in urban, rural, and suburban communities with limited access to health care. NMHCs are instrumental in addressing and eliminating *health disparities* due to factors such as health, age, race, ethnicity, sex, insurance status, income level, or ability to communicate effectively. The centers formally serve as *safety net providers*, which according to the Institute of Medicine (IOM) have two distinguishing characteristics: (a) either by legal mandate or explicit adopted mission, they offer care to patients regardless of their ability to pay for those services; and (b) a substantial share of their patient mix are insurance, uninsured, Medicaid, and other vulnerable patients. The KCC ANHMC will be in a key position to assist in addressing vulnerable populations of college students who lack access to on-campus health-care services at a critical young adulthood stage of life.

### **Operational Definitions**

Nurse Managed Health Center *profile measures* is an electronic data- based collection system of a core set of de-identified information on client demographics, patient characteristics, services, clinical data, cost data, and program requirements. Profiled data sets are measured, tracked, and reported by Health Centers Uniform Data Systems (UDS) and are also a required tool in the application for various funding sources (Uniform Data Systems, 2012). Private health insurance reforms support access to APRN services by stressing *non-discrimination in health-care* provider services as long as the provider is acting within the scope of practice of that provider's license or certification under applicable state law (Public Health Service Act, Section

2706, 2014) and is measuring utilizing UDS. *Health care quality* is a self-rating of patient's perceptions of their NMHC patient visit and care received, as measured by the HEDIS tool (NCQA, 2014). A *nonprofit* or a *charitable organization* is an American tax-exempt nonprofit organization, as measured and defined in a 501(c)(3) organization. A nonprofit is an *action organization*, i.e., it may not attempt to influence legislation as a substantial part of its activities with political and legislative lobbying and it may not participate in any campaign activity for or against political candidates (NCQA, 2011).

## **Setting**

### **Introduction**

Health care is an integral part of a larger context, probably most clearly defined as quality of life, and it is within that context that it must be considered. It is only one of many factors that make life better or worse for individuals and the community as a whole. It therefore influences, and is influenced by, rather than having a direct connection to health.

The academic nurse managed health center on KCC campus will mirror Healthy Campus 2020 ecological approach focusing on both population-level and individual-level determinants of health and interventions. The dynamic social, economic and political interrelationships of the campus influence individual health behaviors and health status.

### **Social Environment**

This KCC Academic Nurse Managed Health Center Doctor of Nursing Project was initiated in the summer of 2013. The school was established in 1946 as a technical school (Kapi`olani Community College, 2010). The campus is located on the slopes of Diamond Head in the Kaimuki area of Honolulu, Hawai`i. KCC offers a variety of certificate and associate degree programs with a particular emphasis on culinary arts/food service, business education,

liberal arts, hospitality, legal assistant programs and ten nationally and/or state accredited health sciences programs (nursing, emergency medical services, technical health careers, etc.).

KCC has close ties with local businesses, government, social institutions and other community resources. Students are enrolled in day, evening, and weekend courses throughout the semester. KCC is comprised of diverse groups, including local, domestic, pan-pacific, nontraditional, and international students. With a fall 2014 enrollment of 7,994 students there is a variety of on-campus social, cultural, athletic, and educational activities being conducted on a daily basis (Kapi`olani Community College, Fall 2014).

The students of KCC are supported by numerous faculty, staff, and administration. There is an 18 to 1 student/faculty ratio (Kapi`olani Community College, Fall 2014). While the majority of KCC students are enrolled in the liberal arts; there are a total of 45 degree programs including 21 associate degree programs, 11 certificates of achievement programs, and 11 certificate of completion programs available (Kapi`olani Community College, Fall 2014). Students are enrolled in multiple discipline areas: (a) general and pre-professional education, (b) career and technical education, (c) other KCC programs, and (d) unclassified students.

### **Economic Environment**

New health-care reform laws provide a complex series of changes in health-care delivery, payment, coverage, and education (Institute of Medicine, 2010). The KCC ANMHC could be affiliated with the college-based school of nursing and allied health programs and is to operate as an entity under an umbrella of KCC as a pay-for-service freestanding clinic. Over 82.4% of the 454 students surveyed are insured primarily through HMSA, which is a strong indicator of economic well-being and financial sustainability for the ANMHC on campus. The ANMHC will bill for services utilizing the ICD-10 coding system and bill accordingly. The center quality

economic standard is for fiscal and structural sustainability. Students will pay a student health center fee of \$25 per semester to cover operational costs and in return will receive many preventive and wellness services without charge or co-pay, as detailed in Chapter 4. At a reasonable 3,000 patient visits a year with an average charge reimbursement of \$94.00 per billable visit according to the Uniformed Data System (2012), the ROI is estimated at over \$200,000 annually.

Transforming health-care delivery through initiated innovations of a nurse-led model of care that is designed to expand access, extend and improve care to communities is complex and often confusing. The plan for an ANMHC on the KCC campus will require ongoing investigation of the numerous health policies, government regulations and policies, funding strategies, resources, and implications of the care that must be collected, explored, and discussed with stakeholders. Continuing investigation and determination as to how to best strategize, structure, and fund the KCC ANMHC is addressed in the Business Plan Chapter 4 of this paper.

### **Political Environment**

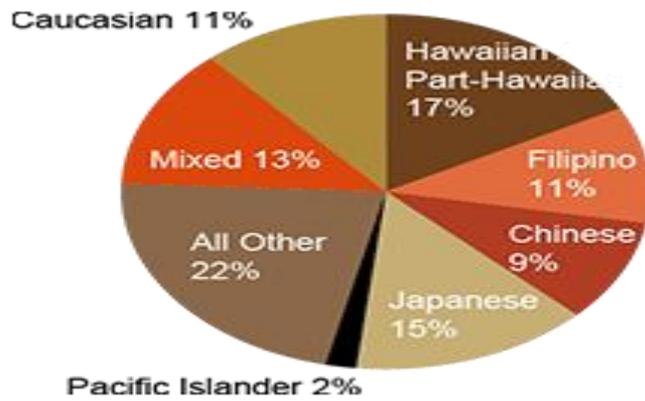
KCC is under the umbrella of the University of Hawai'i system. The affairs of the University of Hawai'i fall under the general management and control of the University of Hawai'i Board of Regents. The board formulates policy and exercises control over the university through its executive officer, the university president. The board has exclusive jurisdiction over the internal structure, management, and operation of the university. The board is composed of 15 regents, nominated by the Regents Candidate Advisory, appointed by the governor, and confirmed by the legislature. The Advisory Task Group (ATG) was established by the board of regents to oversee, provide input, monitor activities, and guide the scope of an

evaluation and improvement initiative specific to operational and financial processes and related internal controls of the University of Hawai`i (University Of Hawai`i Systems, 2013).

### **Sample**

The KCC population consists of traditional and nontraditional students. The college has a young population with a mean age of 24.5 years (Kapi`olani Community College, 2014). Fall 2014 student enrollment is down from approximately 9,140 students enrolled in credit courses for the spring semester 2014 to 7,994 in fall of 2014 (Kapi'olani Community College, 2014).

Residents of Hawai`i make up 86.9% of the students, with 3.4% coming from the U.S. mainland and 8.6% from foreign countries, 56.6% of students are female and 58.8% are male students (University of Hawai`i, Institutional Research Office, 2014). Kapi`olani Community College is ethnically diverse as shown in Figure 1 below.



*Figure 1.* Student Diversity of University of Hawai'i Kapi'olani Community College, 2014.

## **Inclusion/Exclusion Criteria**

The KCC ANMHC would be designed to serve a diverse population of students across the lifespan. Eligibility criteria include all KCC registered students ages 18 and older on campus. The exclusion criterion is non students, faculty, campus support staff, and the surrounding community population.

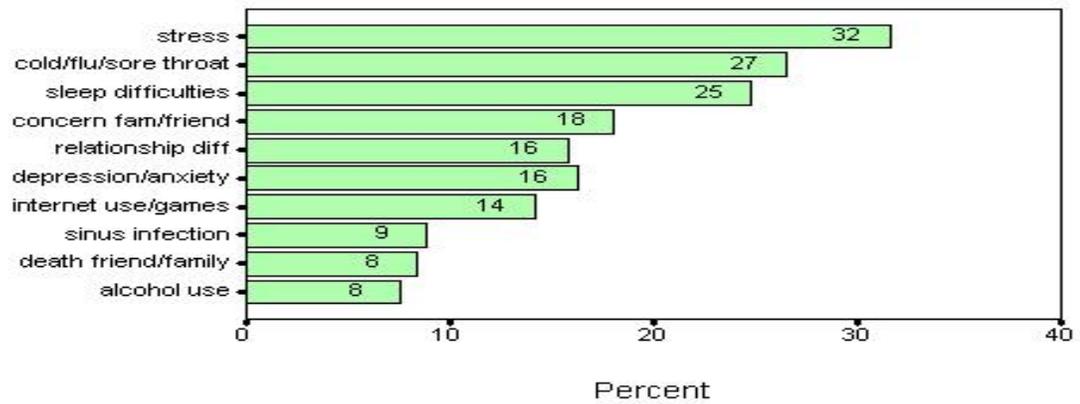
## **Student Health Services**

The data suggests that the ANMHC will provide access to a range of health and wellness services for KCC students including preventive and primary healthcare and education services: particularly at high risk early adulthood engagement. It is not the medical problems that are unique to traditionally aged college students as much as their unhealthy behaviors (Healthy Campus, 2020). Unhealthy behaviors include alcohol and other drug use, smoking, unsafe sexual practices, preventable injuries and violence, poor nutrition and sedentary lifestyles (American College Health Association, 2012).

Providing accessible, affordable, early health-care interventions to vulnerable populations of young adults at a critical developmental high risk age is an important component of providing preventive health services on campus. The KCC student health center will serve to establish a campus culture that prioritizes health and well-being as the student develops academically. Students with unresolved physical, mental, or emotional health problems can adversely affect the institution's success and matriculation rates, particularly if health-related issues prevent a student from remaining in school. KCC student health center will tailor provided services to directly correlate to the American College Health Association's identified ten factors affecting students' academic success, shown in Figure 2 below.

## Top 10 Impediments to Academic Performance

Last School Year



*Figure 2.* Top 10 Impediments to Academic Performance (American College Health Association, 2012).

A student struggling with health issues cannot achieve an optimum academic outcome. Health issues may force students to take time off from college or to discontinue their studies entirely. This harms the students, the institution, and ultimately the community. Open student inclusion to a range of available health services on Kapi`olani Community College campus will positively contribute to an optimal academic outcome.

### **Application of Users of Innovation**

The users of the ANMHC support this Doctor of Nursing Project. Based on the KCC Survey Monkey (2010), the majority of KCC students represent early adopters who are ready to accept and utilize the ANMHC. The student health center would be on campus for easy access, making the ANMHC location convenient for its users. The clinic's mission and vision is in direct alignment with the strategic plan of the college and thereby a good fit with its social and political environments. The majority of students have self-identified a desire to have a student health clinic on campus, therefore is acceptable to the project. The proposed fee-for-service billing is feasible because most students have insurance and have identified being willing to pay a modest co-pay (KCC, Needs Assessment, 2010).

Some early majority students may be reluctant to go to the health center at first and may wait to follow their peer group. Faculty may or may not adapt to change, being skeptical and liking the way they always receive health care, and may be reluctant to change unless out of necessity. Some support staff, faculty, and students may be lagers as they are critical and suspicious of new ideas. They may have limited resources and fear it could cost too much or that they may not get good care.

## **Evaluation**

The process for developing and evaluating the ANMHC on KCC's campus prevention program and policies is proposed to be implemented through five steps: (1) identifying specific goals and objectives, (2) reviewing the evaluation research, (3) outlining how the intervention will work, (4) creating and executing a data collection plan, and (5) providing feedback to the intervention program. Program planning does not always proceed with these steps in sequence. Indeed, it is typical for earlier steps to be revisited as planners refine their thinking.

A process evaluation will be conducted to measure to what extent a program has been implemented as planned, by measuring reach, participant satisfaction, implementation of activities, performance of intervention components, and quality assurance (McDavid, Huse, & Hawthorn, 2013). Used in this way, evaluation planning will be a valuable management tool. Many prevention planners are finding it useful to view program and policy development and evaluation as an iterative process, with evaluation findings informing later alterations.

The outcome evaluation will use existing measures to track clinical outcomes.

## **Data Collection**

The combination of qualitative and quantitative data collection strategies will serve to monitor and document program implementation and aid in understanding the relationship between specific program elements and program outcomes. Quantitative data will be collected via surveys and will add to the ability of the project to replicate effective programs, help identify problems with implementation fidelity, and help answer the bigger picture how-and-why questions. The quantitative data measures will examine the number of patient visits, the number and type of different services used, and the number and type of trainings given.

A comprehensive systematic data collection plan was developed using the logic model. The project's objectives and stakeholders' requirements were used to specify the project's recipients, the assumptions related to the project, the project processes, outcomes, and impact. Out of this work, an evaluation plan was formulated to collect and measure data using a variety of qualitative and quantitative methods. The measurement evaluation tools are designed to gain new knowledge about the program activities and answer specific questions about program performance, operations, and results. The data will serve as a means to evaluate the impact on the students.

### **Data Collection Tools**

#### **ANMHC Core Data Evaluation Tool - APRN Provider Outcomes**

The Uniform Data System (UDS) is a core set of information collected with each patient visit and is used for reviewing the operation and performance of health centers. Data systems allow information to be collected from a large group of people and to contain anonymous data. The UDS tracks a variety of information, including patient demographics, service categories of care provided (medical, dental, mental health, substance abuse, and vision), staffing, clinical indicators, utilization rates, costs, and revenues. A UDS system will also track the number of client visits, types of patient visits, and types of ICD-10 Diagnosis and Procedure codes. The UDS reporting, as per NMHC guidelines, is a requirement for application of multiple sources of funding as outlined in the Business Plan of this paper. The UDS submission deadline is February 15 every year and is a source of aggregate data (USD, 2012).

The UDS data is reviewed to ensure compliance with legislative and regulatory requirements, improve health center performance and operations, and report overall program accomplishments. The data help to identify trends over time, enabling HRSA to establish or

expand targeted programs and identify effective services and interventions to improve the health of vulnerable communities and populations. The UDS data sets are compared with national data to review differences between the U.S. population at large and those individuals and families who rely on the health care safety net for primary care. The UDS data also informs Health Center programs, partners, and communities about the patients served by Health Centers (UDS, 2012).

### **ANMHC Healthcare Effectiveness Data Collection Tools- Clinical Outcomes**

Healthcare Effectiveness Data and Information Set (HEDIS) is a quality assessment tool to evaluate board clinical performance of 80 measurements of care and services across eight domains. Among this data set are measures for (a) asthma medication use, (b) persistence of beta-blocker treatment after a heart attack, (c) controlling high blood pressure, (d) comprehensive diabetes care, (e) breast cancer screening, (f) antidepressant medication management, (g) immunization status, and (h) weight/BMI assessment. HEDIS allows for standardized measurement, standardized reporting, and accurate, objective side-by-side comparisons across health plans. The accreditation status of a health-care entity is based on the overall standards score. HEDIS results are included in Quality Compass, an interactive, web-based comparison tool that allows users to view plan results and benchmark information (HEDIS, 2012). Quality Compass users benefit from the largest database of comparative health plan performance information to conduct competitor analysis, examine quality improvement, and benchmark plan performance. Review HEDIS data quarterly for one calendar year and reevaluate (NCQA, 2011).

### **ANMHC Financial Data Collection Tool**

This project will utilize the BizGym Software to plan for and analyze funding, revenue sources, grants, loans, contributors, donations, third party reimbursement, cost categories, collection rates, account receivables, staffing configurations and costs, equipment charges, supplies, operating costs, and incidentals. These data will be reviewed monthly, quarterly, and yearly for measure of financial profit/loss and sustainability. The financial analysis of data will provide information on reimbursement, fiscal strength, and financial strategy planning. (BizGym Software Foundation, 2014).

### **ANHMC Performance Measures and Services Data Collection Reporting Tool**

NCQA's Wellness and Health Promotion Report Cards (WHP) is a tool used to evaluate organizations' wellness and health promotion services against an evidence-based set of requirements, including standards and measures, in order to distinguish high-quality services. NCQA assesses the organization output and outcomes over time for performance against each standard individually. Performance measures required for WHP accreditation include (a) health appraisal completion; (b) health promotion for the population; (c) staying healthy, prevalence of core risks identified on health appraisal; (d) number of core risks identified on health appraisal; (e) participation, risk reduction-overall; (f) risk reduction-BMI reduction and maintenance; (g) risk reduction-smoking or tobacco use quit rate; and (h) risk reduction-physical activity level. Points are assigned to each standard and element. Data will be reviewed quarterly and aggregated yearly for two years and then reviewed. NCQA also evaluates each element separately and assigns a performance level of 100%, 80%, 50%, 20%, or 0%. The organization receives a percentage of element points based on the awarded performance level. The total point value for the standard is the sum of the point values for each element (NCQA, 2011).

### **ANMHC Patient Satisfaction Tools- Patient Outcomes (Students)**

The Medical Outcomes Trust Patient Satisfaction Tool is a 21-item survey, with 17 items rated on a Likert-type scale to rate the patient experience. Analysis of questions pertaining to patient access to health-care delivery of patient services by their primary care providers shows mean aggregate scores, ranging from 1 (*poor*) to 5 (*excellent*) (NNCC, 2012). The satisfaction tool will be distributed to clients via email at the time of first and third service visit, with an incentive for those clients who return two completed surveys.

CAHPS® 5.0 Survey (included in HEDIS) measures members' satisfaction with their care in areas such as claims processing, customer service, and getting needed care quickly. The de-identified data will be collected with each patient visit, assessed quarterly and yearly for the first year, and then reevaluated (NCAQ, 2011).

The Community Focus Group Interview Tool created by the National Nursing Centers Consortium will also be used. Stakeholders, advisory board members, community leaders, and patients will be asked to respond to 10 questions regarding the impact of ANMHC on the community, perceptions of community health needs, perception of ANMHC, and recommendations for the program's center and services. A community focus group will be held at 6 months from the center's conception and at one calendar year (NNCA, 2012).

### **ANMHC as Education Setting Evaluation Tools- Preceptor Student Outcomes**

The KCC Student Clinical Site Evaluation Tool is a 17-question site evaluation survey. All students who receive clinical ANMHC experiences will be asked to complete and return the survey. The data will be reviewed quarterly by the nurse executive officer for one calendar year and then reevaluated (KCC Nursing, 2014).

The Preceptor Evaluation Tool, designed by the National Organization of Nurse Practitioners Faculties (NONPF), will be utilized for students to rate their preceptors at the end of each academic semester (NONPF, 2012).

A Preceptor Survey will be given at the end of each semester. The survey contains four written focus questions asking the preceptor to explain how the ANMHC contributed to their own nursing, students, community, and the college (NNCC, 2014).

### **Procedure**

#### **Consenting**

Subject requirement and an Institutional Review Board (IRB) approval are not applicable to this project. Preauthorization patient consent to treat will be obtained prior to care rendered.

#### **Data Collection Procedure**

The KCC -Academic Nurse Managed Health Center (ANMHC) is a DNP continuous quality improvement project. All data collected will be de-identified and reported in aggregate form. The KCC-ANMHC Data Collection Table (Appendix C) depicts the DNP Project objectives, variables, instruments, data collection time, and analysis. Program planning does not always proceed with the steps sequenced in the Data Collection Table. Earlier data collection steps are often to be revisited as planners refine their thinking.

The feedback from the ANMHC pre- and post-implementation data tools will be systematically examined by nationally recognized health-care program software and systems. Utilizing client de-identified electronic databases allows for a large amount of critical data collection without the over taxation and stress to the healthcare provider.

## **Marketing Plan: Application of Communication Processes**

Marketing innovation is the key to having a DNP project be recognized, maintain a competitive advantage, or maximize shareholder value. The process of communication is a difficult, multi-complex transition of evidence into practice. Interpersonal channels are beneficial to overcome resistance to innovations and will be implemented via one to one and small group conversations, meetings, and educational sessions. Meetings will be held in small groups of stakeholders and users. The project team executive officer will get together face to face once a semester to talk story, review related educational materials, report what is going on in the project, discuss feelings, and address all concerns and questions. Steckenreuter and Wolf (2013) reinforced that identifying an emotional attachment to the innovation and utilizing persuasive communication will assist with user adoption and willingness to participate in the innovation. Meetings will center on pitchers of herbal teas and healthy snacks for the local neighbor effect and to pull people into the meeting. Communication strategies will be active using multiple learning tools and inclusive experiences with point of decision prompts.

Resources are both precious and limited. Mass media communication methods are a less effective means of changing attitudes toward a new idea; however, they are effective in creating knowledge at the persuasion stage of an innovation (Rogers, 2003). Thereby, mass media communication strategies will be utilized through implementation of email, flyers posted on key campus locations, local radio, and web links. The catchy slogan “Your Health @ Your School” will be used to gain familiarity and be remembered with a colored visual display reminder slogan of “Your Health Your School” [YHYS] posted on all ANMHC materials, signs, and advertisements.

## **Strategic Business Planning**

A business plan for the KCC-ANMHC will be designed utilizing a strategic plan as an organizational management activity that is used to set priorities, focus energy and resources, strengthen operations, ensure that employees and other stakeholders are working toward common goals, establish agreement around intended outcomes/results, and assess and adjust the organization's direction in response to a changing environment. It is through a disciplined, organizational effort that fundamental decisions and actions will be taken in order to shape and guide what an organization is, who it serves, what it does, and why it does it, with a focus on the future. Effective strategic planning articulates not only where an organization is going and the actions needed to make progress, but also how it will know if it is successful.

The KCC-ANMHC strategic plan is a document used to communicate with the organization; see Chapter 4. It will include the organization's goals, the actions needed to achieve those goals, and all of the other critical elements developed during the planning exercise. Strategic management is the comprehensive collection of ongoing activities and processes that organizations use to systematically coordinate and align resources and actions with mission, vision, and strategy throughout an organization. Strategic management activities transform the plan into a system that provides performance feedback to decision making and enables the plan to evolve and grow as requirements and circumstances change.

### **The Steps in Strategic Planning and Management**

The KCC-ANMHC once approved will utilize the logic model conceptual framework. Logic methodologies provide a framework for project planning and evaluation in order to identify stakeholders' interests and disseminate activities of innovation. The logic model will serve as a graphical and textual representation of how an ANMHC is intended to work, linking

outcomes with processes and the theoretical assumptions of the program (see Figure 3). The framework describes the relationships among resources, activities, and results related to the DMP project goals. It cycles through phases: (a) analysis or assessment, where an understanding of the current internal and external environments is developed; (b) strategy formulation, where high level strategy is developed and a basic organization level strategic plan is documented; (c) strategy execution, where the high level plan is translated into more operational planning and action items; and (d) evaluation or sustainment/management phase, where ongoing refinement and evaluation of performance, culture, communications, data reporting, and other strategic management issues occur.

**Academic Nurse Managed Health Center (ANMHC)  
Kapi'olani Community College (KCC)  
Embracing Innovation of Diffusion through EBP**

Situation: Access to health care services is not available on KCC campus. The KCC ANMHC will address health disparities by providing accessible, affordable comprehensive preventive and primary health services aimed at health promotion and disease prevention and education on a college campus of over 9,000 students.

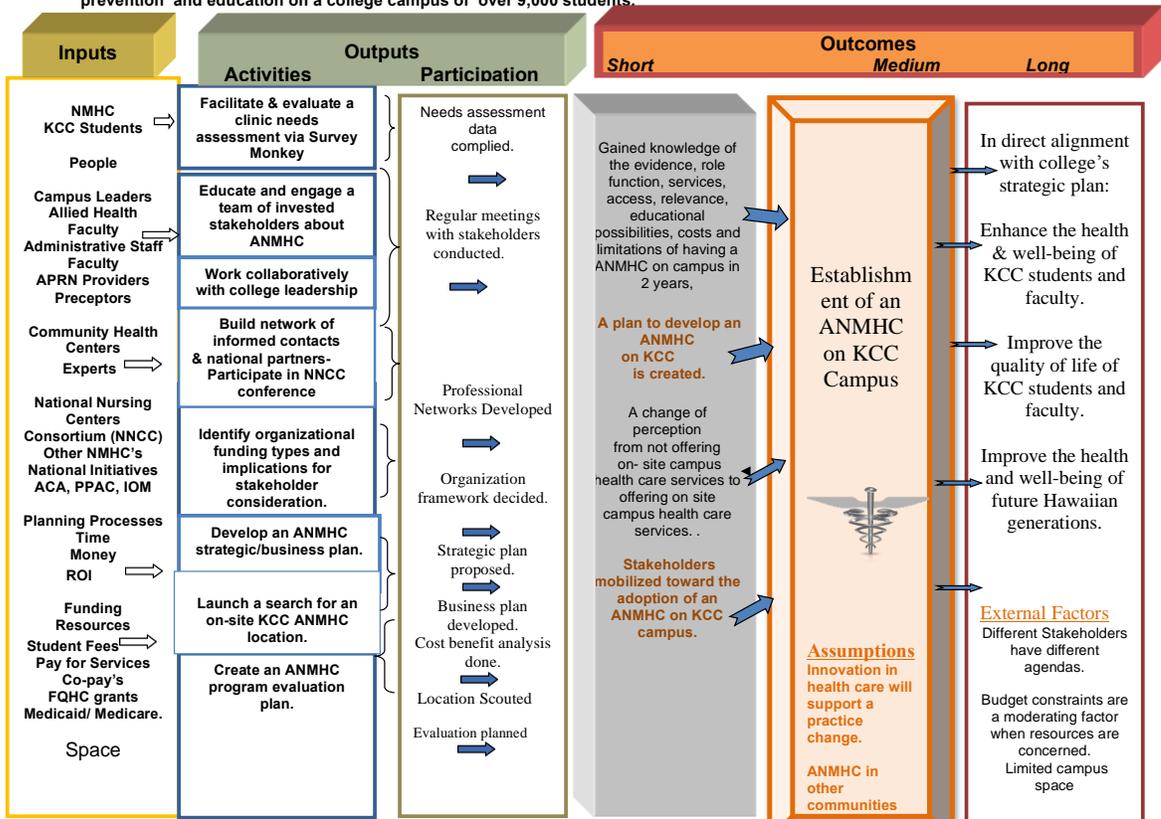


Figure 3. Logic Model

## **Strategic Plan Structure**

The strategic plan will provide directions toward establishing a campus culture that prioritizes health and well-being by using collaborative and community-based strategies. It will be used as a tool to develop a flexible health-care model for the delivery of accessible on-campus programs and services that integrate advances in health in order to serve the needs of a multicultural, diverse campus community. These strategic organizational innovative directions will build an adaptive and sustainable organizational that maximizes effectiveness and provides careful stewardship of the colleges resources.

The structure of the strategic plan will briefly discuss the reason and process for the development of the plan. It will describe the center's future directions including goals and objectives, strategies for achievement, resource requirements, and designation of responsibility. The ANMHC strategic plan will include an Executive Summary that identifies the health center's need, mission, and vision. The strategic planning chapter of this scholarly inquiry project will consist of multiple sections including (a) organizational development, (b) initial planning, (c) services, (d) finances, (e) policies and procedures, (f) marketing, (g) quality performance improvement, and (h) information systems that will lead strategies and establish a campus culture of prevention and wellness.

## **Evaluation**

The KCC-ANMHC will consider conducting process and outcome evaluations as identified using data collection approaches and measures as outlined in the Data Collection Table (see Appendix E). The evaluation is designed to approach will examine the processes, components, and operations guiding the creation of an ANMHC plan on the KCC campus. The process evaluation is recommended to determine if the project is meeting targets in the

preparation, conceptualizing, and planning stage of the proposed development initiative. The questions include but are not limited to: (a) what interventions activities are taking place, (b) who is conducting the intervention activities, (c) who is being reached through the intervention activities, (d) what inputs or resources have been allocated to mobilize for program implementation, and (e) what are possible program plan strengths, weakness, and areas that need improvement.

The plan includes a number of indicators to evaluate program and service inputs and program and service outputs, as identified in the SMART Objectives (see Appendix E). The pre-implementation measures are related to ANMHC activities and participants identified in the logic model. The post-implementation outcomes are related to ANMHC short and medium outcomes as identified in the logic model. The quantitative findings will provide information necessary for consideration in the creation of an ANMHC development plan and to mobilize stakeholders toward adaption, implementation, and maintaining the health center. The graphic displayed in Figure 4 is representative of the continuous process of evaluation in this quality improvement project.



Figure 4. The Continuous Process of Evaluation.

Success of this DNP project will be the development of an Academic Nurse Managed Student Health Center strategic plan. The goals of the plan aligns with Strategic Outcome 1 ‘Improve Student Achievement’; Outcome 3 ‘ Prepare Students for Productive Futures and Input from Community Stakeholders’; and outcome 4 ‘Support a Hawai`ian sense of Place’ (UH/CC Strategic Directions: 2015-2021). The ANMHC plan is designed to be used as a tool to facilitate informed decision making on an Academic Nurse Managed Student Health Center by stakeholders regarding (1) philosophies and mission of the center, (2) program plan to develop and implement services to the center, (3) quality performance and improvement including information systems (4) fiscal operations (5) accreditation and , (6) site selection. The strategic plan is designed to potentially mobilize stakeholders toward the adoption of an Academic Nurse Managed Student Health Center on Kapi`olani Community College.

### **Required Resources**

The operation of an ANMHC requires resources. To provide service excellence there must be access to health care in a visible, student-centered on-campus location. Financial planning and sound financial management of resources is key to offering cost-effective care to students. Therefore, the KCC-ANMHC strategic plan will need to include a sound business plan with a projection of revenue and a capital budget plan. Funding must be identified and secured with a financial management process in place when operations begin.

The business plan is a management tool that consists of a narrative and several financial worksheets. It will be used to help the organization identify financial and other organization goals and monitor achievements and setbacks. Components of the KCC-ANMHC strategic business plan may include (a) business description, (b) management section, (c) financial section including budget worksheets, startup costs, yearly projection, and revenue streams, (d) critical

risks section, and (e) appendices. The value of creating a business plan is not in having a finished product in hand; rather, the value lies in the process of researching and thinking about your budget in a systematic way. The act of planning, creating, following, and adjusting a budget is time consuming; however, it is essential to the sustainability and survival of the student health center. An economic model of the KCC-ANMHC business plan is discussed in Chapter 4.

## **Ethical Considerations**

### **Human Subjects Consideration**

The Academic Nurse Managed Health Center innovation project is an application of evidence-based knowledge and practices and will be based on the ethical tenets of autonomy, nonmaleficence, beneficence, and justice. The project's strategic plan will be designed in such a way to protect the confidentiality rights of its patients. There will be no plans to conduct randomized trials, subject patients to different or unusual treatments, or do additional harm in any way. The student health center will be open to all KCC registered students, faculty, and support staff at the college regardless of race, religion, sexual orientation, gender, or ability to pay. As a Doctor of Nursing Practice initiative, the ANMHC will adopt and adjust to students' need for services without undue judgment, stigma, or bias.

### **Limitations**

While ANMHCs play a key role in improving access to quality of health care for many students, they face a number of challenges. Despite evidence, need, and significance this project has been on the table for 12 long years. Due to limited physical space limitations, one of the biggest implementation challenges to overcome is for KCC to identify and secure a suitable health-center location on campus. Another planning step is to include the key stakeholders for an agreement on an organization umbrella for the center and are willing to accept the required

accompanying conditions and criteria. Because ANMHCs are innovation models, obtaining necessary mainstream funding may be problematic and may face obstacles in applying for and securing the startup funds to proceed toward mobilization of this project. A student health center semester fee will need to be considered and established for the future financial sustainability of the ANMHC. Other obstacles may include obtaining the needed legal, regulatory, and technical support needed. Despite all foreseen potential obstacles, a KCC academic nurse managed student health center needs to be placed on stakeholders' priority list and to move forward toward project mobilization and adaptation. Providing on-campus accessible student health and wellness services is essential to student retention, engagement, and the educational mission of the college.

### **Project Timeline**

The KCC-ANMHC project timeline depicts tasks and estimated time frame (see Appendix F).

### **Summary**

The purpose of this evidence-based DNP change initiative is to mobilize stakeholders toward adoption of a much needed Academic Nurse Managed Health Clinics (ANMHC) at Kapi`olani Community College (KCC) on the island of Oahu in Hawai`i. The ANMHC is an academically based clinic under the leadership of an Advanced Practice Nurse (APRN) who works in partnership with interdisciplinary health-care teams and the communities they serve. ANMHCs emphasize health education, health promotion, and disease prevention. The center will provide accessible, affordable health-care services and training to students at the college.

The project is designed in support of the University of Hawai`i system goal to improve the quality of life and well-being of future Hawai`i generations. The ANMHC strategic plan is

reflective of the nationwide changes in the health-care landscape and in direct alignment with Healthy Campus 2020 initiatives. The KCC student health center offers a means to provide services to a student population on campus of the largest community college in Hawai`i. In turn, the clinic provides an opportunity to meet Hawai`i's growing health care and training needs, which in turn positively influence health-care outcomes and addresses growing national health concerns.

## **CHAPTER 4. RESULTS**

### **ANMHC Strategic Plan**

#### **The Purpose & Role**

The Academic Nurse Managed Health Center (ANMHC) is an academically based student health and wellness clinic under the leadership of an Advanced Practice Nurse (APRN) who works in partnership with interdisciplinary health-care teams and the communities they serve. ANMHCs emphasize health education, health promotion, and disease prevention. The Center will provide an accessible, affordable on-site health hub with wellness services and training integrated into the social milieu of the college community. The purpose of this evidence-based Doctorate of Nursing Practice (DNP) Strategic Plan is to mobilize stakeholders toward adoption of an Academic Nurse Managed Health Center (ANMHC) at Kapi`olani Community College (KCC) on the island of Oahu in Hawai`i.

#### **Strategic Plan Alignment with UHCC Strategic Outcomes**

The Chancellor of Kapi`olani Community College is “seriously committed to being a Healthy Campus” (NEWS University of Hawai`i, 2015). It is recommended that the newly appointed Healthy Campus task force expand their wellness drive to include the utilization of this DNP project strategic plan to create and sustain an onsite health center. This effort supports working toward the “campuses Healthy People 2020 goal to impact and improve the overall health of students, faculty and staff on college campuses” (NEWS University of Hawai`i, 2015). The proposed vision for the future is firmly aligned with the University of Hawai`i Community College (UHCC) Strategic Directions 2015-2021.

The principles of engagement, learning, and achievement for student success will be embraced. The ANMHC proposal at KCC is designed in direct agreement with UHCC Strategic

Outcome 3 to increase engagement in internship, practicum and community based experiences and UHCC Strategic Outcome 4 to support a Hawaiian sense of place (Strategic Directions of 2015-2021). With commitment from KCC administration, students and champion stakeholders the future of an Academic Nurse Managed Student Health Center on campus will provide sustainable community based opportunities in health, wellness and training. Collective dynamic leadership focused on producing meaningful outcomes will characterize our future. For the campus an important outcome is ensuring access and pathways to success for all qualified students who desire a Kapi`olani community College educational experience.

The proposed KCC ANMHC offers a means to provide services to a student population on campus of the largest community college in Hawai`i. The clinic provides an opportunity to meet Hawai`i's growing health-care and training needs, which in turn positively influences health-care outcomes and addresses growing national health concerns. The proposed nurse-led practice change initiative will serve to establish Kapi`olani Community College Student Health Center as a leader in providing accessible student health services to their students.

Student success and progress is best facilitated by engagement in high-impact learning experience; exposure to diverse peoples, ideas and experiences. Access and involvement in a personal student focused health center community offers a sense of belonging; and powerful learning environments facilitated by knowledgeable, caring and engaged faculty support thereby preparing students for productive futures.

### **Strategic Planning**

Strategic planning is a visionary, organizational management activity. It will be used to set priorities, focus energy and resources, strengthen operations, and ensure that the stakeholders' will be working toward fulfilling the clinics mission with purpose while striving to

address their diverse needs. The KCC ANMHC Strategic Plan will serve to guide informed decision making. This DNP paper consist of multiple sections regarding the infrastructure of an ANMHC including: (a) organization development initial planning services, (b) health insurance and cost, (c) services, (d) finances, (e) policies and procedures, (f) marketing, (g) quality performance improvement, and (h) information systems that collectively will guide clinic development and establish a campus culture of prevention and wellness.

This Strategic Plan provides the framework and foundation for a well-developed health care model. The delivery of programs and services integrating advances in health and wellness in order to effectively serve the needs of a multicultural, diverse campus community will be adaptable and sustainable. This innovation will help build an adaptive and sustainable Student Health and Wellness Center that maximizes effectiveness and provides careful stewardship of Kapi`olani Community College Resources.

This year KCC updated Strategic Directions for 2015-2021 (University of Hawai`i Community Colleges Strategic Plan, Spring, 2015). This initiate for the college represents an important milestone as community colleges across the country incorporate Healthy Campus 2020 goals into the campus infrastructure. Allowing students the opportunity to utilize student health services on Campus and recognizing their importance in both student engagement and retention is key (National Association of Student Personal Administrators, 2013). KCCs strategic efforts coincide and are closely aligned with the development of an ANMHC on campus.

The KCC ANMHC Strategic Plan has the basis from an extensive body of literature about Academic Nurse Managed Student Health and wellness Centers and their role, purpose, revenue streams, and patient based content areas. The plan clearly incorporates values identified in the University of Hawai`i Mission Statement and provides an important step toward

mobilizing stakeholders toward adoption of an ANMHC. This Strategic Plan will guide stakeholders to make informed decisions that will shape the future of student health, wellness and training services at Kapi`olani for years to come.

### **Strategic Plan Structure**

The strategic plan will provide directions toward establishing a campus culture that prioritizes health and well-being by using collaborative and community-based strategies. It will be used as a tool to develop a flexible health-care model for the delivery of accessible on-campus programs and services that integrate advances in health in order to serve the needs of a multicultural, diverse campus community. These strategic organizational innovative directions will build an adaptive and sustainable organizational that maximizes effectiveness and provides careful stewardship of the colleges resources.

The structure of the strategic plan will briefly discuss the reason and process for the development of the plan. It will describe the center's future directions including goals and objectives, strategies for achievement, resource requirements, and designation of responsibility. The ANMHC Strategic Plan will include an Executive Summary that identifies the health center's need, mission, and vision.

### **Strategic Framework**

The KCC ANMHC will utilize logic model as a framework for project planning and evaluation to identify stakeholders' interests and disseminate activities of innovation. Chapter 3 of this document provides a graphical and textual representation of how an ANMHC is intended to work, linking outcomes with process as well as theoretical assumptions of the program.

## **Strategic Planning Process**

The strategic planning process will mobilize partners with KCCs Healthy Campus 2020 Committee. Healthy Campus 2020 goals will provide 10-year national objectives for improving the health of all students on campuses nationwide. The objectives in Health Campus 2020 are derived from Health People 2020 and were selected based on their relevance to college health and the existence of a national data source to measure benchmarking. Paralleling Healthy People 2020, national Healthy Campus targets were established based on 10% improvements (Healthy Campus, 2020). The American College Health Association Health Impediments to Academic Performance Survey will help guide data collection and evaluation of students' health at KCC. The utilization of this data from the survey directly aligns to the Strategic Directions & Outcomes of the College (see Appendix G).

## **Strategic Directions**

Strategic directions provide a course of action that leads to the achievement of the DNP goals; they establish the structure for internal responsibilities.

1. Fostering innovation and collaboration across stakeholders and disciplines.
2. Providing student centered accessible, affordable health and wellness services.
3. Increase sustainable engagement in internship, practicum and campus community based experiences to create an ANMHC environment that supports a Hawaiian sense of place for all students.
4. Campus health center will support the education mission of post-secondary institutions to efforts in engaged learning and teaching for retention.

## **Visions, Purpose, Mission, Goals, and Values**

### **Introduction**

The Academic Nurse Managed Health Center (ANMHC) at Kapi`olani Community College (KCC) in Hawai`i is an academically based student health center under the leadership of an Advanced Practice Registered Nurse (APRN) who works in partnership with interdisciplinary health care teams and the communities they serve. ANMHCs emphasize health education, health promotion, and disease prevention.

Student Health Services is dedicated to assisting students to achieve and maintain optimum physical, mental and emotional health. We are committed to providing quality healthcare at a reasonable cost. Planning for the implementation of expanded health services funded by the student health fee is intended to provide an overview and delineate goals in accordance with the University of Hawai`i Community College Strategic Outcomes. This plan provides an initial foundation for the implementation of expanded health services initiative. The plan is a living document that will be discussed, reviewed, evaluated and rewritten as appropriate. It is not intended to be a static plan.

### **Vision**

The student health clinic will address health disparities related to the target community and population by providing accessible, affordable comprehensive preventive and primary health service aimed at college health promotion and disease prevention on a campus of 7,944 students who currently have no access to care on campus (Kapi`olani Community College, Fall 2014).

### **Purpose**

The KCC ANMHC is in direct alignment with HCCC strategic outcomes, national reports, and scholarly literature as an effective, efficient, accessible means to provide primary care

services to a student population on the largest community college campus in Hawai‘i. In turn, the clinic provides an opportunity to meet Hawai‘i’s growing health care and training needs, which in turn positively influence health outcomes.

The KCC Student Health Center will provide quality evidence based healthcare and wellness services to advocate for students, to empower them in their health care decisions, and to be an integral part of the larger UHCC community.

### **Mission**

The ANMHC will specialize in college health, focused expressly on the unique health care needs of KCC students. The student health center will increase engagement in internship, practicum, clinical experience in on a on campus community based environment that serves to support a Hawaiian sense of place, health and well-being for all KCC students. The health center will provide and promote primary, preventive care, health education and training services for registered KCC students in support of the Colleges strategic goals and in response to the nation’s current health needs to eliminate barriers to access to care.

### **Goal**

To develop a student-focused, innovative, accessible, affordable, evidence-based model, APRN-run clinic in order to increase engagement in on campus community based clinical experiences while promoting college health as a vital part of the academic experience and establish the KCC Student Health Center as a leader in the field.

### **Values, Guiding Principles & Integrity**

The KCC ANMHC first level of responsibility is to value our students and those who use our service. The clinic will strive to meet the health care needs and provide services that are professional, ethical, prompt, courteous, and at a reasonable cost. The clinic staff will respect

and value patients' diversity and individuality and welcome initiatives and participation in working with patients as a collaborative team for their optimal health. The student health center is committed to "Lokahi" the Hawaiian value that incorporates balance, harmony between man, nature and the Gods, and unity for the self, in relationship to the body, mind and spirit (Native Hawaiian Council, 2002). The student health center will be responsible the UHCC and the fulfillment of its mission by actively pursuing improvements to the health of the community by the delivery of quality service and education. We are committed to having integrity by doing the right thing in a reliable way and to the Hawaiian concept of He 'Upena o ke Ola; Culturally Responsive Health.

## **Organizational Development**

### **Corporate Status - Umbrellas**

An initial determination in planning for a nurse-managed student health center must be a decision regarding what auspices under which the ANMHC center to be developed will operate. The Health Center may be an entity under another corporation such as a university, hospital, or another non-profit organization or an independent non-profit 501 (c) (3) or for-profit corporation. There are a number of options available, depending on the auspices under which a health center operates.

Most nurse managed health centers today are operated by University Schools of Nursing and have advisory boards to guide their work (National Nursing Centers Consortium, 2014). In the U.S. centers have the opportunity to obtain Federally Qualified Health Center (FQHC) status under the U.S. Department of Health and Human Services, Health Resources and Service Administration (HRSA), which affords the opportunity for higher reimbursements and federal malpractice insurance (Bureau of Primary Healthcare, 2015).To guide informed decision making

consultation was obtained from HRSA staff and the National Nursing Centers Consortium (NNCC). Nearby experienced community federally qualified health centers were also consulted to gain information and explore potential affiliations or partnerships. FQHCs must meet a number of standards in multiple areas including: (1) demonstrating need (2) maintaining a core staff of full time primary providers (3) services need to be available to all regardless of ability to pay (4) the health center must be open a minimum of 32 hours a week with professional coverage during hours when the center is closed and (5) the FQHC applicant must demonstrate that it has applied for a Medicaid provider number and offer service for patients over 65 or SSI patient (NNCC, 2015). Consideration for filing for non-profit 501 (c) (3) status should also be weighed and also be initiated as early as possible.

Some ANMHC will not qualify for FQHC status or may not be willing to except a community board and federal requirements as in Table 4 below. The alternative to a federally qualified look alike, grantee or satellite is to have the ANMHC be funded by a mandatory semester student health fee for all KCC registered students. The clinic may choice to establish a fee for service schedule using standard medical practice codes to bill the student's insurance which will be explained in the latter section of this paper under Service Fees.

**Table 4***ANMHC Determination of Status: Comparison of Requirements and Benefits*

<b>Topic</b>	<b>FQHC Look-Alike</b>	<b>Grantee FQHC</b>	<b>Satellite of Existing Grantee FQHC</b>
Requires services to be already in place.	Yes	No – services must be in place 120 days after notice of grant award	No
Only available via competitive grant cycles.	No	Yes	No
Operating grant from HRSA BPHC.	None	Up to \$650,000/year	No
Enhanced, cost-based reimbursement.	Yes	Yes	Yes
Additional grant opportunities from HRSA BPHC.	Limited	Yes	Yes
Federal Tort Claims Act coverage.	No	Yes	Yes
Required governance by community board.	Yes * *unless a waiver is granted under special populations designation (public housing residents, homeless, migrant).	Yes * 51% *unless a waiver is granted under special populations designation (public housing residents, homeless, migrant).	Yes * *unless a waiver is granted under special populations designation (public housing residents, homeless, migrant)
Scope of practice – range of services.	Comprehensive, on site or by referral.	Comprehensive, on site or by referral	Comprehensive, on site or by referral
Scope of practice – Number of patients.	Once at capacity, at least 3,000 per year.	Once at capacity, at least 3,000 per year	Variable
Proof of underserved target area.	Service area must have designation from state Primary Care Office as a Medically Underserved Area (MUA) or Medically Underserved Population (MUP).	MUA or MUP required	MUA or MUP preferred
Sliding scale fee	Required	Required	Required
Proof of non-duplication of effort with like providers.	Preferred	Strongly preferred (other FQHCs in the area, for example)	Strongly preferred (other FQHCs in the area, for example)

The most common type of ANMHC, the academically based model, which makes up 60% of the members of NNCC, generally does not qualify. Most of these centers founded by Schools of Nursing and operated by the Schools as faculty practices and venues for student learning. Because they are under the auspices of the Colleges/Universities that they are affiliated and their director and staff are employed by the School, these ANMHCs have advisory boards rather than governing boards. These advisory boards generally do not meet FQHC governance requirements of a minimum of 51% of an organization's governing Board members be health center users and that the board has control over health center policy and services.

Other ways that academic-based centers can position themselves for FQHC includes spinning off independently governed entities and various types of affiliations with FQHCs. Affiliations need to be very carefully considered and health centers are advised to discuss the possibilities in detail with HRSA before taking steps in this direction. Care must be taken to assure that any affiliations allow the center to meet desired goals and do not go against its mission. For instance, affiliation with an FQHC that is not nurse-managed may put the nurse-managed status of the health center in jeopardy. Also, only staff employed directly by an FQHC is covered under federal malpractice insurance; employees of a college working under contract are not (Health and Resources Services Administration, 2015).

### **Governing or Advisory Board**

A Board must be created early in the process of developing the health center, as Board member decisions will be the key to the process of mobilizing and adopting an ANMHC. The Board may be an advisory board where the center will operate under another organization or a governing board for independent organizations. Board members may be potential health center users, (51% are required for FQHC Boards), representatives of health center partners, or experts

regarding legal issues, quality of care, or fundraising. A Board is best served by a comprised group of dedicated administration, students, and practice leaders who are committed to the mission of the health center and willing to work toward decision making and problem solving around the development and administration of the organization. KCC is under the umbrella of the University of Hawai`i system. The affairs of the University of Hawai`i fall under the general management and control of the University Of Hawai`i Board Of Regents. The Board is appointed by the governor and confirmed by the legislature and as the board has exclusive jurisdiction over the internal structure, management and operations of the university. Therefore the ANMHC task group will need to keep the Board of Regents informed and involved as the Boards approval is needed for all final decisions the ANMHC task group concurs on.

### **Board Members – Change Agents**

Board members should be such that it represents and is able to serve as a link to the campus community that the health center serves and reflects the interest and needs of the population. The Board should have a diversity of strengths and capabilities to maximize its effectiveness. It must be determined what kind of skills are needed to start out and what key community/campus champions might be able to help in both the development process and identifying potential Board Members. According to Rogers 1962 Diffusion of Innovation Theory in which this DNP project is based change agents such are critical to the planning and implantation of innovation because they will act as intermediaries between the source of information and the ultimate user. The KCC ANMHC has identified a group of early adopters such as the Dean of Health Sciences and the Dean of Student Services who readily embrace campus change opportunities.

## **Governed Through By-laws**

A board must be governed through by-laws, which can be developed using those of another organization as a model and should be reviewed regularly. Bi laws will be developed to include articles on principle office, purposes, directors, meetings, officers, committees, dissolution and amendments. Minutes of the Board and committee meetings should be kept, even during the initial planning meetings, distributed to all members and maintained, organized and kept as a permanent up-to date record, including dates of meetings, names of participants, issues covered and actions taken. As the organization matures members of the Board should receive formal orientation to the Board and the fiduciary and other responsibilities of membership. Once the New members should be provided a Board Manual and encouraged to become familiar with the ANMHC by means of student health center visits, if they are not users of the Center.

A Board's most important responsibility is the selection and, where necessary, the dismissal of the Executive Director to whom it delegates authority and responsibility for the organization's management and for the implementation of health center policy.

## **Accreditation**

Another issue that needs to be determined by the board is whether the ANMC will seek accreditation. Accreditation is the process of measuring quality against a defined set of standards. An accredited facility shows that it sets a standard, follows a standard, and can demonstrate the standard. Certification through accreditation does demonstrate a commitment to measuring and improving quality care services and services. Participating in the certification process helps the Center to self-identify quality program strengths and areas for improvement, and provides the opportunity to receive feedback from external quality review professionals.

Among the accreditation bodies from which this determination should be made include a voluntary Nurse Managed Health Clinic (NMHC) Quality Certification Program that has been developed to recognize those nurse managed health clinics that meet the 46 NNCC quality standards established by the Quality Task Force of the National Nursing Centers Consortium, the Institute for Nursing Centers, and the Nursing Centers Research Network. The standards range from increasing access to healthcare to supporting health professional education by encouraging all health profession students to have clinical experiences at the clinic.

A second ANMHC Accreditation body is the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) is a private, independent, not for profit, national body established in 1951 to evaluate healthcare organizations that voluntarily seek accreditation. The Joint Commission oversees the safety and quality of healthcare and other services provided by the clinic. The Joint Commission Surveyors conduct unannounced visits every 18-36 months and the health center must complete a self-review annually. Only a limited number of college health centers nationwide choose to go through the challenging Joint Commission accrediting process.

A third student health center accreditation body for consideration and the one the University of Mānoa is accredited by is the Accreditation Association for Ambulatory Health Care (AAAHC). Accreditation through AAAHC involves an extensive on-site, peer-based survey of facilitates and services at least every three years and passing a series of nationally recognized standards for the provision of quality health care. AAAHC eligibility criteria dictate that the health center has been providing services for at least six months before the on-site survey. AAAHC works directly with the health care center by providing information on

accreditation readiness, library resources, worksheets and free webinars of instructions guiding the process.

FQHC that do not obtain JCAHO accreditation are approved through a federal Primary Care Effectiveness Review (PCER). The extensive evaluation conducted by the Bureau of Primary Health Care consists of an in depth assessment of primary care services, policies, and procedures, governance, and fiscal operations carried out by a team of experts over the course of several days. The team provides a written assignment and a correction plan must be developed by the health center in response to any issue cited and a timeline set for its completion. The PCER process is repeated every 5 years (Bureau of Primary Health Care, 2015).

### **Initial Planning**

#### **Student Needs Assessment**

In fall 2010, UH students began a discussion of an on campus Student Health Center. A student KCC needs Assessment was conducted, analyzed and documented. The results of the survey strongly indicate a majority of 87.4 % of students are in support of the on campus clinic. A review of literature speaks to the need of ANMHCs on college campuses see page 21 of this report. The national initiatives of Healthy People 2020 in partnership with Healthy Campus 2020 clearly support the need and benefits of having a Student Health and Wellness Center on Campus. A series of informal discussions took place during the years 2014 and 2015 with KCCs Dean of Emergency Medical Services, Health Sciences and Nursing and a one-time July 2015 meeting with the Vice Chancellor of Student Affairs suggest an administrative understanding for the need of this DNP project initiative on Campus.

## **Clinic Site Selection**

Selecting the site for a health center requires significant study and planning. Developing and implementing a plan to address critical space shortages at KCC is imperative. It is essential that the center be located in an area where there is a defined need that is not being met such as on Campus. Accessibility and visibility to target the large student population is a key consideration. The KCC student hub located next to Subway on campus will be the ideal location. It is the seat of Student Services, center to a lively student crowd throughout the day, readily accessible and has water availability (see Appendix H, I and J).

## **ANMHC Pilot**

The ANMHC has the option to start small with a pilot Student Health Center on Campus. This would require a minimum of two rooms, one reception and an exam room. Or alternatively the clinic could be a portable building pulled into Campus. The feasibility of a portable student health center will need consideration of space and access and future discussion to determine practicality and viability. Standardized medication and supply stock would need to be ordered. Staffing will require a receptionist (perhaps student help) and a Hawai'i state licensed APRN with prescription authority that can practice independently and do third party billing for services that require a fee. Starting small would allow for an opportunity to weigh student interest and clinic use. A pilot will also allow time to develop an ANMHC in an organizational culture on campus that is aligned with the UHCC Strategic Directions.

A pilot may help to minimize startup costs with recognition that there are limited resources and budgeting constraints. With growth in a new health care economy the ANMHC has great potential to be not only sustainable but economically profitable post first year start up. It also presents an opportunity for Stakeholder to understand the far reaching potential of an

ANMHC. Campus health centers help keep students in the classroom and are instrumental in Student Services Activities (OSA, office at KCC) efforts to engage and retain students (NASPA, 2013).

### **Contracting for Services**

The plan is that KCC would consider forming a collaborative relationship with the University Health services at Mānoa (UHSM). This agreement could be similar to that established agreement at Leeward Community College (LCC) and Chaminade University. UHSM is the umbrella organization at LCC and Chaminade University for a fee. This charge includes using UHSM electronic medical record, forms, medical suppliers and perhaps most importantly their establish relationship with healthcare insurance companies, primarily HMSA. Today's APRNs in almost all states in America including Hawai`i have won the right to practice to the full extent of their experience and education (NNCC, 20015). Independent APRN practice, prescriptive authority and third party billing are now standard practice in Hawai`i (NNCC, 2014). APRN's in the community have expressed interest in working at the proposed ANMHC as independent providers who bill insurance for the services with no charge to the clinic. In fact in many collaborative provide/clinic relationships the APRN pays the host clinic in a 80/20 cut. Eighty percent of service cost as billed utilizing ICD-10 charges goes to the provider as payment for his/her services and the provider pays the clinic twenty percent for use of facility and supplies. Multistate Reimbursement (MRSA) joined with Advanced Practice Nurses (APN) to enhance insurance credentialing, contracting and reimbursement and have teams to support Nurse Practitioners across America (American Academy of Nurse Practitioners, 2015).

## **Student Health Services**

### **College Health**

Health starts where we live, learn, work and play. It is clear that having a symbiotic caring intersection between health and education is essential for students attending College. College health is developmentally appropriate, educationally effective, medically expert, accessible and convenient (Healthy Campus, 2020). College health focuses on the unique health care needs of our students. Promoting optimal health from admission to graduation enhances student success (Bowling Green State University Study, 2006). According to a 2014 Gallagher Higher Education Practice Report on Student Health: A component of retention is good student health. Access to healthcare during students' time on campus contributes to engagement, learning, achieving and meeting on time graduation rates (Farmingdale Student Retention Study, 2012).

Campus health is a specialized field of medicine. Students have unique life stressors and medical conditions, and campus healthcare providers are trained and experienced in managing these issues. By offering acute health and wellness services and by adjusting the tradition healthcare model to the unique needs of students, campus health centers keep students on campus and in the classroom (Farmingdale Student Retention Study, 2012).

Given the central pivotal roles that individual student health, campus healthcare provision, and overall campus wellness play in supporting the educational mission of KCC Community Colleges, it is important to consider how recent statutory changes impact the administration and financial structure of student health centers. Student health means more than leaving campus to see a provider when a student is sick especially considering that once the student leaves campus it is highly unlikely they will return due to island traffic congestion and

the limited parking on Campus. Today's healthy campuses challenge colleges to create social as well as physical environments that promote good health and wellness.

By reviewing the proposal for a student health center, KCC will improve the access to care for students. Based on research findings, it is expected that the center will contribute to needs to embrace these changes and move forward in recognizing that a positive commitment to the health of students will contribute to higher graduation rates, stability of enrollment and tuition income, reduced health insurance premiums, and fewer unplanned, time-consuming demands on campus services (Gallagher Higher Education Practice, 2013). With such far-ranging known benefits, student health merits a medical home (ANMHC) for the KCC student on campus. Supporting a Hawaiian sense of place (UHCC Strategic Outcome 4) by fostering healthy environments and healthy behaviors on KCC will require a collaborative effort between health care, academia, student affairs, and administrative colleagues.

Fundamentally, a student struggling with health issues cannot achieve an optimum academic outcome. Health issues may force students to do poorly, take time off from College or to discontinue their studies entirely. This harms the students, the institution, and ultimately the community. Student health is a core component of success and this proposal will expand on the experience of students at KCC.

### **Student Health Fee and Services**

The majority of students have self-identified a desire to have a student health clinic on campus. The proposed fee-for-service billing is feasible because many services will be free or at low cost to the students, most students have health insurance and have identified being willing to pay a modest co-pay (KCC Needs Assessment, 2010).

The KCC ANMHC will require all students enrolled at KCC to pay the student health fee, that will be set by the Board of Regents, and will be mandatory for all KCC students once the clinic is operational. The proposed student health fee is \$35.00 per semester. In comparison UH Mānoa the student health fee for spring is \$ 88.00 for spring 2015. At LCC student health service fee is currently \$15.00 a semester with an increase anticipated for next semester. However, according to staff the LCC student health clinic is run three days a week by an RN with a limited scope of practice and 2 days a week joined by a MD. The KCC student will receive more services both free and billed to insurance for their buck with a Nurse Practitioner available to provide care. The overriding principle of the student health center is to keep out of pocket expenses to a minimum and affordable to students.

KCC students are eligible to use the University of Hawai'i Student Health (UHS) at Mānoa. The 2010 student survey identified that 70 % of KCC students did not know they had this option. Utilizing UHS at Mānoa has many limitations 1) students must leave campus 2) limited parking at UH 3) the fees for service are high. The first visit is \$40 and another \$40 for the second visit of each semester after which they will be charged at the same rate as home based UH students.

### **Services Received for Student Health Fee**

All students regardless of insurance coverage, receive substantial benefits based on payment of the Student Health Fee including discounted /free visits for all students, copayments are waived for all insured students, discounted fees for provider services for students without insurance. The ANMHC will provide free first aid, routine primary care including illness, triage and assessment services. It will also provide a wide variety of both in house and online Health and Wellness Educational Services such as alcohol, drug and sexual health at no cost to the

student ( see Appendix K and L). Pharmacy for prescription and over the counter medications will be available for free or at low cost to the student (see Appendix M). In addition to meeting the general health needs of students, the health center will to respond to concerns of public health on campus such as TB and immunization clearance, administering flu and other preventive vaccines or providing information to stop the spread of food-borne illness. Mental health referrals will be made with access to a certified therapist/psychiatrist available one day a week on campus and billed through the student's primary insurance.

### **Student Health Insurance**

Kapi'olani Community College encourages students to think about their health insurance needs. Lack of adequate insurance coverage may be financially devastating in the event of a major illness or accident. Medical costs can be a burden even in the case of a minor illness. The purchase of medical insurance should not be considered "extra" but rather should be viewed as a cost of daily living, in the same way as housing, food and transportation. Please be aware that medical insurance is considered a legitimate cost of education for purposes of financial aid and should be listed on your financial aid application.

Student health insurance also plays a critical role in optimizing student health. With the passage of the Patient Protection Act and its companion, the Health Care and Education Reconciliation Act of 2010, the student health insurance landscape shifted. With the Affordable Care Act College students can stay on their parents insurance till the age of 26 and if this is not available they are required to have insurance their school or the Healthcare Exchange.

No co-payments will be collected at the time of the medical visit. The ANMHC at KCC will submit insurance plans to most providers; HMSA, UAA, Blue Cross and Blue Shield and HMA. The clinic will not submit claims to HMO plans such as Kaiser or to Medicare, Medicaid,

Worker's Comp or No Fault plans. Claims will be submitted to student's insurance plan for clinical visits, procedures, and laboratory tests. If the services are covered and reimbursement is consistent with our fee schedule, the student will receive no additional bill. If the student's plan does not reimburse KCC ANMHC for service rendered, or they do not have insurance then they will pay a new patient charge of \$25 with subsequent visits for \$15. Depending on the services received the bill at a lower discounted non-insured rate.

International students will be assisted at the KCC ANMHC to ensure that their plan meets the College's requirements and if not they will be assisted by nursing staff as to how to best meet the requirements.

### **Fiscal Responsibilities**

#### **Business- Financial Plan**

The economic plan is strong with a recommended student fee of \$35 a semester for all registered KCC students. The collection of funds will begin post clinic implementation and therefore first semester start up seed money will need to be generated. Grant applications and potential sources for seeking funds must begin immediately to secure first semester startup cost.

A business model is discussed in this paper (pp. 45- 46 & 56-57). A drafted financial analysis as represented in an (1) Economic Project Start up Position, (2) Economic Projected Yearly Income Statement and, (3) Economic Return on Investment (see Appendix N, O, and P). A University of Hawai'i Professor of Clinical Economic and Finance (2015) evaluated this DNP economic plan commenting: once the startup seed money is secured then this project would be self-sustaining with fixed revenues.

## **Marketing**

Marketing strategies need to be generated with help from the advisory board and a student led work groups could jump start the projects in building a web page, creating posters/flyers, brochures, clinical information fact sheets and forms, see p. 55.

## **Funding**

The nation is moving to create a healthcare system that will increase access to quality care, emphasize prevention, and decrease cost. Consequently, a substantial investment on our RN and APRN workforce is critical to meeting these goals. Multiple funding options exist once the determination to ANMHC umbrella, governing body, and location and so on has been clearly identified. Eligible funding applicants must be a NMHC that is associated with an accredited school, college, university, or department of nursing, federally qualified health center or independent nonprofit health or social services agency. Applicants must provide primary care or wellness services to eligible populations. In most ANMHC funding opportunities an administrative preference will be given to applicants that develop affiliations with schools of nursing, advanced practice nursing program and other interdisciplinary providers.

Should the KCC health center decide to apply for a federally qualified status it can receive ongoing funding through the HRSA Community Health Care funding stream or the time limited funding of HRSA, Division of Nursing. In FY 2009, HRSA funded twenty-one of the 250 NMHC's across the nation (HRSA, 2010). In September, 2015 the National Nursing Consortium Clinical Practice Initiative received 2.1 million dollars over 4 years to provide technical assistance support to help equip NMHC's nationwide (NNCC, 2015). KCC Research Corporation of the University of Hawai'i (RCUH) Project has a funding opportunity which if applied to before the December, 2015 deadline could serve to support an ANMHC startup fund.

These awards are an example of the type of funding that the KCC ANMHC may apply for as part of a comprehensive strategy advanced by the Affordable Care Act that enables new levels of coordination, continuity, and integration of care, while transitioning volume-driven systems to value-based, patient-centered, health care services.

### **Policies and Procedures**

Policies and procedures guide the work of the health center and promote quality of services, consistency of performance, safety, sound business practices, and communication of standards and expectations throughout the organization. They are essential for providing clear guidelines and rationale for staff practice and behaviors. KCC health ANMHC policies will be written to reflect the health center's mission, vision and goals as well as the UHCC Strategic Directives. Involving stakeholders in the development of policies and procedures whenever practical and appropriate promotes engagement and helps to ensure they are comprehensive and relevant to practice (National Nursing Centers Consortium, 2014).

### **Malpractice Insurance for Providers**

Adequate provider insurance coverage is essential for any health enterprise. The independent practice of an APRN may include that he/she carry their own malpractice insurance. Federally Qualified Health Centers funded under section 330 of the Public Health Services Act are eligible to receive medical malpractice insurance through the Federal Tort Claim Act at no cost. Other health centers may partner with another clinic thereby saving cost or they may choose to purchase private professional liability insurance for their providers. The costs and amounts will vary from state to state and will depend on the type of facility and services offered (Healthcare Protection Services Organization, 2015)

## **Information Systems**

### **The Electronic Health Record**

The KCC ANMHC will need to have a data collection system in place. An Electronic Medical Record (EMR) software package consists of a number of interrelated computer programs that enable the health care provider to enter information about their clients past and current medical history. There are many advantages to using EMRs however the down side is they can be very expensive, taking training to operate and may “go down” and become inoperable. A review of EMRS systems, functions and prices for comparison to aid informed decision making (see Appendix Q).

Third party billing of students services to insurance providers is one strategy the ANMHC on KKC will be utilizing. ICD- 10 codes will guide the rate of reimbursement as coded per service provided (see Appendix R).

## **Continuous Quality Performance Improvement**

### **Evaluation**

The KCC-ANMHC will conduct process and outcome evaluations as identified using data collection approaches and measures as outlined in the KCC- ANMHC SMART Objectives & Data Collection Table (see Appendix E). The evaluation is designed to approach will examine the processes, components, and operations guiding the creation of an ANMHC plan on the KCC campus. The process evaluation will be used to determine if the project is meeting targets in the preparation, conceptualizing, and planning stage of the proposed development initiative. The questions include but are not limited to: (a) what interventions activities are taking place, (b) who is conducting the intervention activities, (c) who is being reached through the intervention activities, (d) what inputs or resources have been allocated to mobilize for program

implementation, and (e) what are possible program plan strengths, weakness, and areas that need improvement.

The plan includes a number of indicators to evaluate program and service inputs and program and service outputs, as identified in the KCC- ANMHC SMART Objectives & Data Collection Table (see Appendix E). The pre-implementation process measures are related to ANMHC activities and participants identified in the logic conceptual model section. The post-implementation outcomes are related to ANMHC short and medium outcomes as identified in the logic section of the conceptual model. The quantitative findings will provide information necessary for creating an ANMHC development plan and to mobilize stakeholders toward adaption, implementation, and maintaining the health center. The graphic displayed in Figure 5 is representative of the continuous process of evaluation in this quality improvement project.

### **Summary**

In the midst of health care reform, academic nursing centers are well-positioned as cost-effective health care providers. As practice sites that are integral components of nursing academic units, these centers provide educational experiences for students, practice sites for faculty, nursing services to the community, and settings for nursing research. The success of an Academic Nurse Managed Student Health Center is determined by their ability to manage seven major issues of implementation: funding, integrating the center into the community, services, marketing, legal and regulatory issues, faculty issues, and research issues. While these issues require considerable attention, it is critical that centers capitalize on the opportunities provided by the current health policy climate.

## **Transforming College Health**

### **Introduction**

The purpose of this section of Chapter 4 is to describe how KCC ANMHC will become operational. The Strategic Plan describes the action steps needed to mobilize, assess, plan, implement and track the creation of a Student Health and Wellness Center on campus. This evidence-based Action Model (USDHHS, 2010) approach will serve to support KCC achieve their strategic outcomes for 2015-2021 by creating a healthier college community.

The characteristics of this DNP initiative will include: (1) acceptance this innovation as priority (2) align with the UHCC Strategic Directions of 2015-2021 (3) utilize national objectives, benchmarks and tools set Health Campus 2020 that were selected based on their relevance to college health and building a network of committed people working toward a common agreed to vision (4) gain a comprehensive picture of KCC students health through the National College of Health Assessment (NCHA) (4) prioritize health needs and services within the KCC student community based on the NCHA survey results (5) finalize a process plan to mobilize stakeholders and assess action steps (5) develop a proposed community and individual focused interventions and (6) track progress based on student identified health barriers to academic performance with baseline and target rates for improvement measured.

### **Mobilize**

A social approach will be used emphasizing face to face interaction between a variety of campus stakeholders and students in order to 1) disseminate information learned through Strategic Planning and 2) allow Stakeholder to have a voice in informed decision making. The process will involves stakeholder's time, effort, and a series of MAP-IT worksheets adapted

from Healthy Campus 2020. The next steps for assessment, capacity, planning, implementation and evaluation are detailed (see Appendix S).

## CHAPTER 5. DISCUSSION

Health starts where we live, learn, work, and play. Today's healthy campuses challenge colleges to create social as well as physical environments that promote good health and wellness. A student health center at Kapi`olani Community College is an idea that has been discussed for over ten years. The concept of an on campus student health center is timely with national backing from Healthy People 2010, Healthy Campus 2020 and the American College Health Association who support the delivery of health care and prevention and wellness services for the nation's 20 million college students (National College Health Student Assessment, Spring, 2013).

This DNP project Strategic Plan is intended to mobilize stakeholders to adopt an Academic Nurse Managed Student Health Center on Kapi`olani Community College. The plan is designed to move stakeholder's' key decision making for an Academic Nurse Managed Student Health Center on KCC. KCC stakeholders may recognize that a positive commitment to the health of students will contribute to higher graduation rates, stability of enrollment and tuition income, reduced health insurance premiums, and fewer unplanned, time-consuming demands on campus services (Gallagher Higher Education Practice, 2013).

In reality, speaking this project may or may not happen. Critical decisions need to be made by stakeholders regarding (1) the clinics organization umbrella, (2) philosophies and mission of the center, (3) fiscal operations including a student health service fee and, (4) a determination on the clinic site. Many of these decisions will need to be presented and approved or not approved by administration in order to move forward.

It is understandable that stakeholders may feel hesitant to commit to this DNP innovation practice change. Change according to Rogers (1962) does not happen simultaneously in a social

system; rather it is a process whereby some people are more apt to adopt. The campus political climate may not support this project. Hawai`i campuses are under budget constraints and scrutiny (University of Hawai`i, Mānoa Faculty Senate Committee, 2015). Leaders may be reluctant to invest needed resources in student health at a historically difficult time.

Alternatively, the timing for this DNP project initiative maybe perfect as the Academic Nurse Managed Student Health center at KCC address priorities of many stakeholders from local to national levels:

For the students the ANMHC will provide accessible, affordable on-site health and wellness services and training to students enrolled at the college. Students will pay a low cost semester fee entitling them to multiple free or low cost medical services and supplies. In today's complex, multi-tiered College health environment preventive health is pivotal (Healthy Campus 2020).

For campus stakeholders this DNP project is entwined in the principles of engagement, learning, and achievement for student success will be embraced. The ANMHC proposal at KCC is developed to align with and support the University of Hawai`i, Community Colleges (UHCC) Strategic Outcome 3 to increase engagement in internship, practicum and community based experiences and UHCC Outcome 4 to support a Hawaiian sense of place (Strategic Directions of 2015-2021).

For the KCC Nursing Department and other health science programs the ANMHC provides an opportunity to meet Hawaii`s growing health care and training needs. Faculty will be able to percept students on campus in a clinic designed to capture the essence of primary health and wellness care.

For APRN Hawai`i, licensed providers it is an opportunity to work at the level of their training and education, providing primary care services and billing independently to third party insurance carriers.

For the local community a campus establishing a culture that prioritizes health and well-being will set a good example and help to lay a strong foundation for future of culturally responsive health.

For the nation this DNP project is a nurse-led interprofessional, collaborative effort to provide supportive, safe, accessible, affordable, timely patient centered care to college students at Kapi`olani Community College in accordance with the Institute of Medicine 2003 mandate. Having an ANMHC on Campus brings KCC to the forefront both Healthy People 2020 and Healthy Campus 2020 initiatives. Their Coalition is designed as the nation's roadmap and compass for better health, providing our society a vision for improving both the quantity and quality of life for all Americans.

### **Closing Statement**

In the words of Henry Ford ...Coming together is a beginning; keeping together is a process; and working together is success.

## Appendix A

### Executive Summary



#### **Introduction**

The Academic Nurse Managed Health Center (ANMHC) at Kapi`olani Community College (KCC) in Hawai`i. is an academically based clinic under the leadership of an Advanced Practice Registered Nurse (APRN) who works in partnership with interdisciplinary health care teams and the communities they serve. ANMHCs emphasize health education, health promotion, and disease prevention.

#### **Summary**

The clinic will address health disparities by providing accessible, affordable comprehensive preventive and primary health service aimed at college health promotion and disease prevention on a campus of 9,000 students who currently have no access to care on campus.

### **Purpose**

The KCC NMHC is in direct alignment with national reports and scholarly literature as an effective, efficient, accessible means to provide primary care services to an student population on the largest community college campus in Hawai'i. In turn, the clinic provides an opportunity to meet Hawai'i's growing health care and training needs which in turn positively influence health care outcomes. There are currently 250 Nurse Managed Health Centers (NMHCs) operating in 37 states with an estimated two million patient encounters each year.

### **Mission**

To enhance the health and well-being of KCC college students by providing and promoting primary, preventive care, health education services in support of the University's goals and in response to the nation's current health needs.

### **Vision**

To develop a student-focused, innovative, accessible, affordable, evidence-based model, APRN-run clinic in order to advance college health as a vital part of the academic experience and establish the KCC Student Health Center as a leader in the field.

### **Problem/Issue**

- Today's health care system is increasingly unable to meet the health care needs of the growing population (Affordable Care Act , 2012).

- Over 3.1 million people under the age of 26 have received health insurance under the Affordable Care Act under 26 initiative (NASPA, 2013). As the U.S. transforms its healthcare system under the Affordable Care Act, there will be 32 million Americans (3000 more in Hawai`i) seeking access to primary care which will put an increased strain on a healthcare system under pressure with increased demand for services (ACA, 2012).
- Access to care plays a vital role in the health of individuals and populations and is a leading indicator of health. Access is influenced by: whether or not people have insurance, whether there is an adequate health provider workforce, the travel distance to reach providers, and whether there are language and cultural barriers, and cost per service (Healthy People, 2010, 2020).
- There is a burden of finding clinical placement in a state with limited access to training facilities coupled by a large demand from multiple schools of nursing on the island of
- O'ahu in Hawai`i (KCC, Nurse Faculty Meeting, 2014).

## **Benefits**

### **Strategic Planning.**

- To mobilize and adapt a strategic plan for an ANMHC on Kapi`olani Community College campus to provide accessible, affordable primary health care services to students.
- To respond to recommendations by key KCC informants agree access to health care services should be a priority (KCC Survey, 2010). Appendix A1.

### **For Students.**

- To ensure students will no longer have to leave campus to receive health care.
- To assess the needs of the 87.4% surveyed students on campus who believe KCC should have and would utilize a health care center on campus. (KCC Assessment Report and Survey, 2010). Appendix A1-A2 & A3.
- To align KCC with Healthy Campus 2020 initiatives whereas campus health plays a vital supporting role in the educational strategic plan of the college.
- To invest in a student center model of care where costs are lower than a hospital, particularly an emergency room which 27% of students identified as a place to seek care (KCC Survey, 2010). Appendix A3.

### **For Clinical Workforce and Services.**

- To employ APRNs versus physicians to decrease costs and to serve as core safety net providers for Oahu.
- To utilize the ANMHC as a training center for the college's nursing students and nine allied health programs on campus.
- To link health plans (HMSA, Other Private Carrier, Medicaid) to accountable care organizations (ACOs), to provide safety nets which reward providers for working together to improve quality and to control costs.

### **Competition**

The competition from surrounding area clinics offering primary health services is minimal. The Waikiki Health Center is 1.8 miles from KCC campus (28-minute walk) and the clinic's focus is not student health, but at-risk populations. Ten of the students surveyed utilized this clinic. Kahala Urgent Care is 1.4 miles away (25-minute walk) and provides a range of health care services, yet is utilized by only 17 of students surveyed. There is also the newly opened (2015) CVS Kahala Minute Clinic 2.0 miles from campus and a ten-minute drive from campus. The minute clinic was not open at the time of the KCC Survey. However, online reviews report difficulty parking and slow health and pharmacy services. KCC students are able to utilize health services at the University of Hawai'i (UH) Mānoa campus. However, students do not use the facility at UH because (a) most students don't know it is available, (b) students don't feel included as the University Health Services at UH primary mission is to serve the student population of UH Mānoa, (c) as of spring term 2015 there is a required \$88.00 semester health fee for all students, (d) limited on campus paid (\$5) parking, and (e) the main campus center parking structure is a 10-minute walk across campus from the health center which when not feeling well is inconvenient.

The commuting and health-seeking behaviors of students also support an on-campus health center. Students are reluctant to leave campus if they need to come back with competition for the inadequate on-campus parking. The majority of students report using a private provider followed by utilizing hospital emergency rooms (KCC Student Survey, 2010).

### **The ROI**

A return on investment analysis, to the extent that students have health insurance, and billing arrangements indicate that a campus health center will be cost effective. A minimal proposed student service fee of \$25.00 per student/semester x 9000 students = \$225,000. Over 82 percent of the 454 students surveyed (2010) have insurance primarily through HMSA, which is an indicator of economic well-being and financial sustainability. Licensed non-salaried APRN providers at the clinic will independently bill insurance for services utilizing a fee for service model and charge per ICD-10 coding system. Providers will reimburse clinic for use and supplies at an 80/20 split. At a reasonable estimate of 10 patient visits a day, 2,250 patient visits a year with an average charge per billable visit of \$94.00 per encounter (UDS, 2012). Thereby the ROI is estimated @ \$211,500 insurance reimbursement and approximately \$450,000 in student fees annually.

### **Conclusion**

The needs assessment at KCC provides evidence that a student health center on campus will help address needs for the student body and clinical workforce training opportunities. Access to care is the biggest barrier to health (Healthy People 2010 and 2020). Economic projection demonstrates financial sustainability. An ANMHC will provide efficient, accessible, affordable health care for students on campus as a vital part of the academic experience and establish Kapi`olani Community College ANMHC as a leader in the field.

## **Appendix B**

### **Needs Assessment: KCC Student Health Center UH Student Report 2010**

#### **Introduction**

Kapi`olani Community College (KCC) was initially established in 1946 as a technical school (Kapi`olani Community College, 2008). The campus is located on the slopes of Diamond Head in the Kaimuki area of Honolulu, Hawai`i. KCC offers a variety of certificate and Associate degree programs with a particular emphasis on culinary arts/food service, business education, liberal arts, hospitality, legal assistant programs, and health sciences (nursing, emergency medical services, technical health careers, etc.). KCC has close ties with local businesses, government, social institutions, and other community resources. Students are enrolled in day, evening, and weekend courses throughout the semester. KCC has a student body that is made up diverse student groups, including local, domestic, pan-pacific, nontraditional, and international students. At the time of the survey there were approximately 8,000 students with a variety of on-campus activities being conducted on a daily basis (Kapi`olani Community College, 2010).

The Office of Student Activities (OSA) at KCC is a general resource center for the student body. Their services include movie ticket and bus pass sales, campus lost and found, bulletin board postings for miscellaneous announcements or campus news, free student health and sex education brochures, leadership opportunities, and social, cultural, and educational activities. The OSA serves as a central hub for students to access a variety of information related to life on the KCC campus (Kapi`olani Community College, 2006).

KCC does not currently have a health center on its campus, and never has. Given that at the time over 8,000 students attended classes it was identified that the lack of a health center on

campus a major issue and a needs assessment was desired in order to determine if students identified this as an issue for them. The rationale for the needs assessment was if enough student support was identified, then it would be used to stimulate discussion amongst KCC administration and stakeholders. In the long term this would serve as a catalyst for action. The goals of this needs assessment were to gather evidence of student support for a health center on campus and possible alternative recommendations for dealing with the issue of no health center. Research was conducted to explore further the background, history, assets, and community stakeholders for this community. Results of the needs assessment were compiled and analyzed. The needs assessment captured information from the students and key faculty and staff at KCC.

## **Background**

The plan included the idea that the University Health Services Mānoa (UHSM) run and manage the clinic. In exchange, KCC would pay a monthly fee for the services, and students in medical training programs at KCC would be able to do internships at the facility. Due to budgetary constraints, this plan was never implemented. Since that time, KCC students have been referred to the UHSM clinic for services and are required to pay a \$15 health fee each semester for access to these services.

The Office of Student Activities (OSA) requested a needs assessment be conducted to examine the current landscape of this issue for KCC and determine if students felt a student health center was important—if they wanted a health center on campus, would they use a health center on campus—identify what health services students desire and how much they would be willing to pay for such services.

## **Description of Community**

The Kapi`olani Community College (KCC) has a young and diverse population and, in general, is a college community. Of the entire University of Hawai`i college system, KCC has 31.7% of all UH students enrolled on its campus (University of Hawai`i, 2010). Although the population consists of traditional and nontraditional students, the average age of a KCC student is still only 24.4 years old (Kapi`olani Community College, 2010). There are 4,900 (56.6%) female students and 3,731 (43.1%) male students.

The majority of students reside on Oahu and represent a high level of ethnic diversity, consisting of:

- Asian (45.3%),
- Hawaiian/Pacific Islander (16.8%),
- Caucasian (14.8%),
- Hispanic (2.1%),
- African-American (1.1%),
- American Indian/Alaska Native (0.4%), and
- Mixed Ethnic Background (11.1%).

Students of Hawaiian ancestry made up 16.3% of the student population. Residents of Hawai`i make up 85.2% of the students (University of Hawai`i, Institutional Research Office, 2010) with 2.8% coming from the U.S. mainland and 6.8% from foreign countries (Kapi`olani Community College, 2010).

The community of KCC consists mainly of students, but also includes a number of faculty, staff, and administration. There is a 17 to 1 student faculty ratio (Kapi`olani Community College, 2010). KCC is generally a liberal arts college; however, there are a total of 49 degree programs including 23 Associate Degree programs, 10 Certificate of Achievement, and 16

Certificate of Completion programs available (Kapi`olani Community College, 2010). Students are enrolled in the following discipline areas:

- General & Pre-Professional Education (46.2%),
- Career & Technical Education (21.7%),
- Other KCC Programs (21.6%), and
- Unclassified (10.4%).

### **Community Stakeholders**

For the purposes of this needs assessment there would need to be a collaborative effort among all stakeholders in order to make the idea of a health center a reality. At the completion of this needs assessment the results were to be used for further discussion.

### **Community Assets**

The methods that were used to identify community assets and strengths include a community inventory of the different levels of health care currently available for KCC students, faculty and staff, key informant interviews, and an online survey using Survey Monkey. We conducted research online as well as on campus of what resources and assets exist for KCC. Current landscape of health care for the KCC community is very limited. The University of Hawai`i System provides different levels of health care at its different college campuses. The University Health Services Mānoa (UHSM) offers the most comprehensive health clinic, with care available from both nurses and physicians from 8:30 a.m. to 4:00 p.m. Monday through Friday. UHSM is located at 1710 East-West Road and it is 2.5 miles (53-minute walk) away from KCC. Services are available to students, faculty, and staff of UH Mānoa and also those from KCC, since it is one of the ten UH campuses. Clinical services include two categories: General Medical Clinic and Specialty Clinics. The former provides primary medical care for illness and injury including immunizations, allergy shots, and physical examinations. A

clinical laboratory provides testing, and the pharmacy stocks prescription and over-the-counter medications. Specialty Clinics include sports medicine, dermatology, and psychiatric services including nutritional counseling for medical conditions and weight, sports and fitness concerns, and women's health care such as education, counseling, pap tests, contraception and emergency contraception, tests and treatment for sexually transmitted disease, and pregnancy tests. UHSM also assists patients in obtaining specialized medical services in the community. Moreover, it has health promotion programs, which include peer education/service learning program (LOKAHI program) and alcohol and other drug education program (ADEP) (University of Hawai'i at Mānoa, 2010).

The University Health Services Mānoa (UHSM) manages a small satellite clinic at Leeward Community College (LCC) that offers similar services with hours limited to 9 a.m. to 1 p.m. Monday through Friday. The LCC clinic serves the LCC and UH West O'ahu campuses (University of Hawai'i at Mānoa, 2010). Maui Community College, UH Hilo, and Kaua'i Community College also offer comprehensive services including general medicine, women's health, sexual health, immunizations and TB testing, but with varying limitations due to physician availability (Kaua'i Community College, 2010; Maui Community College Health Center, 2010; UH Hilo Student Health Services, 2010). Honolulu Community College maintains a small health office with no physicians on staff. They offer limited nursing care, health screenings, and basic first aid care (Honolulu Community College, 2010).

Although KCC students and faculty do not have access to any on-campus medical attention, there are several community assets which may help to mitigate their health concerns. One is the Diamond Head Health Clinic located at 627 Kilauea Avenue, a few minutes' walk away from the campus. The clinic specializes in free walk-in screening and diagnosis of

sexually transmitted diseases (STDs), followed by treatment if necessary. Open on weekdays typically from 11:00 am to 4:00 pm, the clinic focuses primarily on STD and AIDS/HIV prevention and counseling (Hawai`i State Dept of Health, 2010).

A more comprehensive resource, the Waikiki Health Center (WHC), is located approximately 1.8 miles from the KCC campus (28-minute walk). While the center mostly serves the “at risk, hard to reach population” (such as runaway youth and homeless), it is also open to a broad range of individuals from diverse backgrounds including the working poor and the underinsured. As a private, nonprofit entity, WHC offers a variety of medical services including primary care, family planning, traditional Hawaiian healing, tobacco cessation counseling, early HIV intervention, screening, and immunizations (Waikiki Health Center, 2010).

Also nearby to KCC is the Kahala Urgent Care Center, which is located at 4218 Waialae Avenue and it is 1.4 miles (25-minute walk) away. Kahala Urgent Care is staffed by residency trained, board certified emergency physicians. Emergency physicians have training and experience in all branches of medicine including adult, pediatrics, gynecology, orthopedics, and many others. It provides care for many minor emergencies such as cough/cold, asthma, sprains/strains, and other services like X-Ray, digital X-Ray on-site lab services such as glucose testing, pregnancy tests, and electronic medical record keeping (Kahala Urgent Care, 2010).

In looking at the strengths of the KCC community, we examined the infrastructure at KCC and the different types of groups that exist. The KCC community has a variety of assets available to it. KCC community has some health services available, potential land from outside resources, and clinical health majors offered (nursing department, EMS department, etc.).

After reviewing the current strategic plan for KCC, there was no mention of any means to address health or health care on campus. There were some listings of potential resources for

campus expansion. From a recent meeting in December 2009, a KCC Advisory Working Group for the Long Range Development Plan for KCC met to discuss priorities for the next 10 years. Key players were identified as the Board of Regents, Governmental agencies, Planning Consultants, Community Neighborhood Board, and other interest groups, the KCC community, and Collaborating Surrounding Neighbors. The Advisory Working Group works with a group of designers (or Charettes ) and the community to plan for the utilization of different land resources available to KCC. KCC is beginning to have discussion about a major land development plan to deal with the campus parking problem, a gardening project (aesthetics), and space for new classes and/or programs at KCC. Given that there are discussions on a development plan in the future, there appears to be potential land available for use by KCC.

### **Key Informant Interviews**

The key informants provided valuable information for this needs assessment. They provided clarification on the issue, identified some major priorities, and sparked some ideas for possible solutions. Key informant interviews were conducted sample of KCC students.

When asked about the idea of a student health center on campus, there was unanimous support from each interviewee. Each one felt a full service health center or, at the very least, a health office with limited services, should be made available for students, faculty, and staff to access while on campus. In addition the KCC bookstore, which provides over-the-counter drugs; the Campus Security, which has minimal services, if any; and the Emergency Medical Services Department; which also has minimal services, if any. Each interviewee felt access to health services should be made a priority and that KCC look to find a solution. Each key informant felt that having health services available on campus is not just a matter of convenience but a matter of safety and health promotion.

Key informants described health services currently available to students and faculty. Being able to travel to the Mānoa campus is an option for the KCC community, but this option is not utilized often. The severely ill are referred out to nearby clinics or an ambulance is requested. Some key assets identified by the informants were:

1. students,
2. student support groups like the Student Activities Center and Student Congress,
3. teachers and staff, and
4. Emergency Medical Services Department on campus.

### **Health Priorities**

As a result of the key interview process, there were some health priorities identified and support of the idea for a health center on the KCC campus. There are several identified barriers to the development of one, such as lack of funding, lack of space, and lack of support for a health center.

In order to get a broader representation of student input, a brief questionnaire was designed and placed online at SurveyMonkey.com for KCC students to answer on a voluntary basis. Students were notified of the survey via school email. This method was selected because previous attempts to conduct a face-to-face survey resulted in minimal respondents. The survey conducted for this needs assessment asked for general background information as well as questions pertaining to how students currently seek, obtain, and afford health care. Questions also asked how students felt regarding the establishment of a health center on campus, how the facility would be used, and how much the students would be willing to pay for health fees. See Appendix 1.

The needs assessment survey was launched before spring break this year (March 19-April 2) and offered a chance to win two gift cards to Ala Moana Shopping Center as incentives. The

results showed high support for an on-site health center and health-care services. While the survey site was able to compile and calculate percentages for some responses, some of the raw data had to be hand-calculated; see Appendix 2 for Data. There were 470 KCC students who completed the on-line survey. The sample consisted of a majority of females (73.4%). Almost half (46.9%) are under 25 years old, while nearly a fifth (18.7%) are over 40. Just over half (52.6%) are full-time students, taking 12 or more credits this semester. About a quarter (26.5%) are employed full-time (more than 20 hours per week), while more than a third are employed part-time (30%) or unemployed (37.5%). The majority of participants live in Honolulu (76.5%), with fewer living in Central Oahu (11.4%), the Windward Side (6.2%), the Leeward Coast (5.2%), and the North Shore (0.6%). Most identify themselves as Asian or part Asian (76.0%), with a large portion identifying as Caucasian or part Caucasian (41.9%), and nearly a fifth as Hawaiian or part Hawaiian (18.1%). Note that participants were able to select as many ethnicities as they wanted, so the percentages add up to greater than 100 %.

Based on the survey data, approximately 90% of the participants have their own private doctors and only 10% of them are utilizing neighboring health-care clinics such as Diamond Head Clinic, Waikiki Health Center, or Kahala Urgent Care, which provide very low cost and at times free services. Vaccination/ TB clearance, illness/cold/flu/ headache, and annual exam are the main reasons for their health care visits. Despite having their own private doctors, an overwhelmingly large portion (87.4%) of respondents is in favor of having a student health center on campus, citing that they would utilize it for generally the same reasons cited above for using other health-care facilities. When asked how much they would be willing to spend out of pocket, almost half (44.8%) of respondents were willing to be charged a \$20 per semester fee for health services as a part of tuition and 64.7% were willing to pay an additional \$5 or \$10

copayment for each health center visit. Interestingly, almost 70% do not realize that they can currently utilize UH Mānoa's health-care clinic and almost 60% are not aware that over-the-counter medications are available at the KCC bookstore.

Overall, the results of all these methods conducted to assess need for an on-site health center indicate that there is strong support for the establishment of one, although there were specific barriers identified.

### **Key Findings**

As a result of the needs assessment conducted at KCC, there are three key findings. The first being that there is a large number of students enrolled and attending classes at KCC, this finding alone would render justification to develop a health center on campus. There are health services available to students such as over-the-counter drugs at their Bookstore, health-care services at the University Health Services Mānoa as well as four health-care centers nearby to KCC. However, students and faculty felt an importance in having health-care services on campus and readily available for emergencies and regular day-to-day health care.

The second key finding was that the students and faculty interviewed or surveyed at KCC are very supportive of a health center on campus. Nearly 88% of those surveyed expressed support for a health center on campus. Unfortunately, there are specific barriers such as lack of funding, lack of space, and lack of support that keep a health center on campus from becoming a reality. Still, they generally felt it was an important issue.

Those barriers led to the third key finding, lack of resources. Funding, location, motivation and support, and staffing were the identified hurdles for KCC. We believe there are solutions that can help address their needs.

## **Recommendations**

We have four recommendations for KCC as a result of this needs assessment. As identified by the student survey, a vast majority of students support the idea of a student health center on the KCC campus. Ideally, the center would be appropriately staffed with physicians, nurses, technicians, and other personnel to provide comprehensive health services. In addition, this facility could be used to allow students entering the health-care field to gain experience through practical involvement (modeled similarly after the health services at UH Mānoa).

Recognizing that there are limited resources and budgeting constraints amidst a stagnant economy, a fully staffed health center might not be a priority. This proposal suggests establishing a space where limited health care may be offered. The services could include, but not be limited to, first aid and the top health service priorities determined by the assessment survey as follows: illness/cold/flu, annual exam, physical exam, and vaccinations/TB clearance. The services could be provided by a registered nurse or nurse practitioner in lieu of a full-time physician in order to contain costs. The cost of employing such personnel and offering services can be offset by a per semester fee added onto the cost of tuition. With more than 85.8% of respondents indicating they would be willing to pay \$20 or more per semester for access to a student health center, utilizing the lower end of the spectrum, at ~8,000 students multiplied by \$20 would create approximately \$160,000 budget to work with per semester. A funding plan would need to be developed to anticipate actual costs needed based on the services they would be willing to provide.

Based on survey data of KCC students, 64.7% were willing to pay additional \$5-\$10 co-pay per visit. A more detailed and in depth look at these potential sources of funding and further research on health care costs and operating expenses would be needed to determine what type of

service modality is feasible. It is important to consider the voices of the student body and recognize that majority are willing to help provide resources for a cause they deem necessary as part of the KCC community.

The second recommendation includes utilizing existing assets at KCC. Since KCC offers training programs for many health careers, an idea stemming from one of our interviews suggest to invest more funding and resources into the EMS department (Emergency Medical Services) or other health-related department on campus, in order to increase the capacity to take on the role of campus health provider. By supporting EMS with increased funding and increase in staff, they would increase their capacity to serve as the health-care entity on KCC's campus. With EMS as the campus health-care entity, it would allow students and faculty to have something readily available with less cost for their health problems.

The third recommendation is to contract for services with University Health Services Mānoa (UHSM) to provide health services to KCC, as had been discussed several years ago. The Leeward Community College (LCC) has a similar agreement with UHSM to provide health services on its campus. UHSM runs a clinic on the LCC campus in exchange for a fee. By implementing a similar model, UHSM would run the clinic on the KCC campus in exchange for a fee paid by KCC. By providing something similar would alleviate efforts of designing a new model for a health center.

Finally, another suggestion prompted by the results of the student survey includes a campus-wide education initiative to increase awareness of what resources are currently available to KCC students. The data shows nearly 70% of KCC students are unaware that they can utilize the UH Mānoa health service facilities (for a fee). Over 58% of students do not know that there are over-the-counter medications available at their own campus bookstore. Increasing awareness

of what is available and how to access those services would also be cost effective and highly beneficial for KCC. Community health assets such as the Diamond Head Clinic and Waikiki Health Center are not utilized at a significant frequency. Less than 5% of respondents reported going to Diamond Head Clinic for health-care services, and the Waikiki Health Center is utilized even less. Both offer fairly comprehensive services, which beg the question: Are students aware of what is available? If an on-campus student health center could not be made available, students should at the very least be informed as to what options are available to them. We suggest the development of a marketing strategy or awareness campaign to educate and disseminate information. Some ideas include pamphlets at new student orientations, postings on bulletin boards reminding students where they can go to receive medical attention or over-the-counter medications, updated newsletters and e-mail blasts on what services are available and at what times (for instance, when UH Mānoa gets a batch of flu shots, a reminder to stop by to get vaccinated). Information and questions can also be handled at a centrally located health information kiosk that may act as a directory or simple first aid provider.

## **Conclusion**

The needs assessment at KCC was very successful in that we attained the needed evidence of support for a health center on campus. When we were approached with this project there was a feeling of redundancy, since the issue has been on the table for over 7 years now. It is hoped that with the information and support that was collected through this process, the OSA will be able to develop some next steps in order to address the KCC stakeholders and administration. The information and recommendations were presented and the attendees were excited about the needs assessment findings and were hopeful to start the process to plan and implement an agreed-upon strategy to help better KCC's campus.

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## Appendix C

### Needs Assessment Cover Memo and Survey Questions

March 18, 2010

Greetings! Below is a request for all students enrolled and attending Kapi`olani Community College to participate in a survey. Please share and encourage participation.

---

A collaborative effort between the Office of Public Health Services at the University of Hawai`i Mānoa and the Student Activities Center at Kapi`olani Community College (KCC) has launched a campus-wide survey for KCC students in order to learn more of their experiences and feelings about health care and to capture opinions about a Health Care Facility on campus.

The survey is available two ways:

- 1) online at <http://www.surveymonkey.com/s/DLG8LLC>
- 2) or a paper version is available by request

The survey is open to any students currently enrolled and attending KCC regardless of academic status. It takes approximately 10 minutes to complete the survey and participants will have the opportunity to be entered in a drawing to win a \$30 gift card from Ala Moana Shopping Center (there is a possibility of 2 winners).

Data collection will end on Friday, April 2, 2010 and results will be made available in May 2010. By having enough KCC students take this survey our team will have a much needed source of information that we can use to explain more about the need for health care and/or a Health Care Facility on the KCC campus.

We sincerely ask you take some time out of your day to fill out the survey and we greatly appreciate your help.

Sincerely,

*KCC Health Care Needs Assessment Team*

## QUESTIONS ASKED IN SURVEY:

- 1) Please tell us your age.
- 2) Gender (please circle): **Male** **Female** **Other**
- 3) What is your ethnicity (check all that apply):
  - African American**
  - Asian**
  - Caucasian**
  - Hawaiian**
  - Pacific Islander**
  - White**
  - Other (please specify)** \_\_\_\_\_
- 4) Are you a full-time (12 credits or more) or a part time (less than 12 credits) student?
- 5) What is your employment status?
  - Unemployed**
  - Employed part time (20 hours or less)**
  - Employed fee time (more than 20 hours)**
- 6) What zip code do you live in?
- 7) Do you have health insurance (please circle)?
  - Yes**    **No**    **Don't know**
- 8) Where do you generally go for health care services (check all that apply)?
  - Diamond Head Clinic**
  - Waikiki Health Center**
  - Kahala Urgent Care**
  - KCC EMS Department**
  - Hospital Emergency Room**
  - Private Doctor (e.g. Kaiser, Queen's, etc.)**
  - Other (please specify)** \_\_\_\_\_
- 9) When was you last visit for health care services?
  - 1 week ago**
  - More than 1 month ago**
  - More than 6 months ago**
  - More than 1 year**
  - Can't remember when my last visit was**
  - Other (please specify)**
- 10) Where did you go last time you utilized health care services (check all that apply)?
  - Diamond Head Clinic**
  - Waikiki Health Center**

- Kahala Urgent Care**
- KCC EMS Department**
- Hospital Emergency Room**
- Private Doctor (e.g. Kaiser, Queen's, etc.)**
- Other (please specify) \_\_\_\_\_**

11) What was the reason for your last health care visit (check all that apply)?

- Annual exam**
- Physical exam**
- STD testing**
- Pregnancy testing**
- Illness/cold/flu**
- Vaccination/TB clearance**
- Birth control**
- Condoms**
- Pharmacy prescriptions**
- Over-the-counter medications**
- Emergency (please specify) \_\_\_\_\_**
- Other (please specify) \_\_\_\_\_**

12) Do you think KCC should have a student health center on campus (circle)?

**Yes      No**

13) If KCC had a student health center, what types of services would you use (check all that apply)?

- Annual exam**
- Physical exam**
- STD testing**
- Pregnancy testing**
- Illness/cold/flu**
- Vaccination/TB clearance**
- Birth control**
- Condoms**
- Pharmacy prescriptions**
- Over-the-counter medications**
- Emergency (please specify) \_\_\_\_\_**
- Other (please specify) \_\_\_\_\_**

14) If KCC had a student health center on campus, how much would you be willing to pay for a visit (i.e. copay per visit)?

- \$5**
- \$10**
- \$15**
- \$20**
- Other (please specify amount) \_\_\_\_\_**

15) If KCC had a student health center, how much would you be willing to pay for student health fees each semester?

- \$20
- \$25
- \$50
- Other (please specify amount) \_\_\_\_\_

16) Are you aware that you can utilize the UH Mānoa Clinic for health care (circle)?

**Yes      No**

17) Are you aware that you can purchase over-the-counter medications at the KCC bookstore (circle)?

**Yes      No**

18) Thank you for participating and for filling out this survey. Your input is valuable and would like to enter you in a drawing for a \$30 gift card to Ala Moana Shopping Center. There is possibility of 2 winners. If you would like to be entered into the drawing, please enter an email address below. You will be notified if you are a winner by the end of April, 2010. All survey responses will be held confidential. If you are a winner of a drawing, we will contact you via email.

- Yes, Please enter me into the drawing.
- No, I decline to be entered into the drawing and good luck with the survey.
- To be entered into the drawing here is my email address:

## Needs Assessment Data Collection Results (Survey Monkey, KCC, 2010)

### Needs Assessment: KCC Health Care Services

1. Please tell us your age (type in the box below).		
		Response Count
		454
	<i>answered question</i>	454
	<i>skipped question</i>	16

2. What is your gender?			
		Response Percent	Response Count
Male		26.4%	124
Female		73.4%	345
Other		0.2%	1
	<i>answered question</i>		470
	<i>skipped question</i>		0

3. What is your ethnicity (check all the apply to you)?			
		Response Percent	Response Count
African American		1.8%	8
Asian		71.8%	326
Caucasian		39.6%	180
Hawaiian		17.2%	78
Pacific Islander		5.5%	25
	Other (please specify)		53
	<i>answered question</i>		454
	<i>skipped question</i>		16

4. Are you a full-time (12 credits or more) or a part-time (less than 12 credits) student?			
		Response Percent	Response Count
Full-time (12 credits or more)		52.6%	246
Part-time (less than 12 credits)		47.4%	222
<i>answered question</i>			468
<i>skipped question</i>			2

5. What is your employment status?			
		Response Percent	Response Count
Unemployed		37.5%	174
Employed part-time (20 hours or less)		36.0%	167
Employed full-time (more than 20 hours)		26.5%	123
<i>answered question</i>			464
<i>skipped question</i>			6

6. What zip code do you live in?		Response Count
		470
<i>answered question</i>		470
<i>skipped question</i>		0

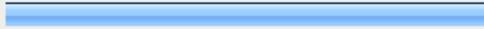
7. Do you have health insurance?			Response Percent	Response Count
Yes			82.4%	383
No			16.1%	75
Don't know			1.5%	7
<i>answered question</i>				465
<i>skipped question</i>				5

8. Where do you generally go for health care services?			Response Count
	Check all that apply		
Diamond Head Clinic	100.0% (15)		15
Waikiki Health Center	100.0% (10)		10
Kahala Urgent Care	100.0% (17)		17
KCC EMS Department	100.0% (3)		3
Hospital Emergency Room	100.0% (27)		27
Private Doctor (e.g. Kaiser, Queen's)	100.0% (311)		311
Other (please specify)			129
<i>answered question</i>			347
<i>skipped question</i>			123

9. When was your last visit for health care services?		
	Response Percent	Response Count
1-week ago 	16.4%	77
More than 1 month ago 	39.4%	185
More than 6 months ago 	17.1%	80
More than 1 year 	12.2%	57
Can't remember when my last visit was 	9.0%	42
Other (please specify): 	6.0%	28
<i>answered question</i>		469
<i>skipped question</i>		1

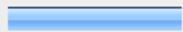
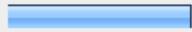
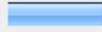
10. Where did you go the last time you utilized any health care service(s)?		
	Please check all that apply:	Response Count
Diamond Head Clinic	100.0% (21)	21
Waikiki Health Center	100.0% (7)	7
Kahala Urgent Care	100.0% (10)	10
KCC EMS Department	0.0% (0)	0
Hospital Emergency Room	100.0% (16)	16
Private Doctor (e.g. Kaiser, Queen's, etc.)	100.0% (310)	310
Other (please specify)		117
<i>answered question</i>		353
<i>skipped question</i>		117

11. What was the reason for your last health care visit?		
	Check all that apply.	Response Count
Annual exam	100.0% (111)	111
Physical exam	100.0% (73)	73
STD testing	100.0% (19)	19
Pregnancy testing	100.0% (3)	3
Illness/cold/flu	100.0% (128)	128
Vaccination/ TB clearance	100.0% (100)	100
Birth control	100.0% (53)	53
Condoms	0.0% (0)	0
Pharmacy prescriptions	100.0% (45)	45
Over-the-counter medications	100.0% (12)	12
Emergency	100.0% (25)	25
	Other (please specify)	90
	<i>answered question</i>	398
	<i>skipped question</i>	72

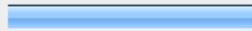
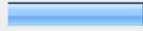
12. Do you think KCC should have a student health center on campus?			
		Response Percent	Response Count
Yes		87.4%	396
No		12.6%	57
	<i>answered question</i>		453
	<i>skipped question</i>		17

13. If KCC had a student health center on campus, what types of services would you use?		
	Please check all that apply:	Response Count
Annual exam	100.0% (225)	225
Physical exam	100.0% (234)	234
STD testing	100.0% (178)	178
Birth control	100.0% (162)	162
Condoms	100.0% (136)	136
Vaccinations/TB clearance	100.0% (333)	333
Illness/cold/flu/headaches	100.0% (303)	303
Pharmacy prescriptions	100.0% (189)	189
Over-the-counter medications	100.0% (183)	183
None, would not use it	100.0% (51)	51
	Other (please specify)	28
	<i>answered question</i>	<b>452</b>
	<i>skipped question</i>	<b>18</b>

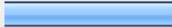
**14. If KCC had a student health center on campus, how much would you be willing to pay for a visit (i.e. copay per visit)?**

	Response Percent	Response Count
\$5 	31.5%	146
<b>\$10</b> 	<b>33.2%</b>	<b>154</b>
\$15 	16.8%	78
\$20 	12.7%	59
Other (please specify a dollar amount) 	5.8%	27
<i>answered question</i>		<b>464</b>
<i>skipped question</i>		<b>6</b>

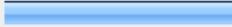
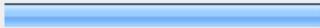
**15. If KCC had a student health center, how much would you be willing to pay for student health fees each semester?**

	Response Percent	Response Count
\$20 	44.8%	207
\$25 	24.5%	113
\$50 	16.5%	76
Other (please specify a dollar amount) 	14.3%	66
<i>answered question</i>		<b>462</b>
<i>skipped question</i>		<b>8</b>

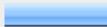
**16. Are you aware that you can utilize UH Manoa's Health Services Clinic for health care needs?**

	Response Percent	Response Count
Yes 	30.5%	142
No 	69.5%	323
<i>answered question</i>		465
<i>skipped question</i>		5

**17. Are you aware that you can purchase over-the-counter medications at the KCC bookstore?**

	Response Percent	Response Count
Yes 	41.8%	196
No 	58.2%	273
<i>answered question</i>		469
<i>skipped question</i>		1

**18. Thank you for participating and for filling out this survey. Your input is valuable and we would like to enter you in a drawing for a \$30 gift card to Ala Moana Shopping Center. There is a possibility of 2 winners. If you would like to be entered into the drawing, please enter an email address below. You will be notified if you are a winner by the end of April, 2010. All survey responses will be held confidential. If you are a winner of the drawing, we will contact you via email.**

	Response Percent	Response Count
Yes, Please enter me into the drawing. 	19.0%	89
No, I decline to be entered into the drawing and good luck with the survey. 	11.8%	55
To be entered into the drawing here is my email address: 	69.2%	324
<i>answered question</i>		468
<i>skipped question</i>		2

## Appendix D

### Elements of Innovation

Elements	Social Change	From	To	Elements/Activities
Phase 1	Change in Awareness	Stakeholders less aware of student need for a health center on KCC campus.	Stakeholders more aware of student need for a health center on campus per result of 2010 Survey Monkey.	An ANMHC needs assessment will be compiled from survey data and evaluated.
Phase 2	Change in Knowledge	Limited knowledge of scholarly evidence supporting/limiting an ANMHC on campus.	Increase stakeholder and users knowledge of scholarly evidence and national initiatives supporting/limiting an ANMHC on campus.  Information disseminated via face to face meetings and via CQI project report.	An ANMHC quality improvement project will be designed based on evidence.

Phase 3	Change in Environment	No space allocated for an ANMHC KCC campus.	Key campus stakeholders launching a search for an ANMHC on KCC campus.  Creating a new campus environment to meet student need.	An ANMHC location for on KCC campus will be identified.
Phase 4	Change in Behavior	Students seeking health care services off campus.	Students seeking health care services on KCC campus.  Increased awareness of accessible, affordable health care services available will be posted in key campus locations, advertised on line and radio.	An ANMHC list of the type of health care services to be provided will be identified.

Phase 5	Change in Organization	No ANMHC organizational umbrella identified.	Identify and report to Stakeholders types of ANMHC organization umbrellas with required regulations to engage in a dialogue that collaboratively drives informed decision making.	An ANMHC organizational framework will be identified via informed decision of stakeholders.
Phase 6	Change in Perception	Limited understanding of the role, function, services, access, relevance, educational possibilities, cost and limitations of having an ANMHC on KCC campus.	Greater understanding through education of the role, function, services, access, relevance, educational possibilities, cost and limitations of having an ANMHC on KCC campus.  Meetings at least once per semester	An ANMHC strategic plan will be developed with input of Stakeholders and users.

			with stakeholders to report networking results from national and local informed contacts.	
Phase 7	Change in Education	No clinical perceiving sites on campus for allied health students.	Clinical perceiving sites will be made available on campus for allied health students at the ANMHC.	An ANMHC educational plan will be developed to support teaching/training for allied health students on KCC campus.
Phase 8	Change in Policy	Questionable funding available for an ANMHC on KCC campus.	Potential funding types and implications identified for stakeholder consideration on an ANMHC on KCC campus.	An ANMHC business plan and cost benefit analysis will be done. Determination will be made as to funding resources to apply for.
Phase 9	Change in Services	No healthcare services offered on KCC campus.	Offering on site health care services on KCC campus.	An ANMHC Strategic Plan proposed.

			Administration, stakeholders and users understand and support the relationship between access to health care and student health (Healthy People, 2010/2020).	
Phase 10	Change in Action	Stakeholders and users without plan to adopt and mobilize a health center plan on campus.	Stakeholders and users adopt health center strategic plan and readiness to mobilize toward an ANMHC on KCC campus.  Administrative buy in of an organizational, transformational shift in culture based on evidence	An ANMHC plan will be created!

			national initiatives, expert resources and identified need.	
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## Appendix E

### KCC-ANMHC SMART Objectives & Data Collection Table

Logic model	Variables	Instruments	Data Collection Time	Data Analysis
Smart objectives- planning & evaluation				Process Measures
Pre- implementation				
Process Evaluations	Needs Assessment	Survey Monkey	2010	Percentages of quantitative aggregated data analysis.
SMART Objective 1 Develop a KCC-ANMHC CQI project based on evidence.	Evidence Based Practice  Identified through literature search and synthesis.	Mosby's 2004 Research Literature Critique Tool	Fall semester 2013.	Numerically rating data to level of significance and evidence practice change proposal.
SMART Objective 2 Engage a variety	Engagement  # of stakeholders/user reached.	Database-table	With each stakeholder/user contact to end of fall semester 2015.	Descriptive quantitative data
SMART Objective 3 Develop a network of at least 10 ANMHC informed, expert	Networking.  # of informed contacts reached and	Database-table  Phone	With each expert contact to end of summer semester 2015.	Descriptive quantitative data gathered will be compiled into a

<p>contacts by the end of summer semester 2015 in order to report expert opinion to stakeholders in DMP document Summer 2015.</p>	<p>the organization of unstructured responses.</p>	<p>Email Face to face</p>		<p>comparative content analysis database table.</p> <p>Cross tab analysis will be used to compare the identified interests of different types of NMHC's (community based, school based, ect).</p> <p>Qualitative data analysis will be done by count and percent to identify the number of participant who responded in a certain way.</p>
<p>SMART Objective 4 Develop a working knowledge of potential ANMHC</p>	<p>Framework Identify the # of organizational</p>	<p>Database table</p>	<p>With each identified funding source (federal, community, local) to end of summer</p>	<p>Descriptive statistics. Quantitative data</p>

<p>organizational umbrellas, funding types and implications by the end of summer semester 2015 to present in strategic planning document to stakeholders to aid informed decision making.</p>	<p>umbrellas funding types and implications for stakeholder's consideration.</p>		<p>semester 2015.</p>	<p>analysis by count and percent to identify the # of people who responded in a certain way and comparative checklist of implications.</p> <p>Qualitative data compiled into a comparative content analysis data base. Cross tab analysis will be used to compare different interest of different types of NMHC's (community based, school, etc.).</p>
<p>SMART Objective 5 By the end of the 2014 school year,</p>	<p>Educate Stakeholders/User</p>	<p>Pre- Post Questionnaire- survey.</p>	<p>Discussion of SIP staged at descriptive intervals:</p>	<p>Change score analysis utilizing mixed quantitative</p>

<p>ANMHC executive offer will have delivered educational in-services on health center purpose, vision, mission, organizational umbrellas, networks, funding options implications, services offered and other key elements to 80% of campus project to nursing faculty and several administrative stakeholders.</p>	<p>Assess knowledge Before/ after general meeting training sessions to gauge effectiveness and readiness of informed stakeholder decision making.</p>	<p>The questions were divided between know and opinion questions. Each item contains the stem word “should” (e.g., “Nurse-managed centers should have a community board advisory committee”). The instrument is to be reviewed by nursing colleagues for clarity and selection for content.</p>	<p>1<sup>st</sup>, summer semester 2014.  2<sup>nd</sup>, fall semester 2014.  3<sup>rd</sup>, summer semester 2015.  Pre-test at start of 1<sup>st</sup>, meeting before strategic plan section introduced.  Post- test at end of 2<sup>nd</sup> meeting after proposed strategic plan section introduced and discussed.</p>	<p>and qualitative data.  The response format is a 7 point Likert-type scale ranging from not characteristic (1) to very characteristic (7) of an ANMHC. The respondents will be asked to rate each item, in light of the results of the first round. If the participants responded to an item outside of the item's interquartile range, they will then be asked to provide written rationale. The intent of such rationale is to persuade others toward one's viewpoint. Results will be tabulated and</p>
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				<p>comments compiled for use with the third round of the survey.</p> <p>The third and final round of the survey will be conducted during the morning of the third day of the scheduled face to face or broadcasted meeting.</p> <p>Participants will be supplied with responses from the second round, that is, the median, interquartile range, and range for each item and a summary of the written rationale by persons who responded outside the interquartile range.</p> <p>The participants again were asked to rate each item for its</p>
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				relevance to ANMCs. The results from the final round will be tabulated and presented to the participants at the end of the scheduled meetings prior to plan adaption.
SMART Objective 6 To create a collaboratively designed (utilizing Stakeholders input) KCC - ANMHC Strategic Plan by Fall semester 2015.	Identify Organizational Strategic Planning Tool.	SWOT Analysis Strength, Weakness, Opportunities Threats Included in Strategic Plan Appendix	2 <sup>nd</sup> General Mtg.  Analysis that will identify strategic strength and issues facing the organizational planning of a ANMHC Strategic Plan  Objective, informed decision making process.	Focus, planning group.  Integrated data analysis sorted in categories as per SWOT tables for quantitative statistical analysis.  SWOT Table 1.1 Strength/weakness analysis.  SWOT Table 1.2 Opportunities/ threats analysis.

				SWOT Table 1.3 Performance important matrix.  SWOT Table 1.4 External conditions
SMART Objective 7 To develop a KCC - ANMHC financial operations plan by spring semester 2014.	Financial Analysis and strategy planning.	Financial Planning Tool  Biz.com computer Software program	3 <sup>rd</sup> General Stakeholder Mtg.  Spring semester 2015	Financial computer database.  Majority of Stakeholders agree to adopt financial plan as outlined in Strategic plan.
SMART Objective 8 Adapt and mobilize an ANMHC strategic plan for KCC campus.	Informed decision making	Utilizing tools as identified in SMART objectives 1-7	End of 3 <sup>rd</sup> General stakeholder Mtg.  Spring semester 2015.	Majority of Stakeholders agree to implement a CQI practice change and adopt/mobilize KCC- ANMHC proposed Strategic Plan!
Outcome Measures				
Post – implementation				
	Operation and	Uniform Data	With each patient visit-	Data analysis

<p>Impact Evaluations</p> <p>By the end of the first post ANMHC implementation year, the clinical executive officer will review and report to stakeholders all KCC specific data and nationally aggregated data collected to ensure compliance with legislative and regulatory requirements, improve health center performance and operations, report overall program accomplishments, examine trends over time and identify effective services and interventions to improve the health of</p>	<p>performance of health center.</p>	<p>Systems (UDS)</p>	<p>anonymous.</p> <p>The UDS submission deadline is February 15 every year and sources of aggregate data yearly (USD, 2012). Consider employing tool post project implementation.</p>	<p>compared to a standard.</p> <p>Non-identifiable data.</p>
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vulnerable communities and populations.				
<p>SMART Objective 9</p> <p>By the end of the first post ANMHC implementation year, the KCC clinical executive officer will review and report to stakeholders and users results of data collected.</p>	<p>Quality assessment tool.</p>	<p>Healthcare Effectiveness Data and Information Set (HEDIS)</p>	<p>Collected with each patient visit.</p> <p>Analyzed by the end of the first post KCC-ANMHC implementation year.</p>	<p>Evaluate board clinical performance of 80 measurements of care and services across 8 domains utilizing side-by-side comparisons across health plans to conduct competitor analysis, examine quality improvement and benchmark plan performance. (NCQA, 2011).</p> <p>Data analysis utilizes standard measurement s comparisons across health plans by tracking results.</p>
SMART Objective10	Organizations	Wellness &	APRN to utilize and	Percentage of

<p>By the end of the first post ANMHC implementation year, the clinical executive officer will review and report to stakeholders data compared to standard data analysis that evaluates KCC-ANMHC wellness and health promotion services against an evidence-based set of requirements including standards and measures in order to distinguish high-quality services. NCQA assesses the ANMHC output and outcomes over time for performance against each standard individually.</p>	<p>wellness and health promotion services against an evidence based set of requirements.</p>	<p>Health Promotion Report Cards (WHP) Quality Compass an interactive web based comparison tool that allows users to view plan results and benchmark information.</p>	<p>complete the Wellness &amp; Health Promotion Report Cards interactive, web-database assessment tool with each patient contact. Data will be reviewed by clinical executive officer quarterly post ANMHC implementation and aggregated yearly for 2 years and then reviewed.</p>	<p>element points based on awarded performance level. Web based data analysis comparison tool. Points are assigned to each standard and element NCQA also evaluates each element separately and assigns a performance level of 100%, 80%, 50%, 20% or 0%. The KCC ANMHC will receive a percentage of element points based on the awarded performance level. The total point value for the standard is the sum of the point</p>
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				values for each element (NCQA, 2011).
SMART Objective 1 Assess financial management of ANMHC by end of 1 <sup>st</sup> post implementation quarter and year.	Financial profit- loss sustainability.	Financial Analysis Tool	Data reviewed quarterly and yearly.	Aggregated data.
SMART Objective 12 By the end of the first post ANMHC implementation year, the clinical executive officer will review and report to stakeholders KCC- ANMHC qualitative and quantitative data on patient experience and overall satisfaction of care received.	Patient experience- Satisfaction.	Medical Outcomes Trust Patient Satisfaction Tool Survey	Collected with 1st and 3 <sup>rd</sup> service visit via email with incentive for return of 2 completed surveys.	Likert scale – means of aggregated scores.

<p>SMART Objective13</p> <p>By the end of each student group semester and the first post ANMHC implementation year, the clinical executive officer will review and report to stakeholders KCC-ANMHC qualitative and quantitative data on allied health students experience and overall satisfaction of clinical experience.</p>	<p>Allied health students rate clinical experience.</p>	<p>KCC Student Clinical Site-Survey Evaluation Tool</p>	<p>End of each student group semester and complied over the first post ANMHC implementation year.</p>	<p>Range data analysis.</p>
<p>SMART Objective14</p> <p>By the end of each student group semester and the first post ANMHC implementation year, the clinical executive officer will review</p>	<p>Allied health students rate preceptors.</p>	<p>Preceptor Evaluation Tool National Organization of Nurse Practitioners (NONPF)</p>	<p>End of each student group semester and complied over the first post ANMHC implementation year.</p>	<p>Range data analysis.</p>

<p>and report to stakeholders KCC-ANMHC qualitative and quantitative data on allied health students experience and overall satisfaction of clinical experience.</p>		<p>Survey</p>		
<p>SMART Objective 15 By the end of each student group semester and the first post ANMHC implementation year, the clinical executive officer will review and report to stakeholders KCC-ANMHC qualitative and quantitative data on preceptor experience and self-rated contribution to students, community and college.</p>	<p>Preceptor of Allied Health Students rate ANMHC contributions to own nursing, students, community and college.</p>	<p>National Nursing Centers Consortium (NNCC) Preceptor Surveys</p>	<p>End of each student group semester and compiled over the first post ANMHC implementation year.</p>	<p>Focused qualitative questions with content analysis.</p>

## Appendix F

### KCC-ANMHC Project Timeline Pre-and-Post-Implementation

TASK	DATE BY SEMESTER & YEAR
KCC Needs Assessment	Fall, 2010- Complete
PICO	Fall, 2013- Complete
Literature Review and Synthesis	Fall, 2013- Complete
ACH-NCHA Survey	Spring, 2016
Stakeholder Meetings - MAP-IT	Spring 2016- Fall 2016
Networking	Spring 2013- Continuous
Launch Site Location Search	Fall 2015- Potential space identified not secured.
Descriptive and Strategic Planning Process	Fall 2013- Fall 2015- Proposed
Data Collection and Analysis Plan	Fall 2014- Fall 2015- Proposed
Successful Proposal Defense	Summer 2015- Complete
Stakeholder Collaboration	Fall 2013- Continuous
Determination of Organizational Umbrella	Fall 2015- Proposed
Governance Options Identified	Fall 2015 -Proposed
SWOT Analysis	Fall 2015- Proposed for Spring 2016
Budget Plan	Fall 2015- Proposed
Health Care Plan Options	Fall 2015- Proposed
Business Plan	Spring, 2015-Proposed
Quality Improvement Plan	Fall 2015- Proposed
Write Strategic Plan Chapter 4	Fall 2015- Complete
Stakeholder and Users Planning Meetings	Spring 2016 and ongoing

TASK	DATE BY SEMESTER & YEAR
Written & Oral Final Proposal Defense	Fall (November) 2015
Graduation	Fall (December) 2015
Mobilize Strategic Plan for Adoption	Fall 2016
Adopt Strategic Plan	Fall 2016
Prepare for Implementation of strategic Plan	Spring 2017
Implement Practice Change	Spring 2017
Collect Post Implementation Data Uniform Data System (UDS), Healthcare Effectiveness Data and Information Set (HEDIS), Wellness Health Promotion Report Cards (WHP), Financial Planner, Medical Outcomes Trust Survey, Preceptor Evaluation Tool National Organization of Nurse Practitioners (NONPF) Survey, Preceptors Rating of Self Survey.	Dates identified per Data Collection Table to begin with implantation phase of clinic.
Evaluate Data	Spring 2017 with ANMHC opening - continuous.
Analyze Data	Per Data Collection Tools. 6 months- yearly
Interpret Data	Per Data Collection Tool 6 months- yearly
Revisit, Adjust, Modify, Plan	Spring 2017 post implementation
Ongoing Quality Performance Improvement	Continuous from project's conception

## Appendix G

### Student Objective & Health Impediment to Academic Performance Example Question

(American College Health Association, 2010)

**AI-1.1** Reduce the portion of students who report that their academic performance was adversely affected by stress in the past 12 months.

**Baseline:** 27.4 percent of students reported that stress adversely affected their academic performance in the past 12 months in spring 2016.

**Target:** 24.7.

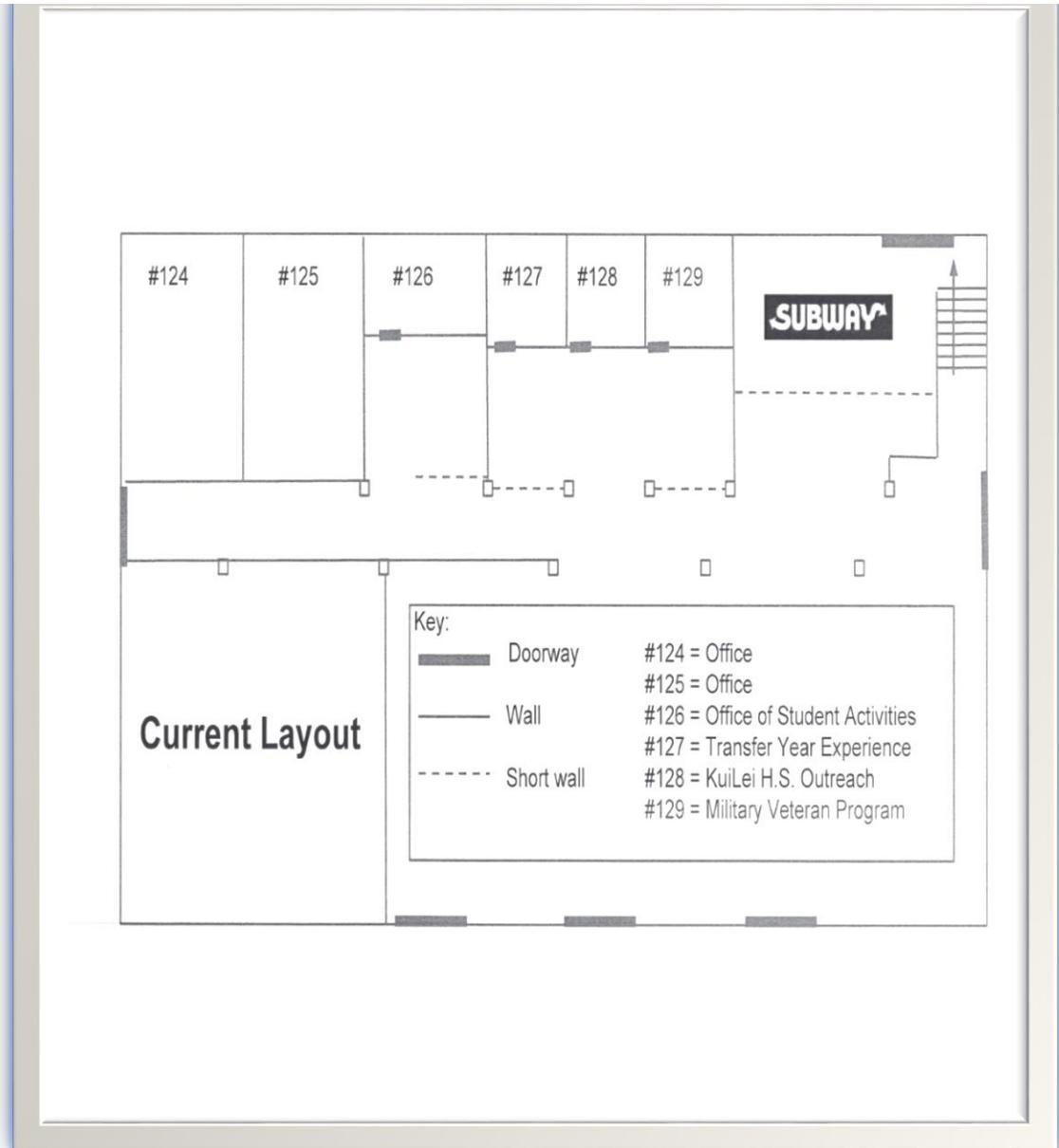
**Target-setting Method:** 10 percent improvement.

**Data Source:** American College Health Association – II (ACHA-NCH II), Question 45D5.

**More Information:** Adverse academic performance is defined as: receiving a lower grade on an exam or an important project; receiving a lower grade in a course; receiving an incomplete or dropping a course; or experiencing a significant disruption in thesis, dissertation, research, or practicum work.

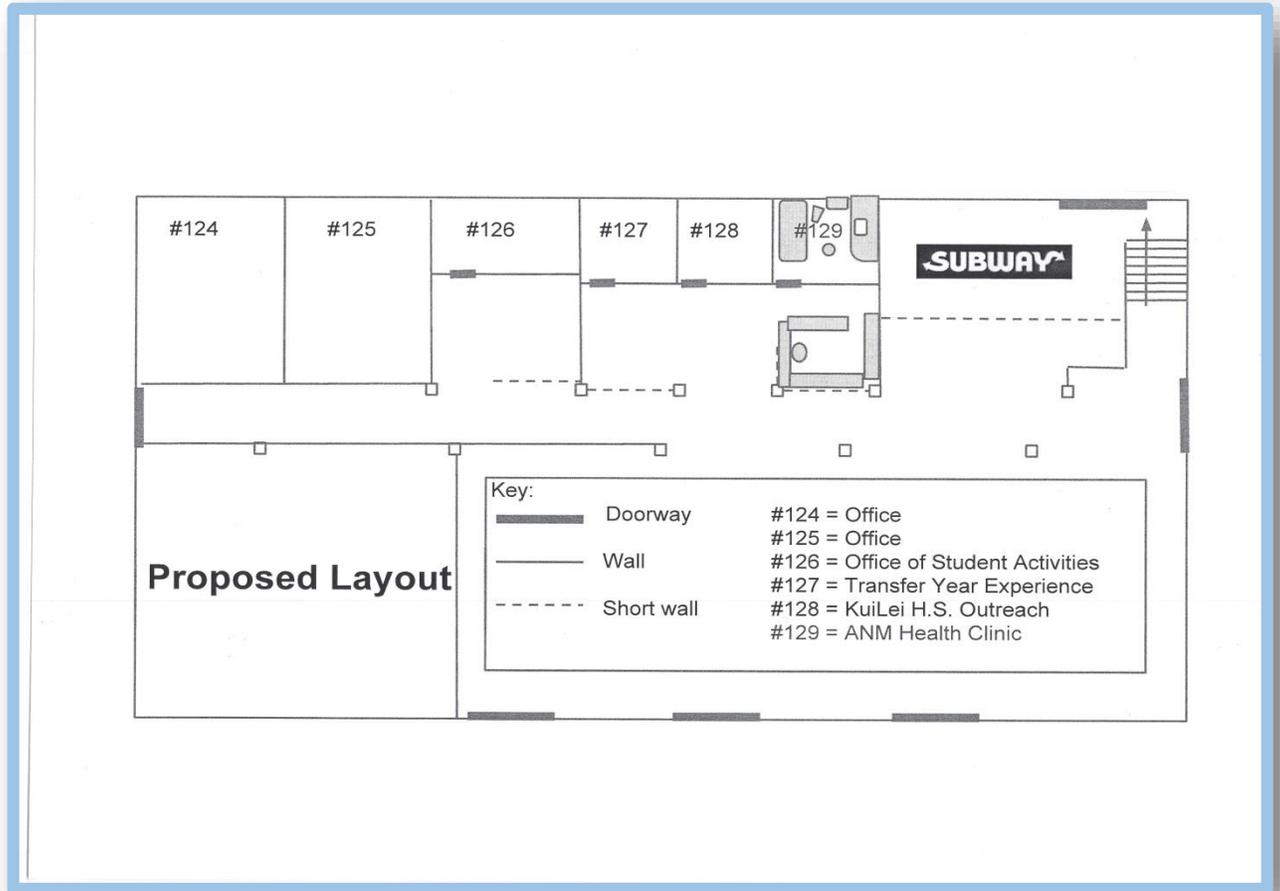
## Appendix H

### Clinic Site – Current Layout



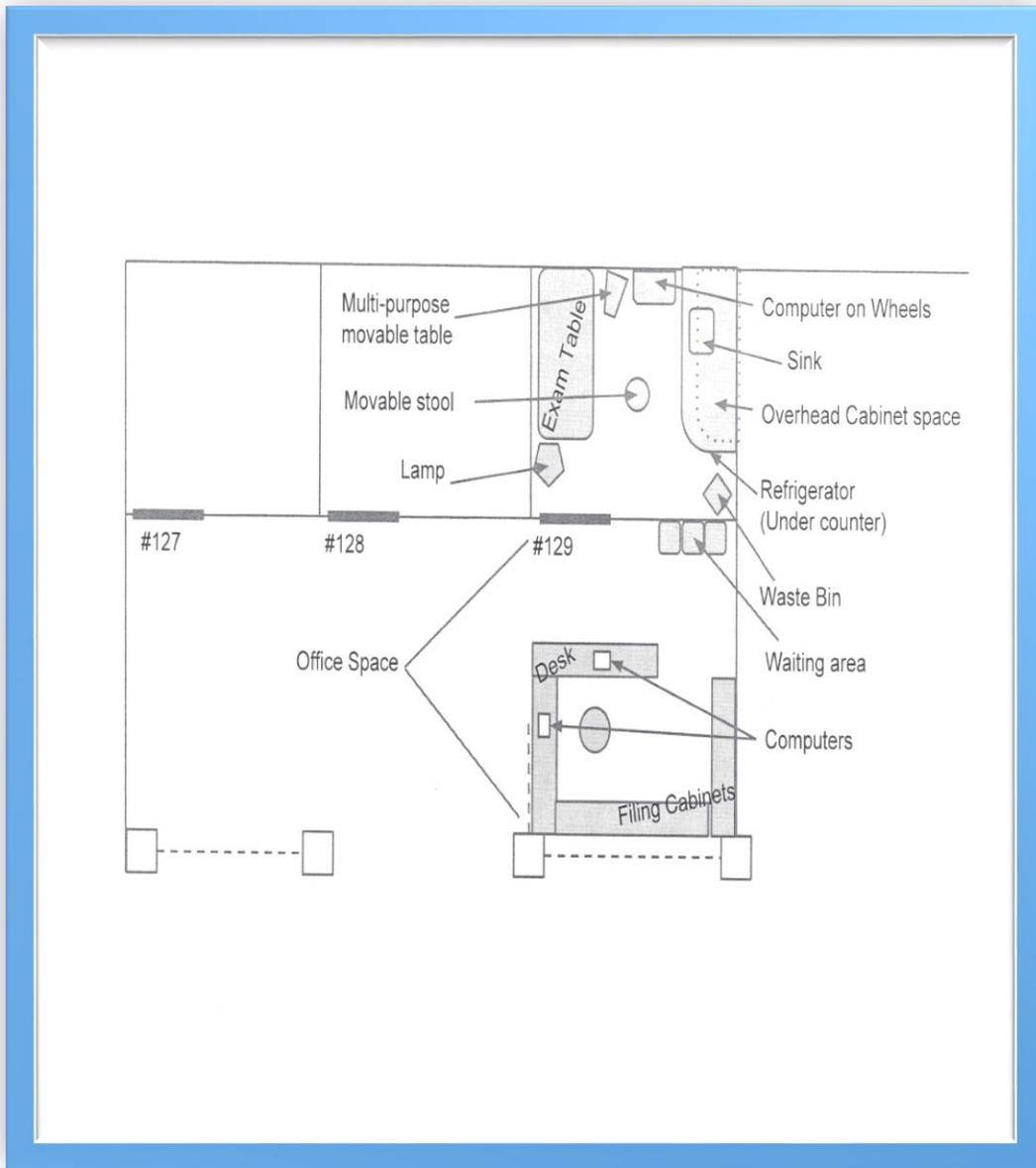
# Appendix I

## Clinic Site - Proposed Layout



## Appendix J

### Clinic Site – Proposed Floor Plan Layout



## **Appendix K**

### **KCC ANMHC- Student Health Center Patient Care Services**

Take advantage of FREE or low cost medical services offered at the Student Health Center.

All services are confidential\*.

Basic medical care.

Episodic (short term) medical care.

First aid for injuries.

Physical exams.

Women's health exams and information.

Medications; see Appendix ---- for list and prices.

Immunizations; see Appendix-----for lists and prices.

Birth control methods.

TB skin testing.

Vision and hearing screening tests.

Blood pressure screening.

Orthopedic supplies.

Weight loss/management.

Smoking cessation.

Social services.

Mental health therapists.

Drug and Alcohol services.

Wellness and health information.

Information on health insurance options.

Referrals to community health care providers (specialists, primary care, radiology, urgent care, emergency care as indicated).

Referrals to community agencies.

## Appendix L

### Free Preventive Services Covered under the Affordable Care Act- Section 2713

If students have a new health insurance plan or insurance policy beginning on or after September 23, 2010, the following preventive services must be covered without a copayment or co-insurance or meet the deductible. This applies only when these services are delivered by an in-network provider.

#### *Covered Preventive Services for Adults in Bold*

- **Abdominal Aortic Aneurysm**- on time screening for men of specific ages who have ever smoked.
- **Alcohol Misuse** screening and counseling.
- **Aspirin** use for men and women of certain ages.
- **Blood Pressure Screening**
- **Cholesterol Screening** for adults of a certain ages or at high risk.
- **Colorectal Cancer Screening** for adults over 50
- **Depression Screening**
- **Type 2 Diabetes Screening** for adults with high blood pressure.
- **Diet Counseling** for adults at higher risk for chronic disease.
- **HIV Screening** for all adults at higher risks.
- **Obesity Screening and counseling.**
- **Sexually Transmitted Infection (STI)** prevention counseling for adults at higher risk.
- **Tobacco Use Screening** for all adults and cessation interventions for tobacco users.
- **Syphilis Screening** for all adults at higher risk.

Immunization Vaccines Available - doses, recommended ages, and recommended populations vary; see Appendix L for prices.

- Hepatitis A

- Hepatitis B
- Herpes Zoster
- Human Papillomavirus
- Influenza
- Measles, Mumps, Rubella
- Meningococcal
- Pneumococcal
- Tetanus, Diphtheria, Pertussis
- Varicella

Source: <http://www.healthcare.gov/news/factsheets> (2014)

## Appendix M

### KCC AMNHC Lab, Immunization & Medication Price List 2015

Service	Price
Blood Sugar (Glucose) finger stick test	FREE
Condoms	FREE
Cryotherapy	\$10.00
Ear irrigation	\$5.00
Fecal occult blood test	FREE
Nebulizer treatment for asthma	\$4.00
Nutrition assessment	FREE
Ortho supplies	varies
OTC medication samples	FREE, unless noted
Phlebotomy (blood draw)	FREE
Physical Exam (Basic)	\$31.00
Physical Exam (Complex)	\$42.00
Pregnancy test (urine)	\$7.00
Smoking Cessation	FREE
Quick View Strep A test	\$7.00
Suture removal	FREE
Thermometers	\$2.00
TB skin tests	\$5.00
Urine dip urinalysis test	FREE
Well woman exam (annual exam)	\$15.00
Weight loss/management	FREE

Lab Test	Price
ABO/Rh (blood type)	\$9
Complete Blood Count (CBC)	\$9
Complete Metabolic Profile (CMP)	\$13
Gonorrhea/Chlamydia	\$80
HCG beta subunit qualitative pregnancy test (serum)	\$9
Hepatitis B Surface Antibody titer (Quantitative)	\$12
Lipid profile	\$14
Measles, Mumps, Rubella titers (combo)	\$45
Measles (Rubeola) IgG antibody titer	\$15
Mumps IgG antibody titer	\$15
Pap smear (Thin Prep)	\$23
Pap with reflex HPV	\$40
RPR (Syphilis test)	\$5
Rubella IgG antibody titer	\$16
Sedimentation Rate (ESR)	\$4
Thyroid Stimulating Hormone	\$19
Urinalysis, Routine	\$4
Urine Culture and sensitivity	\$39
Varicella (chicken pox) IgG antibody titer	\$15
Wound culture	\$39

We accept lab requisitions from outside providers, or you may make an appointment with you Nurse Practitioner to discuss and request specific lab tests. Labs will be sent out by the clinic to Clinical or Diagnostic laboratory. Payments must be made at the time of appointment.

### **Immunization Prices**

Immunization	Price
Hepatitis B	\$38.00
Influenza (seasonal)	\$16.00
HPV **(Human Papilloma Virus, Gardasil)	\$140.00
Tdap* (Tetanus, Diphtheria, Pertussis)	\$34.00

- Prices subject to change without notification
- Please inquire about eligibility for the OCHCA free immunization program
- Please inquire about eligibility for the Merck free immunization program for both males and females
- Varicella vaccine not available- Please call for referral

### Medication Prices

The health center sells low-cost medications that are prescribed a by a Nurse Practitioner provider. Prices and availability are subject to change.

- Albuterol Sulfate Inhalant Solution (Nebulizer Tx) \$4.00
- Amoxicillin 500mg, #30 \$ 7.00
- Cephalexin (Keflex) 500mg, #40 \$8.00
- Ciprofloxacin 250mg, #6 \$3.00
- Ciprofloxacin 500mg, #6 \$3.00
- Ear Wax Treatment Drops \$3.00
- Lidocaine Viscous 2% 100ml \$6.00
- Metronidazole (Flagyl) 500mg #14 \$9.00
- Naproxen (Naprosyn, Aleve) 500mg, #20 \$4.00
- Next Choice (“Morning–after-pill”) \$15.00
- Sudafed (Pseudoephedrine) 30mg (Must log in) \$No charge
- Tetrahydrozoline .05% O.S. (OTC eye drops) \$4.00
- Tobramycin (Tobrex) 0.30%, 5ml \$10.00
- Trimeth/Sulfa (Bactrim) #6 \$2.00
- Trimeth/Sulfa (Bactrim) #28 \$15.00

- Ventolin 60 puffs \$22.00
- Zithromax (Z-Pac) 250mg, #6 \$6.00

There are nominal student fees for the following:

BIRTH CONTROL	\$5.00 per pack
TITERS	\$10.00-\$45.00
TDap	\$45.00
Hep B Series (3 Injections)	\$35.00 each or 3/\$90.00
COPIES OF RECORDS	\$10.00
CONDOMS	FREE
REPEAT TB SKIN TEST (for any reason)*	\$10.00
REPEAT STD Testing*	\$50.00

\*UNLESS CLINICALLY INDICATED

## Appendix N

### Economic Projected Start-up Position

#### Projected Start Up Position

##### Fixed Income Sources



Fees \$35 per student x 8000 students	\$280,000
Grant	\$20,000
<b>Total Income</b>	<b>\$300,000</b>
<b>Start UP Expenses</b>	
Non Medical Equipment	\$4,700
Medical equipment	\$11,702
Lab Supplies	\$988.
Cleaning and Toiletries	\$185
Marketing Expenses	\$1,120
<b>Total Expenses</b>	<b>\$18,695</b>

## Appendix O

### Economic Projected Yearly Income Statement

#### Projected Yearly Income Statement

Revenue	
New Patients	\$208,550
Established Patients	\$120,250
Minute Visit	\$145,300
<b>Total Revenue</b>	<b>\$474,100</b>
Expenses	
Cost of pharmacy and Vaccines	\$95,000
Payroll	\$135,080
Non Medical Equipment	\$3,600
Medical equipment	\$1,794
Lab Supplies	\$674
Cleaning and Toiletries	\$920
Marketing Expenses	\$100
Utilities, Travel, Insurance, Fees	\$ 11,580
<b>Total Expenses</b>	<b>\$248,748</b>
<b>Net Income</b>	<b>\$225,352</b>

## Appendix P

### Economic Return on Investment

# Return on Investment

Discount Rate			5%	1205%
YEAR		Amount	PV	PV
0	Initial Investment	-18,695	-18,695	-18,695
1	Cash Flows	225,352	214,621	17,270
2		225,352	204,401	1,324
3		225,352	194,668	101
	NPV		\$ 594,994	\$ 0.00
	IRR		1205%	

## Appendix Q

### Electronic Health Records (EHR) and Vendors

Electronic Health Records (EHR)	
What is it?	Is a mechanism to collect electronic health information about individual patients and populations for the purpose of improving quality of care. Gunter, T. D., & Terry, N. P. (2005)
How many EHRs are available?	As of 2014, there are 22,059 Validated Survey Responses by EMR EHR In Use or Under Implementation. Black Book Ranking 2014 survey

5 of the Top 16 Primary Care EHR Vendors					
	Practice Fusion	Allscripts Professional	Nexgen	Athenahealth	eClinicalWorks
<b>EHR cost per provider</b>	Free	\$700+/month	\$599+/month	7% of claims and \$250+/month	\$375+/month
<b>Implementation fee</b>	Free	\$3,000	One-time fee of \$1600/provider	Monthly contract cost includes implementation	\$7,000

5 of the Top 16 Primary Care EHR Vendors (continued)

<b>Contract length and termination fee</b>	No contracts, no termination penalties	5 year contract, early termination penalty	Monthly contract, no termination penalty	Monthly contract, no termination penalty	5 year contract, \$7k termination penalty
<b>Setup time</b>	Get started in minutes	1+ month	2+ months	2+ months	3+ months
<b>Lab and imaging integrations</b>	Free	Monthly fee	Monthly fee	Monthly fee	Additional cost per connection
<b>e-Prescribing</b>	Free	No	Monthly fee, cost to set up	Monthly fee	Monthly fee
<b>Free automatic updates</b>	Yes	No	Monthly fee, cost to set up	No	No
<b>Free support and training</b>	Yes	yes	No	No	No
<b>Meaningful Use certified 2014</b>	Yes	Yes	Yes	Yes	Yes
<b>Integrated billing</b>	Yes	Monthly fee	Yes	Yes	Yes
<b>Patient portal with secure messaging</b>	Free	Monthly fee	\$1200 set up, \$300 to maintain	Monthly fee	Monthly fee

Practice Fusion, (2015)

Based on this research it is recommended to use Practice Fusion as the primary Electronic Health Record (EHR) of the proposed ANMHC. As the programs website claims “it connects the complex ecosystem of medical professionals, patients, labs, billers, imaging centers and life science partners” (Practice Fusion, 2015). As the next generation is becoming more mobile users, Practice Fusion will be used by KCC students’ to book appointments, and complete a pre-visit intake. During the student health and wellness appointment, the provider can chart, order prescriptions and labs, and send referrals. After the visit, providers are able to do a variety of important tasks such as receive health reminders, view labs, enter health history and fill prescriptions. Practice Fusion is very user friendly and easy to set up. It is one of the largest cloud-based EHR’s in the United States, so there is nothing to install or save to the computer. Practice Fusion is Health Insurance Portability Accountability Act (HIPAA).

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## Appendix R

ICD-10	
Questions?	Answer
What does ICD-10 stand for?	<p>It is the standard diagnostic tool for epidemiology, health management and clinical purposes. The name of the tool is International Classification of Diseases (ICD) and it is 10th the version. Hence, ICD-10.</p> <p style="text-align: right;">(ICD, 2015).</p>
What it is used for?	<ul style="list-style-type: none"> <li>- For reimbursement and resource allocation decision-making.</li> <li>- To classify diseases and other health problems recorded on many types of health and vital records.</li> <li>- Enables the storage and retrieval of diagnostic information for clinical, epidemiological and quality purposes.</li> </ul> <p style="text-align: right;">(ICD, 2015)</p>
Who uses it?	<ul style="list-style-type: none"> <li>- Nurses</li> <li>- Physicians</li> <li>- Other providers</li> <li>- Researchers</li> <li>- Health information managers and coders</li> <li>- Health information technology workers</li> <li>- Policy-makers</li> <li>- Insurers</li> <li>- Patient organizations</li> </ul> <p style="text-align: right;">(ICD, 2015)</p>
What are the most common reasons college students seek care? [ICD-10 Code]	<p>Respiratory Infections</p> <ul style="list-style-type: none"> <li>- Advice for self-care for colds, coughs, and sore throats [J11.1]</li> <li>- Influenza/H1N1 [J09.X2]</li> </ul> <p>Sexually Transmitted Infections (STI)</p> <ul style="list-style-type: none"> <li>- Self-directed STI testing</li> <li>- HIV Testing by a peer test counselor</li> <li>- Making a nurse appointment at Student Health Center</li> <li>- Testing for Sexually Transmitted STIs</li> <li>- Herpes information</li> <li>- Genital Warts</li> </ul> <p>Contraception</p> <ul style="list-style-type: none"> <li>- Combined oral contraceptives</li> <li>- Depo-Provera</li> </ul>

	<ul style="list-style-type: none"> <li>- Progesterone only pills</li> <li>- Vaginal contraceptive ring</li> </ul> <p>Emergency Contraception</p> <ul style="list-style-type: none"> <li>- Plan-B Over the counter prescription</li> </ul> <p>Women’s Annual Exam and pap smear</p> <p>Nausea, Diarrhea, Vomiting</p> <ul style="list-style-type: none"> <li>- Gastrointestinal Diet</li> </ul> <p>Skin Rash</p> <ul style="list-style-type: none"> <li>- Methicillin Resistant Staphylococcus Aureus (MRSA)</li> </ul> <p>Urinary Tract Infection (UTI) [O86.20]</p> <p>Vaginal Infections</p> <p>Fatigue</p> <ul style="list-style-type: none"> <li>- Infectious Mononucleosis</li> </ul> <p>Anxiety, Depression, Insomnia</p> <p>Injuries</p> <ul style="list-style-type: none"> <li>- Wound Care instructions</li> </ul> <p>Eating Disorders</p> <p style="text-align: right;">(University of California Santa Cruz, 2015)</p>

References

International Classification of Diseases (ICD). (2015). Retrieved July 8, 2015, from <http://www.who.int/classifications/icd/en/>

University of California Santa Cruz. (2015). Retrieved July 9, 2015, from <http://healthcenter.ucsc.edu/information/common-reasons.html>

## Appendix S

### Next Steps

#### Assess

##### **Stakeholders will:**

- Assess campus needs and assets (resources) to get a sense of what is realistic to accomplish. Both the physical and intangible organization resources will be identified utilizing the Healthy Campus 2020 tool: Brainstorm: Campus and Community Assets Worksheet (American College Health Association, 2012).
- Assess potential health center site locations as this determination will need to be made as rapidly as possible; see page 80, Appendix L, M, N. This critical step will support many other following key decisions such as what equipment, supplies, budgets and services are feasible in a determined amount of space. Alternatively if the Campus does not allocate a space for the student health center then the best of plans will not get implemented and there will not be a health center.
- Assess strategies to form a campus committee of invested administrators, stakeholders, and students willing to work together as a coalition to set strategic plan priorities for the ANMHC.
- Assess and discuss the feasibility, effectiveness, measurability, and relevance to your institution's mission as you discuss what issues are important to campus leadership and community organizations.
- Assess and discuss baseline project data with ANMHC stakeholders such as the Needs Assessment in 2010 (see Appendix W).
- Issues will be prioritized utilizing the Healthy Campus 2020 tool: Prioritizing Issues Worksheet (American College Association, 2012).
- Administer an online web based student health assessment in fall 2016 utilizing the American College Health Association (ACHA) – National College Health Assessment (NCHA) to collect data about KCC students' health habits, behaviors, and perception. NCHA addresses a wide variety of topics relevant to college students' health such as substance use, sexual health, nutrition and weight and

domestic violence. The survey contains approximately 300 questions and takes about 30 minutes for students to complete.

- Access health status and health problems, risks and protective behaviors, access to health information, impediments to academic performance, and perceived norms across a variety of contents utilizing the ACHA-NCHA College Health Assessment Survey. The ACHA will provide KCC with the raw survey result data, an Institutional Report across all subjects, and by sex that highlights salient issues. The report presents frequency distributions for each variable. Results take about 6 weeks and the cost for ACHA members is \$.043 a survey so a randomized contact list of 4000 KCC students will cost \$1,720.

### **Activities**

#### **Plan**

##### **Stakeholders will:**

- Plan an informational meeting on KCC campus with Campus Leaders, the Healthy Campus 2020 Committee, students and other interested Stakeholders.
- Educate Stakeholders about Academic Nurse Managed Student Health Clinics and implications so they are informed and understand the foundation and principles of which important decisions will need to be made. This discussion will include both the characteristic of innovation; as well as practice change activities (see Table 3).
- Convene a second meeting will then be planned to discuss and determine the corporate status/organization umbrella the Student Health Center will operate under. This critical decision will set the stage for moving forward in all aspects of the development of the clinic.
- Determination will need to be made as to the type of Board. A governing board for independent organizations or an advisory board where the center will operate under another organization/umbrella such as Health Science or the Office of Student Affairs. The Board will be created early in the process of developing the health center to guide decision making.

- Plan a SWOT Analysis with Stakeholders to gain their perspective on DNP project Strengths, Weakness, Opportunities, and Threats (American College Association, 2012).
- Utilize a series of Healthy Campus 2020 Tools will provide the framework in which to further identify ANMHC priorities and mobilize action:
- Acquire stakeholder agreement on the proposed students health centers vision, mission and goals and priorities as identified in Chapter 4.
- Generate a broad list of campus and community partners utilizing the Healthy Campus 2020 tool: Brainstorm Potential Partners Worksheet (American College Association, 2012).
- Identify the roles and responsibilities KCC would like potential partners to undertake will be created utilizing the Healthy campus 2020 tool: Brainstorming Community Assets Worksheet (American College Association, 2012).
- Invite the agreed to representatives to join the KCC Student Health and Wellness Center coalition and meet to discuss cooperation and collaboration.
- Encourage an early decision as to whether the organization will seek accreditation. As specific accrediting body guidelines may influence other ANMHC factors of consideration.
- Investigate working in partnership with the University Health Services at Mānoa.
- Stakeholders will develop a plan with clear objectives and specific action steps to achieve them based on returned data from the ACHA-NCHA survey.
- Stakeholders will consider opportunities for intervention, particularly intervention points that have potential for broad reaching and high impact UHCC strategic outcomes.
- Stakeholders will choose ANMHC objectives that are challenging yet realistic by utilizing the Healthy Campus 2020 tool: Defining Terms: Vision, Goal, Objective, and Strategy Worksheet (American College Association, 2012). Each objective needs a baseline and a target measure. Stakeholders will establish student objective baselines using KCC campus-specific data from the ACHA-NCHA survey with return of ACHA-NCHA survey results.

- Stakeholder will identify targets from the national Healthy Campus 2020 target; if KCC's baseline data is different than national baseline data, an improvement rate and target will be set based on KCC's campus' baseline data. Healthy Campus 2020 Tools: Potential Health Measures Worksheet, and Setting Targets for Objectives Worksheet (American College Association, 2012).
- Stakeholders will complete the selection of Healthy Campus 2020 objectives, established our baseline, and set targets, stakeholders will need to select strategies to achieve the objectives.
- Stakeholders will review the DNP projects Strategic Plan for best practices, tested interventions and recommendations and engage members in a strategy brainstorm to come to agreement on the foundational frameworks of the ANHC.

### **Implement**

\*A pre and post implementation timeline has been created (see Appendix F).

- Stakeholders will continue to build a detailed work plan that includes concrete action steps assigned to specific people with clear deadlines and/or timelines.
- Stakeholders will share responsibilities across committee members but will identify a person as a single point of contact to manage the process to ensure that things get done.
- Stakeholders will check in with committee members by using the Healthy 2020 Tool Coalition Self-Assessment Worksheet to see if your process is running smoothly (American College Association, 2012).
- Stakeholders will develop a communication plan using a kick off campus meetings and talk with passion about what has been learned through this DNP project showcasing the innovation as critical, present knowledge, possibilities and determine the potential goals to be accomplished.
- Stakeholders will utilize Healthy Campus 2020 Tool Communication Plan Template Worksheet to identify the audience, be specific to ensure campus and campus/community partner's staff informed (American College Association, 2012).

## Track

- ANMHC Pre-implementation Smart Objective 1 through 4 and Smart Objectives 6 through 8 have been completed (see Appendix E).
- ANMHC Objective 5 Stakeholder educational in-services on DNP project findings will be rescheduled for spring 2016 (see Appendix E).
- ANMHC Post-implementation Smart Object 7 through 15 will be implemented once ANMHC is open (see Appendix E).
- ANMHC Project Timeline both pre and post implementation has been established and will continue to be updated as indicated by both stakeholder need and acceleration speed of project (see Appendix F).
- ANMHC planned evaluations will be set to measure and track the ANMHC progress over time. Evaluations will help Stakeholders to determine if the plan is effective toward meeting our goals utilizing Healthy Campus 2020 Tool: Measuring Progress;
- ANMHC Uniform Data Systems (UDS) will post Student Health and Wellness Center data as a core set of information to be collected with each patient visit and used to the operations and performance of the health center. The 2012 UDS Nurse Managed Health Clinics at a Glance gives a snap shot of the 27 NMHCs that provided services to 32,649 patients in 2012. The UDS provides national data on NMHC quality of care, clinical performance and cost effectiveness across clinics in a given year (UDS, Uniform Data Systems, 2012).
- ANMHC Healthcare Effectiveness Data and Information Set (HEDIS) is a quality assessment tool to elevate board clinical performance of 80 measurements of care and services across eight domains. Post ANMHC implementation HEDIS data is quarterly for one calendar year and reevaluate.
- ANMHC ACHA- NCHA survey results directly correlate to Healthy Campus 2020 Student Health Impediments to Academic Performance (American College Association, 2012).
- These objects identifies the issue, the baseline, the target, target setting method, data source of specific ACHA-NCHA survey questions and a more information category. Which in turn would allow KCC to collect and track data not only on the health and

needs of the students but also data to evaluate health related strength and limitations to meeting the UHCC Strategic Directions of engagement, learning, and achieving success. This information would allow us to set benchmarks for improvement. An example of the NCHA Student Objectives; Health Impediment to Academic Performance is posted (see Appendix M).

- ANMHC progress, success and limitations to be shared with the KCC campus community.

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