

Maui Community College

Nursing Program Review

2006

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**Maui Community College Career Ladder Nursing Program
Program Review 2006**

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MAUI COMMUNITY COLLEGE
2006 Annual Assessment Report
Career Ladder Nursing Program

College Mission Statement

Maui Community College is a learning-centered institution that provides affordable, high quality, credit and non-credit educational opportunities to a diverse community of lifelong learners.

Program Mission Statement

The nursing program is committed to providing an educationally sound, comprehensive program of study which recognizes the trends in health care delivery that indicate increased complexity and variation in future health care settings and environments.

Table I, p 2-3 compares the University of Hawaii, Maui Community College, and the Maui Community College Nursing Program philosophy.

The Nursing Career Ladder program serves the following broad purposes:

1. To provide individual counseling pre-enrollment and throughout the program to encourage student to achieve their maximum capacity as they progress in the Nursing Career Ladder.
2. To prepare highly qualified nurse aide, practical nurse, and associate degree nursing graduates who are successful on the certifying or licensing exam, and meet employer expectations.
3. To respond to community and statewide needs for continuing education for graduate nurses and other health care providers.
4. To provide leadership in Maui County as the community responds to the changing health care environment.

Table 1
Maui Community College Nursing Program
Comparison of Mission and Goals

University of Hawaii System	Maui Community College	MCC Nursing Program
<p>Mission: The mission of the UH system is to provide quality college and university education and training; create knowledge through research and scholarship; provide service, through extension, technical assistance, and training; contribute to the cultural heritage of the community, and respond to state needs.</p>	<p>Mission: Maui Community College is a learning-centered institution that provides affordable, high quality credit and non-credit educational opportunities to a diverse community of lifelong learners.</p>	<p>Excerpts from MCC Nursing Program Philosophy: The nursing program is committed to providing an educationally sound, comprehensive program of study which recognizes the trends in health care delivery that indicate increased complexity and variation in future health care settings and economics.</p>
<p>Core values: Hawai'i's gracious spirit of aloha; collaboration and respect; academic freedom and intellectual vigor; institutional integrity and service; access, affordability, and excellence; active learning and discovery; diversity, fairness, and equity; leveraged technology; Hawaiian and Asian-Pacific advantage; innovation and empowerment; accountability and fiscal integrity; and mālama 'āina sustainability.</p>	<p>Vision: We envision a world-class college that meets current & emerging Maui County education & training needs through innovative, high-quality programs offered in stimulating learning environments & guided by the Native Hawaiian reverence for ahupua'a, a practice of sustaining & sharing diverse but finite resources for the benefit of all.</p>	<p>Maui Community College nursing program provides Maui County and other geographic locations with highly qualified practical and registered nurses...the nursing program remains responsive to community needs by providing basic nursing education and continuing education for graduate nurses... We believe that health care settings or places in which care is delivered are increasingly community based.</p>

University of Hawaii System	Maui Community College	MCC Nursing Program
<p>The purpose of the University of Hawaii is to pursue knowledge through teaching, learning, and research in an atmosphere of physical and intellectual freedom. In order to fulfill this purpose, members of the academic community on all campuses engage in teaching, learning, research, and service and assist one another in the creation and maintenance of an environment that supports these activities.</p>	<p>Maui Community College believes it is equally important that students develop an appreciation of ethical principles, interpersonal skills, arts and humanities, and an awareness of civic and social responsibilities. Respect and appreciation of cultural diversity will be fostered through an understanding of historical, global, regional, and local perspectives.</p>	<p>The Maui Community College Career Ladder Nursing Program philosophy builds on the basic liberal arts, behavioral and natural sciences. Knowledge is applied through development of critical thinking skills.</p>
<p>The digital age brings profound implications University of Hawaii will be a leader in applying information technology in ways that transform higher education</p>	<p>Through distance learning technology, interactive television, and the internet MCC provides educational opportunities for all who live in Maui County.</p>	<p>The nursing program facilitates a variety of opportunities necessary for students with diverse abilities backgrounds and learning styles to demonstrate the knowledge attitudes and skills that are basic to the practice of nursing utilizing current available technologies.</p>

Part I. Quantitative indicators for Program Review

Demand/Efficiency

1. Current and projected positions in the occupation'

Government publications, healthcare literature, and popular media identify and describe current and projected shortages of nurses, and of nursing faculty. The shortage of nursing personnel is predicated at all levels:

Nurse aide/personal care attendants-long term care and home care
Practical nurses-long term and ambulatory care
Registered nurses-long term, home care, acute care, leadership and nursing education

2. Annual new positions in the State.

The U.S. Department of Labor Bureau of Labor Statistics predicts a need for one million new or replacement nurses by 2012. In a revised projection for full-time equivalent RNs in Hawaii, the U.S. Department of Health and Human Services National Center for Health Workforce Analysis projects a shortfall of more than 35% or 4,593 RNs in Hawaii by 2020 (U.S. Department of Health and Human Services, 2002).

Table II
Supply & Demand Projections for FTE RNs in Hawaii

Year	FTE Supply	FTE Demand	Sup - Demand	Shortage
2000	7237	8278	-1041	-12.6%
2005	7650	9168	-1518	-16.6%
2010	7922	10,189	-2267	-22.3%
2015	8052	11,402	-3350	-29.4%
2020	8239	12,832	-4593	-35.8%

Bureau of the Census, Current Population Reports, Population Projections: States, 1995-2025; P25-1131, May 1997.

The Hawaii Center on Nursing in the document, predicts that by the year 2020 80% of Hawaii's nurses will retire and the number of individuals 60 and older will increase by 75%.

In response to concerns about age of nurses and future nursing shortage, representatives of the Maui Memorial Medical Center Management Advisory Committee (MAC) approached Maui Community College to discuss collaborative planning. Human Resources at the Hawaii Health System Corporation (HHSC) office on Oahu compiled data on ages of nurses in HHSC hospitals.

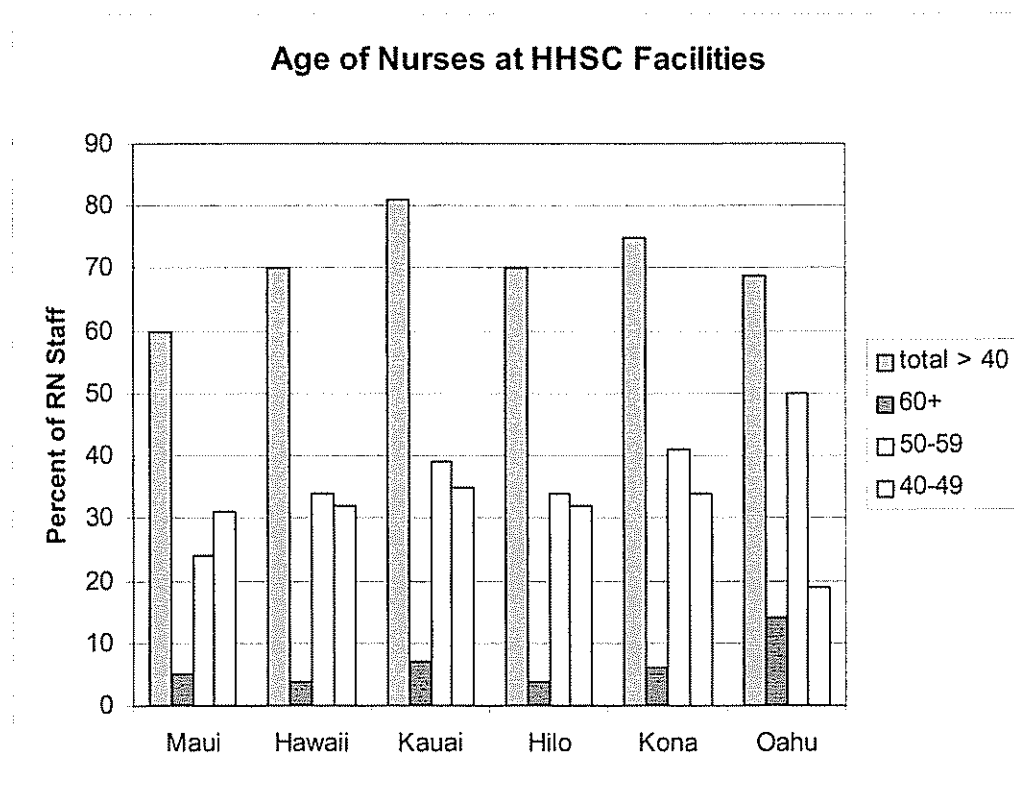


Figure 1. Age of Nurses in HHSC Facilities

Across all HHSC hospitals 70% of the registered nurse staff is age 40 and older, 37% is 50 and older and 7% is 60 years and older. This data has serious implications for a University System responsible for preparation of nurse in Hawaii. The average Hawaii student takes three to four years to complete an Associate of Science degree in nursing. A proposal to double enrollment in the Nursing Program is included in the action plans.

3. Number of applicants:

Maui Community College Career Ladder Nursing Program has more than four hundred applicants. Approximately 25% of the applicants do not achieve the English and Math prerequisite requirements. For fall 2006 Maui Community College had 120 qualified applicants for 40 spaces.

4. Number of majors: F05 PN 52 ADN 42

5. Student semester hours for program majors in all program classes: not available

6. Student Semester Hours for all program classes. F05 not available

7. FTE program enrollment Fall 2005 PN 52, A D N 42

8. Number of classes taught: PN: Fall-NURS 153/153L, 155/155L, 158
Spring-NURS 240/240L, NURS 156/156L
Summer-NURS 157/157L
A D N: Fall-NURS 253/253L, NURS 256/256L
Spring-NURS 255/255L, NURS 257/257L, NURS 258

9. Average class size: Theory classes team taught PN 40, A D N 40
Clinical sections 10 (Hawaii Board of Nursing Maximum)

10. Class fill rate: PN 76.9% A D N 86%

11. FTE of BOR appointed program faculty:
NA 1
PN 6
A D N 4
PN/A D N 2 (Psychiatric and pediatric faculty teach in both programs.)
Allied Health Dept Chair
Counselor 0.5

12. Semester credits taught by lecturers: not available

13. Percent of classes taught by lecturers: not available

14. FTE workload (Credits taught / full teaching load.) Note: Full teaching load is generally defined as 20 or 21 credits depending on program:

All nursing faculty are fully loaded. Due to faculty shortages no faculty members have received 5/4 workload reductions.

15. Major per FTE faculty: not available

16. Number of degree/certificates awarded in previous year by major:

PN Certificate of Achievement- 2005=49, 2006=45

Associate Degree in Nursing –2005=33, 2006=38

17. Cost of program per student major: not available

18. Cost per SSH: not available

19. Determination of program's health based on demand and efficiency (Healthy, Cautionary, Unhealthy)

Healthy

Outcomes Attainment of student educational goals

Table III
Maui Community College Registered Nurse Program
Enrollment and Student Outcomes

Year	Number Enrolled	Number Graduated	Retention Percent	Number Passed 1st Exam	Percent Passed 1st Exam	Total Percent Passed
1982-83	22	19	86%	18	95% ^	100%
1983-84	19	17	90%	17	100% ^	100%
1984-85	21	19	91%	19	100% ^	100%
1985-86	24	22	92%	22	100% ^	100%
1986-87	24	22	92%	19	86%	96%
1987-88	22	20	91%	16	80%	96%
1988-89	25	18	72%	14	78%	100%
1989-90	27	21	78%	20	95% ^	100%
1990-91	25	19	76%	19	100% ^	100%
1991-92	36	34	94%	29	85%	100%
1992-93	48	39	81%	38	97% ^	100%
1993-94	39	34	87%	27	79%*	97%
1994-95	26	24	92%	22/23 tested	96% ^	100%
1995-96	36	30	83%	26	87% ^	97%
1996-97	26	23	89%	18	78%#	90%#
1997-98	24	20	83%	16	80%#	100%#
1998-99	24	23	96%	20	87%# ^	100%#
1999-2000	26	23	88%	19	82%#	100%#
2000-2001	32	28	88%	28	79%#	96%#
2001-2002	36	33	92%	25	76%#	96%#
2002-2003	36	30	83%	23	77%#	97%#
2003-2004	22	20	91%	19	85%#	96%#
2004-2005	38	33	87%	31	94%#^	97%
2005-2006	42	38	91%	34 of 35 tested	97%#^	pending

Testing only available off island ^ Above National Average

Table IV
Maui Community College Practical Nurse Program
Enrollment and Student Outcomes

Year	Number Enrolled	Number Graduated	Retention Percentage	Number Passed 1st Exam	Total Percent Passed
1983-84	25	22	88%	22	100%
1984-85	24	21	88%	21	100%
1985-86	25	23	92%	22	100%
1986-87	24	18	75%	18	100%
1987-88	30	25	83%	25	100%
1988-89	33	26	79%	25	100%
1989-90	48	37	77%	33	100%
1990-91	40	34	85%	34	100%
1991-92	51	49	96%	45	96%
1992-93	50	42	84%	38	100%
1993-94	40	38	95%	35	97%
1994-95	50	45	90%	44/45 tested	100%
1995-96	40	35	88%	32	97%
1996-97	40	36	90%	30	97%
1997-98	40	34	85%	31	100%
1998-99	32	29	91%	29	100%
1999-2000	43	39	91%	37	97%
2000-2001	42	39	90%	39	97%
2001-2002	42	37	88%	34	97%
2002-2003	42	39	90%	37	97%
2003-2004	43	39	91%	38	97%
2004-2005	52	49	94%	48	98%
2005-2006	52	46	89%	100% 44 of 46 tested	pending

2. Persistence of majors fall to spring: See Table III and Table IV Enrollment and Student Outcomes
3. Graduation rate- See Table III and Table IV Enrollment and Student Outcomes
4. Transfer rates-
Approximately 25% of MCC Nursing graduates continue for the BSN. A number also continue for the MSN. Two MCC Associate Degree graduates, Denise Cohen and Carol Petith-Zbiciak completed the UH Manoa MSN program, became Certified Nurse Practitioners, and are currently nursing faculty at Maui Community College.
5. Success at another UH campus (based on GP A): This data has not been collected.
6. Licensure information where applicable: Table III and Table IV Enrollment and Student Outcomes
7. Perkins core indicators.

Table V Perkins II

	Perkins II Core Indicators PN	<i>Baseline</i>	<i>Performance</i>	<i>+/-</i>
1P1	Academic Achievement	81.56%	100.00%	+
1P2	Vocational Skills	91.53%	94%	+
2P1	Diploma/Equivalent/Degree/Credential	35.70%	28%	?
3P1	Placement: Employment	70.52%	0%	?
3P2	Retention: Employment	90.13%	na	-
4P1	Nontraditional Participation	15.94%	15%	-
4P2	Nontraditional Completion	14.34%	15%	+
	Perkins II Core Indicators ADN	<i>Baseline</i>	<i>Performance</i>	<i>+/-</i>
1P1	Academic Achievement	81.56%	100.00%	+
1P2	Vocational Skills	91.53%	100.00%	+
2P1	Diploma/Equivalent/Degree/Credential	35.70%	50%	?
3P1	Placement: Employment	70.52%	88%	+
3P2	Retention: Employment	90.13%	87%	?
4P1	Nontraditional Participation	15.94%	13%	+
4P2	Nontraditional Completion	14.34%	16%	+

? = incorrect data

8. Determination of program's health based on outcomes (Healthy, Cautionary, unhealthy)

Healthy

Part II. Assessment Results for Program SLOs

All five standards (critical thinking, oral communication, written communication, information technology, and quantitative reasoning.) are currently in place to assess student progress in the nursing program. Table VI Nursing Program Learning Outcomes and General Education Standards, describes the relationship between the standards and the nursing program learning outcomes.

Table VI
Nursing Program Learning Outcomes and General Education Standards

Nursing Program Learning Outcome	General Education Standard
Practical Nurse Program The PN graduate will identify signs of physical and mental health, normal growth and development throughout the life cycle, including the etiology and gross manifestations of common diseases and abnormal conditions.	Quantitative Reasoning Oral Communication
The PN graduate will demonstrate beginning critical thinking in using the nursing process to assess, diagnose, plan, implement, and evaluate the care provided to clients and client systems.	Critical Thinking
The PN graduate will demonstrate proficiency in implementing or delegating basic nursing skills including medication administration.	Quantitative Reasoning Information Technology Written Communication
The PN graduate will demonstrate caring behaviors, cultural sensitivity and will communicate therapeutically to meet the psychosocial needs of clients, client systems, and others.	Oral Communication
The PN graduate's practice of nursing will demonstrate a basic understanding of health promotion and disease prevention, as well as restoration of health and management of chronic conditions.	
The PN graduate will practice within the legal and ethical framework of nursing.	Oral Communication
The PN graduate will function in a collaborative manner as a member of the multidisciplinary health care team in the provision of cost effective health care.	Oral Communication Quantitative Reasoning

Nursing Program Learning Outcomes	General Education Standard
<p>The PN graduate will demonstrate beginning skill in a variety of communication techniques, including written documentation, in the process of assessment, counseling, and therapeutic intervention with clients and client systems.</p>	<p>Oral Communication Written Communication</p>
<p>The PN graduate will provide appropriate basic health care instruction to clients, client systems, and others in a variety of settings.</p>	<p>Oral Communication Written Communication</p>
<p>The PN graduate will use quantitative reasoning, access and interpret information obtained using a variety of technologies.</p>	<p>Quantitative Reasoning Information Technology</p>
<p>The PN graduate will assume responsibility for maintaining current practice, ongoing professional growth, and life-long learning.</p>	
<p>Associate Degree Nurse Program The ADN graduate will synthesize knowledge of physiological, psychosocial, sociocultural and developmental functioning of clients and client systems in assessment, planning, delivering and evaluating nursing care.</p>	<p>Quantitative Reasoning Oral Communication</p>
<p>The ADN graduate will exercise critical thinking in using the nursing process to plan and delivery of safe and effective nursing care for clients and client systems from all stages of the life cycle.</p>	<p>Critical Thinking</p>
<p>The ADN graduate will demonstrate proficiency in implementing or delegating nursing skills used in the delivery of safe nursing care.</p>	<p>Quantitative Reasoning Information Technology Written Communication</p>
<p>The ADN graduate will use a variety of communication techniques, including written documentation, in the process of assessment, counseling, and therapeutic intervention with clients and client systems.</p>	<p>Oral Communication Written Communication</p>
<p>The ADN graduate will develop and maintain therapeutic relationships that are based upon mutuality and respect, and take into consideration the health and healing practices, beliefs and values of the clients, client systems, and the community.</p>	<p>Oral Communication</p>
<p>The ADN graduate's practice of nursing will demonstrate professionalism, caring and compassion.</p>	<p>Oral Communication</p>
<p>The ADN graduate will develop and implement a variety of teaching-learning strategies in teaching clients and client systems for health promotion and disease prevention, as well as restoration of health and management of chronic conditions.</p>	<p>Oral Communication Written Communication</p>

Nursing Program Learning Outcomes	General Education Standard
<p>The ADN graduate will collaborate with the multidisciplinary team to manage care for individuals, families and groups of individuals in hospital, long-term care and community based settings where specified policies, procedures and guidance are available.</p>	<p>Oral Communication Written Communication</p>
<p>The ADN graduate will utilize quantitative reasoning and technology in the provision of nursing care and information management in a cost-effective manner.</p>	<p>Quantitative Reasoning Information Technology</p>
<p>The ADN graduate will practice within the legal and ethical framework of nursing.</p>	
<p>The ADN graduate will assume responsibility for maintaining current practice, ongoing professional growth, and life-long learning.</p>	

Student learning outcome are assessed in each course, during the nursing program, at the end of the nursing program and by employers in the month of May following graduation.

Table VI I Nursing Program Assessment Matrix outlines the assessment measures used. Table VIII compares nursing program student learning outcome results from 2005 with those for 2006.

Table 1
Nursing Program Assessment Matrix

Assessment Period	Quantitative Reasoning	Written Communication	Critical Thinking	Inform Retrieval & Technology	Oral Communication
Admission	COMPASS Math NLN Prenursing Math Score	COMPASS ENGLISH Score NLN Prenursing Test Verbal	Collegiate Assessment of Academic Proficiency	MCC Information Retrieval/ Computer Literature Survey	Preadmission References Verbal Skill Teaching skills Reporting Personal Report of Communication Apprehension 24
During Program "Embedded"	Nursing Math Module Math in each course	Writing in Clinical courses Documentation Rubric	Nursing Process Rubric N153L-157L Critical Thinking Rubric 253L, 256L, 257L <i>Evaluated</i>	Computer generated assignments Use of computer in clinical to access information WEBCT Frequency of access to site	Therapeutic Communication Rubric in clinical evaluation tool. <i>Evaluated Throughout the program.</i>
	Math in clinical performance-evaluated during medication administration <i>Evaluated</i>	Writing in Theory Courses: N153, 158, 240 <i>Evaluated</i>			
End of Program	HESI Test NCLEX-PN NCLEX-ADN	N258 Cover Letters & Resumes Writing Rubric in N257L	HESI Critical Thinking Scores	Research for Health Fair & Infomercial	Health Fair & "Infomercial" Video Personal Report of Communication Apprehension 24
Graduate Evaluation of Program	"Med & IV Administration"	"Documentation and Writing in Clinical Setting"	"Critical thinking"	"Use of information systems in patient care"	"Case presentation & oral Presentation"
Employer Evaluation of Graduate	"Administer Medications"	"Document Care"	"Problem Solving" "Analyze Simple Situations"	"Use of information systems in patient care"	"Communicate Effectively"

Table VIII
Nursing Program Student Learning Outcomes

SLO	2004	2005	2006
Quantitative Reasoning-Math on HESI Exit Test	687=67%	793=78%	1006=91%
Written Communication-WI Course Performance	Satisfactory	Satisfactory	Satisfactory
Critical Thinking-HESI Exit Test	782 = 79%	824 = 82%	884=82%
Information Retrieval & Technology MCC Information Retrieval/Computer Literacy Survey	3.37	3.74	3.8
Oral Communication HESI Exit Test-Therapeutic Communication Personal Report of Communication Apprehension	817=80% 3.3	830=83% 3.6	818=80% 3.4

The Health Education Systems, Inc. (HESI) test scores are reported in raw scores and national percentiles. The national percentiles appear low, however, this is a function of Maui Community College nursing program's administers of the test at the beginning of the spring semester, while most schools administer it at the conclusion of the final semester. The MCC rationale for administration of the HESI Exit test at this time is early identification of students at risk. The positive results of this strategy are demonstrated in the significant improvement in the first time NCLEX-RN pass rate from 77% in 2003 to 97% in 2005 and 2006.

Summary data in all Student Learning Outcome categories demonstrates improvement. Nursing faculty discussed setting specific benchmarks for the SLO's, however, due to limited experience with the measures for the first two years the goals of remaining the same or continually improving outcomes was established. This goal was met in all categories for 2005 and 2006.

Part III. Curriculum Revision Courses reviewed/revised for currency, accuracy, integrity

Nursing program curriculum is updated on a continual basis in response to the changing

Prerequisites for admission to the nursing program will be completion of ZOOL 141, ZOOL 142, MICRO 130 and ENG 100 with C or better.

Part III. Analysis of data

Alignment with mission – Aligned

Strengths and weaknesses based on analysis of data.

Strengths:

1. Improved NCLEX-RN first time pass rate
2. Improved HESI Critical Thinking Scores
3. Improve quantitative ability demonstrated on the HESI Math test, in clinical, and on the newly established A D N Math Competency test.
4. High demand for nursing graduates at all levels.

Weaknesses:

1. Inadequate number of Master in Nursing prepared faculty.
2. Inadequate physical laboratory facilities for nurse aide, practical nurse, and registered nurse programs.
3. Limited science laboratory classes for prerequisite preparation.

Evidence of quality

1. NCLEX-RN and NCLEX-PN licensure results
2. Employer satisfaction
3. Graduate satisfaction

Evidence of student learning

1. NCLEX-RN and NCLEX-PN licensure results
2. Improved student learning outcomes in all areas.

Resource sufficiency

1. Financial resources are not sufficient to meet the growing community need for nurses.
2. Facility resources are not sufficient to meet the current demands of the nurse aide, practical nurse, and registered nurse program.
3. Faculty resources do not meet the National League for Nursing Commission on Accreditation requirements for Master in nursing minimum preparation.

Part IV. Action plan

Nursing Faculty

According to an American Association of Colleges of Nursing (AACN) survey of schools of nursing in 2004, three quarters of the schools surveyed reported nursing faculty shortages as a reason for not accepting qualified applicants into their programs (American Association of Colleges of Nursing, 2005). Maui Community College is competing with nursing program across the United States for qualified faculty. It is imperative that Maui develop nursing faculty on Maui. The University of Hawaii Manoa nursing program has recognized this priority and increased access to graduate nursing education courses. Based on the nursing faculty shortage in Hawaii, a UH System wide nursing salary adjustment was made beginning August 2006 with the goal of providing equity with salaries for Masters prepared nurses in the community.

Increased Enrollment

The issue of community need for nurses is complex and will probably become even more challenging given the proposal for new facilities in Kihei and West Maui. Maui Community College secured funding from the County of Maui for admission of a second cohort in Spring 2007. Continuation of funding is required in the UH biennium budget.

Facilities

Expansion plans for Allied Health facilities are included in the Science building proposal and in the campus CIP proposals. The minimum requirement will be restoration of the space in the Student Center building following the renovation. Doubling the nursing program will require a minimum of two traditional classrooms, a computer classroom, and an additional nursing skills laboratory classroom. The County grant includes funds for temporary portable classroom and laboratory.

Bachelor of Science in Nursing (BSN)

The Statewide Nursing Taskforce is exploring a system-wide curriculum for which would

increase access to the BSN on all neighbor islands. This program builds on a model from Oregon Health Science University (See Appendix Statewide Nursing Program).

Part IX. Budget implications

Many groups recognize the community need for nurses. These groups have indicated plans to lobby the Hawaii State Legislature to support the biennium request for permanent nursing faculty positions and expanded facilities. These resources will be necessary to continue admission of two cohorts of PN and A D N students each year.