

SUMMARY OF IDENTIFIED ISSUES

There was an overwhelming response from the nursing chairs and faculty from the CSU, UC and community college nursing programs. Strong interest was expressed in continuing to work with the IMPAC project. All nursing faculty expressed a need to collaborate with the ADN and BSN programs to reduce the barriers for nursing students in the community colleges to transfer to the CSU and UC nursing programs. Attendees at the 4 regional meetings included representatives from 16 of the 17 CSU nursing programs, all UC nursing programs, and 22 of the 71 community college nursing programs. All together 73 nursing faculty attended the four meetings; 12 participants were chair/director/dean administrators and 61 were faculty. The meetings were held on Saturday and attendance would have been higher except for the short timeframe for notification of the meetings. Several faculty sent regrets but indicated they wanted to be included in future meetings.

Issues

Several issues, concerns, and needs were discussed by the chairs and nursing faculty relating to prerequisite coursework, general education pattern requirements, and transfer and articulation concerns between the community college and the CSU and UC systems. Issues were discussed that related to accreditation requirements with the California Board of Registered Nursing and the National League for Nursing. The demographic changes in the nursing student pool and their affect on student enrollment and composition were discussed. A more detailed description is provided in the report.

Student Pool

At the San Diego regional meeting, the nursing applicant pool was discussed. All California nursing programs are experiencing an older female population in the thirty to forty year range, second degree students, English as a second language students, and a more multicultural student applicant pool. Male applicants continue to be a small number of the applicants. In several community colleges, English and math competency are significant issues, as well as interpersonal communication skills. College coursework remediation and socialization into the

nursing profession are areas of concern. This creates a significant role for faculty in the preparation of students for professional practice.

Several faculty remarked that in certain areas of the state, nursing programs were no longer impacted. However, the health care facilities in all geographic areas are in need of registered nurses. Recruitment concerns were discussed and several faculty recommended that recruitment efforts should include both the middle and high school students.

Prerequisite Courses

The faculty at every regional meeting expressed a concern for the science prerequisite, in particular, biology, mathematics, and chemistry. Some campuses require biology as a prerequisite to physiology. Mathematics requirements do not contain content pertinent to nursing practice, e.g., ratios and systems of measurement. This content is currently being taught in the nursing programs as a review course or as part of the Skills Laboratory.

Chemistry was the science course that concerned the majority of the faculty in both the community college and CSU nursing programs. Several faculty felt that the chemistry course that should be a prerequisite to the nursing programs is biochemistry. However, on community college and CSU campuses, inorganic and organic chemistry courses are usually required before students take biochemistry. Several faculty remarked that associate degree nurses often do not want to take the chemistry courses required by the BSN programs and list this as a significant barrier that prevents ADN nurses from seeking the baccalaureate degree in nursing.

In the interdisciplinary discussions with the chemistry faculty, the nursing faculty requested a chemistry course be developed for nursing students that contain a moderate amount inorganic and organic content, but focused mainly on biochemistry. The chemistry faculty voiced concerns that included ensuring adequate enrollment in this course, academic rigor, and appropriateness in higher education. Discussion focused on academic preparation for a professional degree such as business, engineering, or nursing. A chemistry course tailored for the nursing program at San Francisco City College has been taught and has proven to

be very successful. Chemistry faculty at all regional meetings were open to further discussion with nursing faculty. Nursing faculty were asked to determine the competencies for such a course and if enrollment could be guaranteed, chemistry faculty would collaborate to develop an integrated chemistry course for nurses and other allied health students.

Grids

At each regional meeting the grid for the 13 CSU generic nursing programs was reviewed. All 13 nursing programs require chemistry, anatomy, and microbiology as prerequisite courses. However, the social and behavioral sciences, English, mathematics, nutrition, and speech may either be prerequisites or co-requisites for admission to the nursing program. Only one nursing program has physiology as a co-requisite course. The CSU nursing programs have been meeting all year as part of the CSU Core Alignment Discipline Project with a grant from the Chancellor's Office. The goals of this project are to align all prerequisite and lower division courses among the CSU campuses. The purpose is to facilitate articulation and transfer within the CSU system. The CSU nursing discipline project committee anticipates the total alignment of prerequisites by the end of the academic year, 2001.

A similar grid for the 71 community college nursing programs was developed, and is being completed, as a result of the IMPAC project. This grid was discussed at the final meeting for the academic year.

General Education Requirements

Faculty from the ADN nursing programs expressed concerns about the variance in the number of general education (GE) courses required by the campuses within the community college system. It was reported that the number of general education requirements has increased over the past years. Math requirements have increased on many campuses and additional courses have been added, such as computer literacy/informatics and critical thinking. English and history units have increased from 3 to 4 units on some campuses. The GE courses vary between 16-49 units. Faculty believe that the different GE requirements for each campus create a major barrier for nursing students to transfer from one campus to another. In addition, the CSU

system has added requirements of English, speech, mathematics and critical thinking courses that must be taken prior to transferring from the community colleges. These prerequisite courses will be especially burdensome for the associate degree nurse who wishes to transfer to the CSU for the baccalaureate degree in nursing. At present, only 70 units may be transferred to the CSU system. Transfer students frequently have many additional units that are not counted.

Similar barriers exist within the CSU campuses for general education requirements, creating a barrier for nursing students to transfer to other CSU nursing programs.

High School Preparation

The faculty discussed the lack of high school preparation for the study of nursing in college. The students may decide on the nursing major without having any high school science and math background. Those students must then take high school equivalent courses of math and chemistry at the community college prior to enrolling in the college level courses.

Lower Division Nursing Courses

A grid was reviewed of the 13 generic CSU nursing programs lower division nursing courses. Very few nursing courses are offered as lower division, except at CSU Los Angeles. Recently, CSU Los Angeles aligned their nursing program with some community colleges in their region. In the pilot program between CSU Sacramento and Sacramento City College all pre-licensure nursing courses are lower division to facilitate the transfer of the community college ADN nurses into the junior year of their baccalaureate nursing program. However, the CSU nursing students cannot easily transfer within the nursing programs. It is anticipated that the CSU Core Alignment Nursing Committee will review the lower division nursing courses in the next academic year, 2001-2002.

Matriculation vs. Articulation

The community college nursing faculty expressed the concern that pre-licensure nursing courses have to be challenged by examination or retaken to matriculate in some baccalaureate nursing programs. This policy is not only a barrier to ADN nurses returning for advanced degrees, but is also very costly and delays the time to the

baccalaureate degree. Out of state associate degree nurses have similar difficulties when matriculating into the CSU or UC systems for the baccalaureate degree. If all pre-licensure nursing courses were lower division in all nursing programs, articulation could be almost seamless.

A grid for the community college nursing courses is being developed through the IMPAC Project and will be reviewed at the April meeting. A barrier to students who transfer within the community college nursing programs is the difference in the sequencing of nursing courses in the program.

At the Bakersfield meeting, the Interim Director of Nursing at the College of the Redwoods, Meredith Trinqué, shared her experience in the development of a fully articulated LVN to RN to BSN nursing model for the state of Connecticut. She mentioned that three states, Colorado, Maryland, and Connecticut have developed state articulated nursing programs that follow a career ladder beginning with the licensed vocational nurse (LVN) to the associate degree nurse (ADN) to the baccalaureate degree nurse.

Accrediting Agencies Requirements: National League for Nursing Accrediting Commission (NLNAC) and California Board of Registered Nursing (BRN):

ADN faculty expressed a concern in content requirements and unit limitations identified by accrediting agencies; National League for Nursing Accrediting Commission (NLNAC) and the California Board of Registered Nursing (BRN). Currently, the NLNAC maintains a standard of 60-72 semester units/credits (90-108 quarter) for Associate degree Nursing programs. The BRN identifies content as follows: 36 units for the arts and science for nursing, six units for communication and 16 units for related natural, behavioral and social sciences. The 22 units (6 units for communication and 16 units for natural, behavioral and social sciences) may count for the general education requirements for the associate degree. However, on some community college campuses there may be additional general education course requirements for the associate degree. In colleges where this is the case, a student's progress toward an associate degree may be slowed.

Furthermore, the NLNAC limit of 72 semester units may be surpassed and accreditation for the nursing program may be placed in jeopardy. As the complexity and acuity of patients in the health care facilities increased over the years, the need arose for more knowledge and clinical training to achieve competency in the nursing content areas required by state law. This has resulted in a curricular dilemma among faculty attempting to keep to a specified timeframe and the unit standard for the pre-licensure nursing programs. Some faculty expressed a desire to dialogue with other faculty and consultants from the BRN as to what content and clinical experiences to keep and what to eliminate from the nursing curricula and still have students achieve competency in the content areas required by California law.

1998 PEW Commission Report on the Health Professions

The 1998 PEW report on Health Professions may need to be reviewed as it indicates several competencies for the entry level nurse that increase the theory and clinical units needed to meet them. There appears to be a philosophical conflict between the 1998 PEW Report and NLN expectations of entry level nursing programs.

IDENTIFIED TRENDS/FUTURE DIRECTIONS

Enrollment Capacity

Enrollment is limited in all of the 94 pre-licensure and 26 master's degree nursing programs, both state-supported and private. The latest statistics on enrollment in California nursing programs was compiled 1998-991. At this time, there were 3556 ADN, 1447 BSN, and 35 entry level master nurses graduated, totaling 5038 new graduates from all 94 pre-licensure nursing program. Unfortunately, over the past 5 years, applications to pre-licensure nursing programs have declined throughout the state. California Employment Development Department (EDD) concluded that the state does not have a sufficient supply of nurses to meet the health care demand in the next 10 years. By 2006, EDD projects an increase need of 67,440 new registered nurses over the 197,000 nurses currently employed. According to the California Department of

Consumer Affairs, California ranks the 50th in the nation in the proportion of RNs to 100,000 population (585/100,000).

From the figures presented by the Consumer Affairs Department, California has two problems; limited capacity in pre-licensure nursing programs and a declining interest in pursuing nursing as a career.

Increase Demands for Nursing Services

The changes in the health care system to managed care and integrated health care networks have increased the demand for RNs prepared at the baccalaureate and master levels. The need for nurses with advanced practice in primary care is increasing in the integrated health care systems. Nurses are expected to delivery primary health care in clinics and community health settings and provide supervision and training for other health care personnel.

Registered nurses are expected to manage many patients in a hospital or community health agency and supervise care given by other licensed nurses and unlicensed health care workers. Health education and home health care are increasing the responsibilities of registered nurses. Public health caseload continues to rise as the numbers of uninsured persons, homeless, and indigent citizens increase.

Changes Needed in Nursing Education:

For the past five years, several nursing organizations have met with nursing faculty in the state supported and private universities and colleges to explore and develop better systems of education and articulation in order to meet the critical nursing shortage in California. In 1999, the California Strategic Planning Committee for Nursing (CSPCN) developed a model for role differentiation in nursing practice. The model addressed the educational preparation, competencies, and skills among the registered nurses. CSPCN includes representatives of over 40 nursing organizations in California and its purpose is to establish a master plan for the nursing workforce that will ensure an adequate supply of nurses for the state. The goal is to create a mechanism whereby nurses may progress through an education process that progresses from LVN to ADN to BSN to MSN. The intent is to align curricula in the licensed vocational nursing (LVN) and RN nursing programs so to

reflect education and competencies for each level of education. All competencies are based on California law as administered by the California Board of Vocational Nursing and the California Board of Registered Nursing.

Unlike previous nursing shortages, health care employers not only predict an increased need for registered nurses but also a need for bachelor and master prepared nurses. Approximately, 73% of nursing admissions are to associate degree programs and while these admissions are expected to increase, admissions to BSN programs are decreasing each year. At present, only 16% of associate degree RNs continue their nursing education and obtain higher degrees. Changes in nursing education must occur to ensure that California has a nursing work force with the appropriate education and skills to meet the state's health care demands. The Institute of Medicine study in 1994 concluded that the educational mix of nurses is inadequate for current and future delivery of nursing services. The education of nurses needs to be aligned with the levels of professional judgment required of nurses in all health care settings. Nurses must be able to work in complex health care systems that demand a high level of clinical judgment, management skills, and increasing clinical autonomy to supervise other health personnel.

COMMENTS FROM STATEWIDE MEETINGS AND THE GENERAL FIELD

The nursing faculty made several comments. These comments included:

Most useful part of the discussion

- ◆ Sharing with faculty from other nursing programs
- ◆ Sharing of common issues, number of units, common issues in related disciplines
- ◆ Collaborating with nursing colleagues
- ◆ Understanding what each nursing program requires.
- ◆ Cross disciplinary discussions, CAN discussions, discussions with biology, chemistry, math faculty
- ◆ Prioritizing of issues for nursing programs.

Ideas for more successful sessions included:

- ◆ Break up sessions for community college and CSU nursing programs and have one representative present the ideas during the whole nursing session.
- ◆ Identify how nursing programs can clean out the deadwood courses that all community colleges agree to and add common core courses. Then discuss the same with the CSU and UC nursing programs.
- ◆ Have national league for nursing and board of registered nursing representatives at the meetings.
- ◆ More direction in preparing for meetings with other disciplines.
- ◆ Invite hospital administrators to meetings
- ◆ Create grids with course descriptions for the prerequisite courses and lower division courses in the ADN and BSN programs, both private and public, in California.
- ◆ Create grid for community college ADN programs that describes the number and composition of units to the degree.
- ◆ Discuss which courses would serve as California Articulated Number (CAN) courses.
- ◆ Survey BSN programs, public and private, to determine matriculation barriers to admission for the ADN transfer students.

The information was shared with other faculty at department meetings. All faculty wanted to continue to meet together to work on common issues among the nursing programs in the CSU, community college, and UC systems. The faculty identified activities to become involved in at the local level for articulation such as:

- ◆ Work with campus chemistry or community college chemistry faculty to design an integrated chemistry course.
- ◆ Discussion with campus biology, chemistry, math, and computer science faculty to align nursing competencies with science prerequisite courses.
- ◆ Update local articulation agreements with community colleges for nursing programs.
- ◆ Review preparation of students for admission to nursing programs. Specifically,
 - ◆ Create grid of admission requirements for ADN and BSN programs, public and private.
 - ◆ Review grid to determine similarities and differences.
 - ◆ Review retention and attrition rates for ADN and BSN programs.
 - ◆ Review remediation process for ADN and BSN programs.
 - ◆ Review passage rate for state board licensure exam for nursing programs.
 - ◆ Determine relationship among preparation level for admission, retention rates, remediation process and success, attrition rates and passage rates for the state board licensure exam.
 - ◆ Discuss feasibility of pre-entrance assessment testing for admission to nursing programs.

When asked how the nursing faculty heard about the IMPAC meetings, responses included:

- ◆ Letter from IMPAC and nursing dept. chair
- ◆ IMPAC's nursing discipline coordinator, Louise Timmer
- ◆ Nursing director of college

RECOMMENDATIONS FOR THE DISCIPLINE

1. Develop an articulated set of prerequisite and lower division nursing courses for the ADN and BSN programs and reduce matriculation barriers between ADN and BSN programs. Specifically,
 - ◆ Arrange meetings for ADN programs/faculty who want to meet with the BRN education consultants to discuss content areas, competencies, skill sets and units required for licensure in California.

- ◆ Arrange meetings for ADN programs/faculty who want to meet with the NLN Accreditation consultants to discuss the maximum number of units to the degree acceptable for accreditation.
- 4. Develop nursing recruitment strategies for the students in the K-12 grades.
 - ◆ Discuss recruitment ideas that provide K-12 students with opportunities to observe the diversity of nursing care given by registered nurses in all health care settings.
 - ◆ Develop campus-school programs that link K-12 students to activities with nursing students.
 - ◆ Develop recruitment programs that reach all segments of the community.
 - ◆ Seek funding sources; public and private, grants and community partnerships, to implement the recruitment strategies.

RECOMMENDATIONS FOR SUPPORT COURSES (IF DISCUSSED)

1. Create an integrated chemistry course for all nursing programs. Specifically,
 - ◆ Determine content, competencies, and skills set for an integrated chemistry course.
 - ◆ Hold campus meetings with the chemistry departments to discuss the components of an integrated chemistry course.
 - ◆ Determine feasibility of the integrated chemistry course as a CAN course.
2. Review the General Education Patterns on the college/university campuses with ADN and BSN programs. Specifically,
 - ◆ Determine the competencies, skills set, and units required for general education patterns at each campus.
 - ◆ Create grid for the general education patterns on campuses with ADN and BSN programs, public and private.

- ◆ Review grid for similarities and differences.
- ◆ Determine whether general education courses are/ can be CAN course.
- ◆ Discuss feasibility of dual enrollment in the community college and CSU system for the prerequisite and general education courses.

TOPICS FOR FURTHER DISCUSSION

All of the recommendations listed above are unresolved issues that need further discussion and decisions made to facilitate student articulation and transfer process among and between the community college, UC, and CSU systems. In addition, further discussion of the recruitment and retention issues in the nursing programs need further elaboration to discover what factors impact on recruitment and retention of students in the nursing programs in the community college and CSU systems. CAN numbers for common prerequisite and lower division nursing courses are essential topics for next year. Discussions of essential content, competencies, skills with the accrediting organizations for the nursing programs of the community colleges will be made available. Lastly, a discussion relating to a statewide articulated nursing curricula beginning with the LVN and progressing to the BSN such as the Connecticut model will occur at next year's meetings.

RECOMMENDATIONS FORWARDED/TO BE FORWARDED TO:

CAN: The prerequisite courses and nursing courses for the pre-licensure nursing degree will be discussed and decided next year, 2001-2001.

ASSIST: The prerequisite courses and the nursing courses will be reviewed next year.

CIAC: Meetings with the counselors for the community college and CSU nursing programs will be held next year.

OUTREACH PRESENTATIONS MADE BY MEMBERS OF THIS GROUP:

California Hospital Association	March 8, 2001	Louise Timmer
American Nurses Association of California	March 10, 2001	Louise Timmer