

Nursing

SUMMARY OF IDENTIFIED ISSUES

The second year of IMPAC nursing discussions occurred at five regional meetings in Oakland, San Diego, Fresno, Cerritos and Sacramento between November 17, 2001 and January 19, 2002. Present were 55 participants: 47 faculty, 7 Chairs/Directors and one Articulation Officer, Jane Church, who is assigned to the Nursing discipline. There were representatives from 26 community college nursing programs, 13 CSU generic BSN programs, 1 CSU RN to BSN program, and the UCLA RN to BSN program.

The statewide meeting, April 12-13 at the Los Angeles Sheraton Gateway was attended by 30 nursing faculty/chairs/directors, a representative from the Board of Nursing, a representative from the California Strategic Planning Committee, and a representative from Kaiser Permanente Health System. They represented 13 community college nursing programs, one UC campus and 10 CSU campuses. Meetings were well attended by faculty and chairs from the CC, CSU and UC systems.

Among the issues identified were these six:

1. **Retention and Remediation in the ADN nursing programs:** Jim Comins, Director Ed>Health Net Care Initiative, financed a study entitled “ADN Prerequisite Validation Study.” The study investigated predictors of success in completing the ADN nursing program. The study, reviewed at the final meeting, April 12-13, reviewed the data on 5000 nursing students from 1994-98. The study, while it did not investigate subjective factors affecting retention (e.g., students’ income, family factors, etc.) found that overall GPA, English score and Biology courses GPA were probable predictors of success in completing the ADN nursing program. IMPAC participants will continue to discuss the implications of these findings for our programs.
2. **Integrated Chemistry Course:** A committee was formed to develop a prototype for an integrated chemistry course. The committee was comprised of the following faculty from the UC, CCC and CSU systems:
 1. James Armstrong, Chemistry, CCSF (Chair)
 2. Chris Riegle, biology, Irvine Valley College
 3. Carmen Zellhoefer, biology, Merced Community College
 4. Beverly Shue, biology, Harbor Community College
 5. Sharon Roberts, biology, CSU Bakersfield
 6. Joe Brundage, chemistry, Cuesta Community College

7. Robert Dietz, chemistry, Bakersfield Community College
8. Allen Leung, chemistry, Rio Hondo College
9. James Postma, chemistry, CSU Chico
10. Edward Alexandar, chemistry, San Diego Mesa College
11. Wendy Hollis, nursing, LA Harbor Community College
12. Bonnie Walker-Raingruber, nursing, CSU Sacramento
13. Julia Schovein, nursing, CSU Chico
14. Anthony McGuire, nursing, Long Beach City College
15. Kay Baker, nursing, UCLA

In addition, two articulation officers volunteered for the subcommittee to answer any questions regarding developing the course to satisfy the community college GE pattern, to ensure transferability to the UC and CSU systems, and to meet requirements for CANNing. These officers were:

16. Jane Church, Chabot College
17. Carol E. Lee, Imperial Valley College

The integrated chemistry course is intended to prepare nursing students for physiology, pathophysiology, nutrition, and for pharmacology content and medication conversions in the nursing program. The committee members considered a 4-5 unit integrated chemistry course with a lab and content that includes conversions, systems of measurement and ratios and solution problems in a lab session, and then reviewed six integrated chemistry courses currently taught in the CSU and CC systems. The committee identified the integrated chemistry course taught by James Armstrong, City College of San Francisco as such a prototype course. The committee and other chemistry, biology and nursing faculty present at the statewide IMPAC meeting reviewed the integrated chemistry course prototype as well as the nursing competencies, skills and content proposed by the nursing faculty. Sample course proposals will be made available to nursing, chemistry and biology faculty in the CC, UC and CSU systems for discussion on their local campuses. Finally, the CAN 6 integrated chemistry course will be reviewed for relevancy and currency by faculty in the chemistry, biology and nursing departments in all three systems.

3. **Math competencies for Nursing Programs:** The nursing faculty met with the math faculty at 4 of the 5 regional meetings. Consensus among the math faculty was that the math competencies for the nursing programs do not fit in the basic math course required by the community college and CSU systems. The nursing faculty believed that students should have dimensional analysis in the basic math course, that this content is college level, and that instruction in this content would assist the nursing students in calculating solutions, medication dosages and IV drip rates. The math faculty were given sample math problems applicable to nursing courses. More discussion is needed next year.
4. **Statewide Database of Nursing Applicants:** At all regional meetings, both the community colleges and CSU nursing faculty discussed the need for a statewide database of qualified nursing applicants. In the Fresno area, two ADN nursing chairs described the surplus of 1000 pre-nursing students in that region who have no nursing program to attend. More discussion is needed on the methods to develop a statewide database for both higher education systems.

5. **Survey to all California community college Nursing Programs:** Wendy Hollis is conducting a survey of all California community college Nursing Programs requesting from the chairs/directors/deans a detailed description of all nursing courses. She will compile a grid and description of all 72 nursing programs and provide a report at the 2002-03 IMPAC regional meetings. The faculty are exploring common sequencing of the nursing courses in the community college programs to facilitate the intercampus student transfer process.
6. **Collaborative Nursing Programs between California community college and CSU:** The five collaborative nursing program projects between the CSU and the community college nursing programs were discussed. Additional information about these programs and contact individuals will be made available to future IMPAC nursing participants. These projects are additional examples of recent intersegmental collaboration between the community college and CSU systems. The five collaborative nursing programs include CSU Sacramento and Sacramento City College, CSU Fullerton and Saddleback Community College, CSU Los Angeles and local community colleges, CSU Stanislaus and four local community colleges, and CSU Bakersfield and three local community colleges.
7. **Meetings with Board of Registered Nursing and NLN Accreditation Consultants:** The review of the GE pattern and the nursing courses in the community colleges continued throughout the second year. Wendy Hollis is collecting additional data that describes the GE courses required by each campus. The GE grid reveals a variance in required GE courses among the CC campuses. The faculty addressed the concern that the high number of required GE courses poses a barrier to the limit of 72 total units permitted for NLN national accreditation. As additional information is still needed, the meetings with the education consultants from the BRN and the NLN did not occur. Pending review and discussion next year at the regional IMPAC meetings of the nursing and GE courses in the community colleges nursing programs next year, more specific recommendations will be made.

IDENTIFIED TRENDS/FUTURE DIRECTIONS

CSU CORE ALIGNMENT PROJECT

Arising from the CSU Core Alignment project in nursing are several proposals that are being shared with UC and California community college faculty for discussion and possible multi-lateral adoption.

In particular are:

1. Courses Commonly Required for Admission to CSU Nursing Programs

These courses CSU recommends to be taken prior to admission into a nursing program:

- ▶ Anatomy w/lab
- ▶ Physiology w/lab
- ▶ Microbiology w/lab
- ▶ Integrated chemistry course with lab
- ▶ English Comp
- ▶ Speech
- ▶ Math
- ▶ Nutrition
- ▶ Growth & Development

- Sociology
- Psychology

2. Common GE Pattern and Common Admissions Requirements

The CSU Core Alignment Committee is reviewing the admission requirements and the GE courses to determine a common general education pattern of coursework and common admissions criteria among the CSU 13 generic nursing programs and the RN to BSN nursing programs. This report will be discussed at the next year's IMPAC Nursing Discipline regional meetings, recognizing that General Education programs for community college AA/AS degrees are locally determined by community college faculty.

More generally, IMPAC faculty have been discussing California's nursing shortage and its implications for nursing education, curriculum, and admissions practices.

- **Increase Demands for Nursing Services:** The nursing shortage has worsened in the last two years. Simultaneously, California has two problems; limited capacity in pre-licensure nursing programs and a declining interest in pursuing nursing as a career.
- **Enrollment Capacity:** Enrollment continues to be limited in all of the 94 pre-licensure and 26 master's degree nursing programs, both state-supported and private, and over the past 5 years, applications to pre-licensure nursing programs have declined throughout the state.
- **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 as one strategy to address the critical nursing shortage in California. The goal is to create a career ladder mechanism whereby individuals may progress through an education process that begins with the licensed vocational nursing (LVN) and ends at the PHD level. The intent is to align curricula in the LVN and RN nursing programs to reflect the level of education required for nursing practice. Nursing curricula 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. In addition, there is a shortage of nurse educators in California, and the average age of nursing faculty is 56 years. Nurse educators hold Master's and doctoral degrees as a minimal level for college and university employment. 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 year¹. 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 1994² 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

¹ State of California, Department of Consumer Affairs, Board of Registered Nursing, 1998-99 Annual School Report, May, 2000.

² Committee on the Adequacy of Nurse Staffing in Hospitals and Nursing Homes. Institute of Medicine. 1996. "Nursing Staff in Hospitals and Nursing Homes: Is It Adequate?" Wunderlich GS, Sloan FA, Davis, CA. (Eds.). Washington, DC: National Academy Press.

health personnel. Articulation and alignment are the key components in nursing education to reduce the barriers to transfer among the CC, CSU and UC nursing programs.

RECOMMENDATIONS FOR THE DISCIPLINE

The agenda for the academic year 2002-2003 was developed at the final meeting in Los Angeles. The agenda included the following issues arising from prior discussions:

1. Develop an articulated set of lower division nursing courses and courses required for admission into the Associate Degree in Nursing (ADN) and Bachelor of Science in Nursing (BSN) programs and reduce matriculation barriers between ADN and BSN programs. Specifically,
 - ▶ Create grids with course descriptions for the courses required for admission and lower division courses in the ADN and BSN programs in California.
 - ▶ Create a grid for community college ADN programs that describes the number and composition of units to the degree currently stipulated at each college.
 - ▶ Discuss which existing or new courses would serve as California Articulated Number (CAN) courses, and which currently CANned courses need revisions to their descriptors.
 - ▶ Survey BSN programs, public and private, to determine matriculation barriers to admission for the ADN transfer students.
2. Where feasible, work with chemistry faculty to encourage local creation of an integrated chemistry course suitable for all nursing and other allied health programs. Specifically,
 - ▶ Work with local chemistry faculty to determine content, competencies, and skill sets serviceable to nurses for an integrated chemistry course.
 - ▶ Encourage nursing faculty to hold campus meetings with the local chemistry department and science faculty to discuss the components of an integrated chemistry course.
 - ▶ Discuss feasibility of the integrated chemistry course as a CAN course.
3. Review the General Education Patterns on the college/university campuses with ADN and BSN programs. Specifically,
 - ▶ Discuss the number of GE courses and units required for general education patterns at each campus.
 - ▶ Create a grid for the general education patterns on campuses with ADN and BSN programs (CC, CSU, UC, private university systems)
 - ▶ Review the grid for similarities and differences.
 - ▶ Discuss the barriers that high GE units pose for NLN accreditation to CC nursing programs
4. Review preparation of students for admission to nursing programs. Specifically,
 - ▶ Create grid of admission requirements for ADN and BSN programs,
 - ▶ Review grid to determine similarities and differences.
 - ▶ Review retention and attrition rates for ADN and BSN programs.

- ▶ Review services offered for students needing additional academic preparation in ADN and BSN programs.
 - ▶ Review passage rate for state board licensure exam for nursing programs.
- 5. Discuss the purpose of, pragmatic considerations of, and need for pre-entrance assessment testing for admission to ADN and BSN programs.
- 6. Review the CAN course descriptors for the nursing prerequisite courses to determine currency and relevancy.
- 7. Discuss the grid of nursing courses for all CC nursing programs to determine the feasibility of a standardized sequencing of nursing courses to facilitate intercampus transfer, while acknowledging the multiple allied health programs these programs may simultaneously serve.
- 8. Discuss the possibility of a community colleges statewide Core Alignment Nursing Committee for the nursing programs similar to CSU Core Alignment Nursing Committee.
- 9. Continue to pursue a career ladder approach, beginning with CNA to PHD in the public higher education system of California.
- 10. Meet with the interdisciplinary faculty from psychology, human development and English departments in future IMPAC meetings. Specifically,
 - ▶ Discuss with psychology faculty the prerequisite knowledge and competencies needed for the study and practice of mental health and geriatric nursing.
 - ▶ Discuss with the faculty teaching human development courses the knowledge and competencies needed for the study and practice of obstetric and pediatric, as well as geriatric nursing.
 - ▶ Discuss with the English faculty the students' need to have reading and writing proficiency in English for the study and practice of nursing (research, scientific journals and textbooks, care plans, reports, charting, etc).

RECOMMENDATIONS FOR SUPPORT COURSES

1. The biology, chemistry and nursing faculty agreed to
 - ▶ conduct local discussions of the prototype 4-5 unit integrated chemistry course prepared by James Armstrong, Chair, Chemistry Department at City College of San Francisco. Additionally, the chemistry content, competencies, and skills developed by the nursing faculty will be locally shared;
 - ▶ review the CAN 6 course for currency and relevancy.
 - ▶ review all the courses required for admissions to nursing programs and recommended as electives for those programs to determine the currency and relevancy of their CAN descriptors. Nursing faculty will make recommendations to the appropriate discipline faculty if revision seems warranted from a nursing perspective:

COURSES REQUIRED FOR ADMISSION TO CSU NURSING PROGRAMS

Anatomy w/lab	CAN Bio 10
Physio w/lab	CAN 12 or both as CAN BIO SEQ B
Micro w/lab	CAN 14
English comp	CAN Engl 2
Math (Stats)	CAN STAT 2
Nutrition	CAN FCS 2
Growth & Dev	Depends-CAN has a Child Dev description
Socio	CAN Soc 2
Psych	CAN Psy 2

TOPICS FOR FURTHER DISCUSSION

All of the recommendations listed above need further discussion to further facilitate student articulation and transfer process among and between the community college, UC, and CSU systems. In addition, further discussion of the following points is also needed:

- ▶ recruitment and retention issues in the nursing programs to discover what quantitative and qualitative factors impact on recruitment and retention of students in the nursing programs in the community college, UC, and CSU systems.
- ▶ CAN numbers for the lower division nursing courses and other courses required for admission to nursing programs
- ▶ Discussions with the accrediting organizations (NLN, BRN) for the nursing programs of the community colleges of essential content, competencies, skills.
- ▶ A career ladder model for a nursing curricula (such as the Connecticut model) beginning with the LVN and progressing to the BSN, MS and PhD.

SUGGESTIONS FORWARDED TO/TO BE FORWARDED TO

CAN

The CAN descriptors for recommended electives and courses required for admissions will be reviewed by all UC, CC and CSU nursing programs as well as the biology and chemistry faculty for currency and relevancy.

ASISST

The prerequisite courses can be sent to ASSIST for the CSU nursing programs. The community colleges nursing programs, during 2002-2003, will be asked to make local determinations about the adoption of these same prerequisite courses in subsequent years.

CIAC

Nursing faculty on each campus are encouraged to meet with their articulation officer, campus counselors, and science faculty to discuss the proposal for the integrated chemistry course and the courses required of students entering nursing programs in the community colleges, CSU, and UC.

ICAS

IMPAC faculty will be asked to document and submit concerns regarding administrative barriers to articulation and transfer in the collaborative nursing programs between the community colleges and transfer nursing programs.

1. Determine what higher education system receives FTES for the collaborative nursing courses and GE courses offered in the collaborative nursing programs in the community colleges and CSU systems.
2. Consider more efficient and cost-effective methods to enroll nursing students concurrently in the collaborative nursing programs between the CSU and community colleges' nursing programs. (e.g., dual enrollment, concurrent enrollment, cross-enrollment, open access enrollment methods)

COMMUNITY COLLEGE ACADEMIC SENATE

The regional IMPAC meetings recommended that a Community College Core Alignment Committee be established among the nursing programs similar to the CSU Core Alignment Committee. This request was presented to the chairs/directors/deans at the March 7, 2002 COADN statewide meeting. The purpose is to reduce the barriers to articulation and transfer among the community colleges nursing programs. The nursing chairs/directors described the difficulty eligible applicants have in transferring from an impacted community colleges nursing program to another community college nursing program that had space available. A grant will be sought to further these discussions during 2002-2003.

BOARD OF REGISTERED NURSING

Meet to discuss inclusion of chemistry in the required curriculum regulations of Title 16.

IMPAC OUTREACH PRESENTATIONS MADE BY MEMBERS OF THIS GROUP:

ORGANIZATION	DATE/PLACE	PRESENTER'S NAME	ATTENDEES
Statewide mtg. of chairs/ directors CC & CSU Nsg Programs	Sacramento 10/10/01	Timmer/Hollis	100
Calif. Gov't. Sen. Speier	Sacramento, 3/19/02	Louise Timmer	15
American Nurses Association of California(ANA\C)	San Diego, 2/25/02	Louise Timmer	40
Calif Senate: Legislative hearing Gov't -Senator Scott	Sacramento, 4/9/02	Louise Timmer	50
Calif. Chairs/Director Mtg.	Santa Clara 3/7/02	Timmer/Hollis	71
CIAC Conference	Sacramento 4/23/04	Timmer/Clark/Fink	53
CSUS Comm. Adv. Mtg.	Sacramento, 4/20/02	Louise Timmer	25
Board of Reg. Nursing	Sacramento, 6/14/02	Louise Timmer	30