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ABSTRACT

This report re-examines the State of Illinois' Board of Higher Education's 1980 policies on education for the health professions and recommends revised general policies for the Board's consideration. An update on occupational demand and program developments are provided and programmatic directions are recommended for institutions to consider in making capacity adjustments in health educational programs during the next 3 to 5 years The report also re-examines the Health Services Education Grants Act and proposes amendments to grant rates and definitions reflected in the rules for administration of the Act. This reassessment shows that the Board's current policies on education for the health professions continue to be relevant and that these policies reflect general goals and directions for the 1990s. Minority representation in the health professions is significantly below the proportion of minorities in the state's population, so increasing minority enrollments continues to be a high priority. Shortages of health personnel were identified, resulting in recommendations to expand existing program capacity or add new programs. There is also a need for new incentives to increase enrollments in the various health professions, to increase the number of physicians in primary care, and to encourage more physicians to establish practices in underserved areas. An appendix provides the current Board policies on health professions education. (GLR)

Item #5B
May 4, 1993

STATE OF ILLINOIS
BOARD OF HIGHER EDUCATION

POLICY ISSUES IN EDUCATION FOR THE HEALTH PROFESSIONS

In September 1992, the Illinois Board of Higher Education considered a report entitled, *1992 Assessment of the Educational Needs in Health Professions Programs* (referred to hereafter as the *1992 Assessment*). That report examined the Board's policies on educational programs in the health professions which were adopted in the early 1980s. Recent trends in occupational demand also were examined and compared to the supply of graduates from the health professions education programs. These analyses indicated that educational capacity adjustments were needed in certain fields and were considered by the staff in developing statewide programmatic recommendations related to the Priorities, Quality, and Productivity initiative (P•Q•P) in October 1992. In addition, Board staff reviewed Health Services Education Grants Act (HSEGA) expenditures and grant rates as part of the *1992 Assessment* and concluded that the current grant incentives have promoted Illinois resident participation in health professions programs, but have not sufficiently improved minority representation nor promoted practice in underserved areas. In addition, staff recommended that HSEGA grant rates should be adjusted to promote appropriate capacity adjustments consistent with occupational demand in the various health professions.

This report reexamines the Board's 1980 policies on education for the health professions and recommends revised general policies for the Board's consideration. An update on occupational demand and program developments are provided. Programmatic directions are recommended for institutions to consider in making capacity adjustments in health educational programs during the next three to five years. The report also reexamines the Health Services Education Grants Act and proposes amendments to grant rates and definitions reflected in the rules for administration of the Act.

The recommendations in this report are not being presented for action by the Board of Higher Education at this time. Resolutions will be presented in September 1993 after the Board has discussed this report and colleges, universities, and other organizations with interests in health professions education have had an opportunity to provide comments and counsel.

General Policies on Health Professions Education

The Board's current policies on education for the health professions were developed in the early 1980s and are provided in the Appendix to this report. Almost all of these policies address specific fields--most notably medicine, but also nursing, allied health, and dentistry. Two of the policy statements address minority enrollment in the health professions in general and in medicine, specifically.

Although many factors have influenced health care and health professions during the last decade, the policies developed in the 1980s reflect general goals and directions that continue to be relevant in the 1990s. These general policies may be summarized as follows:

- Illinois colleges and universities should provide high quality programs in the health professions to meet the needs of the citizens of the state and the health care industry for qualified health care professionals. Priority should be given to expanding educational opportunities in fields

where there are shortages of qualified personnel and to serving areas of the state that have been identified as having inadequate numbers of health professionals.

- Access, retention, and success of minority students in health professions programs should be expanded.

- In fields where shortages of qualified professionals exist, priority should be placed on providing academic programs that prepare individuals for entry to the profession. Statewide capacity in entry-level programs should be monitored on a regular basis to assure that program capacity is in balance with occupational demand.

- Illinois colleges and universities should provide adequate capacity in programs that provide professional advancement opportunities for health care professionals and meet the need for qualified leadership in the health care industry. All institutions should cooperate in the development of articulated programs to enhance advancement opportunities. Illinois universities also should provide programs that prepare faculty for teaching in health education programs and support research and public service in health care disciplines.

- Colleges and universities are encouraged to develop cooperative initiatives with health care providers to develop programs, provide clinical experiences for students, provide professional development opportunities for faculty and health care providers, and share facilities and equipment.

- Because of the high cost of programs in many of the health professions, colleges and universities are encouraged to develop cooperative programs to extend access to and improve the quality of programs in the health professions; to provide educational opportunities in underserved areas through off-campus programs and telecommunications; to improve articulation among programs; and to reduce or eliminate programs in health professions where the supply of graduates exceeds occupational demand.

During the last decade, there were changes in the health care industry and in the characteristics of the population it serves. New allied health professions emerged, the nature and scope of practice in some fields was transformed, and shifts in student demand for educational programs for the health professions occurred. Further changes can be expected as major efforts are initiated at the national level to address health care costs and health policy. Although health education goals will need to be periodically reexamined in the years ahead, the policies reflected in the above statements provide guidance for health education in Illinois.

Assessment of Education for the Health Professions

This section of the report provides a summary of the findings of the *1992 Assessment* and updates related to three statewide priorities for health professions education: improving minority representation, meeting the needs of underserved areas, and assuring appropriate capacity in health professions programs.

Minority Representation in Health Professions Education

The Board of Higher Education's policies have consistently emphasized the importance of improving the representation of minority students in educational programs for the health professions. The *1992 Assessment* found that the statewide representation of Blacks and Hispanics among graduates of health professions programs is significantly below their 22 percent representation in the state's population. As shown in Table 1, some progress was made in the late 1980s to improve minority representation among degree recipients at the certificate, associate, and baccalaureate degree levels in allied health, nursing, and health services administration. However, representation of Black

Table 1

HEALTH DEGREES AWARDED TO BLACK AND HISPANIC STUDENTS
BY ILLINOIS COLLEGES AND UNIVERSITIES

Degree Level and Discipline	Black Students				Hispanic Students			
	1986–87		1989–90		1986–87		1989–90	
	Degrees	Percent*	Degrees	Percent*	Degrees	Percent*	Degrees	Percent*
Certificate and Associate Programs								
Allied Health	517	15.4 %	672	18.5 %	78	2.5 %	104	2.8 %
Nursing	186	9.9	194	11.7	40	2.1	37	2.2
Baccalaureate Programs								
Allied Health	57	7.8	69	10.1	18	2.5	19	2.8
Nursing	137	7.6	178	11.7	25	1.3	39	2.5
Health Services Administration	45	17.1	72	25.3	8	3.0	14	4.9
Graduate Programs								
Allied Health	28	6.7	17	4.4	7	1.6	8	2.0
Nursing	14	3.8	25	5.7	5	1.3	6	1.3
Health Services Administration	12	5.8	10	4.5	0	0.0	5	2.2
Public Health	13	9.4	8	8.5	4	2.8	1	1.0
First Professional Programs								
Medicine	48	4.8	45	4.4	48	4.8	55	5.3
Osteopathic Medicine	0	0.0	0	0.0	3	3.1	3	3.2
Dental Medicine	6	1.4	4	1.2	8	1.9	11	3.3
Podiatric Medicine	3	2.5	9	7.0	0	0.0	0	0.0
Optometry	1	0.8	2	1.5	6	4.7	5	3.7
Chiropractic Medicine	2	0.8	1	0.5	7	2.8	2	1.0
Pharmacy	1	3.4	8	6.3	0	0.0	2	1.6

Note:
* "Percent" represents the proportion of degrees earned by Black or Hispanic students to all degrees awarded in the discipline.

Source: Illinois Board of Higher Education Degrees Conferred Surveys

students declined during this period in several fields requiring advanced study: graduate degrees in allied health, health services administration, and public health; and first professional degrees in medicine, dental medicine, and chiropractic medicine. Representation of Hispanic students improved among recipients of graduate and first professional degrees in several fields, but declined in public health, optometry, and chiropractic medicine.

Table 2 shows the representation of minority students (Black, Hispanic, and Native American) among all 1991 graduates in the health disciplines within public, private, and community college sectors. The effectiveness of the minority incentive grants to private institutions in medicine and dentistry through the Health Services Education Grants Act should be examined based on these representation rates. Further, the question of whether these grants should be extended to other health disciplines should be considered. These questions are addressed further in the next section of this report.

Table 2

REPRESENTATION OF MINORITIES AMONG GRADUATES
OF HEALTH PROFESSIONS PROGRAMS
FY1991

	Percent of Minorities Among Graduates		
Discipline	Public	Private	Community Colleges
Medicine	21 %	4 %	*
Residencies	12	NA	*
Dentistry	7	10	*
Chiropractic Medicine	*	2	*
Optometry	*	5	*
Podiatry	*	10	*
Pharmacy	5	*	*
Nursing	12	11	20
Allied Health	9	11	18
Health Services Administration	25	4	12
Public Health	15	0	*

*No programs in the disciplines in this sector.

Source: Illinois Board of Higher Education Degrees Conferred Survey

The University of Illinois at Chicago has been successful in enrolling and graduating a significant number of minority students in all health professions programs through its Urban Health Program. In medicine, the University ranks first in the nation in the number of minority graduates. Enrollment and graduation of Blacks, Hispanics, and Native Americans has accounted for more than 20 percent of total medical program enrollments and graduations since 1986 at the University of Illinois at Chicago. Minority graduates represented about six percent of the 1991 graduates in medicine at Southern Illinois University School of Medicine.

Underserved Areas

The *1992 Assessment* also identified health care needs in underserved areas, both rural and urban, as major problems for Illinois. While Illinois ranks high nationally in the number of physicians graduated, it is third highest in the number of citizens residing in areas underserved by primary care

physicians. Although there is a particular need for primary care physicians, personnel shortages in urban and rural areas include allied health, nursing, and other health personnel.

In 1989, the Illinois General Assembly passed legislation creating the Center for Rural Health administered by the Illinois Department of Public Health. The Center has provided technical assistance to communities to assess community health needs and to establish rural health clinics. Currently, there are 35 certified rural health clinics in Illinois, and the Department continues to provide technical assistance to rural communities. Federal regulations require, however, that each rural health clinic be staffed by a nurse practitioner or physician assistant, both of which are health professions with identified shortages.

Scholarship programs have been established to provide incentives to graduates of health professions education programs to practice in shortage areas. The Medical Student Scholarship Program is administered by the Illinois Department of Public Health. As of March 1992, 67 medical scholarship recipients are practicing as primary care physicians in underserved areas of Illinois. Forty-eight percent of these physicians are practicing in Chicago and 52 percent in downstate urban and rural areas. Of the nine recipients who have completed their service obligations, seven continue to practice in underserved areas. Recent legislation established the Nursing Scholarship Program and the Podiatry Scholarship Program to assist Illinois residents in obtaining a certificate or degree in licensed practical nursing or registered nursing or a degree in podiatric medicine. Scholarship recipients must agree to serve in underserved areas in Illinois following graduation. The programs are administered by the Illinois Department of Public Health and are funded through the professional disciplinary funds under the administration of the Illinois Department of Professional Regulation.

The federal government has used Area Health Education Centers, the National Health Service Corps, and Health Education and Training Centers to improve the number of health professionals in underserved areas. In 1992, the Chicago College of Osteopathic Medicine received approval to develop an Area Health Education Center, although its activity is currently limited to underserved areas in the Chicago metropolitan area.

Providing health care to underserved areas will continue to be a major challenge for Illinois. Higher education should continue to seek ways to improve services to underserved areas. Telecommunications technologies provide opportunities to deliver programs to remote sites to both prepare individuals for entry into health professions and to provide advancement and professional development opportunities for those already employed. With continuing shortages of primary care physicians, health care teams involving nurse practitioners, physician assistants, and other allied health personnel will become increasingly important in the delivery of services.

Capacity in Health Education Programs

The *1992 Assessment of the Educational Needs in Health Professions Programs* provided analyses of trends in enrollment and degrees granted in health professions programs, employment trends and projections in health care occupations, and trends in the participation and success of minority students in health professions programs. Subsequent to that report to the Board, comments and additional information have been provided by the University of Illinois, Southern Illinois University, the Illinois Hospital Association, the Illinois State Board of Education, the Illinois Dental Society, Scholl College of Podiatric Medicine, Loyola University, Northwestern University, Chicago College of Chiropractic, and the Illinois Speech-Language-Hearing Association. In addition, as part of their Priorities, Quality, and Productivity initiatives, several colleges and universities are considering or have made changes in programs for the health professions. This section reviews the conclusions of the 1992 report, summarizes additional considerations arising from program changes and information submitted since that report, and presents the staff's recommendations for adjustments in program capacity during the next three to five years.

Table 3 presents occupational supply and demand information for the health professions and summarizes recommended capacity adjustments in health professions educational programs. The FY1991 degrees reported in Table 3 include degrees from only those programs that prepare students for entry-level positions in the respective professions. The number of programs includes only entry-level programs. The total supply reported in Table 3 is drawn from the Illinois Occupational Information Coordinating Committee's Occupational Supply/Demand Report and reflects degrees and completers of related programs at all levels of education and training--from short-term training through graduate programs. The number of projected job openings includes both entry-level positions and jobs requiring advanced degrees and experience. These jobs are created both by the growth of new jobs in the field and by vacancies due to retirement, permanent resignation, and death of incumbent workers.

Medical Education. Graduations in medicine declined eight percent between 1981 and 1992, from 1,167 to 1,070. However, since 1988, enrollments have gradually increased and an increase in the number of graduates can be expected in 1993. Consistent with the Board's policies, total medical school enrollments at public universities have been maintained at approximately 1981 levels. Enrollments at the Chicago College of Osteopathic Medicine, the Chicago Medical School, and Loyola University Medical School account for the majority of the increase seen between 1980 and 1992.

According to projections shown in Table 3, approximately 700 physicians and surgeons are needed annually to fill new positions in Illinois and replace those leaving the profession. Approximately 1,100 degrees in medicine are awarded annually by Illinois medical schools. Although the supply of graduates exceeds statewide demand, Illinois schools of medicine serve students from throughout the country, many of whom do not remain in the state to practice. Likewise, many physicians practicing in Illinois did not receive their M.D. degrees from Illinois medical schools. Thus, it is difficult to rely solely on state-level supply and demand data to suggest capacity adjustments in medical education. Nevertheless, since Illinois supply exceeds projected demand by approximately 400 graduates, it is appropriate to encourage decreases in medical school enrollments.

Providing adequate numbers of physicians, particularly primary care physicians, for underserved areas of the state is a priority for medical education. The *1992 Assessment* showed that, overall, there are adequate numbers of physicians practicing in Illinois. However, some areas of the state continue to be underserved and have severe shortages of family practice and other primary care physicians. Of the more than 26,000 physicians practicing in Illinois in 1992, the American Medical Association reports only 42 percent are primary care providers, a decrease of almost 100 practitioners since 1990. This percentage is less than that recommended in recent national studies that call for a ratio of one specialist for every primary care physician.

The *1992 Assessment* indicated that regional residency programs were more effective in promoting practice in underserved areas than regional undergraduate medical programs. There are currently more than 300 accredited residency programs in Illinois with almost 1,300 first-year positions. More than half of these positions are for primary care residencies: 138 in family practice, 452 in internal medicine, 65 in obstetrics and gynecology, and 97 in pediatrics. In 1992, the National Resident Matching Program reported that 60 percent of the positions in family practice, 88 percent in internal medicine, 100 percent in obstetrics and gynecology, and 83 percent in pediatrics were filled. Thus, although Illinois appears to have a sufficient number of primary care residencies, the number of unfilled residencies remains high, particularly in family practice.

Further efforts are needed to attract primary care practitioners to medically underserved areas of the state. Primary consideration needs to be given to those grant and scholarship programs that encourage increases in minority enrollments, promote family practice and other primary care specialties, and increase practice in rural and urban areas.

Table 3

EDUCATIONAL CAPACITY FOR HEALTH PROFESSIONS IN ILLINOIS

Profession	FY1991[1] Degrees	Number of[2] Programs	1991[3] Total Supply	1988–2000[4] Average Annual Job Openings	Recommendation for Capacity Adjustment
Medicine	1,087	10	1,386	677	Reduce
Dentistry	289	4	403	427	Monitor
Chiropractic	182	1	182	34	Maintain
Optometry	141	1	168	110	Maintain
Podiatry	123	1	126	117	Maintain
Pharmacy	148	3	163	503	Increase
Nursing					
Registered Nursing	3,566	81	3,773	4,155	Increase
Licensed Practical Nursing	793	35	1,066	1,890	Increase
Allied Health Professions					
Medical Lab Technology	198	41	221	313	Increase
Physician Assisting	14	3	20	62	Increase
Physical Therapy	169	5	169	219	Increase
Medical Records Technology	109	15	113	171	Increase
Occupational Therapy	99	3	99	86	Monitor
Speech Pathology/Audiology	192	13	437	106	Monitor
Dietetics /Nutrition	157	15	157	128	Monitor
Dental Assisting	91	11	168	283	Increase
Dental Lab Technology	26	2	29	91	Increase
Surgical Technology	32	5	59	90	Increase
Physical Therapy Assisting	118	6	120	179	Increase
Occupational Therapy Assisting	48	5	48	47	Monitor
Radiologic/Nuclear Technology	272	29	335	201	Monitor
Dental Hygiene	174	8	174	115	Monitor
Respiratory Therapy	147	16	147	75	Monitor
Pharmacy Assisting	23	5	34	182	–
Emergency Medical Technology	163	16	398	186	–
Optometric/Opthalmic Technology	15	1	28	386	–
Medical Assisting	67	8	219	284	–
Nurse Assisting	1,204	228	2,141	4,560	–
Health Services Administration	524	15	528	330	Reduce
Public and Community Health	215	18	—not available—		Reduce

[1] Data reported are the number of degrees conferred at the minimum educational level required for entry into the profession in fiscal year 1991 by Illinois community colleges and public and private colleges and universities: 1990–1991 Illinois Board of Higher Education Degrees Conferred Survey. Registered Nursing programs include diploma programs currently approved by the Illinois Department of Professional Regulation.

[2] Numbers of programs reported are those at Illinois community colleges and public and private colleges and univeristies awarding the degrees in column 1: Illinois Board of Higher Education Program Inventory, Illinois Community College Board Curriculum Master File. Licensed Practical Nursing programs are those currently approved by the Illinois Department of Professional Regulation. Nurse Assisting programs are those currently approved by the Illinois Department of Public Health.

[3] Total supply reported includes entry–level and advanced degrees granted in the field plus completers from secondary vocational programs, proprietary schools, certificate programs in community colleges, and military separatees trained in the field who return to Illinois: Illinois Occupational Information Coordinating Committee Occupational Supply/Demand Report.

[4] Average annual job openings reported are the number of jobs projected to be available annually between 1988–2000 due to new job creation and vacancies in existing jobs: Illinois Department of Employment Security State of Illinois Occupational Projections 1988–2000.

Dental Education. The *1992 Assessment* showed that enrollments in dentistry programs declined about 38 percent between 1980 and 1990 while the number of degrees granted declined approximately five percent. Further declines in both enrollment and degrees granted are expected because of the planned closing of Loyola University's Dental School in 1993. As in medicine, the in-migration and out-migration of Illinois dental school graduates makes it difficult to accurately portray future supply and demand conditions for the state.

Projections based on historical employment trends indicate that an average of 400 new dentists and specialists will be needed annually in Illinois. Northwestern University's Dental School projects demand for about 380 dentists annually. However, the University of Illinois at Chicago suggests that there will be approximately 200 job openings for dentists annually. The University of Illinois' estimate takes into consideration changes in the nature of practice and assumes that some of the demand for dental services will be met through increased use of auxiliary personnel. In 1990, 331 entry-level degrees in dentistry were granted. By 1991, the number of entry-level degrees granted declined to 289. With the closing of Loyola University's Dental School, the number of degrees may be expected to fall to about 200 annually after 1993.

The demand for dentists and enrollments in schools of dentistry should be monitored over the next three years. Further efforts should be made to assess the occupational demand for both dentists and specialists and the capacity of existing schools to meet these demands. Dental schools should assess the feasibility and costs of expanding enrollments to compensate as necessary for the closure of Loyola University's Dental School.

Other Medical Professions Education. The fields of podiatry, optometry, and chiropractic are each offered by a single Illinois institution. The *1992 Assessment* found that occupational demand in podiatry and optometry has been met by these institutions which also serve national, as well as state, occupational demand. Capacity in programs in these fields has been adjusted appropriately by individual institutions and should be maintained at current levels. Although Table 3 shows that graduates in chiropractic medicine exceed expected occupational demand in Illinois, the Illinois Occupational Information Coordinating Committee reports that the projection methodology underestimates the job openings in this field.

Pharmacy Education. During the last decade, professional programs for pharmacists were offered only by the University of Illinois at Chicago. In 1991, the Chicago College of Osteopathic Medicine established a baccalaureate and a doctoral program in pharmacy. The *1992 Assessment* found that enrollments and degrees granted in pharmacy declined by over 25 percent between 1980 and 1990 due, in part, to the University of Illinois' decision to convert from a bachelor's degree program to a Doctor of Pharmacy degree program. As shown in Table 3, the occupational demand for pharmacists to fill new and vacated positions in Illinois is estimated to average about 500 annually while 148 entry-level degrees were awarded in this field in 1991. With additional graduates from a newly established program, the number of degrees granted by Illinois institutions is expected to increase to about 250 annually, still less than the projected annual demand through the year 2000.

There are two types of programs that prepare students for entry into the pharmacy profession. Baccalaureate programs, usually requiring five years of study, meet the minimum requirements for licensure as a pharmacist in Illinois. Baccalaureate preparation is considered appropriate for community pharmacists. Professional organizations now encourage doctoral-level preparation for entry, usually requiring seven or eight years of study, because of the increased knowledge requirements in the field and enhanced professional roles for pharmacists. In general, doctoral-level preparation is preferable for students planning to work in hospital settings, and research, administrative, or teaching positions.

Statewide capacity in pharmacy education should be expanded. Primary consideration should be given to development of a baccalaureate program that meets the requirements for licensure in Illinois.

While recognizing the importance of more advanced programs, students should have opportunities available within the state to meet basic licensure requirements.

Nursing Education. During the 1980s, enrollments and degrees granted in programs for the preparation of registered nurses declined. By the late 1980s, however, enrollments began to increase, and by 1991, as Table 3 shows, there were over 3,500 graduates from registered nursing programs (a five percent increase between 1990 and 1991). Of the total degrees awarded, approximately 1,917 were associate degrees, 1,430 were baccalaureate degrees, and 219 were diplomas awarded by hospital-based programs. Since the *1992 Assessment* was conducted, two new associate degree programs in nursing and a certificate program in licensed practical nursing were approved for community colleges and two off-campus baccalaureate completion programs were approved at three new sites.

As enrollments and degrees in registered nurse programs continue to increase, the number of graduates per year approaches the projected annual job openings. Given recent enrollment and degree increases and new program developments, further expansion in the number of programs for the preparation of registered nurses may not be required, except to meet specific local or regional needs. Modest increases in enrollment in existing programs and improved rates of completion in associate degree programs may adequately address the shortfall of nurses entering the profession.

The *1992 Assessment* cited recent studies of declining numbers of nurse educators and recommended increasing the number of nurses with advanced training. In addition, the Board report discussed utilization of mid-level practitioners, such as nurse practitioners and nurse mid-wives, as alternative measures for improving access to health care in urban and rural underserved areas. Program capacity for graduate nursing specialists in areas of primary care and graduate level nurse educators should be expanded.

The *1992 Assessment* identified licensed practical nursing and nurse assisting as fields with potential shortages. Although secondary school vocational programs and postsecondary career schools, as well as the health care industry, offer training programs in these fields, the total supply, as seen in Table 3, is still less than the projected average annual job openings for both licensed practical nurses and nursing assistants. There are 27 licensed practical nursing programs in community colleges approved by the Department of Professional Regulation and eight additional approved programs in secondary and career schools. The current number of nurse assisting programs approved by the Illinois Department of Public Health is 228, of which 43 are in community colleges. Statewide capacity in the fields of nurse assisting and licensed practical nursing should be expanded. Because the majority of training in nurse assisting and several programs in licensed practical nursing exist outside of higher education, expansion of these programs in community colleges should be justified based upon specific local or regional needs.

With the increasing number of students interested in careers in nurse assisting, licensed practical nursing, associate degree nursing, and baccalaureate degree nursing, effective articulation of curricula across these programs continues to be an important concern. A key challenge is to make appropriate levels of nursing available in underserved areas--areas which may not be directly served by local educational programs. Priority should be given to extending nursing programs to off-campus sites and to effectively utilize telecommunications-based instructional delivery systems to offer appropriate nursing courses at off-campus locations.

Allied Health Education. The field of allied health comprises a range of technical specialties and levels of practice. There is considerable variation in academic preparation among allied health professions. Some occupations require short-term training which may be provided in a variety of settings, including secondary schools, career schools, and community colleges as well as on-the-job training. Other professions require associate, baccalaureate, or master's degree preparation. Educational requirements are specified in licensing and certification requirements and are influenced by professional and academic organizations associated with these fields.

The *1992 Assessment* found that between 1980 and 1990 enrollments and degrees in baccalaureate allied health programs decreased about 20 percent, while graduate enrollments increased over 30 percent, and graduate degrees increased almost 10 percent. According to occupational projections produced by the Illinois Department of Employment Security, approximately ten percent of the demand for allied health professionals occurs in occupations that require education at the baccalaureate level and above.

As seen in Table 3, potential shortages are found in several baccalaureate-level allied health occupations--medical laboratory technology, physician assisting, physical therapy, and medical records technology. Capacity in these fields should be expanded over the next three to five years. Expansion of statewide capacity for these fields might require new programs, with priority given to southern Illinois. In a review of the distribution of programs, it was found that programs are not available for students in southern Illinois in physical therapy and physician assisting.

Although the statewide analyses show that the number of graduates exceed employment demand in two fields--occupational therapy and speech pathology and audiology--employers report problems filling vacancies in these fields. The State Board of Education, in its January 1993 *Report of Shortage of Occupational and Physical Therapy Personnel in Public Schools*, found a shortage of occupational therapists in public schools. Further, a survey conducted by the American Hospital Association found a vacancy rate of 17 percent in occupational therapy positions in hospitals. In addition, there are no occupational therapy programs in southern Illinois. Public schools also report unmet demand for speech pathologists. The demand for speech pathologists and audiologists in both the health care industry and educational institutions is expected to increase due to federal requirements for disabled students and the growth in the elderly population. In the field of dietetics and nutrition, the number of graduates is slightly above the projected demand, as seen in Table 3. Statewide capacity in occupational therapy, speech pathology and audiology, and dietetics and nutrition should be monitored to determine if adjustments are needed.

The *1992 Assessment* found that enrollments and degrees in associate and certificate allied health programs increased approximately 16 percent between 1980 and 1990. Since September 1992, the Board of Higher Education has approved community college associate degree programs in radiologic technology and medical laboratory technology, as well as certificate programs in respiratory therapy, phlebotomy, and diagnostic medical sonography.

Table 3 shows that potential shortages exist in fields that generally require a certificate or an associate degree, including dental assisting, dental laboratory technology, surgical technology, physical therapy assisting, and medical records technology. Capacity in these fields should be expanded over the next three to five years. Consideration should be given to cooperative programs to meet regional demand when local demand and student interest is not sufficient to sustain a program.

The number of graduates from occupational therapy assisting, radiologic and nuclear technology, dental hygiene, and respiratory therapy programs exceeds projected demand as shown in Table 3. However, in these cases, employers report problems in filling vacant positions. Vacancy rates for respiratory therapists and radiologic and nuclear technologists in Illinois hospitals indicate that additional demand exists. The State Board of Education also reported the need for more occupational therapy assistants as a result of recent federal legislation. The demand in occupational therapy assisting, radiologic and nuclear technology, dental hygiene, and respiratory therapy should be monitored over the next three years to determine if adjustments in the capacity of educational programs are needed.

The associate and certificate allied health programs offered by community colleges are designed to meet the needs of local employers and the interests of students. While the recommendations noted above are based on statewide occupational demand, specific local needs may differ. Community colleges will need to address both local employer needs and student interests in making capacity

adjustments in programs in allied health fields. Community colleges should coordinate efforts to serve priority needs in allied health on a regional basis.

Nurse assisting, pharmacy technician, emergency medical technology, optometric assisting, and medical assisting, are listed in Table 3. These fields generally do not require college-level preparation for entry-level positions. However, some community colleges provide training in these fields and may need to adjust capacity to respond to specific local needs.

Many allied health professions do not provide clearly defined opportunities for career advancement. Physical therapy assistants, for example, are not generally able to build upon their academic preparation and experience to advance to a baccalaureate or master's degree in physical therapy. Therefore, in addition to the capacity adjustments in the allied health programs suggested above, particular attention should be directed toward cooperative efforts to develop articulated programs to enhance advancement opportunities in these professions.

Additional educational and professional development opportunities in underserved areas can be met through off-campus programs and telecommunications-based instructional delivery systems. Regional consortia and cooperative efforts among colleges, universities, and health care providers should be expected to play a key role in addressing professional development needs in allied health.

Health Services Administration. The *1992 Assessment* found that over the past decade, enrollments in health services administration programs increased over 170 percent and the number of degrees granted increased almost 300 percent. There are six undergraduate programs and nine graduate programs in health services administration in Illinois. Although these programs also provide professional development opportunities for administrators employed in health care, Table 3 shows that the number of graduates exceeds the occupational demand for health care managers to fill new or vacated positions. In addition, other types of programs, such as business and other health programs, qualify graduates for health care management positions. Statewide capacity in health service administration programs should be reduced to achieve a better balance with current and projected occupational demand. The status of programs in this field should be reviewed after planned and proposed changes related to the P•Q•P initiative have been implemented.

Public and Community Health Education. The *1992 Assessment* found that enrollments in public health programs doubled between 1980 and 1990, however the number of degrees granted decreased almost nine percent. Table 3 shows that in 1991 there were over 200 graduates of public and community health programs. Studies related to requirements for public health professionals are lacking, but responses to the *1992 Assessment* indicate that increased attention should be given to public health issues, such as access to health care services, the aging population, maternal and child health issues, and new infectious diseases. One estimate is that there are about 8,000 personnel employed in policy-making and administration of public health in Illinois, and that many have backgrounds in fields other than public health.

With ten master's programs and two doctoral programs in public health and an additional six programs in community health, the number of programs in these fields needs to be reduced. Over the past three years, these 18 programs together averaged 11 graduates. Since public and community health education also is incorporated into other health professions curricula, statewide capacity in these fields can be delivered in a most cost-effective way through a smaller number of programs. The status of programs in this field should be reviewed after planned and proposed changes related to the P•Q•P initiative have been implemented.

Summary

A reassessment of health professions education shows that the Board of Higher Education's current policies on education for the health professions continue to be relevant and that these policies

reflect general goals and directions for the 1990s. As reported in the *1992 Assessment*, minority representation in the health professions is significantly below the proportion of minorities in the state's population. Increasing minority enrollments continues to be a high priority. Shortages of health personnel were identified, resulting in recommendations to expand existing program capacity or add new programs. Table 3 also provides recommendations to maintain, monitor, or decrease other health professions education programs.

Health Services Education Grants Act

Background

The Health Services Education Grants Act was enacted in 1970 to promote Illinois residents' participation in health professions education programs in nonpublic institutions. The program was recommended in the 1968 report, *Education in the Health Fields for the State of Illinois*. In the early 1970's, the Health Education Commission, established by the Board of Higher Education, made recommendations to the Board for allocation of state funds to medical, dental, allied health, and nursing programs based on institutional commitment to increased enrollments. These early grants were used by institutions to fund specific capital improvement projects, as well as operational expenses.

Since 1970, the Act has been amended several times to include additional health programs and to clarify criteria for the distribution of funds and residency requirements. The Board of Higher Education's 1981 study, *An Assessment of Progress Since 1968 In Education For The Health Professions,* recommended specific grant rates for podiatry and optometry, incorporating these two professions into the program. Since fiscal year 1982, minority stabilization and minority increase grants have been awarded to institutions with medical and dental programs to increase opportunities for minorities in these health professions programs. As part of the fiscal year 1988 budget recommendations, chiropractic medical education was included within the medicine category. Amendments to the Act in 1989 and 1992 resulted in the incorporation of optometry, pharmacy, and physician assistant programs.

In fiscal year 1971, total state expenditures for Health Service Education grants were about $8 million and by fiscal year 1975 had increased to $16.6 million. Table 4 displays the state expenditures for the HSEGA program by health profession between fiscal year 1980 and fiscal year 1992. During this period, annual expenditures ranged from $15 million to $17 million, the difference due primarily to fluctuations in enrollment levels.

Grant rates for the Health Services Education Grants program have changed through the years based on Illinois Board of Higher Education policies. Prior to 1979, the rates for medicine, dentistry, nursing, residency, and allied health programs and clinical centers affiliated with public medical schools were based on Board of Higher Education policy recommendations from studies of the 1960s. Since 1979, medicine, dentistry, optometry, podiatry, allied health, nursing, and residency grant allocations have been based on projected enrollments and grant rates specified in rules. Grant amounts were prorated if enrollments and application of maximum grant rates required funds in excess of the appropriation for each class of grant.

Table 5 shows the maximum, established grant rates provided between fiscal year 1979 and fiscal year 1992, although rates were prorated in several health professions over these years, when appropriations were inadequate to fund all enrollments at the maximum grant rate. For five of the health professions, increases in grant rates averaged about 25 percent between 1979 and 1992, although optometry experienced a 71 percent increase and diploma nursing programs a 41 percent increase in grant rates. Grant rates for primary care residencies were established to encourage those hospitals affiliated with the public medical schools to increase the number of residency positions in family practice, pediatrics, obstetrics and gynecology, and internal medicine in Illinois. In order to

Table 4

EXPENDITURES FOR HEALTH SERVICES EDUCATION GRANTS
STATE APPROPRIATED FUNDS

(in thousands of dollars)

Grant Type	Fiscal Year 1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	Percent Change 1980–92
Medicine	$ 8,225	$ 8,764	$ 8,764	$ 8,188	$ 8,845	$ 8,913	$ 8,879	$ 8,649	$ 8,294	$ 8,309	$ 9,584	9,558	$ 9,410	14.4%
Medical Training Clinicals	283	323	366	358	0	0	0	0	0	0	0	0	0	100.0
Residencies	1,126	1,452	1,458	1,429	1,471	1,501	1,758	1,686	1,631	1,612	1,638	1,136	1,054	−6.4
Dentistry	1,550	1,813	1,886	1,848	1,952	1,972	1,916	1,691	1,428	1,336	1,254	1,046	908	−41.4
Podiatry	343	374	358	332	324	338	314	290	288	254	228	257	233	−32.1
Optometry	253	266	274	262	274	274	274	266	263	318	435	434	413	63.2
Nursing	2,337	2,671	2,832	3,043	3,240	3,093	2,914	2,768	2,508	2,299	2,204	2,160	2,370	1.4
Allied Health Programs	1,043	1,112	1,023	953	941	922	923	840	825	827	804	791	856	−17.9
TOTAL	$ 15,160	$ 16,775	$ 16,961	$ 16,413	$ 17,047	$ 17,013	$ 16,978	$ 16,190	$ 15,237	$ 14,955	$ 16,147	$ 15,382	$ 15,244	0.6

Source: 1980–1992 Illinois Annual Reports

Table 5

HEALTH SERVICES EDUCATION GRANTS ACT
MAXIMUM GRANT RATES
(In Dollars)

	Fiscal Year							Percent Change
	1979	1980	1981	1982	1984	1985-1988	1989-1992	1979-92
Medicine								
Illinois Resident	4,200	4,410	4,755	4,890	5,200	5,200	5,200	23.8%
Minority Illinois Resident								
Stabilization				1,500	1,500	1,500	1,500	
Increase over 1980				3,000	3,000	3,000	3,000	
Dentistry								
Illinois Resident	3,000	3,150	3,395	3,490	3,700	3,700	3,700	23.3%
Minority Illinois Resident								
Stabilization				1,000	1,000	1,000	1,000	
Increase over 1980				2,000	2,000	2,000	2,000	
Optometry	1,400	1,470	1,585	1,630	1,700	1,700	2,400	71.4%
Podiatry	1,900	1,995	2,150	2,210	2,400	2,400	2,400	26.3%
Allied Health	1,000	1,050	1,130	1,160	1,200	1,200	1,200	20.0%
Nursing								
Masters	1,700	1,785	1,925	1,980	2,100	2,100	2,100	23.5%
Baccalaureate	850	895	960	990	1,000	1,000	1,100	29.4%
Diploma	425	450	480	495	500	500	600	41.2%
Shortage Area					100	100		
Residencies						6,200	6,200	
Increase over 1971-72	3,000	3,150	3,395	3,490	3,700			
Increase over 1977-78	5,000	5,250	5,660	5,820	6,200			
Increase over 78-79 in shortage area		10,500	11,320	11,866				

Source: Illinois Board of Higher Education Records

promote practice in underserved areas, residency grant rates prior to 1985 were established for an increased number of residencies in designated shortage areas. Since 1985, the three grant rates for residencies have been collapsed into one grant rate.

Historically, the primary purpose of HSEGA has been to increase Illinois resident participation in nonpublic health professions programs in Illinois and to enhance minority participation in these programs. Grant rates were established to provide incentives to achieve those policy objectives. Analysis of the Health Services Education Grants Act and review of the educational needs in the health professions indicate that there is a need to adjust program capacity, and therefore grant rates, to better align program enrollments with supply and demand in the various health professions. Grant rates should also be reviewed to ensure that they reflect the differing program costs of educating different types of health professionals. Further, incentives to increase minorities in health professions education programs need to be strengthened. Finally, because there continues to be a shortage of primary care physicians, additional incentives are needed to increase the number of physicians in primary care and to promote practice in underserved areas.

HSEGA Grant Rates and Allocations

Adjustments in HSEGA grant rates should provide appropriate incentives for institutions to adjust capacity to bring supply into balance with projected occupational demand. Occupational supply and demand data were analyzed earlier in this report. Shortages were found to exist for several of the allied health fields, pharmacy, and nursing, but statewide capacity in chiropractic medicine, optometry, and podiatry was found to be adequate to meet the projected demand in Illinois. The number of primary care physicians and physicians practicing in underserved areas was found to be insufficient. Projected demand for dentists and the closing of Loyola University Dental School led to recommendations for monitoring of dental graduations over the next three years. The fields of medicine, health services administration and public and community health were found to be oversupplied and recommendations were made to reduce enrollments in these areas.

Proposed HSEGA grant rates also should reflect the differential costs of educating health professionals in the different fields of study. Cost studies using comparable methodologies to calculate instructional costs in each health discipline in Illinois do not currently exist. However, through analysis of comparative data for the year 1988, instructional cost per enrollment was approximated for each health profession. A 1989 survey of Illinois public medical and dental school instructional costs per full-time-equivalent student, the Integrated Postsecondary Education Data System (IPEDS), and the 1989 Program Major Cost Study provided the basis for a comparative analysis. Table 6 provides a summary of the ranges of cost by health profession for fiscal year 1988 in both public and nonpublic health programs. The cost of programs in medicine and dentistry were found to exceed those of the other health programs. Because the estimated cost of chiropractic education is substantially lower than medical education and is more comparable to optometry, podiatry, and pharmacy, it is recommended that chiropractic medicine should be established as a separate category from medicine.

The percentage of Black and Hispanic students in virtually all areas of health professions education continues to be well below their representation in the state's population. Because the current policy objective has not been achieved, additional incentives are needed to address access, retention, and success of minority students in health professions programs. Consideration should be given to two related provisions: (1) larger incentives for increasing minority student enrollment should be provided and programs should be eligible for grants only if they have historically increased minority enrollments; and (2) the minority incentive grant program should be reevaluated after three years to determine if the larger incentives are leading to significant increases in minority enrollments. Minority incentive grants should be discontinued in program areas where they are not making a difference and alternative programs should be considered, such as competitive grants.

Table 6

COMPARISON OF ESTIMATED INSTRUCTIONAL COST
IN PUBLIC AND NONPUBLIC INSTITUTIONS
FY1988

Health Professions	Range of Instructional Cost/Enrollment
Medicine	$ 24,000-39,000
Dentistry	14,000-32,000
Chiropractic, Podiatry, Optometry, Pharmacy	4,000- 5,000
Nursing (undergraduate)	4,000- 6,600
Nursing (graduate)	10,000-11,000
Allied Health (undergraduate)	1,600- 5,700
Allied Health (graduate)	2,400-14,500

The *1992 Assessment* also found that Southern Illinois University School of Medicine and the University of Illinois at Chicago supply the largest number of medical graduates who practice in Illinois. At the same time, primary care physician shortages exist in many areas of Illinois. Studies have shown that location of residency programs strongly affects physician choice of practice location. Therefore, HSEGA grant rates were established to promote practice of primary care in Illinois by providing grant funds to hospital programs affiliated with public medical schools. In fiscal year 1992, eight hospital affiliates and 14 primary care programs with Southern Illinois University at Carbondale and seven hospital affiliates and 14 programs with University of Illinois at Chicago were funded. However, the number of Illinois residents in these residency programs has declined from 284 in fiscal year 1990 to 164 in fiscal year 1993. Consideration needs to be given to strengthening incentives to increase the number of physicians practicing in primary care, particularly family practice, and to promote practice in underserved areas of Illinois. In addition, consideration should be given to expanding the grant program to provide support for primary care residency programs affiliated with private medical schools. These changes should be implemented on a pilot basis for three years. If increases in these residency programs have not occurred, funding should be discontinued or reallocated to support other means, including scholarship programs, that achieve the objective of increasing the number of primary care physicians practicing in underserved areas in Illinois.

Proposed HSEGA Rule Changes

Allied Health Definition. The current rules for administration of the Health Services Education Grants Act provide no explicit criteria for either including or excluding institutional degree programs in the allied health classifications, other than the requirement that the program must be accredited.

The federal Public Health Services Act, Title VII, section 701, enacted in 1989 defines an "allied health professional as one who: shares responsibility for delivery of health services or related services including those relating to identification, evaluation, and prevention of disease and disorders; dietary and nutrition services; health promotion services; rehabilitation services; or health systems management services; and has a certificate, an associate degree, a bachelor's degree, a doctoral degree, or postbaccalaureate training in a science related to health care; but does not have a degree of doctor of medicine, osteopathy, dentistry, or veterinary medicine or doctor of optometry, podiatry, or chiropractic; a degree of bachelor of science or doctor of science of pharmacy; a graduate degree in public health or health administration; a doctoral degree in clinical psychology; a degree in nursing or social work; or a degree equivalent to these."

In order to clarify and facilitate the administration of this particular part of the Health Services Education Grants Act, Board of Higher Education staff believe that a definition for allied health

. should be incorporated into the rules. In addition, staff recommend adapting the federal definition to the Classification for Instructional Programs (CIP) which is used to classify all degree programs in the program inventory maintained by the Board. Table 7 indicates those professions that would be consistent with the federal definition.

Table 7

ALLIED HEALTH DEFINITION

CIP code	Allied Health Profession
51.02	Communication Disorder Sciences
51.03	Community Health Services
51.06	Dental Services (dental hygienist, lab technician, or assistant)
51.0707	Medical Records Technology/Technicians
51.08	Health and Medical Assistant
51.09	Health and Medical Diagnostic/Treatment (radiologic, respiratory, and surgical technician)
51.10	Health and Medical Laboratory Technology
51.18	Ophthalmic and Optometric Services
51.23	Rehabilitation and Therapeutic Services (physical, occupational, art, recreational, and music therapists and assistants)
51.26	Miscellaneous Health Aides
51.2702	Medical Dietician
51.2703	Medical Illustration

Accreditation Standard. Accreditation is a process of external review by a private, nongovernment agency or association which grants peer recognition to an institution or specialized program of study that meets certain established qualifications and educational standards. This process provides an accountability mechanism by which the Board of Higher Education can ensure that grants are provided to those programs that meet professional standards. Staff recommend that all programs funded under HSEGA be fully accredited or be formally classified by the appropriate specialized accrediting body as a "candidate for accreditation".

Summary

The Health Services Education Grants Act was established in 1970 to promote Illinois residents' participation in the health professions. Since that time, program emphasis and grant rates have changed to reflect Board of Higher Education policies. The current program provides funds to nonpublic institutions for medical, dental, chiropractic, podiatric, optometric, nursing, and allied health education and to hospital residency programs affiliated with public medical schools. A review of the Health Services Education Grants Act and review of the educational needs in the health professions indicates a need to adjust health professions' program capacity and align program enrollments with supply and demand in the various health professions. Grant rates should reflect the differential program costs of educating health professionals. Because past incentives have failed to increase minorities in private medical and dental schools, new incentives should be developed to promote minority student enrollments. Finally, because there continues to be a shortage of primary care physicians, expanded incentives are needed to increase the number of physicians in primary care and to promote practice in underserved areas.

Conclusions and Recommendations

The Board's current policies on education for the health professions were developed in the early 1980s and reflect goals and directions that continue to be relevant in the 1990s. However, many new developments have influenced health care and health professions during the last decade, and specific

program directions should be revised accordingly. A number of short-term capacity adjustments have been identified that need to be considered in the priorities, quality, and productivity context. Also, a number of modifications in HSEGA grant rates and rules need to be considered. The following conclusions and recommendations are presented for consideration of the Board of Higher Education and colleges and universities. Specific recommendations for Board action will be made in September 1993 after comments have been received from Illinois colleges and universities and other organizations that have an interest in health professions education policies.

Policy Directions for Health Professions Education

Many factors have influenced health care and health professions during the last decade and further changes can be expected as major efforts are initiated at the national and state levels to address health care issues. The following general goals and directions are suggested for Board consideration to guide higher education's response to the changing needs for education for the health professions:

1. Illinois colleges and universities should provide high quality programs in the health professions to meet the needs of the citizens of the state and the health care industry for qualified health care professionals. Priority should be given expanding educational opportunities in fields where there are shortages of qualified personnel and to serving areas of the state that have been identified as having inadequate numbers of health professionals.

2. Access, retention, and success of minority students in health professions programs should be expanded and improved.

3. In fields where shortages of qualified professionals exist, priority should be placed on providing academic programs that prepare individuals for entry to the profession. Statewide capacity in entry programs should be monitored on a regular basis to assure that program capacity is in balance with occupational demand.

4. Illinois colleges and universities should provide adequate capacity in programs that provide professional advancement opportunities for health care professionals and meet the need for qualified leadership in the health care industry. All institutions should cooperate in the development of articulated programs to enhance advancement opportunities. Illinois universities also should provide programs that prepare faculty for teaching in health education programs, and support research and public service in health care disciplines.

5. Colleges and universities are encouraged to develop cooperative initiatives with health care providers to develop programs, provide clinical experiences for students, provide professional development opportunities for faculty and health care providers, and share facilities and equipment.

6. Because of the high cost of programs in many of the health professions, colleges and universities are encouraged to develop cooperative programs to extend access to and improve the quality of programs in the health professions; to provide educational opportunities in underserved areas through off-campus programs and telecommunications; to improve articulation among programs; and to reduce or eliminate programs in health professions where the supply of graduates exceeds occupational demand.

Immediate Priorities in Health Professions Education

Program capacity in the health professions needs to be continually adjusted to meet occupational demands. Analyses of health professions education programs in this report found six fields where expansion of existing programs is needed, six fields where new programs are needed to meet the demand, three health professions that should be maintained at current levels, eight fields where program capacity should be monitored, and three fields that should be reduced. Further, policy directions need to be established to encourage productivity improvements in the delivery of health professions education, particularly in underserved areas. The following recommendations are presented to the Board for consideration and discussion:

1. Statewide capacity should be increased through expansion of existing programs in dental assisting, dental laboratory technology, medical laboratory technology, medical records technology, nursing, and primary care residencies. Additional programs for pharmacy, physician assisting, physical therapy, physical therapy assisting, practical nursing, and surgical technology should be considered. Priority for both new programs and expansion of existing programs should be given to institutions with missions related to health care needs and institutions serving underserved areas.

2. Statewide capacity in educational programs in the following fields should be monitored to determine if adjustments in capacity should be made: dietetics and nutrition, dentistry, occupational therapy, dental hygiene, radiologic technology and nuclear technology, speech pathology and audiology, occupational therapy assisting, and respiratory therapy.

3. Statewide capacity in educational programs in the following fields should be maintained: chiropractic medicine, optometry, and podiatry.

4. Statewide capacity in educational programs in the following fields should be reduced: medicine, health services administration, and public and community health.

5. Delivery of health professions education in underserved areas should capitalize upon opportunities to share resources and to effectively coordinate the collective contributions of colleges and universities. Specifically, regional consortia should play an important role in identifying regional priorities in health professions education and developing cost-effective approaches to program delivery.

6. Colleges and universities should provide increased opportunities for practicing health professionals to upgrade their skills and knowledge and to pursue advanced levels of education within their chosen profession. Resolution of curricular articulation problems across different educational levels should be a high priority of the Illinois Board of Higher Education, the Illinois Community College Board, and colleges and universities.

7. Colleges and universities and regional consortia should make effective use of telecommunications-based instructional delivery systems to deliver health professions education programs, particularly in underserved areas.

8. Colleges and universities should expand efforts to coordinate delivery of degree programs, as well as continuing education programs, with health care providers and provider organizations.

9. Southern Illinois University should develop a comprehensive plan for serving health professions education priorities in southern Illinois. This plan should include a restructuring of existing programs offered in Carbondale, Edwardsville, and Springfield and would potentially include the elimination of certain programs, the relocation of other programs, the conversion of some associate degree programs to baccalaureate programs,

and the establishment of new programs. This plan should be carefully coordinated with regional consortia and affiliated community colleges.

10. The University of Illinois should continue to place a high priority on its mission to serve the urban health care needs of the Chicago Metropolitan Area. The University should support other colleges and universities to provide cost-effective health professions' education programs in the Chicago Metropolitan Area.

11. Community colleges should continue to place high priority on meeting local needs for educational programs in allied health and nursing. Further efforts are needed to coordinate programs among community colleges and with other institutions to meet regional needs.

12. Private colleges and universities should consider the recommended capacity adjustments provided in this report in making decisions about program development and reductions.

HSEGA Grant Rate Adjustments and Rules Changes

This report also reexamined the Health Services Education Grants Act (HSEGA). Findings indicate that current incentives have not significantly strengthened minority participation in health education programs in nonpublic institutions. Further, grant rate adjustments should be made based upon program costs and occupational supply and demand projections. A definition for allied health that corresponds to the federal definition is proposed to facilitate the administration of the Health Services Education Grants Act, and an accreditation standard is recommended for all health programs administered under the Act. The following policy directions are presented for Board consideration:

1. HSEGA grant rates should be adjusted to better reflect instructional costs and occupational supply and demand projections in the various categories of health education. Specifically, grant rates in medicine should be reduced; grant rates in dentistry, optometry, and podiatry should be maintained at approximately current levels; and grant rates in allied health and nursing should be increased.

2. A separate HSEGA category should be established for chiropractic medicine with a grant rate comparable to optometry and podiatry.

3. Grant rates for primary care residencies should be increased and hospitals affiliated with both public and private medical schools should be eligible for these grants.

4. Minority incentive grant rates should be increased and applied to all fields of health professions education. Minority grants should be awarded only to programs that have increased minority participation.

5. Administrative rules should be amended to reflect the definition of allied health, the accreditation standard proposed in this report, and grant rate adjustments.

APPENDIX

CURRENT BOARD OF HIGHER EDUCATION POLICIES ON HEALTH PROFESSIONS EDUCATION

1. The Illinois Board of Higher Education reaffirms the goal for all health professions programs of a minority enrollment that corresponds to the racial and ethnic population of the state or of the specific area within the state served by an institution.

2. Medical school enrollments should not exceed 1980 entering class levels.

3. The regionalized medical education programs should be continued, and modifications in such programs, if any, should be directed to establishing affiliated residency programs in remaining underserved rural and urban areas.

4. The Illinois Board of Higher Education reaffirms the goals of emphasizing primary-care specialties and of establishing enough first-year residency positions in programs affiliated with medical schools to equal the number of graduates from the medical schools.

5. New allied health education programs should be approved only if they are consistent with the institution's mission, meet documented specific manpower needs, are assured of adequate clinical affiliations, and do not contribute to over-specialization.

6. Institutional reviews of allied health education programs should give particular attention to the qualitative aspects of programs and to the employability of program graduates.

7. Master's and doctoral degree nursing programs should continue to be expanded.

8. Existing baccalaureate degree programs in nursing should increase their enrollments, and existing accredited programs should offer off-campus baccalaureate completion programs where a demonstrated need for such programs exists. No new generic nursing programs and no new free-standing baccalaureate degree completion programs in nursing should be established unless a compelling need can be demonstrated.

9. No new associate degree programs in nursing should be established unless a compelling need can be demonstrated.

10. Problems related to the transfer of credit from associate degree and diploma programs to baccalaureate degree programs in nursing should be identified and reported to the Illinois Board of Higher Education.

11. Veterinary medicine school enrollments should not exceed 1980 entering class levels.

12. The entering class size of each Illinois dental school should be modestly reduced below the fall 1981 level, and staff should continue to monitor enrollment trends and the need for dental manpower throughout the state.

13. The Illinois Board of Higher Education's highest priorities for medical education should be programs that will cause graduates to practice in medically underserved areas in the state and that will increase substantially the representation of racial and ethnic minorities among physicians. Resources for such programs should be made available from state resources currently committed to medical education.

14. The Illinois Board of Higher Education should give priority to existing programs designed to increase the number of minorities qualified for medical education and increase the number of minorities in medical education.

15. The Illinois Board of Higher Education should continue to monitor minority enrollments in medical education and, if medical schools do not achieve minority enrollment goals, seek statutory authority for funding the Meharry Medical College proposal, with such funds to be reallocated from existing state allocations to medical schools and with medical school enrollments reduced accordingly.

16. The State of Illinois should expand the scholarship program under the Illinois Department of Public Health in order to support 100 graduates per year or should establish a similar replacement program which includes an obligation to practice in an underserved area, with penalty for failure to practice in an underserved area, and emphasis on minority students and students from medically underserved areas.