

NACNFP

National Advisory Council on Nurse Education and Practice

The Impact of the Nursing Faculty Shortage

On Nurse Education and Practice

Ninth Annual Report

To the Secretary of the U.S. Department of Health and Human Services
and the U.S. Congress

August 2010

Table of Contents

Charter of National Advisory Council on Nurse Education and Practice	i
Members of the 119 th Meeting of the National Advisory Council on Nurse Education and Practice.....	v
Acknowledgements.....	iii
Abstract.....	1
Executive Summary	2
Options for addressing these challenges	4
Recommendations	7
1. Background.....	8
2. Factors Contributing to the Nursing Faculty Shortage	14
2.1. Challenges in recruitment.....	15
2.2. Challenges in providing adequate nurse educational preparation specific to teaching.....	20
2.3. Challenges in sustaining and funding nursing faculty programs	21
2.4. Challenges associated with the aging and imminent retirement of current nurse faculty..	23
3. Options to Alleviate the Shortage of Nursing Faculty.....	24
3.1. Options for addressing challenges in recruitment and retention of qualified nurse faculty	24
3.2. Options for providing adequate educational preparation specific to teaching	29
3.3. Options for addressing challenges for sustaining and funding nurse faculty programs.....	30
3.4. Options for addressing challenges related to the aging and imminent retirement of current nurse faculty	32
4. Recommendations.....	34
References.....	37

Table of Figures:

Figure 1: Options for Addressing Challenges Related to the Nursing Faculty Shortage	5
Figure 2: Observed and Projected Average Age of, Supply of, and Demand for Full-Time Equivalent (FTE) Registered Nurses (RNs), 1973-2025	8
Figure 3: Qualified Applications Turned Away	10
Figure 4: Age of Full-Time Faculty.....	12
Figure 5: Key Challenges and Contributing Factors Related to the Nursing Faculty Shortage ...	14
Figure 6: Factors Contributing to Nurse Faculty Job Dissatisfaction.....	16
Figure 7: Comparison - Salaries for Nurse Faculty vs. Clinicians	18
Figure 8: Options for Addressing Underlying Causes.....	24
Figure 9: Strategies Used to Impact Nurse Faculty Decisions for Early Retirement	27

The National Advisory Council on Nurse Education and Practice (NACNEP) advises the Secretary of the U.S. Department of Health and Human Services and the U.S. Congress on policy issues related to programs authorized by Title VIII of the U.S. Public Health Service Act and administered by the Health Resources and Services Administration (HRSA), Bureau of Health Professions (BHP), Division of Nursing (DN), including nurse workforce supply, education, and practice improvement.

Charter of National Advisory Council on Nurse Education and Practice

Purpose

The Secretary and, by delegation, the Administrator of the Health Resources and Services Administration (HRSA), are charged under Title VIII of the Public Health Service Act, as amended, with responsibility for a wide range of activities in support of nursing education and practice which include: enhancement of the composition of the nursing workforce, improvement of the distribution and utilization of nurses to meet the health needs of the Nation, expansion of the knowledge, skills, and capabilities of nurses to enhance the quality of nursing practice, development and dissemination of improved models of organization, financing and delivery of nursing services and promotion of interdisciplinary approaches to the delivery of health services particularly in the context of public health and primary care.

Authority

42 United States Code (USC) 297t; Section 851 of the Public Health Service Act, as amended. The Council is governed by provisions of Public Law 92-463, which sets forth standards for the formation and use of advisory committees.

Function

The Advisory Council advises and makes recommendations to the Secretary and Congress on policy matters arising in the administration of Title VIII including the range of issues relating to the nurse workforce, nursing education and nursing practice improvement. The Advisory Council may make specific recommendations to the Secretary and Congress regarding programs administered by the Division of Nursing particularly within the context of the enabling legislation and the Division's mission and strategic directions, as a means of enhancing the health of the public through the development of the nursing workforce.

Additionally, the Advisory Council provides advice to the Secretary and Congress in preparation of general regulations and with respect to policy matters arising in the administration of this title including the range of issues relating to nurse supply, education and practice improvement.

Structure

The Advisory Council shall consist of the Secretary or delegate who shall be an ex officio member and shall serve as the Chairperson, and not less than twenty-one (21), nor more than twenty-three (23) members selected by the Secretary. Two of the appointed members shall be selected from full-time students representing various levels of education in schools of nursing;

two shall be selected from the general public; two shall be selected from practicing professional nurses; and nine shall be selected from among the leading authorities in the various fields of nursing, higher secondary education and associate degree schools of nursing, and from representatives of advanced education nursing groups (such as nurse practitioners, nurse midwives, and nurse anesthetists), hospitals and other institutions and organizations which provide nursing services. The Secretary shall ensure a fair balance between the nursing profession, with a broad geographic representation of members, a balance between urban and rural members and the adequate representation of minorities. The majority of members shall be nurses.

The Secretary shall appoint members to serve for overlapping 4-year terms. Members will be appointed based on their competence, interest, and knowledge of the mission of the nursing profession. Members appointed to fill vacancies occurring prior to the expiration of the term for which their predecessors were appointed shall be appointed only for the remainder of such terms. A student member may continue to serve the remainder of a 4-year term following completion of a nurse education program. Members may serve after the expiration of their term until their successors have taken office.

Subcommittees composed of members of the parent Advisory Council shall be established with the approval of the Secretary of HHS or his designee to perform specific functions within the Advisory Council's jurisdiction. The Department Committee Management Officer will be notified upon establishment of each of the subcommittees and will be provided information on its name, membership, function and established frequency of meetings.

Management and support services shall be provided by the Division of Nursing, Bureau of Health Professions, Health Resources and Services Administration.

Meetings

Meetings shall be held at least two times a year at the call of the Designated Federal Officer or designee who shall approve the agenda and shall be present at all meetings. Meetings shall be held jointly with related entities established under this title where appropriate including the Council on Graduate Medical Education; Advisory Committee on Interdisciplinary, Community-Based Linkages; and the Advisory Committee on Training in Primary Care Medicine and Dentistry.

Not later than 14 days prior to the convening of a meeting, the Advisory Council shall prepare and make available an agenda of the matters to be considered by the Advisory Council at such meeting. At any such meeting, the Advisory Council shall distribute materials with respect to the issues to be addressed at the meeting. No later than 30 days after the adjournment of this meeting, the Advisory Council shall prepare and make available to the public a summary of the meeting and any actions taken by the Advisory Council based upon the meeting. Meetings shall be open to the public except as determined by the Secretary or other official to whom the authority has been delegated in accordance with the Government in the Sunshine Act (5 USC 552b(c)) and the Federal Advisory Committee Act (FACA). Notice of meetings shall be

given to the public. Meetings shall be conducted, and records of the proceedings kept as required by applicable laws and Departmental regulations.

Compensation

Members who are not full-time Federal employees shall be compensated at a rate equal to the daily equivalent of the annual rate of basic pay prescribed for Level IV of the Executive Schedule under section 5315 of title 5, United States Code, for each day (including travel time) during which such member is engaged in the performance of the duties of the Advisory Council. Members shall be allowed travel expenses, including per diem in lieu of subsistence, at rates authorized for employees of agencies under subchapter I of chapter 57 of Title 5, USC, while away from their homes or regular places of business in the performance of services for the Advisory Council. Any such travel shall be approved by a Federal Government official in accordance with Standard Government Travel Regulations.

Annual Cost Estimates

Estimated annual costs for operating the Advisory Council, including compensation and travel expenses for members but excluding staff support, is \$336,524. Estimate of staff-years of support required is 2.2 at an estimated annual cost of \$256,136.

Reports

The Advisory Council shall annually prepare and submit to the Secretary, the Committee on Health, Education, Labor, and Pensions of the Senate and the Committee on Energy and Commerce of the House of Representatives, a report describing the activities of the Advisory Council including its findings and recommendations.

In the event a portion of a meeting is closed to the public, as determined by the Secretary, in accordance with the government in the Sunshine Act (5 U.S.C. 552b(c)) and (FOIA), a report shall be prepared which shall contain at a minimum a list of members and their business addresses, the Advisory Council's functions, dates and places of meetings and a summary of Advisory Council activities and recommendations made during the fiscal year. A copy of the report shall be provided to the Department Committee Management Officer.

Termination Date

The duration of the National Advisory Council on Nurse Education and Practice is continuing. Unless renewed by appropriate action prior to its expiration the National Advisory Council on Nurse Education and Practice will terminate on November 30, 2010.

The Impact of the Nursing Faculty Shortage on Nurse Education and Practice

Members of the 119th Meeting of the National Advisory Council on Nurse Education and Practice

November 13 – 14, 2008

Michele Richardson, MS, BSN, RN
Chair, NACNEP
Director, Division of Nursing
Bureau of Health Professions
Health Resources and Services Administration
5600 Fishers Lane, Room 8C-26
Rockville, MD 20857

Shirlee Drayton-Brooks, PhD, RN, CRNP,
APRN, BC, CRRN (11)
Director, Family Nurse Practitioner Program
Widener University
Chester, PA 19013

Ellyn Elizabeth Cavanagh, PhD, MN,
CPNP (11)
Assistant Professor
Seattle University, College of Nursing
901 12th Avenue, PO Box 222000
Seattle, WA 98122

Karen Drenkard, RN, PhD, NEA-BC (11)
Director, Magnet Recognition Program
American Nurses Credentialing Center
8515 Georgia Avenue, Suite 400
Silver Spring, MD 20910

Nancy V. Douglas-Kersellus, BSN, RN
Acting Executive Secretary, NACNEP
Division of Nursing
Bureau of Health Professions
Health Resources and Services Administration
5600 Fishers Lane, Room 8C-25
Rockville, MD 20857

Helen K. Burns, PhD, BSN, RN (09)
Associate Professor and Associate Dean
University of Pittsburgh, School of Nursing
350 Victoria Building
Pittsburgh, PA 15261

Karen Cox, RN, PhD, FAAN (10)
Executive Vice President and
Co-Chief Operating Officer
Children's Mercy Hospitals and Clinics
2401 Gillham Road
Kansas City, MO 64108

Jeanette Ives Erickson, MS, RN, FAAN (11)
Senior Vice President for Patient Care
Services and Chief Nurse Executive
Massachusetts General Hospital
55 Fruit Street, BUL 230
Boston, MA 02114

M. Jean Gilbert, PhD (11)
Director, Cultures in the Clinic
Cultural Responsiveness in Health Care
5254 Calle Morelia
Santa Barbara, CA 93111

Diana R. Jolles, CNM, MSN (10)
General Director
Family Health and Birth Center
1418 W Street, NW, #304
Washington, DC 20009

Cydne Marckmann, MN, ARNP (10)
Advanced Registered Nurse Practitioner
Sound Family Medicine
3908 10th Street, SE
Puyallup, WA 98374

Ann Minnick, PhD, RN, FAAN (10)
Julia Eleanor Chenault Professor of Nursing
Vanderbilt University, School of Nursing
Room 424 Godchaux Hall, 21 Avenue South
Nashville, TN 37420

Bettie J. Glenn, RN, EdD (11)
Associate Dean Academic Affairs
University of North Carolina, Wilmington
601 S. College Road
Wilmington, NC 28403

Haley M. Hoy, MS, ACNP (09)
Doctoral Student
Vanderbilt Medical Center
913 Oxford House
Nashville, TN 37212

Maureen R. Keefe, RN, PhD, FAAN (10)
Dean and Professor
University of Utah, College of Nursing
10 South 2000 East
Salt Lake City, UT 84112

John J. Nagelhout, PhD, CRNA, FAAN (11)
Director, Kaiser Permanente
School of Anesthesia
California State University, Fullerton
100 S. Los Robles, Suite 550
Pasadena, CA 91188

Janet Simmons Rami, PhD, RN (09)
Dean and Professor
Southern University and A & M College
School of Nursing
PO Box 11794
Baton Rouge, LA 70813

Diane J. Skiba, PhD, FAAN, FACMI (11)
Professor and Project Director
I-Collaboratory: Partnerships in Learning
University of Colorado, Denver
School of Nursing, Campus Box C-288-03
Bldg P28, Education 2 North, Room 4215
13120 E. 19th Avenue
Aurora, CO 80045

Joyce Elaine Beebe Thompson, RN, CNM,
DrPH, FAAN (11)
Bernadine M. Lacey Professor of Community
Health Nursing
Western Michigan University
Bronson School of Nursing
1903 West Michigan Avenue
Kalamazoo, MI 49008

Delois P. Weekes, RN, BS, MS, DNSc (09)
Chamberlain College of Nursing
St. Louis Campus
6150 Oakland Avenue
St. Louis, MO 63139

Rhonda A. Scott, PhD, RN, CS (11)
Chief Nursing Officer
Senior Vice President Patient Care Services
Grady Health System
80 Jesse Hill Jr. Drive
Atlanta, GA 30303

Brandon N. Thomas, MSN, MPH,
RN, CPNP (11)
Doctoral Student
Case Western Reserve University
Frances Payne Bolton School of Nursing
10900 Euclid Avenue, Room 44106
Cleveland, OH 44106

Elias P. Vasquez, PhD, NP, FAAN (09)
Associate Dean of Academic Programs
and Associate Professor
University of Miami
School of Nursing and Health Sciences
5801 Red Road
Coral Gables, FL 33143

Members of the 120th Meeting of the National Advisory Council on Nurse Education and Practice April 22 – 23, 2009

Michele Richardson, MS, BSN, RN
Chair, NACNEP
Director, Division of Nursing
Bureau of Health Professions
Health Resources and Services Administration
5600 Fishers Lane, Room 8C-26
Rockville, MD 20857

Shirlee Drayton-Brooks, PhD, RN, CRNP,
APRN, BC, CRRN (11)
Associate Professor
Director, Doctorate in Nursing Practice Program
& Family Nurse Practitioner Program
Widener University
Chester, PA 19013

Ellyn Elizabeth Cavanagh, PhD, MN,
CPNP (11)
Assistant Professor
Seattle University, College of Nursing
901 12th Avenue, PO Box 222000
Seattle, WA 98122

Karen Drenkard, RN, PhD, NEA-BC, FAAN
(11)
Director, Magnet Recognition Program
American Nurses Credentialing Center
8515 Georgia Avenue, Suite 400
Silver Spring, MD 20910

Lakisha Smith, MPH
Executive Secretary, NACNEP
Division of Nursing
Bureau of Health Professions
Health Resources and Services Administration
5600 Fishers Lane, Room 8C-26
Rockville, MD 20857

Karen Cox, RN, PhD, FAAN (10)
Executive Vice President and
Co-Chief Operating Officer
Children's Mercy Hospitals and Clinics
2401 Gillham Road
Kansas City, MO 64108

Jeanette Ives Erickson, MS, RN, FAAN (11)
Senior Vice President for Patient Care
Services and Chief Nurse Executive
Massachusetts General Hospital
55 Fruit Street, BUL 230
Boston, MA 02114

M. Jean Gilbert, PhD (11)
Director, Cultures in the Clinic
Cultural Responsiveness in Health Care
5254 Calle Morelia
Santa Barbara, CA 93111

Diana R. Jolles, CNM, MSN (10)
Adjunct Professor
Texas A & M University
3010 Austin Street
Corpus Christi, TX 78404

Cydne Marckmann, MN, ARNP (10)
Advanced Registered Nurse Practitioner
Sound Family Medicine
3908 10th Street, SE
Puyallup, WA 98374

Ann Minnick, PhD, RN, FAAN (10)
Julia Eleanor Chenault Professor of Nursing
Vanderbilt University, School of Nursing
Room 415 Godchaux Hall,
461 21st Avenue South
Nashville, TN 37420

Bettie J. Glenn, RN, EdD (11)
Associate Dean for Academic Affairs
School of Nursing
University of North Carolina Wilmington
601 S. College Road
Wilmington, NC 28403-5995

Maureen R. Keefe, RN, PhD, FAAN (10)
Dean and Professor
University of Utah, College of Nursing
10 South 2000 East
Salt Lake City, UT 84112

John J. Nagelhout, PhD, CRNA, FAAN (11)
Director, Kaiser Permanente
School of Anesthesia
California State University, Fullerton
100 S. Los Robles, Suite 550
Pasadena, CA 91188

Brandon N. Respress, MSN, MPH,
RN, CPNP (11)
Doctoral Student
Case Western Reserve University
Frances Payne Bolton School of Nursing
10900 Euclid Avenue, Room 44106
Cleveland, OH 44106

Diane J. Skiba, PhD, FAAN, FACMI (11)
Professor and Project Director
I-Collaboratory: Partnerships in Learning
University of Colorado, Denver
College of Nursing, Campus Box C-288-03
Bldg. P28, Education 2 North, Room 4215
13120 E. 19th Avenue
Aurora, CO 80045

Joyce Elaine Beebe Thompson, RN, CNM,
DrPH, FAAN (11)
Bernardine M. Lacey Professor of Community
Health Nursing
Western Michigan University
Bronson School of Nursing
1903 West Michigan Avenue
Kalamazoo, MI 49008

Rhonda A. Scott, PhD, RN, CS (11)
Chief Nursing Officer
Senior Vice President Patient Care Services
Grady Health System
80 Jesse Hill Jr. Drive
Atlanta, GA 30303

Acknowledgements

The National Advisory Council on Nurse Education and Practice is grateful to the many experts whose presentations and publications provided information and insights that were considered in formulating the recommendations set out in this report.

We also appreciate the members of the public who attended our meetings and presented observations and suggestions regarding the nurse faculty shortage for the Council's consideration.

Abstract

The United States is experiencing a significant shortage of nurses. This shortage is expected to worsen as the need for nurses sharply increases. As the population ages, the number of citizens experiencing chronic illness grows. Emergent health care policy calls for more primary care services requiring the recognition and utilization of all appropriately credentialed and competent primary care providers. Health care disparities across populations remain problematic. These and other factors call for the education and deployment of many more nurses. The American Association of Colleges of Nursing reports that 49,498 qualified applicants were turned away from baccalaureate and graduate nursing programs in 2008. **Schools of nursing cited insufficient numbers of faculty as a leading factor in their inability to admit the increasing number of applicants.** Clearly, in order to expand the pipeline of the nurse workforce, the deficit in nurse educators must be addressed.

No single reason explains this deficit of nurse educators in the United States; however, a number of researchers have studied the issue and have identified key factors at the root of the nursing faculty shortage. Among these critical factors are:

- Recruitment challenges, including:
 - Difficulties in attracting and retaining qualified nurse faculty;
 - Challenges in achieving demographic diversity within nursing faculty;
 - A general lack of awareness on the part of the public and among nurses that the faculty role is a viable career objective;
- Problems in providing adequate nurse educational preparation specific to teaching;
- Obstacles to sustaining and funding nurse faculty programs; and
- The aging and imminent retirement of current nurse faculty.

While little can be done about the aging out of the current nurse faculty, much can be done to retain, replenish, and enlarge the future nurse faculty workforce by directing effort toward overcoming the other key factors. To address this challenge, the National Advisory Council on Nurse Education and Practice (NACNEP) reviewed the issue of nurse faculty shortages at its November 2008 and April 2009 meetings and developed the set of recommendations that are the focus of this report.

Executive Summary

Nurses are critical to ensuring quality of health care for the nation's citizens. However, the United States is currently experiencing a shortage of nurses and that shortage is expected to worsen drastically in the next few years. In 2000, the supply of registered nurses (RNs) fell short of the demand by 6%. That demand shortfall is expected to increase to 36% by 2020. In this time of massive health care need and efforts to reform the system of health care significantly, this critical reduction in frontline health professionals is exceedingly problematic. While public attention is repeatedly being drawn to the need for more primary care physicians, the need for increasing the number of nurses, though equally critical, has drawn somewhat less attention.

In spite of the shortage of nurses, the American Association of Colleges of Nursing reported that 49,948 qualified applicants were *turned away* from baccalaureate and graduate nursing programs in 2008, citing insufficient numbers of faculty as a major contributing issue. A survey of nursing programs demonstrated that 76.1% of respondents attributed the need to turn away qualified applicants due to the shortage of faculty. In spite of a growing need for more nurses, we do not have the faculty to educate qualified, interested students. This report addresses perhaps the single most important factor that limits the nation's ability to produce more nurses: the shortage of nurse faculty to educate those who desire to enter the nursing profession.

Why are our nursing schools experiencing a problem maintaining sufficient faculty? Among the key challenges at the root of the nurse faculty deficit are:

- Recruitment challenges, including:
 - Challenges in attracting and retaining qualified nurse faculty;
 - Challenges in achieving demographic diversity within nursing faculty;
 - Challenges related to awareness by the general public and among nurses that the faculty role is a viable career objective;
- Challenges in providing adequate nurse educational preparation specific to teaching;
- Challenges sustaining and funding nurse faculty programs; and
- Challenges associated with the aging and imminent retirement of current nurse faculty.

Based on our examination of the challenges identified above and options for addressing these challenges, the National Advisory Council on Nurse Education and Practice (NACNEP) developed a set of recommendations for policymakers, presented in this report.

This report provides the background and scope of the nurse faculty shortage, discusses key factors contributing to the nursing faculty shortage, describes various options and strategies to alleviate this workforce crisis, and enumerates the recommendations that emerged from the Council's review of this issue. These recommendations are designed to lead to initiatives with objectives that are specific, measurable, and time-sensitive.

Challenges in attracting and retaining qualified nurse faculty

As noted at NACNEP's 120th conference in 2009, among PhD graduates, 63% do not pursue careers in nursing education; 67% of Doctor of Nursing Practice (DNP) graduates pursue careers

outside of academia. Thus, even for those choosing careers in nursing and among those pursuing advanced degrees in this field, there are very rewarding alternatives to seeking nursing faculty positions.

Another challenge in recruiting and retaining nurse faculty involves dissatisfaction with various aspects of the faculty role, such as increasing teaching workloads, increasing demands for scholarship and service, and long hours. In addition, non-competitive compensation for nursing faculty is a significant factor.

Challenges in achieving demographic diversity within nursing faculty

Diversity in the ranks of nursing faculty has not kept up with the increasingly diverse student and nurse populations. There is intense competition to lure qualified, credentialed minority nurses between education and practice settings and even between specific education settings. In addition, there is competition from outside of academia. Together, these present significant challenges to schools of nursing seeking to increase demographic diversity among faculty. Measures must be undertaken to recruit nurses to faculty positions in an effort to have the gender, racial, and ethnic diversity of the faculty come closer to mirroring that of their students and patients.

One strategy for addressing the faculty shortage is increasing the pool of men and minorities. Men interested in pursuing the nurse educator role are often confronted with issues related to gender stereotypes and compensation historically associated with membership in a predominantly female profession. As compared to women, men remain fewer in both nursing education and practice, representing only 5.8% of the U.S. nursing workforce.

Challenges related to awareness by the general public and among nurses that the faculty role is a viable career objective

There is a lack of awareness about career paths in nursing education. Most future nurses enter the profession with the intention of becoming practicing nurses rather than nurse educators. The decision to become a nurse educator typically occurs after a number of years of clinical practice, including advanced practice. Informing students about their career options while they're still in school, planning for their futures, could help increase interest in pursuing nursing educator roles.

Challenges in providing adequate nurse educational preparation specific to teaching

Nurses currently working in practice settings often lack the necessary advanced educational preparation to move seamlessly into the educator role, especially at the university level. Both clinical practice and academia have professional "ladders" to which compensation and status are linked; however, it is often difficult for a nurse to transition from a practice position into an academic position, which requires additional education and the associated cost of tuition.

Challenges in sustaining and funding nurse faculty programs

Inadequate institutional funding prevents supporting and establishing additional faculty positions to employ qualified professionals even when schools of nursing are able to identify qualified candidates. Nursing education programs also encounter obstacles within university systems when attempting to create collaborative partnerships to provide access to nurse educator programs. These include institutional barriers related to tuition sharing, admission and enrollment management, and sharing faculty. A blended model of education and faculty practice similar to that in medicine could offer some relief. Under that structure, nurses bill and collect for their clinical work, thus increasing revenue streams for schools of nursing. However, implementation of this model is rare. Both liability insurance reform and payment reform are needed at the federal level to promote blended models to allow advanced practice nurses to practice at the full scope of their abilities and obtain reimbursement for providing billable services.

Challenges associated with the aging and imminent retirement of current nurse faculty

As the average doctorally prepared nursing faculty member is a woman in her early 50s, a wave of retirements is expected within the next 10 years. According to the National League for Nursing, in 2007, one out of five nurse educators planned to retire within 3 to 5 years. Unfortunately, projected retirements are expected to far exceed new faculty replacements. Many new entrants in nursing join the nurse faculty at a later age and retire at a younger age than their peers in other professions: the average age of a nurse educator at retirement is 62.5 years old. This demographic imbalance in nursing faculty could be partially alleviated by efforts to recruit nurses into faculty at an earlier age and to foster later retirements.

Options for addressing these challenges

The challenges described above, in concert, contribute to a serious shortage of nursing educators, which in turn has grave implications for the future supply of the nurse workforce in both the faculty and practice roles. In short, to establish and maintain an adequate nursing workforce, more nurse educators are needed in the immediate future.

To identify options for addressing these challenges, the National Advisory Council on Nursing Education and Practice examined the issue of the nursing faculty shortage. The options for addressing the challenges identified are detailed in Figure 1. From these options, the Council developed a set of recommendations that is presented in Section 4 of this report.

Challenge	Contributing Factor	Options for Addressing
Recruitment challenges, including: Challenges in attracting and retaining qualified nurse faculty Challenges in achieving demographic diversity within nursing faculty Challenges related to awareness by the general public and among nurses that the faculty role is a viable career objective	<ul style="list-style-type: none"> • Alternative career choices • Job dissatisfaction with faculty roles • Non-competitive salaries • Competition among health professions and other disciplines for a diverse workforce • Lack of outreach to pre-college students 	<ul style="list-style-type: none"> • Address faculty salaries disparities • Provide support for loan repayment/loan forgiveness and scholarship programs • Use mentoring to improve faculty development and retention • Address issues undermining effectiveness and satisfaction in the work environment • Provide support for increasing the diversity of nurse faculty • Conduct public awareness campaigns to increase interest in nurse educator careers
Challenges in providing adequate nurse educational preparation specific to teaching	<ul style="list-style-type: none"> • High cost of education preparation for faculty roles • Difficulty transitioning into a faculty role 	<ul style="list-style-type: none"> • Facilitate transitioning nurses to faculty roles • Provide support for loan repayment/loan forgiveness and scholarship programs
Challenges sustaining and funding nurse faculty programs	<ul style="list-style-type: none"> • Competition for scarce resources by programs focused on nursing faculty education and those focused on research • Limited resources for expanding nurse educator supply • Fluctuating enrollment in nursing programs 	<ul style="list-style-type: none"> • Implement educational partnerships • Improve financial viability through increased productivity and alternative funding sources • Implement a blended model of education and faculty practice
Challenges associated with the aging and imminent retirement of current nurse faculty	<ul style="list-style-type: none"> • Faculty age and retirement projections/late entry into faculty positions 	<ul style="list-style-type: none"> • Create a national database of nurse faculty supply and demand • Provide faculty fellowships to fast-track doctoral education

Figure 1: Options for Addressing Challenges Related to the Nursing Faculty Shortage

Options for addressing challenges in attracting and retaining qualified nursing faculty

One approach to promoting recruitment and retention is to consider methods to facilitate practice roles that allow faculty to augment their academic salaries. Collaborating with health care agencies to provide flexible working hours and alternative scheduling to accommodate faculty teaching assignments will encourage active participation in these employment options. This is the existing model for medical faculty members.

Another recruitment approach is to minimize the educational debt burden through loan repayment, loan forgiveness, or scholarships for education expenses associated with obtaining credentials for assuming teaching roles. For example, in the current Nursing Faculty Loan program, funding goes directly to the schools of nursing, rather than to individual students. If

individuals were able to access this financial assistance directly, the result would likely be more diverse applicants.

Options for addressing challenges in improving the demographic diversity of faculty

Partnerships and outreach efforts, such as public awareness campaigns conducted by nursing and health care organizations, include campaign initiatives, national advertising, producing and distributing recruitment and retention materials, securing funds to support nursing education programs, awarding student scholarships, raising funds to support nursing education programs, and sponsoring research projects. New campaigns could involve outreach to more minority groups and men. Collaboration among historically black colleges and universities, outreach initiatives focused in schools with a large number of minority students and communities, and expansion of military and veteran programs can potentially improve the demographic diversity in nurse education programs.

Options for addressing challenges related to awareness by the general public and among nurses that the faculty role is a viable career objective

In the early stages of nursing education, students should be taught about the career option of becoming a nursing faculty member and the requirements for attaining faculty positions. Younger students in high school and college should have the opportunity to learn about the range of careers available within the field of nursing. The goal of early outreach is to provide awareness, motivate, and prepare pre-college students so that they are more likely to enter career paths that might lead to careers as faculty members. For there to be a sufficient talent pool from which draw in the future, intervention is required early in the pipeline. An example of such an outreach campaign is Nurses for a Healthier Tomorrow (NHT), a coalition of 43 leading nursing and health care organizations. NHT has launched a public awareness campaign to generate interest in careers as nurse educators.

Options for addressing challenges in providing adequate nurse educational preparation specific to teaching

Policymakers can facilitate the transition from practice to teaching by increasing and sustaining funds for fellowships for doctoral education for nurses who wish to pursue faculty positions. Collaborative institutional programs that support prospective faculty through increased access to educational offerings would allow them to continue to work professionally in health care agencies while obtaining educational credentials. Targeted programs that transition nurses to become nurse educators require funding to create workable transitions from practice to pedagogic trajectories.

Options for addressing challenges for sustaining and funding nurse faculty programs

Partnerships have the potential to help address the faculty shortage by expanding educational capacity. For example, two or more schools could share available funding or share faculty. A practicing expert nurse who is employed by a clinical agency or facility can also hold a clinical appointment in a school of nursing; this structure is very common in medical schools and

selected schools of nursing. Collaborations can facilitate the development and dissemination of models for enhancing faculty productivity. Targeted nurse faculty grants could secure release time for existing faculty to be involved in program design as well as underwrite the costs of implementing innovative approaches.

Options for addressing challenges related to the aging and imminent retirement of current nurse faculty

While available data present an overall picture of the nurse educator, more comprehensive, timely, and finely grained information is needed to support ongoing development of effective policy. This would provide up-to-date information on nurse faculty aging, average age at retirement, and supply and demand in various regions of the nation and at the various levels of nurse education. Providing evidence-based premises and trends would allow policymakers to assess, project, forecast, and address nursing faculty supply and demand. Such data could inform development of programs to accelerate advanced education such as faculty fellowships to fast-track doctoral education.

Recommendations

Based on this review of the challenges concerning the nurse faculty shortage and options for addressing those issues, NACNEP developed a set of recommendations for policymakers, listed below:

1. The U.S. Congress, the Department of Health and Human Services, and the Department of Education should provide nursing program infrastructure grants to support faculty development, workload adjustments, mentorship, certification, and scholarships and loan forgiveness.
2. The U.S. Department of Health and Human Services and the Department of Education should provide individual faculty fellowships for Baccalaureate and Master's prepared nurses to fast-track their doctoral education and assume faculty positions.
3. The Health Resources and Services Administration and the Division of Nursing should fund sustainable demonstration projects that develop collaborations between clinical settings and academic institutions to increase the supply and diversity of faculty.
4. The Division of Nursing, in collaboration with such agencies as the American Association of Colleges of Nursing, the National League for Nursing, the National Council of State Boards of Nursing, and private foundations should create, maintain, and update a national database using a standard minimum data set to produce comprehensive data regarding faculty supply and demand.

1. Background

Status of the nursing workforce

Nurses are critical in ensuring access to and quality of health care for the nation's citizens. However, the United States is currently experiencing a shortage of nurses and that shortage is expected to worsen drastically in the next few years. In this time of massive health care need and efforts to reform the system of health care significantly in the United States, this critical reduction in frontline health professionals is exceedingly problematic. While public attention is repeatedly being drawn to the need for more primary care physicians, the need for increasing the number of nurses, though equally critical, has drawn somewhat less attention.

Data from Current Population Surveys (CPS) from 1973 to 2008 indicate that despite the current recession, there is an increase of registered nurses in the workforce. The increase in RN workforce entry, however will not remedy the greater demand for nurses occurring around 2018 and growing to about 260,000 by 2025 (The Recent Surge in Nurse Employment: Causes and Implications; *Health Affairs*, 28, no. 4, 2009). These deficits are based on a comparison of the above author's projected supply, to the Health Resources and Services Administration's (HRSA's) most recent estimates of RN requirements. Although this projection is quite improved compared to earlier projections, the extent of the 2025 deficit would still be more than twice as large as any nurse shortage experienced since the mid-1960's (The Recent Surge in Nurse Employment: Causes and Implications; *Health Affairs*, 28, no. 4, 2009).

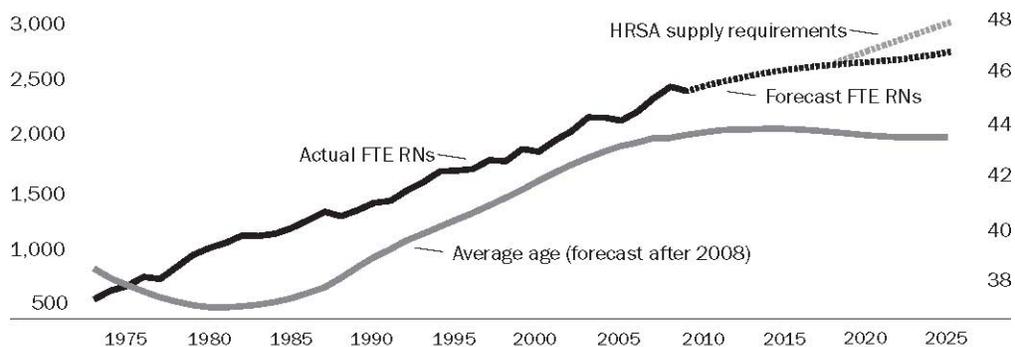


Figure 2: Observed and Projected Average Age of, Supply of, and Demand for Full-Time Equivalent (FTE) Registered Nurses (RNs), 1973-2025

Source: Peter I. Buerhaus, David I. Auerbach and Douglas O. Staiger; *The Recent Surge in Nurse Employment: Causes and Implications*, *Health Affairs*, 28, no. 4 (2009): w657-w668

While some federal programs exist to combat this problem including the Nurse Faculty Loan Program, and the Faculty Development: Integrated Technology into Nursing Education and Practice Program, additional support is needed to combat the faculty shortage.

The current economic downturn, which began in 2008, has temporarily reduced the severity of the nursing shortage in some parts of the country. While overall employment in hospitals, long-term care facilities, and other ambulatory care settings has increased (Bureau of Labor Statistics,

2009), some facilities have reduced staffing levels as a result of financial pressures. Among the contributing factors are a rise in numbers of uninsured patients and a drop in elective surgeries. Some nurses have delayed retirement while they wait for their retirement investment accounts to rebound. Additionally, former nurses and part-time nurses are trying to return to the full-time workforce.

There is evidence that more nurse graduates choose associate degrees and fewer pursue bachelor's degrees during an economic downturn. Even fewer go on to enroll in advanced degree programs at the master's or doctoral level. By choosing a degree that requires less time in school, new nurses propel themselves more quickly into the job market but do so with less education and preparation for the professional challenges of nursing. According to Joanne Spetz, an associate professor of health economics at the University of California, San Francisco School of Nursing, as the economy recovers, the conditions that originally created the nursing shortage are likely to return. The nursing deficit could jump sharply as nurses who had put off retirement see the economy recover, then leave the work force in a single crippling wave (Darce, 2009).

Faculty shortage is a contributor to nurse shortage

A major contributing factor to the nation's nursing shortage is a shortage of nursing faculty in U.S. schools of nursing. In spite of the shortage of nurses, the American Association of Colleges of Nursing (AACN) reported that in 2008, baccalaureate and graduate nursing programs turned away 49,948 qualified applicants, citing insufficient numbers of faculty, clinical sites, classroom space, clinical preceptors, and budget constraints. Of the nursing schools responding to the AACN survey, almost two-thirds reported that the shortage of faculty is the leading reason for the school's inability to accept qualified applicants into their programs (American Association of Colleges of Nursing, 2009c).

"The vast majority of nurses never complete additional degrees in nursing beyond entry [level] and those who do rarely complete more than one additional degree. We find ourselves faced with an unintended but serious consequence that lies at the very center of the profession's looming crisis: We do not have anywhere near an adequate pipeline for future nursing faculty."

(Cleary, Bevill, Lacey, & Nooney,
2007, p. 126)

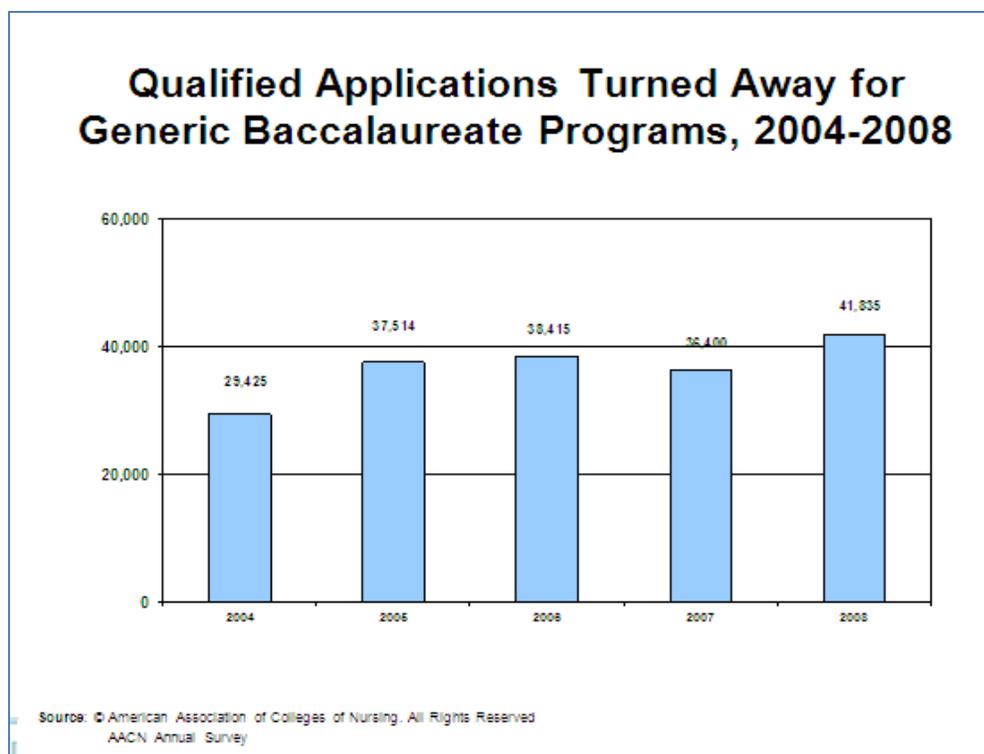


Figure 3: Qualified Applications Turned Away

Source: American Association of Colleges of Nursing, 2009a

While there is a surplus of applicants for baccalaureate nursing programs (Long, 2007), the faculty shortage presents serious obstacles to educating the future nurse workforce as it prevents schools from accepting qualified applicants (National League for Nursing, 2005). In 2005, the National League for Nursing reported that 147,000 qualified nursing applicants were turned away nationwide (33,279 from baccalaureate programs, 110,576 from associate programs and 3,614 from diploma programs), with the shortage of faculty being a key factor at every level of nursing education. A survey of nursing programs demonstrated that 76.1% of respondents attributed the need to turn away qualified applicants to the shortage of faculty (Berlin, Wilsey, & Bednash, 2005).

The supply of nursing faculty is subject to some of the same demographic factors driving the shortage of clinical nurses, such as their aging and imminent retirement. Educators, however, spend less time in the faculty workforce than clinical nurses because they begin teaching relatively later in life, after first meeting advanced degree requirements for teaching (Allan & Aldebron, 2008).

Lotas and colleagues (2008) concluded that there are an insufficient number of nurses acquiring the minimum advanced degrees required to serve as faculty educators. Allan and Aldebron (2008) suggest that nurses previously have been encouraged to work in a clinical capacity rather than to further their education. In 2000, less than 1% of nurses in the U.S. held a doctorate degree while about 9% had a Master's degree (Shipman & Hooten, 2008).

Of those nurses who have the requisite academic credentials, not enough plan to pursue careers as nursing educators to address the nursing faculty shortage. According to a study conducted in

North Carolina, despite a doubling in the number of RNs holding a master's or doctoral degree between 1995 and 2004 in that state, proportionately fewer each year were employed in schools of nursing. While 15% of the RNs with Master's or doctorate degrees were nurse educators in 1995, that proportion dropped to 11% in 2004, with a predicted drop to about 8.7% in 2020 (Cleary, Bevill, Lacey, & Nooney, 2007).

The study indicated that there might be only half of the faculty needed to prepare new nurses by 2020, although the authors caution that they did not account for possible confounding factors such as increased compensation to faculty, increased burnout, and earlier retirement rates because of changes in the workload (Cleary, Bevill, Lacey, & Nooney, 2007). As a basis for projections of supply, the analysis used both the number of faculty expected to retire and the number of RNs with master's or doctoral degrees expected to assume faculty positions.

In addition to difficulties finding qualified and PhD-prepared faculty, there are issues regarding high competition among nursing schools for a limited supply of qualified candidates, the aging and imminent retirement of nurse faculty, and the need for doctorally prepared faculty (McNeil & Poulin, 2009). Schools of nursing are allowed a mix of faculty with master's and doctorate degrees for accreditation but they must maintain a minimum number of doctorally prepared faculty. While schools of nursing are allowed to fall below that level on a temporary basis by substituting faculty with master's degrees or doctorates in other professions, they must replenish the number of faculty members with doctorates to keep their accreditation (McNeil & Poulin, 2009).

There are a number of factors that collectively contribute to the faculty shortage. Buerhaus, Staiger, and Auerbach (2009) cited earnings disparities as well as;

the additional time, tuition, and loan payback incurred by obtaining a graduate degree required for many faculty positions; work dissatisfaction among younger faculty; changing role expectations of faculty and increased teaching loads; increasing demands for scholarship and service; and a diminishing pipeline of enrollees and graduates from baccalaureate nursing education programs who enter graduate programs where future nursing faculty are prepared (p. 137).

A 2008 report by AACN based on a survey of vacant faculty positions indicated that there were 814 faculty vacancies in 449 baccalaureate and/or graduate programs, resulting in a rate of 7.6% of the total faculty positions, or a mean number of 1.8 vacancies per school. An additional 80 faculty positions were needed to meet student demand in schools that had no vacancies to fill (American Association of Colleges of Nursing, 2008). As Stanley (2008) noted,

The lack of sufficient numbers of nurse educators contributes to the limitations in access to nursing education at all levels. Faculty vacancies in regions across the country varied from 8.8% to 12.4% in the 2008-2009 academic year. The number of instructors with doctorates has declined and the number of part-time faculty has increased. In an AACN survey for the 2008-2009 academic year, 80.6% of schools responding reported vacancies and the need for additional faculty, 17.8% had no vacancies but needed additional faculty (e.g., did not have sufficient funds to cover the cost of necessary faculty), and 19.4% reported that they had no vacant positions and did not need any additional faculty. The majority of the vacant positions require an earned doctorate. Over 70% of the vacant positions involve both teaching and clinical responsibilities.

This problem is likely to worsen as the average age for nurse faculty increases. As shown in Figure 4, the percentage of faculty over the age of 50 is increasing while the percentage below the age of 50 is decreasing.

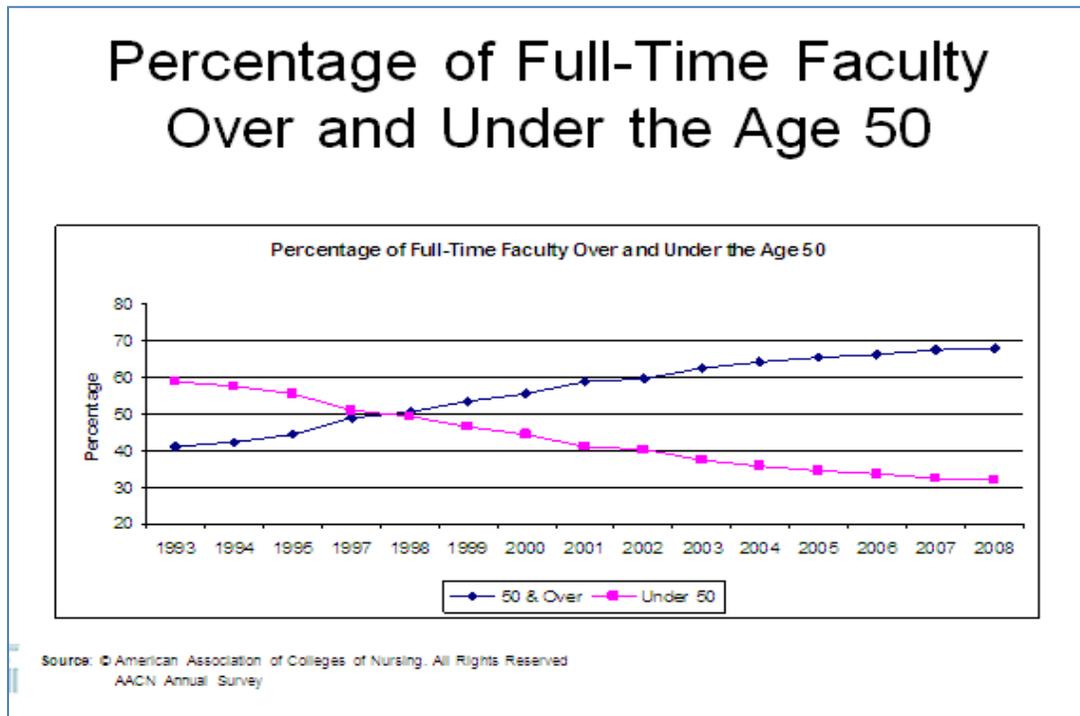


Figure 4: Age of Full-Time Faculty

Source: American Association of Colleges of Nursing (2009)

Since 2003, the number of Associate Degree in Nursing (ADN) and baccalaureate programs has increased steadily. The number of annual admissions to basic RN programs has increased steadily, particularly in ADN programs (Kaufman, 2009). Between 2006 and 2007, there was a growth in ADN enrollments of almost 20,000. However, Kaufman (2009) indicates that 26% of qualified applicants were not accepted, representing 40% of all qualified applications, or 99,000 applications.

This situation is largely the consequence of widespread and persistent vacancy rates among nurse faculty. Kaufman (2009) points to over 1,900 unfilled full-time nurse faculty positions in the U.S. in 2007. This vacancy rate increased by 23.5% between 2006 and 2007 and affected 36% of all schools of nursing.

The looming shortage of RNs and the current shortage of nursing educators pose significant challenges to our nation. These challenges are likely to be exacerbated if health care reform succeeds in providing health care coverage to more citizens, thus increasing the demand for health care services. RNs are critical to the delivery of health care in the U.S. and nursing faculty is critical to the production of RNs for the nation.

The National Advisory Council on Nurse Education and Practice (NACNEP) reviewed the nurse faculty shortage crisis at its November 2008 and April 2009 meetings. Based on our

examination of the challenges identified above and options for addressing those challenges, NACNEP developed a set of recommendations for policymakers, presented in Section 4 of this report.

This report provides the background and scope of the nurse faculty shortage, discusses key factors contributing to the nursing faculty shortage, describes various options and strategies to alleviate this workforce crisis, and enumerates the recommendations that emerged from the Council's review of this issue. The question addressed by this report is "How can we ensure a nursing education workforce adequate to educate the nursing workforce we require for the future?"

2. Factors Contributing to the Nursing Faculty Shortage

No single reason explains the current deficit of nurse educators in the United States. A number of researchers have reviewed this problem and identified factors contributing to the nursing faculty shortage. Reasons cited for the shortage include insufficient funds for nursing schools to hire faculty; the limited pool of doctorally prepared educators; the aging of nurse faculty; comparatively low salaries for master's prepared nurse educators as compared to clinical nurse clinicians; low rates of satisfaction with various aspects of the nurse faculty position, particularly in the areas of workload and compensation; tuition and loan burdens for graduate study; the diminishing pipeline of enrollees and graduates; and a steady increase in anticipated retirements of nurse faculty (American Association of Colleges of Nursing, 2008; Kaufman, 2009; American Association of Colleges of Nursing, 2005). Other contributing factors include competition for scarce resources by doctoral programs focused on research; alternative opportunities for new baccalaureate nursing graduates who are thus not encouraged to pursue graduate education; and the prioritization of new resources on funding the education of new entry-level nurses (Long, 2007). Moscowitz (2007) attributes the faculty shortage to heavy workloads and high educational costs. Figure 5 summarizes the key challenges and their contributing factors.

“The nurse faculty shortage involves a convoluted set of issues -- academic and clinical -- that have evolved over time in concert with changes in nurse education and practice.”
 (Proto & Dzurec, 2009, p. 87)

Challenge	Contributing Factor
Recruitment challenges, including: Challenges in attracting and retaining qualified nurse faculty Challenges in achieving demographic diversity within nursing faculty Challenges related to awareness by the general public and among nurses that the faculty role is a viable career objective	<ul style="list-style-type: none"> • Alternative career choices • Job dissatisfaction with faculty roles • Non-competitive salaries • Competition among health professions and other disciplines for a diverse workforce • Lack of outreach to pre-college students
Challenges in providing adequate nurse educational preparation specific to teaching	<ul style="list-style-type: none"> • High cost of education preparation for faculty roles • Difficulty transitioning into a faculty role
Challenges sustaining and funding nurse faculty programs	<ul style="list-style-type: none"> • Competition for scarce resources by programs focused on nursing faculty education and those focused on research • Limited resources for expanding nurse educator supply • Fluctuating enrollment in nursing programs
Challenges associated with the aging and imminent retirement of current nurse faculty	<ul style="list-style-type: none"> • Faculty age and retirement projections/late entry into faculty positions

Figure 5: Key Challenges and Contributing Factors Related to the Nursing Faculty Shortage

These challenges and their contributing factors are discussed below.

2.1. Challenges in recruitment

Alternative career choices

One of the contributing factors related to the nursing faculty shortage has been the increase in career choices, most particularly for women. These fields draw away women who would otherwise be promising candidates for professional nursing careers. Many barriers that previously existed for women wishing to pursue various career paths have been reduced or eliminated over the last several decades. As career opportunities have grown, interest in nursing faculty careers has decreased. Women are less likely than they were 30 years ago to enter the limited range of occupations traditionally held by women. Today, women are more likely to pursue careers that have previously been dominated by men, both in the general workforce and the academic environment, and in careers such as business, law, the sciences, and medicine. These fields draw away women who otherwise might be promising candidates for professional nursing careers (Buerhaus, Staiger, & Auerbach, 2009). Since most nurse educators are drawn from the nursing workforce, this workforce reduction affects faculty numbers as well.

The decline in interest in nursing faculty careers reflects overall shifts in interest in nursing careers. Buerhaus and colleagues (2009) evaluated career trend data collected from the U.S. Census Bureau Current Population Survey as well as survey data from incoming college freshman collected by the Cooperative Institutional Research Program. They noted dramatic declines since 1974 in the numbers of college freshman who indicated an interest in nursing as a probable career and in the percentage of cohorts actually working as RNs at the age of 25 (although there were temporary surges in interest during periods of higher unemployment). These data also show declines in interest among women in traditional women-dominated professions such as primary and secondary school teaching, with increased interest in professional and managerial positions with higher salary earnings and perceived prestige (Buerhaus, Staiger, & Auerbach, 2009).

“Each year, 11% of full-time faculty leave their position. Most (44%) leave for positions in the private sector. Twenty percent retire.”

(Fang, 2009)

According to the Annual Survey of Schools of Nursing conducted in 2008, 84% of U.S. nursing schools attempted to hire new faculty in 2007-2008. Of these, 79% found recruitment “difficult,” and almost one in three schools found it “very difficult.” The most frequently cited obstacle to faculty recruitment was the lack of qualified applicants for positions (National League for Nursing, 2008). A survey of nursing programs demonstrated that 76.1% of respondents attributed the need to turn away qualified applicants to the shortage of faculty (Berlin, Wilsey, & Bednash, 2005). The paths to obtaining an RN degree include a diploma program, Associate Degree in Nursing (ADN), Bachelor of Science in Nursing degree (BSN) and a Master’s of Science in Nursing degree (MSN), with doctoral programs offering more advanced degrees (Buerhaus, Staiger, & Auerbach, 2009). The faculty shortage impacts all levels of RN and doctoral education.

Unfortunately, many nurse graduates at the doctoral level decide not to assume faculty positions (Bednash & Fang, 2009). As Fang noted at NACNEP's 120th conference (2009), among PhD graduates, 63% do not pursue careers in nursing education; 67% of Doctor of Nursing Practice (DNP) graduates pursue careers outside of academia. Thus, even for those choosing careers in nursing and among those pursuing advanced degrees in this field, there are very rewarding alternatives to seeking nursing faculty positions. These include, for example, administrative roles, research careers, and advanced clinical positions. These may be more attractive career options than a faculty position for some nurses because of their interest in maintaining a clinical practice, or working in an environment with less pressure. Related reasons that some nurses with PhDs do not pursue faculty roles include lack of prestige, intense faculty workloads, low salaries, and the desire to maintain patient contact and practice ties (Hassmiller, 2009).

Job dissatisfaction with faculty roles

One commonly cited reason for the shortage in supply of nurse educators is dissatisfaction with various aspects of the faculty role, such as increasing teaching workloads, increasing demands for scholarship and service, and long hours. In addition, non-competitive compensation for nursing faculty is a significant factor. A survey in 2003 indicated that substantial numbers of faculty were dissatisfied with their salaries as well as with heavy workloads. More faculty members were dissatisfied with their own institutions specifically than with the nursing faculty role in general (Yordy, 2006). Other reasons for job dissatisfaction among nurse educators include a disproportionate amount of time spent on teaching, not enough time to do research, and disparity in compensation compared to those in business professions (Shipman & Hooten, 2008).

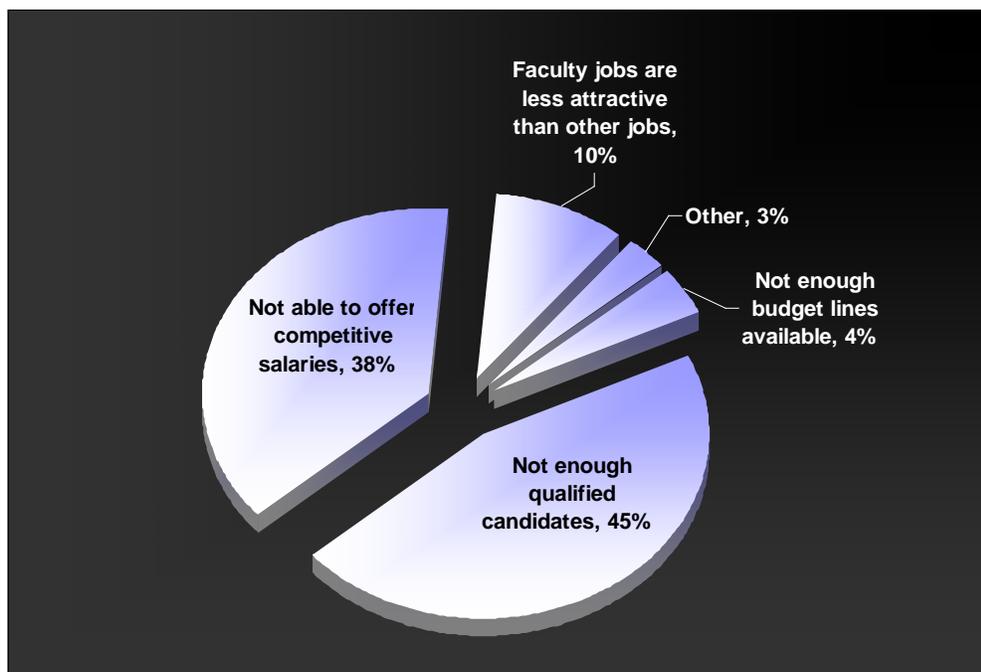


Figure 6: Factors Contributing to Nurse Faculty Job Dissatisfaction

Source: Kaufman, 2009

Key facts on America's estimated 32,000 nurse educators as collected from the 2005-06 academic year by the National League for Nursing and the Carnegie Foundation Preparation for the Professions Program:

Master's-level prepared nurse faculty are paid significantly less than nurse administrators, consultants, supervisors, head nurses, nurse practitioners and midwives with the same educational credential. See Figure 7 below.

The majority of nurse educators are white women at least 55 years old who expect to retire in the coming decade.

Ninety percent of nurse educators work full-time, often adding administrative duties to teaching responsibilities, resulting in a 56-hour average workweek.

Nursing lags significantly behind the rest of academia in racial and ethnic diversity: only 7% of nurse faculty members are African American, Hispanic, Asian, or Native American, compared to 16% minority representation among U.S. faculty generally

Nurse educators are less well educated than their counterparts in other academic disciplines. Only a third of nurse educators hold doctorates, compared to 60% of all postsecondary faculty.

Within their academic institutions, 40% of nurse faculty also held administrative posts.

Forty-four percent of nurse educators expressed dissatisfaction with their current workload, undermining retention. More than 25% of the nurse educators who plan to leave their current job cited overwork as the primary motivation.

(National League for Nursing, 2007a)

Job satisfaction is a key factor in determining when nurse faculty members decide to retire. In a review of nursing faculty job satisfaction surveys, Gormley (2003) found that job satisfaction was one of the most important factors impacting nurse faculty retirement decisions. A key driver in dissatisfaction was workload associated with combined professional responsibilities of teaching, publishing, conducting research, writing grants, community service, and maintaining their competencies.

These findings were corroborated by a study by the National League of Nursing/Carnegie National Survey. Many nurse faculty considered their workload to be higher than that of non-nursing faculty at the same institution (Kaufman, 2009). Kaufman found that 45% of faculty were dissatisfied with their current workload and that more than one in four nurse educators who said they were likely to leave their position cited workload as a motivating factor (Kaufman, 2007b). Finally, a survey on which attributes of the nurse faculty position were very satisfying showed that respondents were very satisfied with very few aspects of their position (Kaufman, 2009).

Non-competitive salaries

Another cause of the faculty shortage is the fact that nurses can earn higher salaries in other work arenas or in other nursing roles. Compensation is generally higher in clinical nursing and private sector settings than it is in nursing academic settings. Opportunities for new baccalaureate

nursing graduates have further sharpened the salary discrepancy. According to a 2007 salary survey by ADVANCE for Nurse Practitioners, the average salary of a master's prepared nurse practitioner is \$81,517 (ADVANCE for Nurse Practitioners, 2008). In contrast, in 2008, AACN reported that master's prepared faculty earned an annual average salary of \$69,489, about 15% less than nurse practitioners (NPs) (American Association of Colleges of Nursing, 2009d).

The impact of non-competitive compensation has been corroborated by a number of studies. Allen (2008) found financial considerations to be a serious factor in the nurse faculty shortage, with academic salaries lower than those for advanced practice nurses in administrative positions and clinical practices. Cleary and colleagues (2007) suggest that for the most part, “academic salaries remain noncompetitive with those in health care delivery, further dramatically decreasing the pool of nurses pursuing faculty positions” (p. 127). Nally (2008) adds that while nurse educators find fulfillment in their positions and in producing high quality nurses, salaries remain a major concern.

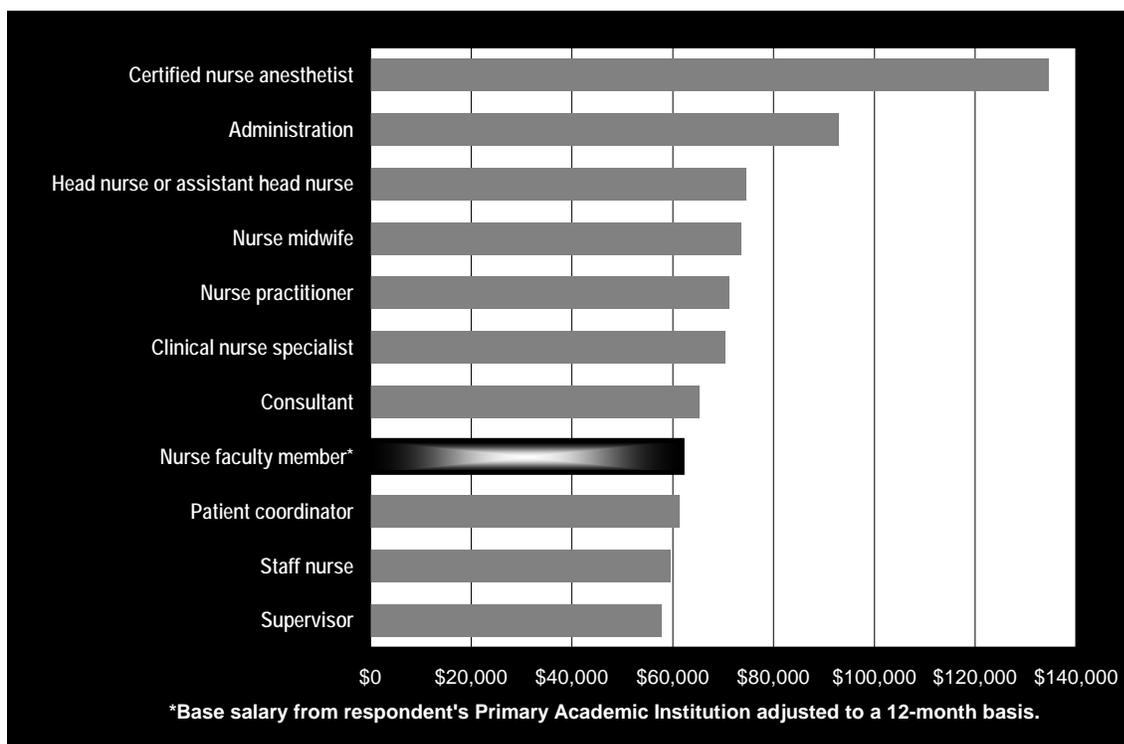


Figure 7: Comparison - Salaries for Nurse Faculty vs. Clinicians

Source: Bednash & Fang, 2009

A report by the NLN/Carnegie study of nurse educators in 2005-2006 (Kaufman, 2007a) showed that compensation was the most significant cause of job dissatisfaction. Among 16 individual factors examined, nurse faculty were least satisfied with the salary in their current positions, with only 12.8% reporting that they were “very satisfied” with their salaries. Nurse educators earn only 76% of the salary earned by faculty in other disciplines; however, nursing faculty hold doctoral degrees at about half the rate of other health educators (Kaufman, 2007a). In a comparison of instructional nurse faculty salaries with those of selected non-academic nurse base

salaries in the U.S. from 2008-2009, Bednash and Fang (2009) found that the median salaries were \$90,240 for Associate Professors (doctoral), \$80,667 for Assistant Professors (doctoral), \$73,486 for Associate Professors (Master's) and \$67,282 for Assistant Professors (Master's). This compared unfavorably to median salaries of \$176,988 for Head of Nursing, \$110,281 for Nursing Director, \$88,126 for NPs in specialty care, \$86,688 for Head Nurse, and \$81,356 for Clinical Nurse Specialist (CNS). Furthermore, nursing faculty currently are not permitted to augment their teaching salaries by blending their positions with clinical practice, as is done in the medical model (Bednash & Fang, 2009). These glaring discrepancies between clinical salaries and administrative salaries as compared to academic salaries are disincentives for nurses contemplating a move to educator roles.

More than one in four nurse educators who said they were likely to leave their current job cited workload as a motivating factor.

(Kaufman, 2007b, p. 297)

Fitzpatrick (2008) cited several issues as barriers to increasing nurse faculty salaries: the lack of a terminal degree among many faculty members; the lack of qualification for professorial rank for nurse faculty who have not earned doctorate degrees; minimal scholarly output among nurse faculty, which inhibits promotion; the structure of nursing education (e.g. faculty/student ratios); and the institutions' cost of providing nursing education.

An additional deterrent to pursuit of a faculty career involves increasingly rigorous and narrow criteria for promotion and tenure, relying heavily on academic scholarship, publications, and grant support. These are areas in which many nurses and even nursing faculty have limited experience (Balogun & Sloan, 2006; Becker, et al., 2007). Tenure criteria make career advancement difficult for nurse faculty whose primary responsibilities include clinical instruction rather than research and publication.

Moreover, the natural trajectory of going from nursing – specifically advanced practice nursing – to education is undermined because of a significant decrease in salary. Advanced practice providers transitioning from clinical practice to education will experience a significant decrease in compensation, while at the same time bearing the significant costs of additional education. Most commonly, the transition from master's prepared nursing to doctoral nursing involves an increase in costs to the individual with a decrease in salary.

Finally, nurses tend to enter the profession to become nurses rather than nurse educators. The decision to become a nurse educator typically occurs after a number of years of clinical practice, including advanced practice. One challenge is an overall lack of public awareness regarding the specialty of nurse faculty, a profession requiring advanced education in both nursing and teaching.

Competition among health professions and other disciplines for a diverse workforce

Diversity in the ranks of nursing faculty has not kept up with the increasingly diverse student and nurse populations. There is intense competition to lure qualified, credentialed minority nurses between education and practice settings and even between specific education settings. In addition, there is competition from outside of academia. Together, these present significant challenges to schools of nursing seeking to increase demographic diversity among faculty.

Measures must be undertaken to recruit nurses to faculty positions in an effort to have the gender, racial, and ethnic diversity of the faculty come closer to mirroring that of their students and patients.

One strategy for addressing the faculty shortage is increasing the pool of men and minorities. Men interested in pursuing the nurse educator role are often confronted with issues related to gender stereotypes and compensation historically associated with membership in a predominantly female profession. As compared to women, men remain fewer in both nursing education and practice, representing only 5.8% of the U.S. nursing workforce (American Association of Colleges of Nursing, 2009a).

Lack of outreach to pre-college students

There is a lack of awareness about career paths in nursing education both by the general public and among nurses. The goal of early outreach is to provide awareness, motivate, and prepare pre-college students so that they are more likely to enter career paths that might lead to careers as faculty members. This is particularly important as becoming a nursing faculty member requires advanced education in both nursing and teaching. For there to be a sufficient talent pool from which draw in the future, intervention is required early in the pipeline.

2.2. Challenges in providing adequate nurse educational preparation specific to teaching

High cost of education preparation for faculty roles

An important limiting factor to expansion of the nursing faculty workforce is that nurses currently working in practice settings who demonstrate the requisite competencies to provide clinical instruction and mentorship often lack the necessary advanced educational preparation to move seamlessly into the educator role, especially at the university level. Both health care and higher education have professional “ladders” to which compensation and status are linked; however, the two professional structures differ considerably in their requirements and it is often difficult to transition from a medium- or high-level practice position, into an academic position, often at entry level, which requires additional education.

Many nurses decide not to pursue academic careers because of the costs involved in this career choice. These expenses include tuition and associated loan burden and income foregone while the student pursues the advanced degree. These are deterrents to many who might otherwise consider faculty careers. Yordy (2006) concurred that there are substantial costs associated with faculty training in terms of tuition and income lost while in school. These costs are even more significant given the salary differentials after graduation between nursing faculty and those in clinical practice, as discussed above.

Financial support has been made available to nurse faculty in training but it is limited. Currently there is a 10% cap on the number of doctoral students who are eligible to receive Federal Advanced Education Nurse Traineeships. Furthermore, projects that prepare nurse faculty through the Federal HRSA Title VIII Advanced Education nursing programs do not receive priority; the Nursing Education Loan Repayment Program does not currently include clinical preceptors who will work as faculty and schools of nursing as acceptable services sites (Health

Resources and Services Administration, National Advisory Council on Nurse Education and Practice, 2002).

Difficulty transitioning into a faculty role

The decline in nursing education majors is cause for concern; the majority of master's prepared new faculty have never taken an education course (Zungolo, 2008). The transition from clinician to faculty can be difficult. There is the time and expense associated with doctoral education for those clinicians who have earned baccalaureate or master's degrees. In addition, while a clinician may be an expert in a clinical specialty, that individual may not possess teaching skills and may need to develop those skills. Essential teaching skills include organizing content, assessing clinical performance, developing evaluation tools, understanding the policies of the academic community, and managing interactions with students and parents (Zungolo, 2008). Public speaking and presentation skills are also critical. Education pedagogies should be integrated into the nursing curriculum at various levels as this could help more students consider roles in teaching.

Another factor that impacts the number of prospective faculty who obtain the necessary and required credentials is the comparatively late entry of the typical candidate into a doctoral program. The average candidate enters a doctoral program in her or his early 40s, following a number of years of hands-on clinical practice. This experiential background is of immense value to a nurse educator but it frequently delays entry into graduate education.

Moreover, not all nurses who pursue graduate level degrees decide to pursue the nurse education program of study leading to a faculty position.

When considering the long-term benefits and challenges associated with the nurse educator role, especially in the university setting, many of those nurses pursue advanced degrees in nursing administration, research careers, and advanced clinical positions.

“As an employer of nurse faculty, I can tell you a lot of people who apply for jobs haven't had any courses in nursing education. They know what needs to be known about their specialty but they don't know how to communicate to students or extract what information from their brains that neophytes need to know to develop. They don't know about writing objectives, following through...There are a great deal of problems with faculty members who have never taught [before and are] trying to write tests and determine what is important for students to learn.

(Zungolo, 2008)

2.3. Challenges in sustaining and funding nursing faculty programs

Competition for scarce resources by programs focused on nursing faculty education and those focused on research

There is competition for the limited number of doctoral- and PhD-trained nurses from programs focused on research activities and nursing education. Minnick and Halstead (2002) report that while there has been a 16-fold increase in the number of doctoral nursing education programs since the mid-1970s, doctoral education remains largely focused on research. There is continuing controversy concerning the appropriate emphasis for nursing doctoral programs. In

order to address the nursing faculty shortage, PhD programs must become more focused on faculty development and requirements. Low completion rates for the doctoral degree further weaken the pipeline for nursing faculty (American Association of Colleges of Nursing, n.d.).

Additionally, there are limited resources to expand the number of available slots in doctoral/PhD programs focused on research and nursing education programs or to initiate new programs, which thereby negatively impact the supply of future nurse faculty. Nursing education programs may encounter obstacles across university systems when attempting to create collaborative partnerships to provide access to nurse educator programs including institutional barriers related to tuition sharing, admission and enrollment management, and sharing faculty. A blended model of education and faculty practice could offer some relief. Under that structure, nurses bill and collect for their clinical work, thus increasing revenue streams for schools of nursing. However, implementation of this model is rare. Significant barriers exist on a federal level, which prevent advanced practice nurses from practicing at the full scope of their abilities and receiving equitable payment for services.

Limited resources for expanding nurse educator supply

Interviews with nurse education leaders (Yordy, 2006) revealed inadequate institutional funding to support and establish additional faculty positions even when schools of nursing were able to identify qualified candidates. Nursing education at academic health centers in some states must compete for scarce resources with training for other health professions that are also in short supply.

Given competition for limited resources, the nursing shortage has resulted in some short-term focus on entry-level nurses, at the expense of a longer-term focus on education capacity building, including hiring of new faculty. Proto and Dzurec (2009) state:

Several decades ago, graduate programs in nursing turned away from a focus in education, directing curricula instead toward clinical practice and administration. Teaching thus became a relatively invisible career option for nurses. Over time, efforts to market teaching roles diminished, further fostering a discrepancy between interest in positions in clinical and academic nursing (p.87).

Fluctuating enrollment in nursing programs

Fluctuating enrollment in schools of nursing has been an ongoing issue, perhaps more in the past than it is today; still, it remains important to monitor the potential impact going forward. The demand for faculty corresponds with the demand for newly educated nurses which has ebbed and flowed over the past three decades (Yordy, 2006). Yordy points out that enrollment in basic RN programs grew gradually from 1976-1983 (reaching 250,000 at the end of that period), fell sharply in 1987 to about 183,000, then increased to about 270,000 in 1993, only to drop once again to about 220,000 in 2002 (Yordy, 2006).

According to Allan and Aldebron (2008), staff reductions during the rise of managed care between 1995 and 1999 adversely impacted academia, as faculty positions were slashed as the number of nursing graduates dropped. A spike in employment followed in 2002 when hospitals pushed for more nurses but many former nurses returned to practice to supplement their incomes, averting the need to recruit new nurses. Faculty reductions that occurred in response to declining

student enrollments disrupted the educational pipeline. As a result, the authors indicated “...our educational institutions are stretched to the limit and cannot absorb more students” (Allan & Aldebron, 2008, p. 287).

2.4. Challenges associated with the aging and imminent retirement of current nurse faculty

Faculty age and retirement projections/late entry into faculty positions

As the average doctorally prepared nursing faculty member is a woman in her early 50s, a wave of retirements is expected within the next 10 years. According to the National League for Nursing (2007a), one out of five nurse educators plan to retire within 3 to 5 years. Projected retirements are soon expected to exceed new faculty replacements.

Many new nurses now enter nursing by graduating from 2-year associate degree programs after spending time in other careers or outside the workforce, or through accelerated Bachelor's of Science degrees geared to professionals who already hold other bachelor degrees. This trend is attributed to attractive entry wages, good job security, and the relatively small educational investment (Auerbach, Buerhaus, & Staiger, 2007). According to AACN's report on 2008-2009 Salaries of Instructional and Administrative Nursing Faculty in Baccalaureate and Graduate Programs in Nursing, the average ages of doctorally prepared nurse faculty holding the ranks of professor, associate professor, and assistant professor were 59.1, 56.1, and 51.7 years, respectively. For master's degree prepared nurse faculty, the average ages for professors, associate professors, and assistant professors were 58.9, 55.2 and 50.1 years, respectively (American Association of Colleges of Nursing, 2009b).

In addition to their average late entry into the faculty role, nurse educators retire at a younger age than their peers in other professions: the average age of a nurse educator at retirement is 62.5 years old (Yordy, 2006). Reasons for retirement and for choosing early retirement are varied. A survey of 126 nurse educators in 61 schools of nursing found that the factors influencing retirement included workplace issues, personal and family health, attitudes about retirement, job satisfaction, and financial security (Kowalski, Dalley, & Weigand, 2006).

These factors in concert have contributed to a serious shortage of nursing educators which in turn has grave implications for the future supply of the nurse workforce in both the faculty and practice roles. In short, to establish and maintain an adequate nursing workforce, more nurse educators are needed in the immediate future.

“The aging of the Baby Boomer generation is producing the perfect storm, as surging demand for health care services will coincide with a wave of retirements among health professions faculty, posing a major threat to the capacity of the U.S. health system overall and health professions education in particular.”

(Moscowitz, 2007, p.1)

3. Options to Alleviate the Shortage of Nursing Faculty

Just as there is no single factor that has created the current shortage of nursing faculty, there is no single option for remedying this difficult situation. While there are significant challenges to overcome, there are many exciting and innovative initiatives beginning to emerge in response to this health workforce crisis.

Challenge	Contributing Factor	Options for Addressing
<p>Recruitment challenges, including:</p> <p>Challenges in attracting and retaining qualified nurse faculty</p> <p>Challenges in achieving demographic diversity within nursing faculty</p> <p>Challenges related to awareness by the general public and among nurses that the faculty role is a viable career objective</p>	<ul style="list-style-type: none"> • Alternative career choices • Job dissatisfaction with faculty roles • Non-competitive salaries • Competition among health professions and other disciplines for a diverse workforce • Lack of outreach to pre-college students 	<ul style="list-style-type: none"> • Address faculty salaries disparities • Provide support for loan repayment/loan forgiveness and scholarship programs • Use mentoring to improve faculty development and retention • Address issues undermining effectiveness and satisfaction in the work environment • Provide support for increasing the diversity of nurse faculty • Conduct public awareness campaigns to increase interest in nurse educator careers
<p>Challenges in providing adequate nurse educational preparation specific to teaching</p>	<ul style="list-style-type: none"> • High cost of education preparation for faculty roles • Difficulty transitioning into a faculty role 	<ul style="list-style-type: none"> • Facilitate transitioning nurses to faculty roles • Provide support for loan repayment/loan forgiveness and scholarship programs
<p>Challenges sustaining and funding nurse faculty programs</p>	<ul style="list-style-type: none"> • Competition for scarce resources by programs focused on nursing faculty education and those focused on research • Limited resources for expanding nurse educator supply • Fluctuating enrollment in nursing programs 	<ul style="list-style-type: none"> • Implement educational partnerships • Improve financial viability through increased productivity and alternative funding sources • Implement a blended model of education and faculty practice
<p>Challenges associated with the aging and imminent retirement of current nurse faculty</p>	<ul style="list-style-type: none"> • Faculty age and retirement projections/late entry into faculty positions 	<ul style="list-style-type: none"> • Create a national database of nurse faculty supply and demand • Provide faculty fellowships to fast-track doctoral education

Figure 8: Options for Addressing Underlying Causes

3.1. Options for addressing challenges in recruitment and retention of qualified nurse faculty

As discussed in the previous section, the major factors underlying the challenges in recruiting nursing faculty include job dissatisfaction with faculty roles, non-competitive salaries, and alternative career choices. In combination, these factors make it difficult for schools to recruit and retain faculty members. There are a number of options for addressing these challenges. Some of these options are discussed below.

Address faculty salary disparities

Insufficient compensation is one of the most significant barriers to attracting nurse faculty. Schools of nursing must aggressively compete with the private sector when recruiting doctorally prepared nurses. It is difficult for schools of nursing to retain faculty members who are faced with more financially lucrative job options, both within and outside of the nursing profession. In 2008, 43.8% of nursing faculty left their positions for jobs in the private sector (Kaufman, 2009).

As discussed in Section 2.1, faculty salaries are often lower than those of their similarly educated colleagues working in clinical practice. Nurses often incur high levels of debt in pursuit of doctoral degrees. Many conclude that compensation in a faculty role is not commensurate with the level of debt incurred obtaining their education. Market forces ultimately determine the level of compensation, particularly in clinical roles. Additional barriers to increasing faculty salaries include the lack of a doctoral degree among many faculty members and minimal scholarly output among nurse faculty.

One approach to improving compensation for nurse educators is to consider ways to facilitate practice-teaching roles that allow faculty to augment their academic salaries. The practice of blending clinical and academic roles is more established in medicine than it is in nursing; many physicians practice medicine while holding university appointments. This formula could easily be adapted for nurse faculty. Implementing this approach in nursing may help to address the salary gap. Higher compensation would not only encourage more nurses to pursue academic careers but would also persuade some faculty to delay retirement. In a survey conducted by Foxall and colleagues (2009), 18% of respondents indicated that higher compensation would entice them to work past retirement age. Collaborating with health care agencies to provide flexible working hours and alternative scheduling to accommodate faculty teaching assignments will encourage active participation in these employment options.

Provide support for loan repayment/loan forgiveness and scholarship programs

Another approach is to minimize the debt burden through loan repayment, loan forgiveness, or scholarships for education expenses associated with obtaining credentials for assuming teaching roles. In the current Nursing Faculty Loan program, funding goes directly to the school of nursing, rather than to individual students. The Nursing Education Loan Repayment program is focused on clinical nurses and the Nursing Scholarship Program is focused on entry-level – not graduate – degrees. A new program is needed that would specifically target nursing faculty, which might involve loans to individual students to enable more individuals to pursue advanced educational degrees and faculty positions.

Provide mentoring to improve faculty development and retention

A major reason for projected declines in the nurse workforce is the imminent retirement of a generation of nurses, with an increasing shortage of RNs anticipated unless there are dramatic increases in the numbers of new RNs or huge reductions in the demand for their services (National Center for Health Workforce Analysis, 2004). Increasing the numbers of RNs requires increasing the number of nurse educators to train them. Mentoring by senior faculty can be an effective strategy for improving the development and retention of nursing faculty. Incentives could be provided to facilitate mentoring as an accepted faculty role.

While mentoring is an expectation in most universities, the senior faculty members who function as the mentor or coach are seldom provided any additional release time or course reduction for this added responsibility. Incentives to further encourage mentoring include payment of registration fee for a conference, a mobile phone allowance to increase access opportunities, and sabbatical time or stipends. Operating budgets in most schools of nursing cannot absorb such costs.

Mentoring has long been used in private industry and organizations to attract and retain employees, improve productivity, and increase employee satisfaction. Strong faculty mentoring programs are also found at successful universities with highly productive faculty in terms of scholarly activity and funding (Kapustin & Murphy, 2008).

The Brooklyn Nursing Partnership offers an example of successful use of mentors. This partnership built a registry of master's-credentialed adjunct faculty to support schools of nursing. An important component of the effort was a 6- to 8-week "Teach the Teacher" program, with mentors to assist the newly prepared adjunct faculty. This effort helped create opportunities for developing programs to strengthen nursing faculty in the community as they brought together their unique but focused perspectives (Proto & Dzurec, 2009).

Address issues undermining effectiveness and satisfaction in the work environment

In order to attract nurses to faculty positions, it is important to improve the academic work environment to make it more conducive to recruitment and retention. As discussed in Section 2, dissatisfaction with the work environment and heavy workload are major contributors to job dissatisfaction among nurse faculty. Figure 9 summarizes some key strategies identified in a survey by the National League for Nursing (NLN) that would make faculty less likely to retire early. However, because of the faculty shortage, schools have taken measures that have resulted in faculty being even more inclined to retire early. According to the NLN survey, 61% of schools have addressed the faculty shortage by increasing faculty workload; survey respondents felt the impact of this increased workload and 82.7% responded by indicating that hiring more part-time faculty would help delay their retirement (National League for Nursing, 2007a).

Strategy	%
Hire more part-time faculty	82.7
Increase faculty teaching load	61.1
Limit admissions / enrollments	35.5
Assign faculty to teach outside their expertise	17.3
Increase number of students in campus sections	1.5
Increase number of students in clinical sections	11.9
Cancel sections	6.0

Figure 9: Strategies Used to Impact Nurse Faculty Decisions for Early Retirement

Source: National League for Nursing, 2007

Limiting student-class ratios would help to alleviate workload problems. Student-to-faculty clinical ratios and/or student-to-class ratios can be adjusted if operating funds are sufficiently allocated to support such incentives. Most schools currently maintain a 10:1 or at most a 12:1 student to faculty ratio; adjusting these numbers downward so that a teacher works with fewer students both lessens the instructor’s workload and creates an improved environment for students (Jones, Caton, DeWitt, Stubbs & Conner, 2007).

Faculty development initiatives can help to ensure that nursing faculty have appropriate education in teaching methods. Faculty development initiatives should ensure that nursing faculty members have appropriate ongoing opportunities and access to courses/workshops in adult education, curriculum and instruction, pedagogy, and evaluation. Professional development focusing on effective methods of teaching enhances confidence and promotes proficiency, which in turn promote faculty retention. While these specific professional development activities are not generally provided in other disciplines, they may help to address the faculty shortage, expanding the educational capacity in the nursing profession. As part of this effort, sufficient resources should be provided for conferences and continuing education. In addition, time should be provided in faculty schedules to permit faculty members to conduct other professional activities, including research.

Evolving promotion and tenure track evaluation criteria that often rely heavily on research and publications rather than on clinical practice can be clarified and modified to ensure that faculty are able to advance in an appropriate and timely manner (Becker, et. al., 2007).

Another survey of nurse faculty demonstrated that creating retention initiatives could delay retirement. These retention initiatives included the ability to work part-time or on a flexible schedule, opportunities for sabbaticals, equitable salary for benefits commensurate with the time faculty are contracted to work, adequate work space, monetary bonuses, support from information technologists, intellectual stimulation, ability to contribute to meaningful initiatives, less time in clinical supervision, a voice in their assignments, and control over their time commitments (Foxall, Megel, Grigsby, & Billings, 2009).

Provide support for increasing the diversity of nurse faculty

Diversity in the ranks of nursing faculty has not kept up with the increasingly diverse student and nurse populations. Measures must be undertaken to recruit nurses to faculty positions in an effort to have the gender, racial, and ethnic diversity of the faculty come closer to mirroring that of their students and patients.

The prerequisite to increasing the percentage of minority faculty is increasing the pipeline of minority students. AACN has outlined methods to address this issue, including making connections with middle and high school students, supporting students through the application process, and launching coordinated outreach plans (American Association of Colleges of Nursing, 2001). Other programs have targeted minority nursing students to facilitate their pursuit of advanced degrees in nursing. An example of such a program is Project IMPART (Improving Minority Professionals' Access to Research Tracks) which encourages faculty and nurse researchers to engage more minority students in nursing research. Students also complete some coursework toward baccalaureate and master's degrees while concurrently enrolled in the ADN program (Griffiths, 2007; Griffiths & Tagliareni, 1999).

Promote public awareness campaigns to increase interest in nurse educator careers

Public awareness campaigns have been used to help recruit nurses into education careers and should be a component of partnerships. In 2004, Nurses for a Healthier Tomorrow (NHT), a coalition of 43 nursing and health care organizations, launched a public awareness campaign to generate interest in careers as nurse educators (Nurses for a Healthier Tomorrow, n.d.). Also in 2004, AACN launched an online resource called Faculty Career Link to support nurses considering full- or part-time teaching careers (American Association of Colleges of Nursing, 2009c). The Johnson & Johnson Campaign for Nursing's Future has launched several outreach efforts to increase interest and raise funds. Campaign initiatives include national advertising, producing and distributing recruitment and retention materials, awarding student scholarships, raising funds to support nursing education programs, and sponsoring research projects. New campaigns could involve outreach to more minority groups and men. An approach to increasing the understanding of the general public is to provide funding to produce a series of public service announcements (PSAs) focused on raising awareness of the existence and value of nurse educators.

We believe there is a need to sustain interest in [the] nurse educator role... We're not producing enough nurse educators. We don't have enough people prepared at this level to replace those who are leaving. We can help students become interested in nursing who demonstrate skills and interest. Encourage them to consider teaching. Money is not the only factor. We can increase diversity of people entering the nurse educator role.”

(Aiken, 2008)

Conclusion

The underlying causes of these challenges in recruiting nurse faculty include alternative career choices for prospective faculty, job dissatisfaction with faculty roles, and non-competitive

salaries. Collectively these challenges have made it difficult for schools of nursing to recruit and retain nursing faculty. Options for addressing these challenges include initiatives for addressing faculty salaries, providing loan repayment and forgiveness, offering scholarships, promoting public awareness campaigns, providing mentoring, and improving the work environment.

To help address challenges associated with recruitment of nurse faculty, NACNEP recommends that the U.S. Congress, the Department of Health and Human Services, and the Department of Education provide nursing program infrastructure grants to support faculty development, workload adjustments, mentorship, certification, and scholarships and loan forgiveness. Such grants should help make nursing faculty roles a more attractive alternative for nurses who might otherwise pursue different career options.

3.2. Options for providing adequate educational preparation specific to teaching

Section 2.2 described underlying challenges in preparing prospective faculty to be effective as teachers. Options for addressing these challenges are described below.

Provide fellowships to facilitate transitioning nurses to faculty roles

As discussed in Section 2, the transition from clinician to faculty can be difficult if the new faculty member lacks the educational background required to be an effective teacher. Policymakers can facilitate this transition by offering fellowships for doctoral education for nurses who wish to pursue faculty positions. To make these fellowships optimally effective, there should be flexibility in meeting the requirements for formal faculty preparation and preparation of instructors should be based on competencies, with evaluation strategies in place.

Provide support for loan repayment/loan forgiveness and scholarships

As discussed above, another approach is to minimize the debt burden through loan repayment and forgiveness for education expenses associated with obtaining credentials for assuming teaching roles. This aid should be part of the approach to support prospective faculty working to obtain educational credentials.

Addressing this issue will require innovation. Individual schools of nursing that can offer online courses can reach an expanded student base. Collaborative institutional programs that support prospective faculty through increased access to educational offerings would allow those individuals to continue work professionally in health care agencies while striving to obtain advanced educational credentials. Because these options require considerable time and effort, senior faculty who design such courses and programs cannot simply add to their current workload; therefore, human and fiscal resources are vital. Demonstration programs that transition nurses to becoming nurse educators require funding to create workable transitions from practice to pedagogic trajectories.

Conclusion

The challenges associated with preparing prospective faculty include the high cost of education preparation and difficulty transitioning to a faculty role. Options for addressing these challenges include providing fellowships to facilitate transitioning nurses to faculty roles and providing support for loan repayment.

To address challenges associated with preparing prospective faculty, NACNEP recommends that the U.S. Department of Health and Human Services and the Department of Education should provide individual faculty fellowships for baccalaureate and master's prepared nurses to fast-track their doctoral education as they prepare to assume faculty positions. These initiatives would provide support to nurses seeking to enter faculty roles.

3.3. Options for addressing challenges for sustaining and funding nurse faculty programs

As discussed in Section 2.3, factors underlying challenges for programs funding nurse faculty include competition for scarce resources by doctoral programs focused on research, limited resources for expanding nurse educator supply, and fluctuating enrollment in nursing programs. There are a number of options for addressing these underlying causes. Some of these options are discussed below.

Implement educational partnerships

As discussed above, partnerships have the potential to help address the faculty shortage. Partnerships can expand educational capacity by sharing available funding and clinical sites. Two or more schools can partner in order to share faculty. A practicing expert nurse who is employed by a clinical agency or facility can also hold a clinical appointment in a school of nursing; this structure is very common in schools of medicine. Partnerships with historically black colleges and universities can help improve the diversity of both faculty and students within the nursing profession. These partnerships should include clear goals, expectations, and procedures for evaluating outcomes.

There are several academic collaborations currently in place. One example is the Oregon Consortium for Nursing Education (OCNE), which is a partnership across all of Oregon's Nursing programs. The objective of OCNE is to streamline academic processes, revamp curricula, and optimize resource use among the system's four campuses of Oregon Health & Science University and eight community colleges. The schools within OCNE implemented a shared curriculum across campuses as well as a plan to share faculty between partner campuses. From 2001–2006, Oregon increased statewide nursing enrollment by 76% (Oregon Center for Nursing, 2009).

Another example is the NEXus project, which was designed to address the shortage of nursing faculty in the Western region of the United States by creating partnerships to share academic resources. In particular, the project focuses on some of the problems unique to the rural Western region. Funded by HRSA, the project allows participating institutions to share online nursing doctoral courses and reduce barriers to PhD and DNP students' ability to access online courses at participating institutions.

In addition to partnerships among academic institutions, partnerships between academic institutions and practice organizations can be beneficial. Academic/practice partnerships with health care providers can enable institutions to build capacity and capabilities. For example, the University of Colorado was able to double its enrollment over a 3-year period in part because of an education-practice partnership called the Clinical Scholar Model. In this partnership, a practicing expert nurse who is employed by a clinical agency or facility also holds a clinical appointment in the University of Colorado School of Nursing. Such partnerships can help devise mechanisms that address barriers to collaboration between clinicians and academic institutions (Allan & Aldebron, 2008). They can also provide a way to allow students to begin clinical practice while still in school.

Many of these strategies can achieve the ultimate goals of increasing the supply of qualified faculty and preparing future nurse educators while focusing on sustaining a balance in supply and demand. However, each of these approaches requires funds for dedicated time of senior faculty and expert consultants to achieve strategic objectives. Demonstration grants could secure release time for existing faculty to be involved in program design as well as underwriting the costs of implementing innovative approaches.

Improve financial viability through increased productivity and alternative funding sources

Collaborations can facilitate the development and dissemination of models for enhancing faculty productivity. Innovative models can be used to improve nursing faculty productivity. These models can be developed through demonstration projects that may involve, for example, the use of technology, supplementing seasoned faculty with clinical practitioners for clinical instruction, or changes in curricula design or delivery methods.

Use of distance learning technology or online courses can provide access to instructional material to a greater number of students. Simulation technology provides a representation of a clinical situation in order to teach, practice, or evaluate skills. Simulators present a model of a patient with medical conditions and displays of vital signs, such as heartbeat and blood pressure, for students to monitor by using standard hospital equipment. The benefits of simulation are multi-fold: multiple learners may use the same simulation, active learning is promoted, and clinical sites and faculty can be better leveraged (National League for Nursing, 2007b). These approaches can be helpful because in addition to the faculty shortage, insufficient classroom space and clinical sites are significant reasons for schools not accepting qualified applicants.

Another approach, introduced above, is use of non-traditional faculty, such as clinical practitioners, to supplement the nursing faculty. An example of this approach is the University of Portland's (Oregon) Dedicated Education Units (DEUs). The DEUs use health-system-based staff nurses interested in teaching to supervise pre-licensure students' clinical experiences. A 2006 evaluation estimated that the DEUs saved as many as 15 clinical faculty members and required 19 fewer training sites by utilizing existing hospital units (Joynt & Kimball, 2008).

Another example is the "Teach for the Health of It" initiative at the University of Iowa and the University of Maryland. In the program, the schools of nursing buy part of a practitioner's time to educate students in the clinic or classroom (Allen, 2008).

Other options for increasing financial viability is to implement models based on GME-type funding or blended models of education and faculty practice where nurses bill and collect for

their clinical work. Such models can increase revenue streams for schools of nursing. Similar models are commonly used in other medical professions. Demonstration projects for developing such models or partners between academic and clinical organizations could provide additional resources for expanding capabilities of schools of nursing. Another resource would be infrastructure grants for nursing faculty development.

Conclusion

Challenges associated with funding nurse faculty within schools of nursing include competition for scarce resource by doctoral programs focused on research, limited resources for expanding nurse educator support, and fluctuating enrollment in nursing programs. Options for addressing these challenges include educational partnerships and demonstration projects to develop models for enhancing faculty productivity and developing alternative financing mechanisms.

To help address the challenges associated with funding faculty, NACNEP recommends that the Health Resources and Services Administration and the Division of Nursing fund sustainable demonstration projects that develop collaborations between clinical settings and academic institutions to increase the supply and diversity of faculty. Such projects can not only improve the supply of faculty but also help enable existing faculty to reach more students.

3.4. Options for addressing challenges related to the aging and imminent retirement of current nurse faculty

Create a national database of nurse faculty supply and demand

While the available data present an overall picture of the aging-out of the nurse educator workforce and a lower-than-desirable rate of practice-to-educator transitions, much more specific and finely-grained information is needed. In order to support ongoing development of effective policy for addressing the faculty shortage and the aging of the workforce and to target resources most effectively, better data is required on nurse faculty supply and demand across the country. Comprehensive, current, and accurate data is needed on nurse faculty aging, average age at retirement, and supply and demand in various regions of the nation and at the various levels of nurse education. While the National Sample Survey of Registered Nurses data produced by HRSA is useful, the survey is only conducted every 4 years and it requires 2 years to analyze and report the data, making it quickly outdated. NLN and AACN have some data regarding their membership schools but that data does not provide a complete picture of all nursing schools throughout the nation. Information with increased granularity and timeliness would facilitate more effective resource utilization and allocation/reallocation of the nurse educator workforce. Providing evidence-based premises and trends would allow policymakers to assess, project, forecast, and address nursing faculty supply and demand to promote quality health care for the twenty-first century and beyond. Such data could inform development of programs to accelerate advanced education. An example of such an approach is to provide faculty fellowships to fast-track doctoral education.

Some state workforce centers are already collecting relevant data. To avoid duplication of efforts, these centers could use a mutually agreed upon data set with supply and demand, then collaborate on obtaining needed data. The resulting database should contain supply information

such as status of filled and vacant faculty positions. The information should be collected and maintained by FTEs, position type, and utilization. It should also include demand-related information such as enrollments and graduations. The information should be collected and maintained on a timely and regular basis by discipline, degree, and program type. The database should use consistent definitions for types of positions across institutions. The objective of this option is to provide a current, comprehensive view of nursing faculty supply and demand.

Provide faculty fellowships to fast-track doctoral education

Data from a timely, accurate, comprehensive database could provide a resource for policymakers and educators in the development of programs to accelerate advanced education. A key challenge in maintaining a pipeline of new faculty is the fact that many individuals enter doctoral programs at a later age. Moreover, these programs are time consuming. Providing faculty fellowships to fast-track doctoral education can help to address this challenge.

Conclusion

As the nurse faculty shortage worsens, it will become increasingly important for planning purposes for policymakers and others to have access to accurate and timely information on faculty supply and demand. A nursing faculty database should be maintained to provide such information as a basis for those who make important decisions affecting the future nurse faculty workforce.

To ensure that policy can be developed that targets resources most effectively, accurate and current data is needed that supports assessment of severity of shortage. NACNEP recommends that a national database of nurse faculty be developed and maintained. The Division of Nursing, in collaboration with such agencies as the American Association of Colleges of Nursing, the National League for Nursing, the National Council of State Boards of Nursing, and private foundations should create, maintain, and update a national database using a standard minimum data set to produce comprehensive data regarding faculty supply and demand. The database should be used by a variety of stakeholders including policymakers, faculty and administrators at schools of nursing, and students.

4. Recommendations

Based on review of the challenges and options for addressing those challenges, NACNEP developed set of recommendations for policymakers. These recommendations are provided below.

1. The U.S. Congress, the Department of Health and Human Services and the Department of Education should provide nursing program infrastructure grants to support faculty development, workload adjustments, mentorship, certification, scholarships, and loan forgiveness.

There are a variety of causes underlying the challenges in recruiting and retaining highly qualified nurse faculty. These include alternative career choices for prospective faculty, job dissatisfaction with current faculty roles, and non-competitive salaries. Collectively these causes have made it difficult for schools of nursing to recruit and retain nursing faculty. To address these factors, grants should be used to support mentoring, development, training, and improvement of the nursing work environment.

To help address challenges associated with recruitment and retention of nurse faculty, NACNEP recommends that policymakers provide nursing program infrastructure grants to support faculty development within schools of nursing, workload adjustments, mentorship programs, certification, and loan forgiveness. Such grants should help make nursing faculty roles a more attractive and feasible alternative for nurses who might otherwise pursue different career options.

2. The U.S. Department of Health and Human Services and the Department of Education should provide individual faculty fellowships for baccalaureate and master's prepared nurses to fast-track their doctoral education and assume faculty positions.

The challenges associated with preparing prospective faculty include the high cost of education preparation and difficulties transitioning to a faculty role. Educational costs and incurred debts are serious impediments to nurses seeking advanced degrees and faculty positions. Existing scholarship/fellowship programs are not targeted to students who continue to work while obtaining advanced degrees to pursue careers as faculty in the nation's schools of nursing.

To address challenges associated with preparing prospective faculty, NACNEP recommends that policymakers provide faculty fellowships for baccalaureate and master's prepared nurses to fast-track their doctoral education and assume faculty positions. These initiatives would provide support to assist nurses seeking to prepare for faculty roles. The goal of such fellowships would be to offset the high cost of education preparation for faculty roles and facilitate transitioning nurses to faculty roles. These faculty fellowships would provide support to cover a student's education costs in exchange for a future commitment to becoming an educator.

3. The Health Resources and Services Administration and the Division of Nursing should fund sustainable demonstration projects that develop collaborations between clinical settings and academic institutions to increase the supply and diversity of faculty.

Challenges associated with funding nurse faculty within schools of nursing include competition for scarce resources by doctoral programs focused on research, limited resources for expanding nurse educator initiatives, and insufficient support for fluctuating enrollment in nursing programs. Creative strategies are required to promote the best use of existing resources and to substantiate the need for new and future resources. Demonstration projects targeted at developing partnerships between academic and clinical organizations are needed which provide additional resources for expanding capacity and capabilities of schools of nursing.

Clinical organizations can include not only hospitals but also other organizations such as primary care delivery sites and community-based clinical settings. Improved capabilities would be the result of expanded capacity and enhanced faculty productivity. Demonstration projects can include those involving either individuals at the BSN level, preceptors, advanced practice nurses, or faculty.

Data on successful projects should be widely disseminated. Projects should be self sustaining from a budget perspective. An important goal for these projects is to devise mechanisms that address barriers to collaboration between clinicians and academic institutions.

To address the challenges associated with funding faculty, NACNEP recommends that policymakers fund sustainable demonstration projects that develop collaborations between clinical settings and academic institutions to increase the supply and diversity of faculty. Such projects have the potential to improve and sustain the supply of faculty and also enable existing faculty to reach more students.

4. The Division of Nursing, in collaboration with such agencies as the American Association of Colleges of Nursing, the National League for Nursing, the National Council of State Boards of Nursing, and private foundations should create, maintain, and update a national database using a standard minimum data set to produce comprehensive data regarding faculty supply and demand.

As the nurse faculty shortage worsens, it will become increasingly important to have accurate, timely data on faculty supply and demand. A national nursing faculty database should be maintained to provide such information. Data collected using consistent methods with clearly delineated and systematic analysis would provide the evidence from which projections of future nursing supply and demand could be derived, allowing nursing schools to plan to achieve the full faculty capacity required to enroll all qualified students.

The goal of this database is to provide comprehensive and current data to optimize targeting of resources and focus efforts. Some data is already collected by other organizations including state workforce centers, NLN, and AACN. While the National Sample Survey is useful, that survey is conducted once every 4 years. A more comprehensive current picture of the status of faculty supply and demand is needed. The approach for establishing this may involve partnerships with existing organizations collecting such data.

To ensure that policy can be developed that targets resources most effectively, accurate data are needed to project and/or prevent future shortages among nurse faculty. NACNEP recommends

that a national database of nurse faculty be developed and maintained. The database should be used by a variety of stakeholders, including policymakers, faculty, and administrators at schools of nursing, and current and prospective students. This database should provide regional and/or state breakdowns and breakdowns at the various levels of nurse education, i.e. community college, baccalaureate, and graduate level educational institutions. The database should attempt to provide information on the various items that would allow for an ongoing analysis of factors that directly affect recruitment and retention of nursing faculty, such as compensation, joint practice/academic appointments, percentage of tenure track positions (as opposed to lectureships), and time elapsed until advancement to associate and full professorship positions.

NACNEP also recommends mandating a review of the existing National Sample Survey of Registered Nurses produced by HRSA, State Boards of Nursing, and all nursing schools receiving Title VIII funding to streamline existing information to produce timelier tracking of nurse faculty supply and demand and other important nursing workforce issues.

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