Pennsylvania
WORKFORCE INVESTMENT BOARD

Addressing Pennsylvania's Nursing Education System Capacity

Recommendation Report
of the
Pennsylvania Center for
Health Careers

Amended and Approved by the
PA Workforce Investment Board
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Introduction

Pennsylvania's Life Sciences industry is a critical driving force of the state economy with substantial employment, strong growth rates, and excellent research strengths that attract and sustain a wide variety of companies, organizations and institutions. More importantly Pennsylvania's health care institutions and their employees provide some of the best health care services in the United States.

Pennsylvania's workforce development system's cluster analysis documents that in 2002 there were almost 800,000 individuals employed in health care jobs and an additional 82,000 workers with biomedical companies. This translates to almost 16 percent of all Pennsylvania jobs. In addition, this sector, during the recessionary period of 2000-2002, had a 4.7 percent growth rate.

Pennsylvania's hospital sector alone provides nearly $56 billion in direct and secondary spending and the multiplier effect of this investment results in an estimated 522,000 Pennsylvania jobs. Unfortunately, Pennsylvania has critical labor shortages across many important health care occupations: nursing, pharmacy, respiratory therapy, imaging, medical technology and direct care. There are an estimated 17,000 openings in these careers and most projections suggest significantly more vacancies in the future.

Since addressing these labor shortages is critical to Pennsylvania's economic vitality, Governor Edward G. Rendell selected the health care sector as the first target of Pennsylvania's workforce reform agenda.

On April 14, 2004, the Governor created the **Pennsylvania Center for Health Careers,** a public/private initiative led by a Leadership Council of employers, Commonwealth agencies, industry associations, labor unions, professional associations, and educational institutions to act as an organizational catalyst for developing an action agenda to respond to Pennsylvania's short and long-term health care workforce challenges.

Pennsylvania Center for Health Careers

The Center, housed within the Pennsylvania Workforce Investment Board, provides four important functions:

1. Organizational Catalyst

The Center, using the expertise and resources of its public/private partners, is a catalyst for developing an action agenda to address Pennsylvania's health care workforce challenges. It will initially address the need to generate more graduates from Pennsylvania's nursing programs, at a time when almost all of these programs are at capacity. Subsequent issues will be the challenge of retaining experienced professionals in important health occupations, developing career ladders, and focusing on the challenges facing direct-care workers. Together with its cooperating organizations, the Center will marshal private and public resources, encourage collaboration, and identify leadership to implement its recommendations.

2. Strategic Planning and Policy Development

The Center will bring together industry, labor, government, education, non-profit, and academic experts to analyze data, develop information, and review exemplary practices. The Center's Leadership Council, working in collaboration with the Governor's Office of Health Care Reform and other state agencies, will propose long-term strategies to address those key issues that have statewide workforce implications.

3. Information Clearinghouse

The Center will gather, organize, and analyze health care workforce information, especially about best practices, from Commonwealth and national sources and become a central clearinghouse where Pennsylvanians can locate data and information sources.

4. Resource Development

The Center will seek to identify, generate, and leverage public and private resources to provide financial support and other resources for the purpose of developing and implementing initiatives.

Governor Rendell's initial charge to the Leadership Council was to address the following challenges:

1. Expanding the capacity of Pennsylvania's nursing education system to produce more graduates who will successfully be licensed as RNs and LPNs and who will choose to practice in Pennsylvania.

2. Substantially improving the proportion of nurses who remain in health care over their professional career.

3. Increasing the number of individuals who can successfully fill vacancies in other critical allied health professions.

4. Attracting more direct-care workers to important jobs that, quite often, do not pay family-sustaining wages and benefits.

Background and Purpose

The Pennsylvania Workforce Investment Board (PA WIB) and the Center for Health Careers Leadership Council recognize the significance of the nursing profession across the Commonwealth and the immeasurable impact of these professionals on our health, lives, and well-being. An estimated 115,000 Registered Nurses (RNs) [1] and 34,000 Licensed Practical Nurses (LPNs) [2] work in hospitals, nursing homes, physician/dentist offices, home health agencies, and other heath care settings in Pennsylvania. Few professions are perhaps as challenging or rewarding as careers in nursing, yet Pennsylvania, like many other states, is faced with a growing shortage of qualified RNs and LPNs.

Reported as one of the fastest growing professions in the nation, it is estimated that by 2010, the RN shortage in Pennsylvania will grow to 17,000.[3] This shortage is expected to persist because of the increasing demand for health care as baby boomers approach retirement and as the current, aging workforce retires over the next 10 years. The average age of RNs employed in Pennsylvania was 45.4,[4] and the average age of an LPN was 45.2.[5] The average age of the nursing workforce is increasing at a rate more than twice that of all workforces in the country. Nationwide, the aging of the population could result in a 46 percent increase in acute care admission demand over the next 20 years.[6] Never before has the growth of the nursing profession been so critical to the quality of health care in Pennsylvania.

In response to these challenges, Pennsylvania has launched targeted efforts, designed to promote careers in the nursing and allied health professions. Marketing campaigns such as *Health Careers Week* and financial aid programs sponsored by PHEAA and the Pennsylvania Higher Education Foundation have excited and enabled a new generation of students to enter the nursing profession.

This dedicated approach to promote nursing careers has registered an impact in Pennsylvania's nursing education system. Since 2001, admissions to RN schools in Pennsylvania has increased, from 3,505 students to 4,344 students in 2003, an increase of 23.9 percent.[7] Despite this upswing in nursing education admissions, Pennsylvania's nursing education programs will not be sufficient to admit and graduate the number of RN candidates that will be necessary to meet future demand.

All indications are that the Pennsylvania nursing education system is near capacity. Currently there are 128 programs preparing students for nursing careers, but according to estimates, the supply of qualified nursing student candidates exceeds available nursing education program capacity. Surveys conducted by the Legislative Budget and Finance Committee with administrators of Pennsylvania State Board approved RN programs indicated that more than 1,300 qualified nursing students were turned away from these nursing schools in the last year and that applicant waiting lists are becoming common.[8] The ability to increase the capacity of nursing education programs is intensified by systemic challenges such as a deficit of qualified faculty and difficulties in obtaining clinical sites for student experience.

The Need to Respond

The growing need to educate significant numbers of RN and LPN candidates coupled with the capacity limitations and faculty challenges impacting the nursing education system have signaled the need for a statewide response. The purpose of this report is to summarize the scope of the problem, discuss the challenges impacting the capacity of the nursing education system in Pennsylvania, and put forth the recommendations of the Pennsylvania Center for Health Careers Leadership Council and the Pennsylvania Workforce Investment Board to address these critical issues.

These recommendations are the result of a significant research effort and a public engagement plan led by the Pennsylvania Center for Health Careers to develop the most appropriate response for the Commonwealth. As an initial step, the Pennsylvania Workforce Investment Board conducted background research into the issues impacting the capacity of the nursing education system. Relevant nursing workforce reports and information were gathered from the Pennsylvania Department of Health, Legislative Budget and Finance Committee, State Board of Nursing, national health care workforce researchers, professional nursing and accreditation associations, and educators. This research served to frame the discussions with employers and educators and provided a benchmark of national responses and recommended nursing education strategies for consideration.

As a second step, throughout the months of June and July 2004, a total of 143 nursing education system capacity experts took part in five regional Roundtable discussions across the Commonwealth to develop a strong consensus on a recommended course of action. This select group of Roundtable participants represented regional nursing education schools and programs, nursing and health care employer administrators, the State Board of Nursing, and organized labor. In addition to Roundtable participants, a select panel of observers representing the workforce development system and other health care industry cluster intermediaries were invited to actively listen to the dialogue and provide key information as needed to guide the Roundtables in their discussions and planning.

The five Roundtable discussions resulted in the identification of 625 potential initiatives and strategies to impact the capacity challenges of the nursing education system. Each region then narrowed their recommendations to those specific initiatives that would have the greatest

impact on the capacity of the nursing education system and would achieve the Roundtable objective of increasing the number of graduates from LPN and RN programs who will successfully obtain licensure and practice nursing in Pennsylvania.

In the third step, 143 of the highest ranking recommendations put forth by the regional Roundtable discussions were presented to a Nurse Education Capacity Working Group comprised of members of the Leadership Council and select nurse educators and health care administrators representing the five Commonwealth regions. The Working Group was charged with further narrowing and clarifying these recommendations. This analysis of the Working Group concluded with the clustering of 15 recommendations according to three challenge areas which demonstrate the greatest impact on the nursing education system:

1. Nurse Educator Recruitment and Advancement
2. Clinical Education
3. Attraction and Retention of Nursing Students and Graduates

On September 21 2004, the Leadership Council of the Pennsylvania Center for Health Careers endorsed and put forth, for consideration of the Pennsylvania Workforce Investment Board and Governor Edward G. Rendell, 15 recommendations which represent a coordinated systems approach to increase the supply of nurses in the Commonwealth by strengthening the capacity of the nursing education system.

Nurse Educator

Nursing education system capacity is defined as the ability of nursing education programs to admit and accommodate the maximum number of students in a given academic year. Since 2001, enrollment in Pennsylvania's nursing education programs has been growing steadily, pushing many programs to maximum capacity. The ability of our nursing schools to meet the increasing demands for educating greater numbers of nursing students is severely diminished if they are not able to increase this capacity threshold.

One of the most significant challenges impacting nursing education program capacity is the growing shortage of qualified faculty available to teach. The national agencies that accredit schools of nursing (National League for Nursing Accrediting Commission and Commission on Collegiate Nursing Education) and the Pennsylvania State Board of Nursing require that nursing faculty have a master's degree or, in the case of the State Board of Nursing, a five-year plan in place to obtain a master's degree in nursing. Nursing schools utilize faculty in both full-time and part-time roles in clinical and classroom settings according to specific program needs. While, the total number of faculty employed in nursing education programs increased by 36 percent from 1,445 to 1,961 in RN programs, and by 127 percent from 240 to 544 in LPN programs, between 1999 and 2003,[9] almost all nursing programs reported full-time faculty vacancies or difficulty in finding ideally qualified candidates.

Shortages in the number of qualified nurse educators have been attributed to a combination of factors and include reports that the pool of masters and doctoral program graduates in nursing is not large enough to meet the demand for new faculty. The shortage is further heightened due to needs for replacing aging and retiring faculty. In Pennsylvania, the number of aging faculty is reaching critical proportions with almost 52 percent of registered nurses serving as health care professional school faculty at age 50 or older.[10] This pool of potential faculty is further diluted as masters-prepared nurses choose employment in non-academic areas where compensation and work responsibilities are more appealing.

In addition to these factors, attracting new nurses to pursue careers as nurse educators is becoming increasingly difficult because of barriers which limit access to advanced nursing degree education. The burden of financing master's degrees in nursing while, maintaining living expenses and benefits is particularly challenging. Candidates targeted for advanced

educational degrees in nursing typically represent mid-career professionals; however tuition assistance for full or part-time study available to such candidates is limited and extremely difficult to obtain. The current system for preparing nurse educators does not provide the flexibility needed to respond to changing enrollment demands and/or cater to the culture and lifestyle of potential faculty candidates. Streamlined and accelerated MSN programs as well as programs offered during non-traditional hours are needed so that students may assume faculty positions more rapidly.

Compounding these barriers are required increases in faculty-to-student ratios and a lack of data to plan for growth. Currently, national nursing school accrediting agencies advocate a ratio of one faculty member to every ten students in a clinical setting. While many nursing programs agree that such intimate ratios are essential to ensure patient safety during the learning experience, they also require a great deal of dedicated faculty resources. Building an effective pipeline of faculty to respond to future fluctuating demands is further complicated due to the lack of a well-defined forecast to monitor the need for nurses.

The following five recommendations have been proposed to address the complex challenges impacting nurse educator recruitment and advancement.

Recommendation 1

Expand supply of qualified nurse educators as quickly as possible for both RN and LPN programs, with particular emphasis on the attraction of minority and non-traditional nurse educators

- Provide incentives to health care institutions to lend masters prepared staff and/or appropriately prepared BSNs as faculty to educational institutions and provide positive recognition/reward for this dual appointment through appropriate human resource practices
- Provide incentives for faculty to teach during non-traditional hours
- Encourage the revision of the Pennsylvania State Board of Nursing faculty regulations to allow for increased flexibility in response to the demand for nurse educators without compromising the quality of nurse educators

Recommendation 2

Provide greater and more flexible financial assistance to encourage students to pursue nursing education careers, with particular emphasis on the attraction of minority and non-traditional nurse educators

- Enable 50 new and/or current part-time students to attend a full-time, 24-month (or less) program to educate MSNs or MS in Nursing candidates who are prepared to teach in a nursing education program upon graduation by providing financial aid (loans, loan forgiveness, grants, etc.) for tuition and select expenses
    - Recipients would be required to teach full time for three years or part-time for six years in Pennsylvania
    - Proposals would be solicited from a health care employer/educational institution consortium
- Develop and enhance loans and scholarships for part-time RN-to-MSN-and-BSN-to-MSN programs
    - Recipients would be required to teach full time for three years or part-time for six years in Pennsylvania
    - Proposals would be solicited from a health care employer/educational institution consortium
- Identify resources to support post-MSN certificates in education

Recommendation 3

Encourage career pathways for MSN educators who will teach in nursing programs

- Provide incentives for employers to develop or enhance tuition reimbursement programs which promote career pathways for developing RNs-to-BSNs-to-MSNs who will pursue careers as nursing school faculty
- Promote the PHEAA/Pennsylvania Higher Education Foundation loan forgiveness program for graduate study - This program provides a 25 percent loan forgiveness of the students total educational loan debt; 12.5 percent provided by the employer of the student and 12.5 percent from PHEAA

Recommendation 4

Establish a formal reporting system for forecasting supply and demand of RNs and LPNs on an ongoing basis

- Identify appropriate institutions and agencies to participate in this research effort
- Assign responsibility to a particular organization to ensure ongoing studies that provide reliable forecasting to the health care community

Recommendation 5

Identify and address long-term barriers impacting the recruitment, development, and retention of nursing faculty in Pennsylvania

- Engage educational institutions to review and develop recommendations concerning national accreditation standards for nursing faculty
- Study the economic incentives, generational values, and job satisfaction factors of nurse educators with the goal of understanding and addressing these concerns

Clinical Education

Clinical education is a vital experience that enables all nursing students to fully integrate classroom and clinical knowledge in the health care environment. Students learn how to make vital health care decisions and administer patient care while working side-by-side with health care professionals from a variety of disciplines and institutions.

The ability and capacity of nursing schools to expand to meet the demand for additional nursing graduates, while obtaining adequate space for clinical education is threatened due to a lack of sufficient clinical site placements. Department of Health reports indicate that hospitals remain major sites for clinical education of nurses, but that declining admissions and patient stays are limiting clinical training opportunities at the same time that the demand for new graduates is increasing.[11] The impact of hospital consolidation and closings has resulted in fewer clinical sites and the elimination of some hospital service offerings in specialty practice areas. In Pennsylvania the number of licensed hospitals decreased from 236 in 1991 to 205 in 2001.[12] In addition to traditional clinical sites, students are encouraged to diversify their health care exposure by participating in out-of-hospital experiences in home health care, long-term care and ambulatory surgery center sites.

Currently, the demand for clinical education is greater than the availability of facilities to accommodate nursing programs in both urban and rural settings. More than half of the nursing education programs in Pennsylvania have indicated difficulty in obtaining clinical sites for student experience.[13] The stress of competition among nursing schools for clinical training sites further strains the limited resources of clinical sites and contributes to difficulty in obtaining these sites.

In light of the growing clinical site shortages and reduced patient volume, many schools are experimenting with the use of technology to provide immediate solutions for reducing demands on clinical faculty by introducing virtual learning to support clinical education. The most popular technology options are the use of human simulators, which are full-body mannequins capable of simulating numerous physiological changes and patient conditions. Simulation exercises enable students to learn and experience in an environment as close to reality as possible without causing harm to the real patients.

The full potential of simulation technology as an integrated component of the clinical education experience has yet to be realized. The ability of nursing schools to explore these possibilities is limited by a lack of resources to purchase and maintain such increasingly expensive technologies and tools. In addition to obtaining these tools, it is also necessary for faculty to be proficient in their use and to skillfully integrate these technologies within the changing learning environment.

While the use of technology provides promise for nursing education programs, the personal interaction of students and health care professionals in the nursing environment cannot be duplicated. Hands-on exposure to health care settings and the development of professional relationships is essential for students to have a realistic understanding of the work environment and employer expectations.

Education provided by a clinical teacher or preceptor provides students with a valuable mentorship experience that promotes a student's full engagement in the culture of the health care setting. Nursing education programs which use educational preceptors recognize the valuable service they provide, yet many of these clinical teachers are not formally recognized by the educational system for their mentorship role. This and other challenges such as a lack of training for preceptors and a decentralized system for matching preceptors to students quickly overburden an already stretched nursing staff. New, more practical and efficient models are needed to provide students with the best possible clinical experiences to prepare them for the increasing challenges of the health care industry.

The following three recommendations have been proposed to ensure that nursing education programs and their students have access to best possible clinical education opportunities available.

Recommendation 6

Maximize the use and availability of clinical sites to ensure that all students have increased access to clinical education experiences

- Inventory agencies, hospitals, long-term care organizations, and other sites to determine their current clinical education site capacity and to understand what factors influence their choice to host such programs
- Inventory industrial sectors (i.e. manufacturing and pharmaceutical industries) to determine possible collaborative partnerships to serve as clinical education sites
- Create an incentive for agencies to become clinical education sites, especially in areas where additional clinical education sites are needed
- Encourage the education of nursing students during off-peak periods when additional clinical site opportunities are available such as, evening, weekend, and summer hours
- Encourage the development of regional clinical educational site coordination and collaboration among nursing education programs

Recommendation 7

Invest in the integration and shared use of the latest educational technology to supplement traditional clinical education programs

- Inventory availability and use of patient simulation technology
- Support investment in state-of-the-art patient simulation technology
- Educate nursing faculty and others to incorporate patient simulation technology and other advanced technology in clinical education

Recommendation 8

Train and reward/compensate clinical teachers/preceptors to foster the growth, learning, and socialization of nursing students in the nursing environment

- Inventory best practice preceptor models, especially those that use reward and recognition incentives to expand availability of experienced preceptors
- Pilot programs to encourage older, experienced nurses who are approaching retirement to stay in the profession as preceptors and mentors
- Provide additional educational opportunities for preceptors

Attraction and Retention of Nursing Students and Graduates

Since 2001, admissions to RN schools in Pennsylvania has increased by almost 24 percent, and the number of admissions to LPN programs has increased by 35 percent between 1999 to 2001.[14] The Hospital and Health System Association of Pennsylvania attributes the recent increase in nursing school admissions to the following factors:

- the efforts of nursing education programs to increase enrollment to implement alternative evening and weekend education programs to serve the needs of persons currently working;
- public awareness campaigns and the attention that the nursing shortage has received in the media;
- the efforts of nurses and other health care providers to provide opportunities for youth to learn about the nursing profession; and
- the efforts of the state as well as hospitals and health systems to provide scholarships, loan repayment and loan forgiveness assistance.[15]

While these attraction efforts and the increase in qualified applicant demand are encouraging, the numbers of persons currently being admitted to nursing school is still well below the estimates of nurses needed to meet the demand for nursing care in a variety of settings. In addition to these attraction plans, special efforts to encourage the multi-cultural attraction and development of nursing students and nursing faculty are extremely important and need to be expanded in order to continue to build a nursing workforce which more accurately reflects the demographic make-up of the state. Males, as well as racial and ethnic minorities, are under-represented in the nursing population of Pennsylvania. This void presents a significant opportunity to engage a new pool of talent whose representation is critical in meeting the continued demand for nurses across the Commonwealth.

Equally as important to the attraction of nursing students is the successful graduation of new nursing professionals. In 2003, 3,464 students graduated from all RN programs, a 17.9 percent increase over the prior year, however, the number of graduates was 2,500 fewer per year than graduated in 1995.[16] Increasing and sustaining significantly higher graduation rates for both RN and LPN programs over the next several years is paramount. This challenge is further complicated because many students who begin nursing programs do not graduate. On average,

nearly one-fourth of nursing students are lost to attrition.[17] Nursing students who leave these programs represent a lost resource which can not be recouped; this is especially alarming when waiting lists for admissions are high. In 2003 alone, attrition represented a net loss of 851 potential new RN graduates and 377 potential LPN graduates.[18]

Pennsylvania must take action to increase the number of graduates and address the factors contributing to the attrition of nursing students. The factors that contribute to the attrition include competing life style and family issues, financial challenges, and inadequate academic performance. Reports indicate that 50 percent of all nursing school attrition is due to academic failure.[19] Therefore, efforts need to be directed at understanding and implementing the kinds of support services required to prevent such high academic failure rates, an emphasis on improving reading, math, and science skills and to promoting better learning and test taking skills so that more individuals succeed in nursing's rigorous course of study.[20]

Family and personal issues compound the challenges of academic performance. These issues include barriers such as financial challenges to complete school, balancing full and part-time jobs, attending classes, and in some cases raising a family. Many students in today's nursing programs represent a non-traditional population and require a great deal of extra support to help them through their educational experience.
In the past, a traditional nursing student entered college directly from high school; now almost 73% of undergraduate students are considered non-traditional by virtue of their older age, more independent financial status, delayed entry into higher education, and competition responsibilities such as jobs and families.[21]

Another challenge in maximizing the number of students who practice nursing in Pennsylvania is ensuring that graduates are successful in passing the national licensing examination. Nursing candidates are required by the State Board of Nursing to sit for the National Council Licensure Examination (NCLEX) in order to obtain licensure to practice. Therefore, the ability of a nursing candidate to obtain licensure after graduation directly impacts the number of new graduates able to enter the workforce.

In Pennsylvania, 83.7 percent of the RN candidates taking the nursing licensure examination for the first time in FFY 2003 passed; however this rate still falls below the performance of students in other states.[22] Low pass rates are attributed to the increasing amount and complexity of information that needs to be taught and assimilated by today's nursing student in a short period of time; the increasing complexity of the national licensure examination; and students being unprepared for the demands

associated with an education in nursing .[23] The fact that these pass rate challenges exists means that the State has an opportunity to support efforts to improve the test taking skills and educational preparation of students.

Finally it is important to recognize that the ability of nursing schools to increase faculty, expand clinical and laboratory technologies, and dedicate special efforts to improve attrition and licensure rates is directly related to increasing financial resources available to these programs. Nursing programs are, by necessity, expensive programs to maintain and operate. Growth restrictions on classroom and laboratory space as well as other physical infrastructure needs limit the capacity of nursing programs. The development, expansion, and maintenance of an adequate educational infrastructure are essential for the growth of RN and LPN nursing education programs.

The following seven recommendations have been proposed to address the challenges impacting the ability of nursing education programs to expand necessary physical and operational capacity to properly promote the attraction and retention of nursing students and graduates from RN and LPN programs who successfully obtain licensure and practice in Pennsylvania.

Recommendation 9

Strongly encourage state supported educational institutions to serve the Commonwealth's critical need for additional RNs and LPNs. For example:

- Provide highest variable stipend assistance to all community college nursing programs
- Identify specific means for State System of Higher Education to respond to critical regional needs for additional RNs
- Increase the Practical Nursing Subsidy provided by the Pennsylvania Department of Education

Recommendation 10

Improve nursing school retention rates for RN and LPN students

- Identify best practices to assist in the retention of students and replicate these programs within other educational institutions
- Provide financial assistance for those students who are not eligible for qualified financial aid programs due to their lower-than-minimum required credit enrollment

Recommendation 11

Create a dedicated capital funding source to provide the necessary technology and infrastructure to educational institutions to maintain the highest quality standards for nursing students

Recommendation 12

Improve the National Council Licensure Examination (NCLEX) pass rate of Pennsylvania RN and LPN nursing school graduates

- Provide resources to educational institutions on a matching basis to provide assessment testing in correlation with course performance to identify areas of concern and remediation needs for nursing students and institutions in preparation for NCLEX
- Support the PA State Board of Nursing proposal to increase the minimum NCLEX pass rate; a standard below which nursing education programs will be put on provisional approval status
- Encourage nursing schools with a pass rate greater than 95% to share best practices with others nursing schools that need improvement

Recommendation 13

Support the creation of programs to attract, develop, and retain minority and non-traditional student populations

- Identify barriers to non-traditional and minority student populations that may inhibit successful completion of nursing programs
- Identify best practices to address these barriers and provide assistance to replicate these practices

Recommendation 14

Support the expansion of practical nursing programs in Pennsylvania

- Provide financial resources (tuition and other expenses) for students attending practical nursing programs (Note: PHEAA grants are not available to practical nursing students)
- Encourage the use of health care contextualized learning in adult basic education courses in order to prepare these students for entry into practical nursing programs
- Examine challenges and opportunities for expanding part-time practical nursing education programs

Recommendation 15

Encourage the development of articulated career pathways in nursing programs

- Encourage full articulation among Pennsylvania's nursing educational institutions to provide nursing students with a clearer career pathway from LPN-to-RN-to-BSN-and/or-MSN

Appendix A. Leadership Council Members

Name	Title	Company
Gerald Miller*	CEO	Crozer-Keystone Health System
Eileen Connelly*	Executive Director	SEIU PA State Council
Kathleen Malloy, Ph.D*	Vice President for Health Professions	Community College of Allegheny County
Edward C. Albee	Senior Vice President	Lancaster General
S. Tyrone Alexander	Senior Vice President	Highmark Blue Cross
Michele Campbell	Executive Director	PA State Nurses Association
Jacqueline L. Cullen	Executive Director	PA Association of Vocational Administrators
Mark Davis	Policy Director	Paraprofessional Health Care Institute
Jacqueline Dunbar-Jacob	Dean	University of Pittsburgh School of Nursing
Bruce Edwards	Vice President	Heritage Valley Health System
Patricia A. Epple	Executive Director	PA Pharmacists Association
Karen Feinstein	President	Jewish Health Care Foundation
Rosemarie Greco	Director	PA Office of Health Care Reform
Kevin Hefty	Nursing Home Team Coordinator	District 1199P/SEIU
Michael Hershock	President and CEO	PHEAA Foundation
Vicki M. Hoak	Executive Director	PA HomeCare Association
Dr. Calvin Johnson	Secretary	PA Department of Health
Patty Knecht	Director of Practical Nursing	Center for Arts and Technology - Brandywine Campus

Name	Title	Company
Bill Meenan	Vice President	Beverly Enterprises
Basil L. Merenda	Commissioner	PA Department of State, Bureau of Professional and Occupational Affairs
Paula Milone-Nuzzo	Director	Penn State School of Nursing
Henry Nicholas	Co-Chair	Philadelphia Hospital & Health Care Association Training and Upgrading Fund, District 1199C
Louise Reich	Senior Vice President	Pinnacle Health Systems
Mary Ann Regan	Director	Center for Workforce Information and Analysis, Department of Labor and Industry
Alan G. Rosenbloom	President and CEO	PA Health Care Association
Carolyn Scanlan	President and CEO	The Hospital & Healthsystem Association of Pennsylvania
Scott Sheely	Executive Director	Lancaster Workforce Investment Board
Joseph Welsh	Executive Director	Life Sciences Career Alliance

Appendix B. Nursing Education Capacity Working Group

Co-Chairs:

NAME	ORGANIZATION
Basil Merenda	Department of State, Bureau of Professional and Occupational Affairs
Louise Reich	Pinnacle Health Systems

Members:

NAME	ORGANIZATION
Michele Campbell	PA State Nurses Association
Joan Carl	PA Association of Nurse Anesthetists (PANA)
Jackie Cullen	PA Association of Vocational Administrators
Bruce Edwards	Heritage Valley Health Systems
Lynn Gurski-Leighton	Hospital and Healthsystem Association of Pennsylvania (HAP)
Michael Hershock	PHEAA Foundation
Paula Milone-Nuzzo	Penn State School of Nursing
John Reddy	Career Training Academy
Scott Sheely	Lancaster County Workforce Investment Board
Joe Welsh	Life Sciences Career Alliance
Joe May	Department of Health Bureau of Health Planning
Steve Anderson	Hamot Medical Center
Patty Knecht	Center for Arts & Technology, Brandywine Campus
Victoria Rich	Hospital of the University of Pennsylvania (HUP)
Andrea Mengel	Community College of Philadelphia
Mary Schaal	Thomas Jefferson University Department of Nursing
Jayne Sheehan	Jameson Hospital School of Nursing
Ruth Ann Dobroski-Childers	Saint Vincent's Health System
Donna Ayers Snelson	College Misericordia Department of Nursing
Susan Steward	Lehigh Valley Hospital and Health Network
Mary Elizabeth Pacuska	Wilkes-Barre Area Vocational Technical School
Jerry Dittmann	Mount Nittany Medical Center
Paul Tarves	Evangelical Hospital
Kay Yannaccone	Central Susquehanna LPN Center
Janeen Sheehe	Mansfield University Department of Health Sciences and Nursing
Chris Brussalis	The Hill Group, Inc.

Alyson Getty Cole	The Hill Group, Inc.
Michael Huff	Department of Health Bureau of Community Health
Carol Williams	Department of Health Bureau of Quality Assurance
Laurette Keiser	Department of State, Bureau of Professional and Occupational Affairs
ML Wernecke	Office of the Governor
Fred Dedrick	PA Workforce Investment Board
Mary Marshall	PA Workforce Investment Board

Appendix C. Roundtable Participants

The success of the regional dialogue was made possible through the outstanding participation of our regional Roundtables.

Roundtable Facilitation Team

Chris	Brussalis	President and CEO, The Hill Group, Inc.
Alyson	Cole	Project Manager and Consultant, The Hill Group, Inc.
Fred	Dedrick	Executive Director, Pennsylvania Workforce Investment Board
Greg	McVicker	Research Associate, The Hill Group, Inc.
Mary	Marshall	Director, Planning and Research, Pennsylvania Workforce Investment Board
Aviel	Selkovits	Business Development Coordinator, The Hill Group, Inc.

Southwest Participants

Joan	Clites	Campus Coordinator for Nursing, Penn State Fayette, The Eberly Campus
Kimberly	Doms	Coordinator-School of Practical Nursing, Lenape Area Vocational Technical School
Joan	Reale	Director, Graduate Studies Div. Of Nursing, Carlow College
Susan	Wesmiller	Director Nursing Education and Research, UPMC Presbyterian and UPMC Shadyside
Kathleen	Malloy	Vice President Health Professions, Community College of Allegheny County
Eileen	Zungollo	Professor and Dean School of Nursing, Duquesne University
Joanne	Sperry	Director, Mercy Hospital School of Nursing
Helen	Burns	Associate Professor, Associate Dean for Clinical Education, University of Pittsburgh
Linda	Novak	Director Human Resources Development, West Penn Allegheny Health System
Melanie	Hueston	Director of Nursing Recruitment and Retention, UPMC
Marilu	Piotrowski	Director, Sewickley Valley Hospital School of Nursing
Gaye	Falletta	Director, Ohio Valley General Hospital School of Nursing
Lynn	George	Assistant Professor of Nursing, Robert Morris University
Lynda	Davidson	Associate Dean of Nursing and Allied Health, Robert Morris University
Mary Ann	Farmerie	Vice President Patient Care Services, Jefferson Regional Medical Center

Rececca	Kelly	Practical Nursing Program Coordinator, Greater Altoona Career and Technology Center
Jean	Samii	Chair and Professor, St. Francis University-Department of Nursing
Janet	Grady	Associate Professor and Chairperson Division of Nursing, Mt. Aloysius College
Cheryl	Webb	Dean of Nursing & Allied Health Butler County Community College
Esther	Atwood	Coordinator/Education Services, Armstrong County Memorial Hospital
Joanne	Sperry	Director, Mercy Hospital School of Nursing
Helen	Burns	Associate Professor, Associate Dean for Clinical Education, University of Pittsburgh
Linda	Novak	Director Human Resources Development, West Penn Allegheny Health System
Linda	Gallagher	Associate Vice President for Assessment/Director Nursing & Allied Health, Community College of Beaver
Nancy	Mosser	Chairperson/Director Department of Nursing, Waynesburg College
Sharon	Munson	Senior Vice President, Mon Valley Hospital
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Appendix D. References

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Appendix E. Acknowledgements

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