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Condition Critical: American Hospitals Face a Severe Undersupply of Allied Health Professionals

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CONDITION CRITICAL:
AMERICAN HOSPITALS FACE A SEVERE UNDERSUPPLY OF ALLIED HEALTH PROFESSIONALS

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> "It is widely accepted, if not too often articulated, that governments and international agencies should limit their efforts to the elimination of the more obvious forms of suffering, rather than take on a task so uncertain, so abstruse and so susceptible to varying interpretations as the promotion of happiness. Many believe that policies and legislations aimed at establishing minimum standards with regard to wages, health care, working conditions, housing and education (in the formal, very limited sense of the word) are the most that can reasonably be expected from institutions as a contribution towards human well-being. There seems to be an underlying assumption that an amelioration in material conditions would eventually bring in its wake an improvement in social attitudes, philosophical values and ethical standards."
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> **-Aung San Suu Kyi, 1991 Nobel Peace Prize Laureate, in 1993**

We Americans have been nurtured on the precept that among our most intrinsic rights are "life, liberty, and the pursuit of happiness." While government may not be able to assure "the promotion of happiness," as the Noble Laureate notes, it is charged with "establishing minimal standards" for a variety of human concerns, and among these are wages, working conditions, education, and healthcare. This paper considers all four of the preceding concerns but primarily deploys its microscope on one all-important issue in the current state of our healthcare system. Hospital administrators are consistently characterizing the shortage of skilled allied health professionals as a significant problem and project that this dearth of qualified healthcare practitioners will soon become severe. Without a dependable human resource of credentialed, competent specialists, our hospitals will not be able to fulfill their mandates and missions. As such, though we can today offer the healthcare industry's professional staffing prognosis as "guarded," in the near future, the lack of trained allied health workers actively engaged in hospital employment may lead to a "critical condition."

The paper will first present the gross problem and identify the notable stakeholders. It will then dissect the issue of an industry-wide workforce attrition to understand its etiology, the underlying cause. Next we will propagate the concept that the phenomenon under investigation is an evolving, developing dynamic, both growing and changing as diverse parties act and impact on it. As we extract salient information from the scholarly literature, government statistics, and independent surveys, the study will evaluate the cur-rent strategies prescribed to alleviate the crisis.

This report will commence with a depiction of the quintessential foundation of today's healthcare infrastructure, the hospital, in the established western economic mode of the last two centuries, capitalism. It is here that we see the clash of "material conditions," as Aung San Suu Kyi put it, with "attitudes, philosophical values and ethical standards." The hospital is a place of hope for the sick and their families, an institution that is assumed to hold to the highest standards of ethics and efficiency. But it is increasingly becoming an edifice filled, ironically, with gaps. Those structural voids are the staff vacancies which are becoming endemic and more prevalent.

HOSPITALS IN AMERICA

It is estimated that no more than a couple hundred hospitals stood in the United States by the mid-19th century and their mission, during the decades just prior to 1900, was more toward the charitable goals of their founders than to the field of medicine.[1] Hospitals became included in the public health network around 1890 and emerged as the connecting points of a recognized nationwide system. From its origins as a place where the poor could obtain "hospitality" and die, the hospital graduated to the paramount component of the medical industry, a house of teaching and hope, and in the public mind, synonymous with healthcare.[2] Prosperity in the country and a significant increase in positive patient outcomes due to the promulgation of improved hygiene and aseptic technique led to increased expectations and investments in hospitals and they proliferated to nearly 4500 by 1910.[3] Two years ago, in 2004, the total number of hospitals in this country leveled at 6021.

The American Hospital Association (AHA) was formally established in 1906 following its naissance as the Association of Hospital Superintendents in 1899. Today the AHA has 4800 institutional and 33 thousand personal members. Among its achieve-ments, the association notes the founding of the Hospital Service Plan Commission in 1937 which evolved into Blue Cross, and the collaboration of the Commission on Financing of Hospital Services which, by emphasizing eldercare, prefigured the 1965 Medicare legislation.[4]

It is interesting to note that the presidential election of 1964 was heavily influenced by the debate over a sweeping federal program that would contribute to older citizens' hospital payments. It is estimated that 22 percent of voters in that election had passed their sixtieth birthday. Lyndon B. Johnson and Democrat representatives won in a landslide that gave them a mandate to graft Medicare onto Johnson's "Great Society" initiatives. The major problem of the 1965 statute was its escalation-encouraging effects on hospital costs. The AHA lobbied forcefully in 1966 for a payment formula which would reimburse hospitals for their costs plus two percent for resource replacement.

> [*B]y paying hospitals on the basis of reasonable costs and physicians on the basis of usual and customary fees, Medicare has undoubtedly contributed to the rapid increases in health care expenditures that have bedeviled the program itself and the health care system generally.5*

The AHA compiles data and derives statistics on a wide-ranging scope of issues that concern hospitals. Information from their *AHA Hospital Statistics* in 2004 tells us that 5759 facilities have qualified as AHA-registered hospitals nationwide. A further breakdown from the AHA website follows.

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[1] Starr, P: *The Social Transformation of American Medicine* p 25, Basic Books, Inc. New York (1982).

[2] Enright, M and Jonas, S: "Hospitals" chapter 7 in: *Health Care Delivery in the United States* by Steven Jonas p 164, Springer Publishing Company, Inc. New York (1977).

[3] Stevens, R: *American Medicine and the Public Interest* p 52, Yale University Press, New Haven, (1971).

[4] American Hospital Association: "History of the AHA" http;//www.aha.org/aha/about/history.html.

[5] Blumenthal, D, Schlesinger M, Drumheller, PB: *Renewing the Promise, Medicare and Its Reform* p 16, Oxford University Press, New York (1988).

Figure 1: American Hospital Association categories and totals of U.S. Hospitals

Total Number of All U.S. Registered* Hospitals	5,759
Number of U.S. Community** Hospitals	4,919
Number of Nongovernment Not-for-Profit Community Hospitals	2,967
Number of Investor-Owned (For-Profit) Community Hospitals	835
Number of State and Local Government Community Hospitals	1,117
Number of Federal Government Hospitals	239
Number of Nonfederal Psychiatric Hospitals	466
Number of Nonfederal Long Term Care Hospitals	112
Number of Hospital Units of Institutions (Prison Hospitals, College Infirmaries, Etc.)	23

***Registered hospitals** are those hospitals that meet AHA's criteria for registration as a hospital facility. Registered hospitals include AHA member hospitals as well as nonmember hospitals.
****Community hospitals** are defined as all nonfederal, short-term general, and other special hospitals. Other special hospitals include obstetrics and gynecology; eye, ear, nose, and throat; rehabilitation; orthopedic; and other individually described specialty services. Community hospitals include academic medical centers or other teaching hospitals if they are nonfederal short-term hospitals. Excluded are hospitals not accessible by the general public, such as prison hospitals or college infirmaries.[6]

[6] "Fast Facts" http://www.aha.org/aha/resource_center/fastfacts/fast_facts_US_hospitals.html.

These numbers indicate that more than 85 percent of AHA-registered hospitals are not-for-profit. (835 community hospitals are designated "investor-owned.") It is here that we first appreciate the anomaly of hospitals and healthcare in the milieu of the American economy. Hospitals are overwhelmingly constituted and operated on the principle of zero financial gain. They are viewed as community resources: their existence is considered a fundamental component of our democratic ethos, with universal access and equal treatment expectations for all. Public education, police, fire, and correction services are similar employment sectors which are not expected to seek profit. However, government completely funds the aforementioned public services via tax revenues. With the exception of a few government-operated facilities, hospitals receive only a portion of taxpayer funding support. The rest of their expenses must be recouped from charges to patients and their third-party payers, from grants, charitable donations, and foundations.

Hospitals are no longer run and completely staffed by religious orders and individuals who have taken vows of poverty. Healthcare workers aspire to material comfort just as employees of profit-making enterprises do. Wages that afford living standards equitable with their neighbors are imperative for hospital professionals.

ALLIED HEALTH PROFESSIONS

In the scope of this paper, physicians are deemed *medical professionals*. Those occupations which have achieved professional status by virtue of their special skill sets, requisite education levels, and credential requirements (such as state licensure or board registry) and which have carved out recognized niches in the field of health provision are termed *healthcare professions.* These indispensable support professions have achieved legal designation through their alliance with physicians in the larger network and setting of medical practice.

> *Although they are difficult to count, there are more than 200 different occupations in the highly labor-intensive health services industry, only the most prominent of which are subject to some kind of licensure requirement. Ten categories—chiropractors, dental hygienists, dentists, optometrists, pharmacists, physical therapists, physicians (both MDs and osteopaths), podiatrists, and practical and professional nurses—are licensed in all states and the Distict of Columbia. Nearly all the states also license psychologists and nursing home administrators, while a significant number license clinical laboratory directors, medical technologists, opticians, physical therapy assistants, and speech pathologists and audiologists.*[7]

A brief listing of some allied health professionals not already mentioned include: cardiovascular technologists and technicians, dietitians, electroneurodiagnostic technologists, emergency medical technicians (EMTs), medical record technicians, midwives, nuclear medicine technologists, occupational therapists, opticians, physician assistants, radiologic technologists (often termed "imaging technologists"), recreational therapists, respiratory therapists, and surgical technologists. These specialty practitioners are some of the most visible in allied health, but the list is certainly not exhaustive.

Healthcare professionals often consider hospitals to be their preferred venue of work. For a medical laboratory technologist (MT) or technician (MLT), a hospital offers better working conditions, job security, and stability than a private medical lab. A registered nurse (RN) will find significantly higher wage scales in hospitals as compared to private duty, physician offices, nursing homes, or schools. A hospital pharmacist has access to a wider range of technologies than colleagues in community drug stores. For some allied health

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[7] Havighurst, CC: *Health Care Law and Policy* pp 444-445, Foundation Press, Inc., Westbury, NY (1988).

professionals, there is scarcely any employment outside of hospitals. How-ever, others find more independence by affiliating with small private practices.

Hospital employment also offers a broad social environment and an intrinsic re-ward of affiliation with a well-reputed institution.

However, hospitals have, for the last decade or more, been experiencing significant difficulty in filling staff vacancies. The staffing shortfall has been felt most acutely in the field of nursing, but the other healthcare professions are also exhibiting shortages that present daunting challenges to Human Resource (HR) managers in hospitals.

An authority on the needs and concerns of hospitals is the American College of Healthcare Executives, headquartered in Chicago. ACHE is an educational and credent-ialing organization of 30 thousand health professionals with leadership positions in hospitals, medical organizations, and healthcare systems. ACHE publishes the industry periodical, Healthcare Executive, several scholarly journals, and books on health services management through its Health Administration Press division. Further, they sponsor research and annually conduct the survey, Top Issues Confronting Hospitals.

In the 2002 survey, "personnel shortages" was the number one concern of the hospital CEOs who responded to the survey. In 2003 this item ranked second, behind "reimbursement." In the 2004 survey, staffing shortages ranked third, after "financial challenges" and "care for the uninsured." (One could argue that those two issues are overlapping.) Last year's survey, 2005, again showed the staffing crisis as the number two issue with which the 399 hospital CEO respondents report they must wrestle.8

Below is a further breakdown from the 2005 survey, indicating which personnel shortages the hospital CEOs felt were most problematic.

Figure 2: Personnel shortages in hospitals as ranked by hospital CEO respondents in the American College of

Pharmacists	57%
Therapists	50%
Physicians - surgical specialists	48%
Enhancing staff skills	47%
Physicians - medical specialists	41%
Lab technicians	32%
Physicians - generalists	31%
Complying with staffing ratio requirements	27%
Entry-level support staff	26%
Nurse anesthetists	24%
Worker dissatisfaction	21%
Succession planning for boards, managers, clinical leaders	20%
Licensed practical nurses	15%

Not surprisingly, RNs lead the list. But note that the top four shortages are in allied health professions. Surgical specialist physicians ranked only number five. In the analogous 2004 report, five of the top six shortage citations were for allied health.

PATIENTS AND HEALTHCARE DEMOGRAPHICS

A patient is a sick individual under medical care or the client of a healthcare provider. Classically, patients came to physicians for relief of pain and suffering. Indeed, *patient* is derived from the Latin *pati*, meaning "to endure and carry on" in body, mind, and spirit, and literally

[8] The American College of Healthcare Executives: "Top Issues Confronting Hospitals: 2005" Summary at: http://www.ache.org/pubs/research/ceoissues.cfm.

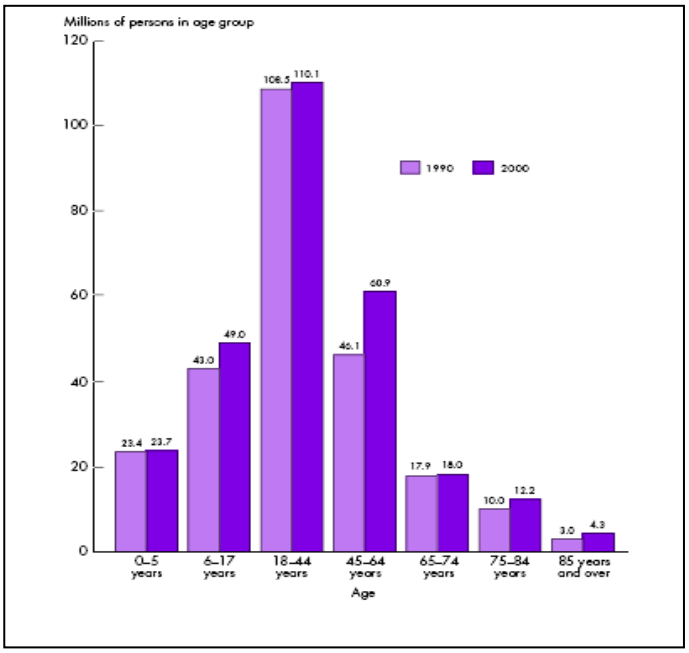
means "to suffer."[9] People become patients not only to cure illness, but also to prevent future health problems, to eliminate or decrease pain, and to increase the quality of their lives.[10]

The Center for Disease Control (CDC), an agency of the U.S. Department of Health and Human Services (HHS), reported that 53 percent of physician office patients in 2001 were over age 45. The corresponding figure for 1992 was 42 percent.[11] While the absolute numbers of people over age 45 grew by 11 percent, utilization of physician offices increased by 26 percent during that same ten-year period. "Seniors and older baby boomers are visiting the doctor more often to manage multiple chronic conditions, obtain newly-available drugs, and seek preventive care," the CDC stated.

The demographic evolution illustrated by Figure 3 impacts all aspects of health-care delivery in the U.S. and acutely so in hospital services.

There are two major modes in which a person uses hospital services: as either an inpatient or an outpatient. There are particular forms of care, certain procedures or therapies, which can only be administered in the inpatient setting, for example surgery that re-quires significant post-operative convalescence. In the late 1980's and the early 1990's, pressures for cost containment were applied on hospitals by Medicare and Medicaid re-imbursement schedules, managed care programs, and insurer's stipulations on length of hospital stays. Hospitals responded by expanding their outpatient departments (OPDs) and ratcheting up services dedicated to ambulatory care.[12]

Figure 3: Change in the age distribution of the U.S. population, 1990-2000.



Note the dramatic increase in the demographic for age 45 to 64 years. These bars represent the people born between the years 1936 and 1955, and include the post-World War II "baby boom" spike. As the baby boomers age, this spike will migrate into the sexagenarian, septuagenarian, and octogenarian columns. There are two major ramifications of this demographic shift for hospitals: the aging population will require increased ser-vices and the experienced

[9] Bailey II JA: *The Concise Dictionary of Medical-Legal Terms, A general guide to interpretation and usage*, Parthenon Publishing, New York (1998).

[10] Bernstein AB, Hing E, Moss AJ, Allen KF, Siller AB, Tiggle RB. *Health Care in America: trends in utilization* p 1, National Center for Health Statistics, Hyattsville, MD (2003).

[11] Center for Disease Control Press Release: "Aging Boomers Drive Up Doctor Visits" Division of Media Relations, Atlanta, GA (August 11, 2003).

[12] Ly N, McCraig LF: *National Hospital Ambulatory Medical Care Survey, 2000 outpatient department summary* National Center for Health Statistics, Hyattsville, MD (2002).

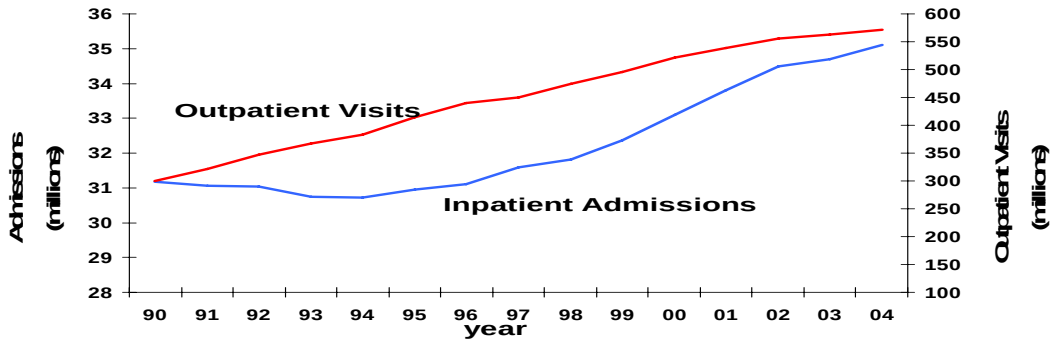


Figure 4: Comparison of outpatient visits and inpatient admissions in hospitals, 1990 to 2004.

Figure 4 shows that outpatient visits have increased from 300 million in 1990 to more than 550 million in 2004 and that this trend has been at a steady rate of expansion over the decade and a half.[13] In contrast, the rate of inpatient admissions at first dipped, in the years 1990 to 1995, as this targeted behavior exhibited the anticipated response to government-imposed guidelines on admissions and managed care imperatives for con-trolling costs to insurers. Despite these initiatives to hold down the inpatient population, a change in trend began in 1996. Hospital inpatient admissions are on the rise and at a more rapid rate than outpatient visits. Since 1996, admissions to inpatient care areas have increased from less than 31 million to approximately 35 million. Unless a patient is admitted to a hospital bed, emergency department (ED) services are not counted as inpatient data. Numerous observers of these developments, including the AHA, point to the aging of the population and its associated "increase in functional limitation and the prevalence of chronic conditions" such as diabetes and heart disease, as significantly causative of the upsurge in hospital utilization and admissions.[14]

As patients and their health insurers place demands on the healthcare system, on hospitals and the professionals who work in medical facilities, the government has recognized the importance of playing an oversight role and then some. Patients are residents and citizens for whom state, local, and national government have obligations. For more than two decades, government has assumed a major burden in controlling healthcare costs. Government has also, in recent years, come to understand that it has an interest in the adequate staffing of hospitals.

GOVERNMENT'S INITIATIVE TO ADDRESS HOSPITAL PROFESSIONAL STAFFING SHORTAGES

The United States Congress has sought to address the healthcare problems arising from hospital staffing shortages, their causes, and their ramifications. At least twenty bills have been proposed in either the House of Representatives or the Senate of the 109th Congress that deal with this problem in direct or secondary terms.

For example, the Allied Health Reinvestment Act, S 473, introduced in the Senate on February 28, 2005 by Senator Maria Cantwell of Washington, is "a bill to amend the Public Health Service Act to promote and improve the allied health professions." It has eight cosponsors and has been referred to the Committee on Health, Education, Labor, and Pensions. Section 2 of this legislation reads as follows:

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[13] American Hospital Association: *2004 Annual Survey* chart from: *State of America's Hospitals—taking the pulse chart pack* (2004).

[14] Bernstein AB, *et al, op. cit.* p. 8.

(a) Findings- Congress makes the following findings:

(1) The United States Census Bureau and other reports highlight the increased demand for acute and chronic healthcare services among both the general population and a rapidly growing aging portion of the population.

(2) The calls for reduction in medical errors, increased patient safety, and quality of care have resulted in an amplified call for allied health professionals to provide healthcare services.

(3) Several allied health professions are characterized by workforce shortages, declining enrollments in allied health education programs, or a combination of both factors, and hospital officials have reported vacancy rates in positions occupied by allied health professionals.

(4) Many allied health education programs are facing significant economic pressure that could force their closure due to an insufficient number of students.

(b) Purpose- It is the purpose of this Act to provide incentives for individuals to seek and complete high quality allied health education and training and provide additional funding to ensure that such education and training can be provided to allied health students so that the United States healthcare industry with have a supply of allied health professionals needed to support the health care system of the United States in this decade and beyond[15]

Specific professions are targeted by proposed legislation. The Medical Laboratory Personnel Shortage Act of 2005, HR 1175, introduced on March 22, 2005 by Representative John Shimkus of Illinois, with 46 cosponsors, is a bill "to amend the Public Health Service Act with respect to the shortage of medical laboratory personnel." The bill, if passed, "shall establish a program of scholarships and loan repayment for the purpose of alleviating the shortage of medical laboratory personnel. The scholarship and loan repayment program shall include a period of obligated service for recipients in a designated health professional shortage area, or other area where there is a shortage of medical laboratory personnel."16 This bill has been referred to the Subcommittee on Health.

HR 1175 would authorize $11.93 million for fiscal year 2006 and additional funds for the next four fiscal years in support of allied health education and would focus on programs for cytotechnology and transfusion medicine.[17] The law would stipulate that the Secretary of HHS "shall give preference to making awards to assist entities in meeting the costs associated with expanding or establishing programs that will increase the number of individuals trained as medical laboratory personnel" and that "the Secretary shall develop and issue public service announcements that advertise and promote medical laboratory personnel careers, highlight the advantages and rewards of medical laboratory personnel careers, and encourage individuals to enter medical laboratory personnel careers."[18]

S 2322, the Consumer Assurance of Radiologic Excellence Act of 2006, introduced February 17th of this year by Senator Michael Enzi of Wyoming, is "a bill to amend the Public Health Service Act to make the provision of technical services for medical imaging examinations and radiation therapy treatments safer, more accurate, and less costly." With 14 cosponsors, the proposed legislation, currently in hearings before the Senate Committee on Health, Education, Labor, and Pensions, would require the Secretary of HHS establish standards for education and certification of radiologic imaging professionals and, in consideration of the shortages of such personnel, "the Secretary shall, through regulation, provide a method for the recognition of individuals whose training or experience are determined to be equal to, or in excess of, those of a graduate of an accredited educational program in that specialty, or of an individual who is regularly eligible to take the

[15] Allied Health Reinvestment Act, S.473, §§ 2(a),(b) (2005).

[16] Medical Laboratory Personnel Shortage Act, HR 1175 (2005).

[17] Stomler RE: Medical laboratory workforce shortage exposed. *MLO: Medical Laboratory Observer* 37:6 p 48 (June 2005).

[18] Medical Laboratory Personnel Shortage Act, HR 1175, §§ 2 (c),(d) (2005).

licensure or certification examination for that discipline."[19]

Senator Russell Feingold of Wisconsin proposed, exactly one year earlier (Feb-ruary 17, 2005) proposed the Community-Based Health Care Retraining Act, S 444. This bill, referred to the Committee on Health, Education, Labor, and Pensions, seeks remedies of two political problems, unemployment and the staffing shortages of healthcare professionals. It would amend the Workforce Investment Act of 1998 (29 U.S.C. 2916) by establishing "a demonstration project to train unemployed workers for employment as health care professionals…"[20]

As we will see, one prevailing notion about the basis of our healthcare profession-al staffing shortages it the lack of educational facilities and resources to train and prepare allied health workers. There have been legislative initiatives in this arena as well. The Nurse Education, Expansion, and Development (NEED) Act of 2005, HR 3569, introduced on July 28, 2005 by Representative Nita Lowey of New York, proposes "to authorize capitation grants to increase the number of nursing faculty and students" by amending the Public Health Service Act.[21]

The section on findings in HR 3569 is reflective of the current situation in nursing education and the looming nursing shortage:

(1) While the Nurse Reinvestment Act (Public Law 107-205) helped to increase applications to schools of nursing by 125 percent, schools of nursing have been unable to accommodate the influx of interested students because they have an insufficient number of nurse educators. It is estimated that--

(A) in the 2004-2005 school year--

(i) 61.5 percent of schools of nursing had from 1 to 15 vacant faculty positions; and

(ii) an additional 30.9 percent of schools of nursing needed additional faculty, but lacked the resources needed to add more positions; and

(B) 32,797 eligible candidates were denied admission to schools of nursing in 2004, primarily due to an insufficient number of faculty members.

(2) A growing number of nurses with doctoral degrees are choosing careers outside of education. Over the last few years, there has been a 12 percent increase in doctoral nursing graduates seeking employment outside the education profession.

(3) The average age of nurse faculty at retirement is 62.5 years. With the average age of doctorally-prepared faculty currently 54.2 years, a wave of retirements is expected within the next 10 years.

(4) Master's and doctoral programs in nursing are not producing a large enough pool of potential nurse educators to meet the projected demand for nurses over the next 10 years. While graduations from master's and doctoral programs in nursing rose by 6.9 percent (or 669 graduates) and 2.0 percent (or 8 graduates), respectively, in the 2004-2005 school year, projections still demonstrate a shortage of nurse faculty. Given current trends, there will be at least 2,616 unfilled faculty positions in 2012.

(5) According to the February 2004 Monthly Labor Review of the Bureau of Labor Statistics, more than 1,000,000 new and replacement nurses will be needed by 2012.[22]

With 36 cosponsors, HR 3569 has been referred to the House Subcommittee on Health. It is evident that Congress has recognized that the problem and causes of health-care professional shortages in our country. Government already affects the economic state of America's hospitals by controlling Medicare and Medicaid reimbursement rates and dictating length of stay, diagnostic procedures, and treatment plans. This impacts the employees of hospitals and patients. Efforts to ameliorate staffing shortages include both direct approaches, by establishing grants, credentialing

[19] Consumer Assurance of Radiologic Excellence Act, S 2322, § 3 (2006).

[20] Community-Based Health Care Retraining Act, S 444 (2005).

[21] Nurse Education, Expansion, and Development Act, HR 3569 (2005).

[22] Nurse Education, Expansion, and Development Act, HR 3569, § 2 (2005).

systems, and promotional projects, and indirect strategies by supporting education.

EDUCATOR SHORTAGE FOR HEALTHCARE PROFESSIONALS

Ironically, just when persistent staffing vacancies of nurses and other healthcare professionals are prompting calls for increased college recruitment and enrollment in programs featuring entry preparation into one of these disciplines, prospective students actually are being turned away due to limited capacity in the corresponding courses. The American Association of Colleges of Nursing (AACN) states that, "Budget constraints, an aging faculty, and increasing job competition from clinical sites have contributed to this emerging crisis."[23]

For a high school graduate with aspirations of a healthcare career, acceptance into an accredited program study in the particular field is often a high hurdle. For example, entry-level nursing baccalaureate programs declined the applications of approximately 3,600 qualified high school graduates in 2002, nearly 16,000 in 2003, and over 29,000 in 2004. This figure rose to more than 32,500 in 2005.[24]

Accreditation of healthcare programs is advancing in an attempt to fill this need, but the augmentation of approved curricula has not kept pace with the educational need. The largest accreditor of programs in the health sciences in the nation is the Commission on Accreditation of Allied Health Education Programs (CAAHEP). A scanning of the programs that the CAAHEP monitors shows such healthcare professions as Cardiovasc-ular Technologist, EMT, Orthotic and Prosthetic Practitioner, Respiratory Therapist, and Specialist in Blood Bank Technology. The CAAHEP added 161 initial accreditations in 2004-2005 and totaled 2132 programs under its purview.[25]

The struggle to catch up to the demonstrated need seems daunting, especially for programs in nursing. AACN survey data shows that, despite the previously noted yearly increases in non-accepted applications to baccalaureate nursing study, enrollment in such programs also enlarged every year from 2001 to 2005, with an increase of 13 percent in 2005 alone. Moreover, the number of graduates from those schools rose by 19 percent from 2004 to 2005.[26]

Programs of higher education cannot enlarge without an available pool of qualified educators. Here is the root of the problem, as seen from the vantage point of a Registered Dental Hygienist (RHD): "Education career paths are not always acknowledged and encouraged among graduates or practicing RDHs. Education compensation is often not perceived to have the same value as other venues for employment as an RDH." A professor of dental hygiene agrees and adds, "We've got a great environment in which to work, we've got great jobs, a great career, a lot of benefits other than money, but the salary is typically what stops people from pursuing a career in education…"[27]

Government's role in this aspect of the problem is again evident, as the speaker continues, "This plays a huge part in salaries since they're the ones who set how much money the schools get. Funding for schools across the board, universities, colleges, (public colleges and universities, anyway) has been a smaller and smaller percentage of the state budget, and administrators responsible for dental hygiene programs have to find ways for programs to help pull their own budgetary weight—sometimes at the expense of not increasing faculty base salaries."[28]

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[23] American Association of Colleges of Nursing, "Fact Sheet, Nursing Faculty Shortage" (October, 2005). http://www.aacn.nche.edu?Media?FactSheets?facultyshortage.htm

[24] "With Enrollments Rising for the 5th Consecutive Year, U.S. Nursing Schools Turn Away More than 30,000 Qualified Applications in 2005" *New Hampshire Nursing News* 30:1 p 24 (January, 2006).

[25] Commission on Accreditation of Allied Health Education Programs: *Annual Report* (June 30, 2005).

[26] American Association of Colleges of Nursing: "Press Release" (December 12, 2005). www.aacn.nche.edu/Media/NewsRelease/2005/enr105.htm

[27] Majeski, J: The Educator Shortage *Access* 18:9 p 18 (November, 2004).

[28] *Ibid.* p 18.

The Association of Schools of Allied Health Professions (ASAHP), founded in 1967, has also been an interested participant in the effort to increase and improve the country's healthcare education capacity. They note that the evolution of schools for the preparation of health-care professionals usually consists of a founding discipline followed by adding courses in related and collaborative areas, and expansion of the programmatic base. With the short supply of qualified healthcare educators, the expansion of existing programs and the addition of necessary new ones has become difficult. As ASAHP President, David Gibson, has written in assessing the current situation:

> *First, we are facing frightening shortages of key allied health professionals such that long delays in diagnostic tests and therapeutic treatments are being experienced in various parts of the country. Second, with the American Association of Medical Colleges recent recommendation that schools of medicine should increase their class sizes by thirty percent will strain our clinical education sites for allied health students, particularly those who may be viewed as medical students' competitors. Third, the general decline in state appropriations for higher education and the relative expense of allied health education combine to make both a threat and a challenge to allied health deans and faculty. The fourth challenge is the waning federal resources allocated for health professions education and the…mounting national debt.*[29]

As previously noted, the Nurse Education, Expansion, and Development (NEED) Act of 2005 (HR 3569) directly addresses the question of federal resource allotment. If enacted, the bill would authorize $75 million in FY 2006, $85 million in FY 2007, and $95 million in 2008 for capitation grants (formula grants based on the number of students enrolled) for schools of nursing in order to increase both the number of students and of faculty. The grants would be administered by the Health Resources and Service Administration (HRSA) of the Department of HHS.[30]

It is interesting that the term "allied health" first came into legal parlance in con-nection to legislation concerned with healthcare professional training, namely *the Allied Health Professions Training Act of 1966 (AHPTA)*. The salad days of allied health schools lasted between 1967 and 1980, when the federal government, in accordance with the AHPTA provided over $300 million in funding to schools with programs for health-care professional preparation.[31]

The template most schools use, of fostering interdisciplinary communication, sup-port, and collaboration by sharing research and educational faculty and resources, also serves to centralize the nexus of institutional learning for allied health. It is very possibly in these focal centers that the crisis of healthcare professional staffing shortages in the next decade may be worsened or solved. But HR managers in American hospitals are also searching beyond the U.S. border for solutions to their professional staffing short-ages.

THE IMMIGRATION FACTOR

The shortage of healthcare professionals is not unique to the United States. Other developed nations are also dealing with this issue. The most severe levels of hospital understaffing are reported in this country, in the United Kingdom, and in Canada.[32] In the U.K. extensive nurse recruitment taps sources from Australia, India, the Philippines, South Africa, and Zimbabwe. In the U.S. international nurse recruitment also reaches to the Philippines and

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[29] Gibson, DM: President's Message *ASAHP Trends* p 2 (November 2005).

[30] "About HRSA" at http://www.hrsa.gov/about/default.htm.

[31] Karni KR, Lang A, Beck JB: Why a School of Allied Health?" *Journal of Allied Health* 24:187-202 (1995).

[32] Vujicic M, Zurn P, Diallo K, Adams O, Dal Poz MR: The role of wages in the migration of health care professionals from developing countries *Human Resources for Health* 2:3 (April 2004).

Africa (Nigeria and South Africa most often) as well as our neighbor to the north, Canada, which, as mentioned, has its own nursing shortage.

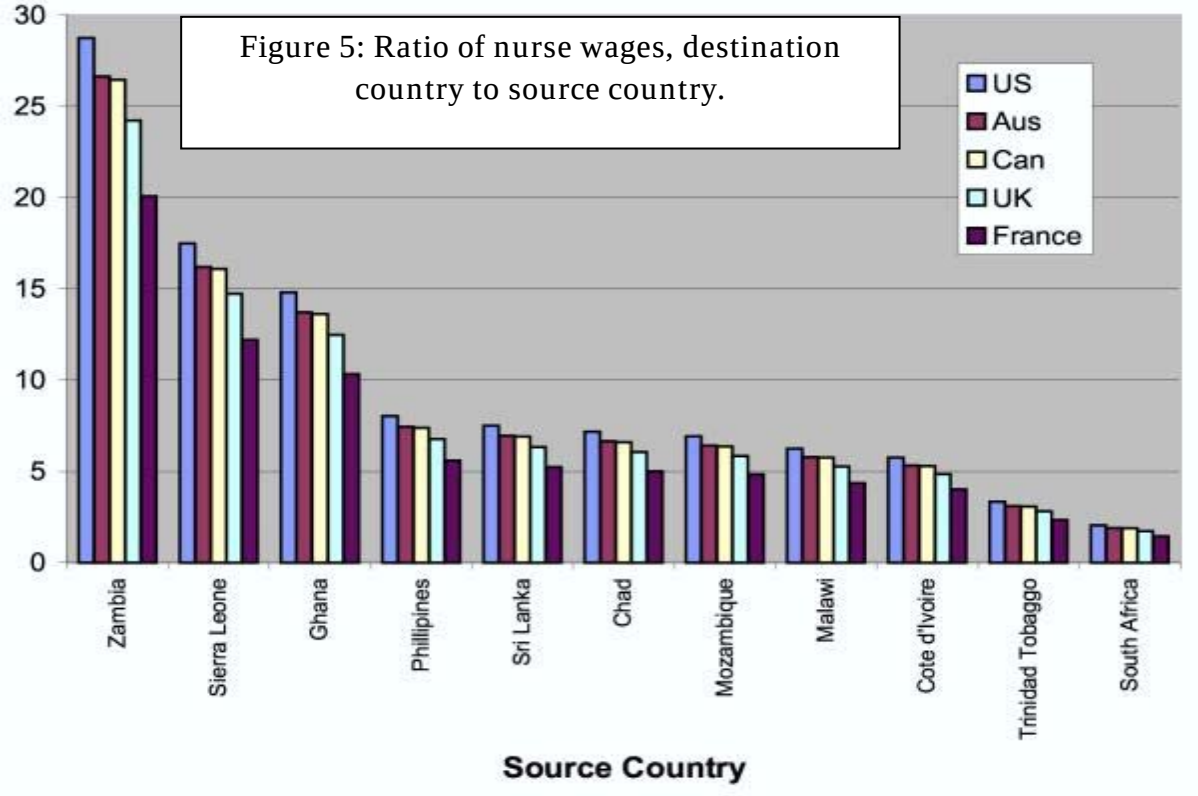
The factors in the migration of skilled and educated professional across nations distill down to three key conditions:

1. lack of opportunity in the home country,
2. available opportunity in the attracting country, and
3. selective promotion of immigration in the recruiting country.[33]

Thus, a "push and pull" mechanism takes hold of a healthcare professional in a less-developed country. Difficult working conditions and low salaries in the home country clash against a promising future of high wages and opportunities of career advancement in progressive, technologically-advanced, highly functional institutions.[34]

In American hospital HR departments, international nurse recruiting has become a common practice and there is evidence that utilization of this strategy is being extended to other targeted allied health professions. These recruiters take advantage of the "wage premium" (the difference between the wage in the source country and the destination country) to attract skilled workers. Data collected by the World Health Organization (WHO) in Geneva, Switzerland, illustrates this point in the discipline of nursing.

Figure 5: Ratio of nurse wages, destination country to source country.



We can see that the most acute wage premium derives from the source country to the U.S. It is nearly 30% for Zambia, and about 8% for the Philippines. Australia and Canada virtually tie in second place for wage premium, followed consistently by the U.K. and then France.

[33] Saravia NG, Miranda JF: Plumbing the brain drain *Bulletin of the World Health Organization* 82:8 (August, 2004).

[34] Adams O, Stilwell B: Health professionals and migration *Bulletin of the World Health Organization* 82:8 (August 2004).

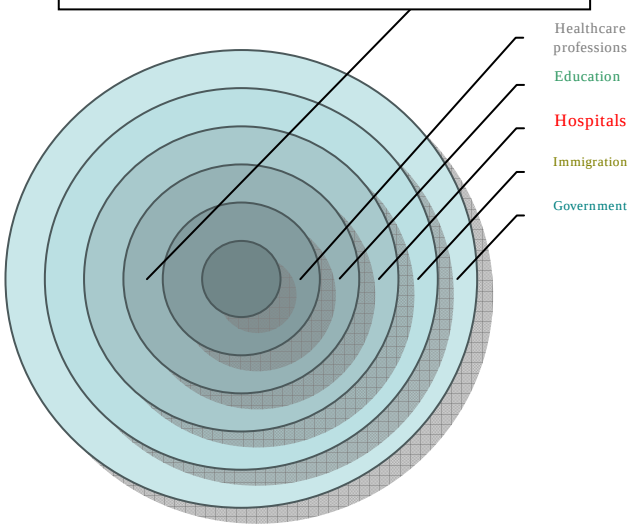
The implication of this "brain drain" in the healthcare sector of developing countries appears stark. Healthcare delivery in less-industrialized, less-affluent countries suffers when their skilled practitioners migrate to the nations of advanced development. Global communications and labor markets have made this a fact of life.[35]

In the U.S., hospitals find they must overcome significant barriers to recruit and employ healthcare workers from abroad. The issue of immigrant nurse employment will be discussed in a later section of this report.

THE STAKEHOLDERS, THE PROBLEM STATEMENT, THE DYNAMIC

The author of this paper has waited until this stage to state the problem that will be investigated. This has been done for three thematic reasons:

Figure 6: One view of the problem.



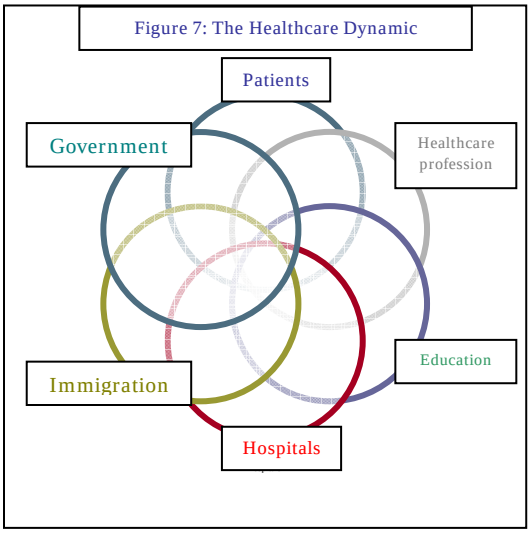
The problem is complex and the underlying issues must first be comprehended before the larger question can be appreciated.

The stakeholders in this study vary in quality and quantity, making it necessary to identify them carefully before understanding their complex relationships.

The efforts and actions of any one of the stakeholders will cause a shift in the dynamics of the issue requiring that a clear perspective of each group's individual concerns are familiar before defining the objective of the paper.

To illustrate this point, let us first look at Figure 6. In this scheme, the entity in the inner-most circle is affected by the actions of the entity of the next concentric circle and indirectly by the entities in the other concentric circles as they influence the actions of the circles below them. In such as paradigm, healthcare professionals act in a direct manner on patients, under the influence of their education and their employer, hospitals. However, hospitals, education, and healthcare professionals are affected by government and immigration.This model does not take into consideration that the influences can be bidirectional, nor does it consider that every stakeholder is affected by the decisions and behaviors of all other entities. Also, the boundaries of the various stakeholder groups blur at certain interfaces. (Caregivers are potential patients, educators are often practitioners themselves, immigrant nurses are healthcare professionals, democratic government is composed of all the people, and hospitals are composed of healthcare workers, educators, and administrators who must be compliance officers for the government. A more appropriate diagram of the dynamic of modern American healthcare is Figure 7 below. Here we can see

Figure 7: The Healthcare Dynamic



[35] Stilwell B, Diallo K, Zurn P, Vujicic M, Adams O, Dal Poz M: Migration of health-care workers from developing countries: strategic approaches to is management *Bulletin of the World Health Organization* 82:8 (August 2004).

more accurately the conditions of the healthcare system that has aroused the question under consideration. It is a situation where the actions of each player affect the behaviors of all the others, to some extent, at any moment.

Therefore, the question of this paper can be posed as follows: Can the American healthcare system find viable remedies to the underlying causes that have produced short-ages of suitably trained and credentialed professionals in the allied health disciplines, shortages which may be characterized currently as significant or severe, but which have the potential to become critical?

The stakeholders in this quandary have been identified in the sections above. They are:

- first and foremost, **patients**, who are people in need of relief of their pain and health-related suffering,
- **hospitals**, which have as their mission, their *raison d'être*, the care of the sick,
- **healthcare professionals**, who are individuals that have entered into specialized careers for the primary purpose of helping people with their health problems,
- the centers for training and teaching healthcare professionals, the **education system**, which is composed of institutions experiencing their own difficulty in recruitment and retention of competent staff,
- the **immigration system**, which regulates the influx of workers and must provide mechanisms for accepting or rejecting an individual healthcare professional's application for entry into, and residence in, this country and must also make judgments about allowing certain non-citizens the right to work here, and
- the democratic structure which has been erected to "promote the general welfare," **the government**.

It is the goal of this paper to demonstrate that the parameters of this problem are constantly changing and that prescriptions to the associated ailments must take into account the dynamic nature of the global pathology. None the less, some conclusions and suggestions may be made, though the reader must be forewarned that those recommendations must be as wide in scope as the problem itself. Finally, the author will try to answer the problem of this paper by giving a prognosis on whether the United States is capable of dealing with the current and projected shortages of healthcare professionals in the next two decades.

A SURVEY OF HOSPITAL HR DEPARTMENTS

In order to assess the methods, assumptions, and considerations that hospitals are using to fill their allied health vacancies, the author undertook to survey HR recruiters in leading medical facilities across the country.

The methodology followed for this task can simply be broken down into the following five steps:

1. Compose the questionnaire based on current understanding of the problem and hospital HR policies. For example, the author did not at first include a survey item that addressed the option of international recruiting. After assessing the contribution of this factor to the overall problem, a question was devised that could be presented as analogous to the item on education. Because of the current focus of immigration policies in the popular media and in legislative debate, the investigator decided to place it before the question on education to prevent any prejudicial inference.
2. Determine the pool of hospital HR departments to be contacted. This step was accomplished by using the listing of America's leading hospitals which is com-piled annually by the magazine US New and World Report.[36]
3. Use the internet to construct a list of hospitals, their addresses, websites, and telephone numbers of either the main switchboard or the HR department. The investigator found this step to be just as

[36] "Best Hospitals, 2005" available at: http://www.usnews.com/usnews/health/best-hospitals/tophosp.htm.

time-consuming and, at times, more tedious than actually contacting the corresponding recruiters for their responses.

4. Contact the recruiters via telephone or internet. Some people who were reached by phone suggested using faxes but the surveyor does not currently own a fax machine.
5. Compile the survey responses and analyze the resulting data.

The survey consisted of seven questions. It was decided to keep the inquiry to a very few items which could be answered in a matter of a few minutes. Hospital HR departments are extremely busy and stressful workplaces. The shortage of healthcare professionals makes recruiters' jobs strenuous and imperative. Often they must be called away from one phone conversation to stay on top of a "hot lead." Therefore it was decided that brevity would offer the best chance of attaining complete survey responses.

The design of the survey featured these general focus areas:

- a statement of the problem
- a gauging of the severity of the shortages that each hospital was experiencing
- a breakdown of the key professions most problematic for recruiting, but ruling out nursing since that is recognized as a universal area of need
- a brief description of the strategies each HR department was using to fill their most difficult vacancies
- very similarly worded inquiries on the role of education and immigration for open-ended responses
- a subjective appraisal of future trends

There is a plethora of literature on many of these issues, but the author, after reading a good deal of those reports, sought to have original data that would help in making conclusions on the adequacy of hospitals' attack on the problem. Also, the conversations with hospital HR directors proved enlightening and informative, at times guiding the author to investigate certain subjects not previously considered.

SURVEY RESULTS

Forty-three hospitals were contacted. Twelve responses were obtained. This sample is certainly not adequate for statistical analysis, but the responses obtained are indicative of some of the major demands and prevalent tactics in this arena. Twelve re-plies out of forty-three inquiries is a 28 percent response rate. The use of follow-up calls could have improved this response rate but for the purposes of this investigation, that did not seem warranted.

Figure 8 is a list of the respondent hospital HR departments.

No hospital HR officer denied that they were experiencing shortages of allied health professionals. Seventy-five percent of respondents (nine total) flatly confirmed that they had shortages. One person replied, "It depends on the profession," one felt that the shortage "ebbs and flows," and another hedged "yes and no" but admitted that the hospital was "always looking for qualified nurses…We have to work hard to find all kinds of nurses in all modalities."

Asked to characterize their staffing shortages on a scale of "very mild, slight, significant, severe, or very severe," eight respondents (66%) replied with the middle design-nation of "significant." One replied "very mild," which was balanced by one "severe." Two HR officers answered this question by opining that it depends on the area.

The disciplines cited most often as those with vacancies "most difficult to fill" were:

1. Pharmacists, mentioned on six questionnaires (50%).
2. Radiology/imaging professionals noted on five questionnaires (41.5%)
3. Respiratory techs were designated on four questionnaires (33%)
4. Physical therapists/rehab tech were entered on four response sheets (33%)

Figure 8: Hospital HR departments responding to survey on the shortages of healthcare professionals.

Hospital	Location
University of Wisconsin Hospital and Clinics	Madison, WI
Ohio State University/James Cancer Hospital	Columbus, OH
Wake Forest University/Baptist Medical Center	Chapel Hill, NC
Harper University Hospital	Detroit, MI
University of California, San Diego Medical Center	San Diego, CA
Children's Hospital	Denver, CO
University of Texas/M. D. Anderson Cancer Center	Houston, TX
Duke University Medical Center	Durham, NC
Cleveland Clinic	Cleveland, OH
University of Colorado Hospital	Denver, CO
Sarasota Memorial Hospital	Sarasota, FL
Vanderbilt University Medical Center	Nashville, TN

Other interesting responses for healthcare professionals included the opinion that lab techs were no longer a concern due to automation in that field. Among the areas volunteered as high need are audiologists (possibly reflecting the aging of the patient population), medical interpreter, speech language therapists, orthopedic techs, and interventional angiographic technicians.

The strategies that are being used to address healthcare professional staffing shortages are most commonly advertising, job fairs, and the internet.

- Advertising, or "ad agencies" was listed on eight surveys (67%). These were divided between local, national, and "specialty publication" ads.
- Hospitals that recruit locally for all allied health positions recruit nationally for nurses. Those that recruit nationally and locally for all positions often recruit inter-nationally for nurses.
- Web, or internet recruiting was mentioned by five respondents (41.5%).
- Hospitals are also networking extensively with schools, some getting to students in high school and middle school and even as early as elementary schools to sow the seed of interest in health careers.
- "Grass roots" methods are often utilized and these include participation in local or state professional association conferences and "building professional alliances."
- Hospitals are offering sign-on and referral bonuses to fill professional positions.

- Institutions are also providing relocation assistance for specific positions.

Most HR directors spoken to were very imprecise with their predictions of the staffing problems in the near future. None would offer a projection over ten years away. Those who spoke about near-term needs (the next five years) said that the demand continues to increase. Many reported that their facility was expanding and that this would necessitate increased staffing levels. Some are reporting that housing issues could ex-acerbate the problem. One respondent felt that the specific professions' needs were "always cyclical," that some disciplines have shortages for a period of years and then are stable for an equal length of time.

On the issue of immigration, three themes seem noteworthy.

1. International recruiting for nurses is common, but is considered filled with difficult barriers.
2. HR directors consider diversity issues as part-and-parcel of the immigration in hospital staff recruiting.
3. Hospitals in states sharing a northern border with Canada are recruiting and hiring professionals from the provinces of our neighbor.

The hurdles to overcome when hiring immigrant nurses include housing, other material needs, acculturation problems and legal issues, such as acquisition of the green card. There are also licensure barriers and the necessity of working through social security challenges. One recruiter said she worked with an international agency that went bankrupt and that there was a time factor in finding a prospective employee and getting the person over to the United Stated.

In the area of education and training, recruiters often were quite vocal. For this reason, a detailed look at the responses is appropriate. One recruiter said that there is a pay issue for teachers, that they can receive more money for practicing their craft than from teaching. Though they are doing more outreach to high schools, they are finding that more publicity is needed to deal with a teacher shortage.

Another HR officer replied that not only are there not enough programs, there are not enough instructors. One HR manager said that their programs reach out to students in elementary and middle schools and that education is the key to the problem.

Another respondent in Wisconsin said that "a solid educational foundation is a must, especially in nursing and medical technology. Kids must graduate in order to be considered. Schools need to work on marketing such programs as medical technology and imaging." That sentiment was echoed by a recruiter in Colorado who said that "Many people have the skills but not the education." An HR colleague in Florida said that education "will become more critical, especially in PT [Physical Therapy]."

Getting people in the pipeline early is a priority for one respondent and another touted the use of "accelerated programs." She felt that this method had its drawback in causing extended orientation time for graduates. Similarly, in her opinion, on-line programs potentially increase the number of people in the workforce, but also increase the time needed to orient the individual to the demands of the hospital workplace.

A gap in nursing and pharmacist education was observed by another HR officer. "If we don't address this problem, we'll be in deeper trouble on the future," she added. Another recruiter in Michigan said that "there are not enough programs to meet the need," and specifically pointed to the specialty area of physical therapy/rehabilitation.

Finally, a respondent in Ohio noted the commitment necessary to get a four-year degree and the impact it has on her hospital's staffing. "Most of our laboratories require a four year degree. In nursing a four-year degree is mandatory to work in critical care. More education is required to get well paying positions in healthcare…We are not putting out enough Pharmacists." She also confided that her hospital has "favorite schools," that they partner with those programs and recruit from them heavily.

SURVEY CONCLUSIONS

Hospitals are finding themselves lagging in the recruitment race. HR professionals realize that the workforce numbers are not adequate to fill current and future needs. They are in a competition with each other to attract and retain qualified personnel and are cognizant of the needs of healthcare professionals. They are trying a number of strategies but seem to have only short-term goals.

Immigration is a frustrating issue for HR managers because they believe a plentiful resource is available internationally but that there are many barriers to enticing nurses to come live and work in the United States. Among these blocking forces are legal procedures, normal living requirements, and issues of adjusting to the American culture.

However immigration is really only a factor in nurse recruiting. The big problem, as recognized by HR professionals, in filling staff vacancies in the disciplines of allied health, is our education system. There aren't enough students, graduates, or programs, HR managers cry. There aren't enough instructors, they declare. A radiologist, or a clinical chemist, a physiotherapist, or a Blood Banker, can make more money by plying their trades than by teaching to the next generation.

RESPONDING TO HOSPITAL HR CONCERNS

If the key to alleviating the healthcare professional staffing crisis is more education, more educators, more students, and more programs, the course for our country will not run well in the next two years.

> *In the fiscal 2006 budget bill recently signed by President Bush, Congress wrung $993 million out of HHS to help rein in federal spending. To get there, Congress siphoned nearly $1 million from funds to boost the U.S. nursing workforce and slashed another $154.4 million from Title VII programs to recruit minority doctors and improve primary-care access in rural and urban underserved areas. Among the cuts: $6 million for rural training of doctors, nurses, pharmacists and social workers; $3.8 million to eliminate health disparities among racial and ethnic minorities in "severely underserved areas"; and $32 million to prepare doctors and healthcare workers to care for elderly patients, according to an analysis by the Association of American Medical Colleges.*[37]

At a time when institutions of higher education are hungering for support in their effort to fill the need of preparing healthcare professionals, the federal government is slashing funding.

One area where education programs are diminishing is medical technology and its practitioner, the clinical laboratory scientist. Schools are cutting med tech programs, "due to the lack of enrollments and the high costs of maintaining them because of the significant expenses associated with consumables and equipment." Figures show that in calendar year 2002, the nation lost 15 laboratory science programs.[38] It is believed that the shortages of laboratory scientists will cause a strong pressure for salary increases. Laboratory and HR managers have often touted automation as a method for improving productivity and efficiency. More and more, however, they will be relying on mechanization and informatics to relieve some of the staffing crunch that is bound to grow heavier.

The issue of direct patient care personnel is more problematic, however. Nursing staff must be augmented with human resources. Hospital HR management and nursing supervisory departments are seeking new solutions for this persistent problem. One such tactic that has a long history of use and that has become widely accepted is the training and utilization of certified nursing assistants (CNAs) also termed

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[37] Evans, M: Health education cuts sting *Modern Healthcare* 36:8, (February 20, 2006).

[38] Beckering R, Brunner R: The lab shortage crisis: a practical approach *MLO Medical Laboratory Observer* 35:6 (June 2003).

nursing technical assistants.[39] Such personnel fill a small gap in the overall functioning of a hospital, but the need for fully qualified RNs is traced back to the undersupply of nursing faculty.

It is worth emphasizing that the educator crunch in nursing is a crucial situation that forecasters say will get worse. In October of 2000 the AACN undertook a survey of university nursing education programs. They found that there was a vacancy rate of 7.4 percent and that of 220 responding schools, only 20 reported no existent instructor openings. What made this development more alarming was the nature of the vacant positions.

"These vacancies are funded, core faculty positions," said AACN President Carolyn Williams, PhD, RN, FAAN, a member of the Kentucky Nurses Association. "They're what we call the 'heavy lifting' positions that include classroom and clinical responsibilities." The AACN survey showed that 74.6 percent of the vacant positions identified were of the `heavy lifting' kind, and almost 95 percent either required or preferred a doctorate degree.[40]

Nurses are taking the initiative themselves in some instances. The organization "Nursing's Agenda for the Future" has labored over strategies that will propel the profession toward the future while preventing a potentially dire nursing shortage by the year 2010. It was founded in collaboration with over 60 national nursing organizations. Nursing Agenda's objective is "to create integrated models of health care delivery through education, research, practice and public policy partnerships that improve the health of the nation."

> *Steps to help nursing achieve that goal include individual RNs and national nursing organizations working together to secure stable funding to support the creation, implementation, and evaluation of innovative interdisciplinary practice models led or co-led by nurses. Nurses also must take charge of developing and evaluating staffing and acuity models that show RNs' positive influence on patient outcomes. And they want basic, graduate, and continuing nursing education curricula to include information on health care economics and financial practices.* [41]

More professional organization input, lobbying, and proactivity is necessary if such initiatives are to be seen as industry-wide. Nurses exhibit an admirable militancy when advocating for their patients and their profession. Their example should be followed by more allied health groups.

ARE THE EXISTING LEGISLATIVE PROPOSALS ADEQUATE?

Perhaps it is practical for the legislative proposals now in the 109th Congress to be profession-centric rather than of an omnibus nature. HR 1175, already cited, focuses on the shortage of medical laboratory personnel and would provide public funding for schools to maintain programs to teach cytotechnology and blood banking. S 2322 focuses on the needs in radiology technology.. The NEED bill specifically targets nurse education.

At this point in our nation's grappling with the issues of an under-performing healthcare system, these band aids may be all that we can realistically hope to attain. However, most of these bills, though they have robust sponsorship, are bottled up in Congressional committees and face difficult uphill battles of passage within the deficit budgetary conditions the current administration accepts and perpetuates.

In truth, not many of these ameliorative bills has much chance of passage and this will leave our hospitals grasping for replacement healthcare professionals in the next decade as fewer and fewer graduates are produced to take up the reigns from retiring baby boomers.

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[39] Capuano T, Kinneman MT : Nursing technical assistants: one solution to the nursing shortage *Nursing* 19:5 pp. 172-175 (May 1989).

[40] Trossman S: Who will be there to teach? Shortage of nursing faculty a growing problem *Tar Heel Nurse* 64:5 pp 22-3 (September/October 2002).

[41] Trossman S: Envisioning a brighter future: nursing organizations develop a plan to ensure an adequate RN workforce *Nevada RNformation*, 11:4 (November 1, 2002).

More than likely, a large national movement to reform healthcare and prioritize issues of coverage and delivery will arise in the next Presidential election cycle. The initiative that succeeded in Massachusetts to mandate universal healthcare coverage may induce copycat legislation in other states and a country-wide consensus to rethink our outmoded system of non-profit institutions trying to prevail in a capitalist economy.[42] At the same time, there must be recognition that the future of healthcare professions lies in the education system of today and the federal government must take a more progressive tack to find ways of support for allied health training. It will be necessary to devote major tax revenues to attracting qualified professionals into the teaching ranks to close the educator gap in this country.

EDUCATION AND IMMIGRATION REFORM

The author is of the opinion that causing a "brain drain" in under-developed countries is neither an ethical nor useful method of finding a short-term solution to a long-term problem.[43] The head of the U.K. National Health Service employment policy, Debbie Mellor, argues that such recruitment practices are ethical.[44] She holds that it provides cross-cultural opportunities and the chance for international workers to "develop their teaching skills" presumably to be used when the temporary immigrants return home.

In this country, however, we see immigrant nurses come to these shores for the long haul. They are encouraged to become naturalized citizens because they have health-care skills that are in demand. In order to smooth the way for immigrant nurses to be-come employed in American hospitals, HR managers are taking on the tasks of assisting recruits from abroad with their Immigration and Naturalization Service (INS) requirements, with housing, with diversity and multi-cultural issues, and with extended orientation periods to hospital works practices and the national healthcare system vagaries.

All these machinations must be seen as merely stop-gap measures. The real fix to this problem is in more hospital/university/government partnership. Hospitals must establish, or in many cases, re-establish their schools of nursing, medical technology, physical therapy, imaging technology, and allied health. Top-performing professional and managerial staff must have dual employment: one track as care providers and the second track as educators and mentors to the next generation of hospital staffers. State and federal support with taxpayer dollars are imperative. Remember that taxpayers, as the hospital patients they are or potentially might be, represent the most central of all stakeholders in this question.

FOSTERING AN UNDERSTANDING OF THE HEALTHCARE EMPLOYMENT DYNAMIC

The fundamental interconnectedness of the stakeholders in this system is obvious. The problem that hospitals, professionals, and government must contain and subdue is not static. This is a piece of the national learning curve that has to be emphasized if there is to be any all-encompassing political movement to reform our healthcare system.

As healthcare workers become scarcer, hospitals will find themselves expending more of their hard-pressed budgets on recruitment and retention.[45] Sign-on and referral bonuses for recruitment will soon be matched by retention bonuses to keep skilled and productive staff on board. Healthcare workers are aware of the competitive nature of the job market and this is a major aspect of the dynamic. Shortages of professionals, long-term vacancies of necessary positions, and the slow drip from the education source pipe-line give healthcare professionals a sense of empowerment when making wage and

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[42] Amenta E: Can Massachusetts health plan go national? *The Boston Globe* 269:98 p A13 (April 8, 2006).

[43] Patel V: Recruiting doctors from poor countries: the great brain robbery? *British Journal of Medicine* 327:926-928 (October 18, 2003).

[44] Mellor D: Recruitment is ethical *British Journal of Medicine* 327:928 (October 18, 2003).

[45] Martel R: Retention is key *Physiotherapy Frontline* 10:16 p 6 (August 18, 2004).

work-ing condition demands of their hospital employers.

The additional financial burdens of such bonuses and salary increases, in order to remain competitive for the services of trained, credentialed staff, cause hospitals to pass costs to patients and their insurers. Government must also assume some of this freight, especially in emergency room payments and in hospital use by the uninsured. The federal government has for years been attempting to hold the beast of increased hospital costs and inpatient admissions in check. With the aging of the population and the in-creased health burdens to be expected in the future, government must now build a bigger cage, or find pacification methods that will keep this situation under control.

Portability of healthcare worker pension funds may be one avenue to consider. Many allied health professionals find the immovability of there pension plans confining. If a national system existed to give healthcare professionals more flexibility with their employment decisions, it might foster recruitment into careers in pharmacy, physical therapy, speech pathology, and the like.

Hospitals must, as previously stated, become investors in education and educators must become investors in healthcare. School should anticipate loses in startup and maintenance of programs in allied health. These curricula should be kept running even at a deficit. Especially state-sponsored universities should recognize the responsibility they have to the public in educating the next generation of healthcare professionals.

The reader should, by now, be able to imagine his/her own variation on the dynamic property of healthcare employment. The author would find it impossible to describe all the permutations of this principal within the constraints of the current paper.

CONCLUSION: THE PROGNOSIS

If more active, committed, and non-competitive partnerships are developed among the stakeholders in this problem, a long-term control of the economic and social factors can be achieved. But there is little evidence that such all-encompassing collaborations are being constructed.

Hospitals have "go-it-alone" recruitment and retention strategies that do not seek to assist the educational, professional, and immigration organizations on which the facilities rely. Professionals exhibit very meager interest in becoming full-time educators.

Patients decry their healthcare costs and hospital bills, their co-payments and insurance premiums. Do they expect healthcare professional to live like monks, nuns, and ascetics? People with advanced education believe they have a right to affluence and material gains, whether they work in banking and finance, law, engineering, or the health professions.

The prognosis for increased understanding and cooperation among stakeholder groups is poor. It seems to be the "material conditions" that block the improvement in social attitudes, philosophical values and ethical standards." Our society must come to grips with the fact that a huge sector of our economy, healthcare, which, in 2005 had expenditures of $1.9 trillion, is non-capitalist. Though health spending in the U.S. currently comprises 16% of the Gross Domestic Product (GDP), it is projected to mush-room to 18.7% by 2014.[46]

This is why the healthcare dynamic is askew in our free market, materialist system, and why it will remain so. Unless our country adopts a socialization approach, and links universal healthcare coverage with taxpayer support for educational programs designed to produce more allied health professionals, the current condition of hospital staffing shortage will become critical and it could adversely impact our entire economy.

[46] *Plunkett's Health Care Industry Almanac* Plunkett Ressearch, Ltd, Houston, TX (2005).

1. Is your hospital currently dealing with shortages of allied health professionals?

2. If yes, would you characterize these shortages as:

very mild, slight significant severe very severe

3. Among the allied health professions, and excluding nursing, which two or three professions have had vacancies which are the most difficult to fill?

4. What strategies are you using to address your allied health professional staffing shortage?

5. Could you project the staffing situation in the next 5, 10, 15, 20 years?

6. Could you comment on the impact of immigration on this issue?

7. Could you comment on the impact of education on this issue?

Appreciations

Profoundly cognizant of the career and academic milestone this paper represents, the author is compelled to acknowledge and thank the following people among the multitude that have assisted him.

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Ms. Mary Pinch, Administrative Assistant

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Professor Mark Grossman

Professor Richard McIntyre

Professor Scott Molloy

Professor Craig Overton

Professor Lawrence Rothstein

Professor Amy Tabor

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