

WHITE PAPER

NEW HOPE FOR THE NURSE SHORTAGE CRISIS



Complex Challenges,
Sensitive Issues,
Innovative Solutions

 HeartMath®

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Executive Summary

Since the mid 1980s, there has been a growing nursing shortage in the United States. The problem is severe. It is now projected that the U.S. could face a shortage of 800,000 nurses by 2020.

When the shortage was first recognized almost two decades ago, experts believed that the primary cause of the shortage was the growing demand on health care services, primarily due to an aging population. The simple solution, therefore, was to recruit more people to go into nursing. For most of the 1990s the recruitment strategy was the primary tool used to reverse the trend. But by the end of the decade it became clear that recruitment alone was not working. The shortage was growing, even as nursing school enrollments were increasing.

Indeed, numerous workforce studies completed in the past five years, including those sponsored by both public and private entities, have found that the issues causing the nursing shortage and the solutions needed to reverse the trend are more complex than originally thought.

In this white paper we will examine the causes of the nursing shortage, review its impact on the health care system and patient care, examine long term solutions, and present some innovative short term solutions that have been shown to be effective in helping health care institutions retain nursing staff, reinvigorate their culture, improve performance and improve quality of life for nursing staff.

Causes of the Nursing Shortage

In the mid 1980s it was easy to link the emerging nursing shortage with the growing demands of an aging population on the health care system: hospitals were expanding, hospital length of stay was at an all-time high, and the number of people with health insurance was growing to record numbers. There were, experts said, just not enough nurses to go around.

Although there was a great deal of truth to that analysis, the full picture was more complex. With the advent of Diagnosis Related Groups (DRGs) as the emerging hospital payment system by both government and the private sector, hospital growth waned, length of stay dropped and the number of insured leveled off, then began to decline. New and improved technology reduced the need for as many nurses at the same time that census was dropping. In addition, nursing's historical lack of influence at the governance level of most hospitals exacerbated the problem, or at least delayed solutions.



Hospitals countered their growing loss of patients by expanding the type of services they provided and consolidating with other facilities. By the mid 1990s, with fewer hospital beds open, occupancy percentage rates began rising significantly. The aging population was now booming, living longer and putting a great deal of demand on the system. The need for nurses, especially specialty nurses, was growing at an enormous clip. The more sophisticated a hospital became, the greater the need for more and better skilled nurses.

Career Options

During this time the employment opportunities for nurses had expanded dramatically. Not even a decade before, more than 90 percent of all registered nurses worked in hospitals. Another 5 percent worked in nursing-type facilities. The remainder worked in physician offices and other settings.

By the 1990s nurses had many other settings in which to pursue their passion. The enormous growth of skilled nursing facilities, assisted living locations, hospices, home care, corporate health departments, health plans, and other programs, gave qualified nurses employment options never before available. While the number of hospitals had been declining for the previous 20 years, these other facilities and settings had been growing.

In addition, the women's movement that began in the late 1960s opened more career doors for women, directly affecting nursing. Nursing has historically been a career "reserved" for women. Even today, more than 95 percent of all nurses are women. Thirty-five years ago, most women who sought a career had four primary professions in which to work: nursing, teaching, social work, or secretarial careers. Today—the "glass ceiling" experienced by women in corporate America notwithstanding—the picture has changed dramatically. The overall workforce dynamics have changed so significantly that today more than half of all medical school students are women!



The many employment options now available make the recruitment of young people much more difficult. There is also a lingering cynicism in some health care workers simply unwilling to trust health care organizations and their leaders, a cynicism left over from the downsizing of many health care organizations in the 1990s. This attitude creates further doubt in the minds of prospective nurses.

Wage Disparity

Still another factor affecting the nursing shortage is wages. While nursing wages have increased dramatically over the past decade, they still lag behind other professionals with equal training. For most nurses working in non-hospital settings, the typical wage is not enough to support an average family's needs. Even many hospital-based nurses, where wages have risen the most in recent years, find it difficult to sustain themselves financially. Many are lured away from their jobs by offers outside health care or by "sign-on" bonuses offered by competing facilities. Very few experts in the area of human resources feel this is a sustainable strategy.

The Nursing School Dilemma

There are still other dynamics that contribute to the shortage. While nursing school demand is high, the ability of schools to expand is limited by a shortage of qualified faculty. In fact, in the fall of 2003, 16,000 qualified students were rejected nationwide. According to a 2002 VHA study, part of the reason for the paucity of new graduates is the aging of health care faculty:

"Clinicians who have paid their dues in front-line work, academic study, research and teaching are now reaching retirement age. With few teachers, there are fewer openings for students."

This little known problem is having a direct effect in the workplace, and positive steps are being taken in some areas. While many schools are encouraging their students to go on to graduate training so that they may become teachers themselves, some major hospital organizations are considering opening nursing schools as a feeder service for their own nursing needs. Others are funding chairs and faculty positions at local colleges and universities with their disposable or charity dollars, and offering their institutions as sites for student nurses to perform clinicals—even sharing the cost of the preceptors with the schools. For example, hospitals like Sierra Providence Health Network in El Paso have created dual-role nursing positions in cooperation with the local nursing schools. Nurses in these positions spend half their time as clinical educators in hospital units, and the other half of their time as faculty for the nursing school.

Older Age of Nurses

Unlike years past, the average age of a nurse entering training is now 34. Nursing has become a second career for many. The average age of a working nurse has also increased dramatically in the past two decades, and is now 44. Both of these factors strongly contribute to the reality that many more nurses will have a shorter career span, and as a group, are much closer to retirement than they were 20 or 30 years ago.

Leaving the Profession

Finally, one of the most disturbing trends contributing to the shortage is the significant number of nurses leaving the profession in the prime of their working years. Because nursing has been primarily a women's profession, there has always been a significant movement of nurses in and out of the workforce. Nurses have regularly stopped working or restricted their hours during their childbearing and parenting years. However, most of those who left to start and raise a family came back to the profession when their children reached school age.

Today, however, a record number of nurses are leaving the profession early and never returning. Studies show raising a family is no longer the primary reason cited for abandoning the profession. The work hours themselves can be a major impediment to career satisfaction. Departing nurses report an extremely high level of dissatisfaction with the workplace environment. They cite high demand and little reward. They often feel they cannot provide the quality of care they feel their patients need. They consistently say that they are unable to cope with the level of stress associated with their jobs. Finally, nurses feel that the bureaucratic and clerical requirements in the hospital environment are not at all commensurate with the work they were "called" to do.

Terry Moreland is an R.N. and director of the neonatal intensive care unit at Sierra Providence Health System.

"Almost every nurse I have ever asked tells me they got into nursing to help people in need. All nurses want is the time and resources—supplies, equipment and appropriate staffing—to care for their patients. Nurses leave nursing when they feel they can't provide that care. Over the years the patient population has changed. The typical patient is sicker, as healthier patients are often seen in outpatient settings, and yet stays fewer days. Combine this with other factors, such as regulatory demands that keep the nurse away from the bedside, and you can imagine the stress nurses experience trying to provide appropriate care."

Nurse turnover rates in hospitals are at record levels. In some institutions, turnover now exceeds 40 percent annually. Nursing homes are experiencing similar rates. This often represents nurses moving from one institution to another or from one setting to another. But recent studies are showing that these moves are often preludes to a complete departure from nursing. For most nurses who move from one hospital to another, it does not take long to discover the grass is no greener on the other side.

Angie Kitashoji is an R.N. at Riverside HealthCare in Kankakee, Illinois. She sees the number one cause of nurse dissatisfaction as the lack of autonomy and self-governance.

"Hospitals are top-down organizations and nurses are at the bottom. They have very little control over their schedules and their workload. The main [source of satisfaction] for nurses in such a situation is the joy they feel when patients recognize their efforts. However, with the heavy workloads of hospitals today, even nurses who give 110% will have dissatisfied patients or

feel that they neglected some patients. This is what makes nurses want to leave their profession.”

Impact of the Nursing Shortage on the Health Care System and on Patient Care

Obviously, a shortage of nurses has a significant negative impact on the health care system. Studies from the University of Pennsylvania School of Nursing and others demonstrate that this shortage threatens the quality of care an institution can deliver.

Hospitals and nursing facilities are often forced to mandate unsafe nurse overtime, add excess responsibilities to a nurse’s workload, and shift nurses from one unit to another, all of which compromise the quality of care and significantly decrease a nurse’s job satisfaction.

Hospitals often must employ agency nurses, or import “traveling” nurses, brought in on a short-term basis from across the country to fill in for unavailable local nurses with specific skills. While the imported nurse may be well qualified and provide a valuable service, their tenure is short and the expenses related to their employment are very high. Nurses who are brought in to fill urgent staffing needs lack the commitment and engagement in the facility. This also makes the regular staff feel they have to “cover” the agency nurses while they are being paid a lesser wage.

Patient Safety

As reported in the Institute of Medicine’s 1999 white paper, *To Err Is Human*, patient safety is a critical issue. The number and degree of medical errors is growing at a dangerous pace. An overworked nursing staff is often cited as a contributing factor to this problem.

In a study conducted by the Health Resources and Services Administration, researchers uncovered a strong correlation between nurse staffing and five outcomes in medical patients: urinary tract infection, pneumonia, shock, upper gastrointestinal bleed and length of stay. (Needleman J, Buerhaus PI, Mattke S, 2000) A JCAHO sponsored study of undesirable patient outcomes indicated that 24 percent involved issues attributable to the nursing shortage, including fatigue and miscommunication. (JCAHO, 2001)

While California and some other states have passed or are considering legislation that requires minimum nurse staffing, the shortage is effectively making those goals difficult, if not impossible, to meet. The same holds true of guidelines, such as those promoted by the Leapfrog Group, calling for minimum RN staffing in areas such as critical care.

To compensate, some hospitals have increased the pressure on nurses to work double shifts, in some cases making it mandatory. This practice has been loudly condemned by nursing leaders and others. Studies have shown that overworked personnel cannot possibly provide quality care on a sustained basis. New Jersey and

several other states have passed or are considering laws that would prohibit nurses from working more than one shift daily.

Stress

To say there is stress in the health care system today would be an understatement. Consumers dislike the lack of continuity, the lack of coverage, the difficulty of access and the high cost. Patients worry that a medical error could leave them sicker than when they arrived at the hospital. Physicians complain that they are inadequately paid, face unnecessary and intruding oversight, and have difficulty keeping up with the new, innovative technologies emerging in diagnostics and treatment. Hospital administrators are unhappy at the need to expend huge amounts of capital in order to remain competitive, while at the same time seeing length of stays decrease, cost of services increase, and lower reimbursements from both the government and private sources. Insurance companies are displeased with the system because premium dollars are harder to come by while health care costs rise annually at up to 3 times the rate of inflation. Legislators complain about today's health care system not only because of the constituent demands being made on them to fix the system, but because most legislation they have enacted has not stemmed the cost of care nor has it demonstrated improved quality.

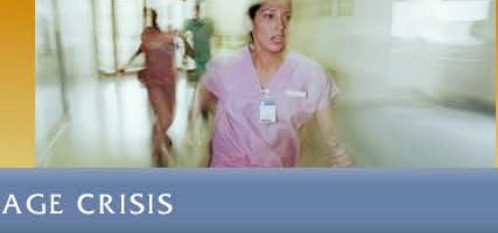

Left on the frontline to deal with the chaos of a system intended to heal, many nurses experience high levels of stress, a further aggravator of the shortage problem. Studies show that overworked nurses suffer from "compassion fatigue"—the result of caring for others without regard for self—emotional stress and other physical maladies which can manifest in increased absenteeism, high staff turnover, impaired decision-making abilities, and individuals leaving the field. Thus, *what employers often do to compensate for the shortage of nurses only compounds the problem.*

"You can't take stress out of the job. It is part of nursing because what they do is high risk and personal in nature. It requires them to shift gears constantly between priorities. It requires focus and great listening skills while under pressure, which runs counter to our natural ability to pick up subtle cues. That inherent stress can cause mistakes of omission or commission. It impacts relationships with peers and it causes health issues, which is especially important with our aging nursing workforce. It impacts their interest in self-development. It impacts their interest in participating in recognizing others and participating to make the system better. In other words, stress impacts every aspect of nursing."

-- **Kim Hollon**, Executive Vice President, Methodist Health Systems, Dallas, TX

Long Term Solutions

There have been numerous long term solutions proposed to address the nursing shortage. First and foremost is the recruitment and training of a significantly larger pool of nursing students. Obviously, this has to happen, but this is more easily said than done. In order for increased recruitment to be successful, this nation must commit significant resources to the expansion of nursing faculties and, ultimately,



the expansion of existing nursing schools themselves. This will require a large economic investment. Compensation for faculty must be at a level that draws them and retains them. In addition, it means capital expenditures needed to create the best training environment for students. Well-funded federal, state and private programs must be established to help cover the costs of nursing education. Most importantly, the workplace environments nurses enter once they are recruited must support their needs both as caregivers and as human beings. If not, we will continue to experience the revolving door of entry and early exit from the profession.

Another piece of the solution being proposed is encouraging the immigration of foreign trained nurses. While this may sound attractive in the short term, it may not be feasible for many institutions, can take years to see the investment in these efforts realized, and has frankly failed in many.

There is no question that there are valid long-term solutions to the nursing shortage that are now in the early stages of implementation. There are more in the offing. They are, however, *long term*. We can anticipate another decade of worsening shortages before the picture improves. In the meantime, however, strategies focusing on *improving retention* through improving the workplace environment and empowering nurses with emotional management skills are showing promising results.

Short Term Solutions – Create an Internal Environment to Retain More Staff

Retention is certainly the big strategy in both the short term and long term. To retain valued staff, the facility's leadership must create a working environment that:

- Rewards accomplishment
- Provides attractive compensation and benefits
- Provides employment stability
- Respects and recognizes the premier care-giving role of the nurse in the health care setting
- Elevates the status of nurses within the workplace setting
- Provides on-going education and training that updates and expands a nurse's skill level and personal development
- Provides autonomy and self-governance.

Nurses need an environment where they have the materials to do their job, where they have a supervisor concerned about their development, where they have peers interested in delivering excellent care, where they have a chance to do their best every day, where managers communicate a vision for the organization and the nurses know and understand how they fit in and make a difference. Without these qualities, stress will continue to harm every facet of the health care system, compromising quality of care, and inhibiting the very creative energy needed to revitalize the system.

These strategies require a sincere commitment that begins at the top of the organization and spreads through the organization. More often than not a major change in the corporate culture of the organization is required, which can be achieved through consistent leadership development emphasizing emotional skills and self-management. Studies have shown that most institutional administrators believe they do have environments in their hospitals that reflect the characteristics on the list above, but this is often a misperception.

While transformation of the culture is being facilitated through leadership development at the top of the organization, additional short-term solutions can be instituted that will help retain staff, improve job satisfaction and improve performance. These organizational efforts must:

- Recognize a nurse's desire to provide quality care for her patients
- Provide on-going stress reduction and performance enhancement programs that teach the individual to reduce the inherent stress associated with the job on a day-to-day basis, and
- Listen closely to solutions nurses have to improve the work environment and the quality of patient care.



"To me the real issue today is the internal environment we have created for the nursing staff. Their world is hurried, hectic, and constantly moving and changing. This will not go away and as organizations continue to be faced with declining reimbursement, nurses are caught in a system of providing compassionate service and doing so with less resources."

-- **Velma Wachter**, R.N., VP, Nursing, St. John's Mercy Hospital, Missouri

The HeartMath Solution

A solution to this challenge is HeartMath. Unlike most other programs aimed at helping health care institutions retain staff and improve performance, the HeartMath solution focuses on the individual nurse and the environment created for her/him. Through a series of training and coaching sessions, nurses are taught a set of emotional management skills that help them reduce their stress in the workplace, learn skills of self-care, work and communicate more effectively in their units, and reignite their passion for nursing. The learned skills help the individuals take charge of the situation in real time, keeping their "cool" even when all around them is in chaos. These tools also play an important role in allowing a stronger relationship between nurse and patient – an essential component of healing. These skills are workplace neutral. They have been successful in many circumstances, and in fact are extremely useful outside the workplace as well, helping nurses achieve a greater degree of personal balance and well-being.

The results of the HeartMath program in the health care workplace have been significant. We will cite three examples.



The HeartMath program was instituted by Delnor-Community Hospital in suburban Chicago in 2000 as part of their overall strategy to reduce staff turnover, reduce costs, become a national leader in patient satisfaction and be the hospital of choice in their primary market. They employed several complementary strategies to achieve these goals, and utilized experts in service excellence and strategic planning as well as the HeartMath program.

After the first year of implementing the HeartMath program the following results were reported:

- Turnover rates dropped from 26.9% to 5.9% for HeartMath trained staff (n = 422)
- Overall institutional turnover dropped from 26.9% to 21%
- Total *first year* savings related to turnover alone = \$800,000
- Medicare LOS decreased by 9% --- a \$1.4 million annual savings.
- Customer satisfaction rose from the 73rd to the 93rd percentile.
- Delnor ranked #1 in employee satisfaction nationally (Sperduto & Associate national database).

Over the next two years, the HeartMath-trained employee turnover rate had dropped to 4%, impacting overall turnover rates which have stabilized at 14%. Led by CEO Craig Livermore and COO Tom Wright, Delnor's coordinated efforts to continue developing leaders and achieve their internal benchmarks of excellence proved successful. Delnor again ranked #1 nationally in employee satisfaction in the third year, and patient satisfaction levels were now at 98%. In 2002 Delnor won the prestigious Corporate Health and Productivity Management Award, and in 2004 Delnor became only the third Illinois hospital to achieve Magnet status, a distinction given to hospitals who have demonstrated a commitment to excellence in nursing. In March 2005, Delnor received the Management Innovations Poster Session Award from the American College of Healthcare Executives (ACHE) in recognition of excellence and innovation in the healthcare field.

HeartMath's approach is to maximize human and organizational performance by delivering scientifically validated tools, techniques and technologies that boost performance and health while reducing stress. But unlike other programs, which reorganize the work environment, HeartMath *focuses on the people*, training them to better handle the rigors of their work in order to improve performance and job satisfaction.

In a broad study involving more than 600 health care workers from several health care institutions across the US, 40% were found to be fatigued often or most of the time, with 25% reporting exhaustion on a regular basis. Sleep problems also affected more than one-third of these clinicians on a consistent basis, along with a variety of other stress symptoms. Within two months of the HeartMath intervention, there was

a 40-60% improvement in all these measures. Along with these positive changes came increased loyalty, improved outlook and mood, and reduced intention to terminate employment.

Delnor is not the only hospital that has seen dramatic results. At Methodist Health System in Dallas, nurse turnover in two HeartMath-trained units dropped from over 7 percent to just over 1 percent in a six-month period.

At Sierra Providence Health Network in El Paso, Texas, turnover was 21% per year across their two acute hospitals. A pilot HeartMath program involving 282 nursing and administrative staff saw turnover rates drop to 17.5% and 19% across these two hospitals in the first year. Even more impressive was the turnover rate of only 3% for RNs and under 5% for all 282 HeartMath-trained staff. As at Delnor, patient satisfaction increased: all 3 hospitals in the system gained an 85% or higher score for the last 2 quarters of 2003.

Terry Moreland, R.N., has played a significant role in the success at Sierra Providence:

"To introduce the HeartMath concepts in my department, I work to first educate each nurse on the state of healthcare today. Each nurse has to realize that their frustrations are not always based on facility problems but rather problems that are affecting all of healthcare. These are often problems we have no control over as individual nurses. I explain that what we have control over is how we respond to the problem and the related stress. HeartMath helps us to better respond to this stress. We talk within our department that one way we can deal with the nursing shortage is by creating an effective functional and *coherent* team environment. We've had some success too! I have hired several new nurses in the past few months. Each one of them, responding to the interview question, "Why do you want to work in the neonatal intensive care unit?", answered, "I hear you have a great staff; I want to be part of this team."

Dealing with the Nursing Shortage in Your Institution

While long-term solutions to the nursing shortage are being implemented nationwide, the short-term solutions fall squarely in the domain of individual facilities or the corporations that operate them. Organizations must take a multi-faceted approach to addressing the problem. Based on all the studies focusing on solutions, the most important is the retention of existing personnel. This can only be accomplished if an environment is created that enables nurses to handle the challenges of the job, cope with the stress and pressure that is inherent to it, and feel that the organization appreciates their importance and value.

Contributors

A number of health care professionals contributed valuable insight and professional expertise to the creation of this white paper. We would like to acknowledge the following:

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Charles B. Inlander is the founder and president of People's Medical Society, and a nationally recognized expert on health care. As an advocate for patients and consumer health issues, Charlie consults to every facet of the health care system, including health care institutions, nursing organizations, health plans, and pharmaceutical companies. He is the author of more than 100 books on health, and is a member of the HeartMath Health Care Advisory Board.

Bruce C. Wilson, M.D., is a practicing cardiologist and one of the co-developers of the Health Care program at HeartMath. He is the former Director of the University of Pittsburgh Heart Institute and is currently Chairman of the Board of Directors at the Heart Hospital of Milwaukee and a member of the faculty at the Medical College of Wisconsin. He has lectured about the physiology of stress and the science behind the HeartMath tools, and delivered organizational and patient seminars since 1997.

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About HeartMath

HeartMath is the world's leader in helping organizations build coherent, dynamic organizations that achieve success on three levels: top line, bottom line, and people line. Featured in the *Harvard Business Review*, our Inner Quality Management (IQM)® framework is the basis for the first scientifically-validated suite of high-impact programs to help leadership teams, clinical staff, and all stakeholders in the health care system achieve breakthrough, sustainable results. HeartMath's Freeze-Framer® technology received TMC Labs' 2003 Innovation Award.

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