



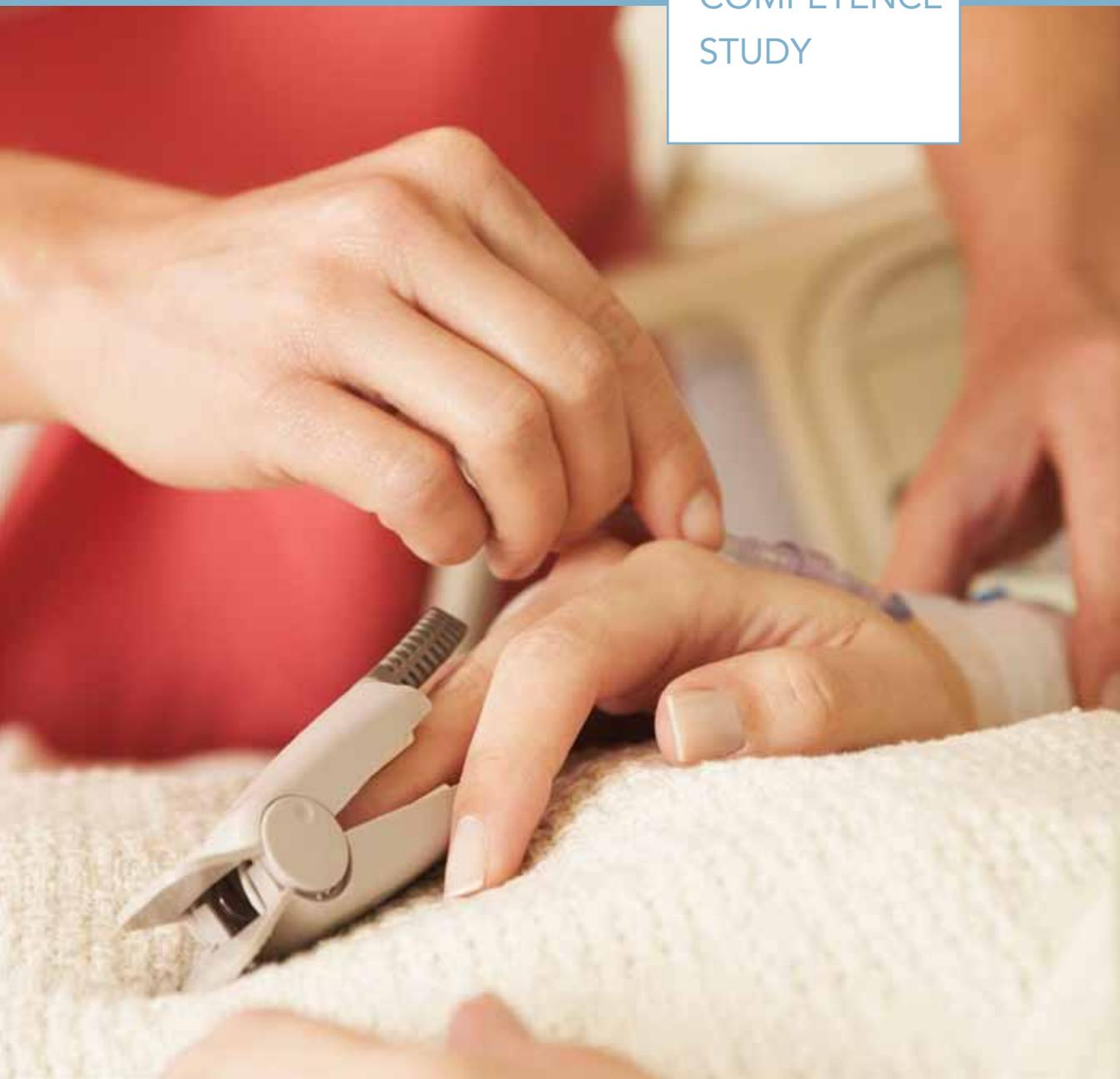
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POST-ENTRY  
COMPETENCE  
STUDY



Report of Findings from the

# **Post-Entry Competence Study**

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National Council of State Boards of Nursing, Inc. (NCSBN®)

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## TABLE OF CONTENTS

List of Tables .....	iv
Introduction .....	1
Methodology .....	2
Findings .....	4
Characteristics of Early Nursing Practice .....	4
Work Settings Over Time .....	4
Roles of RNs, LPN/VNs and Patient Care Assistants (PCAs) .....	4
How do Nurses Define and Demonstrate Competent Nursing Practice? .....	7
Juggling Complex Patients and Assignments Efficiently .....	7
Intervening for Subtle Shifts in Patients' Condition or Families' Responses .....	8
Interpersonal Skills of Calm, Compassion, Generosity and Authority .....	8
Knowing How to Work the System .....	10
An Attitude of Dedicated Curiosity and Commitment to Lifelong Learning .....	10
How Does Competence Evolve Over Time? .....	11
Early Nursing Practice: Focus on Efficiency .....	11
Striving to Reduce Reliance on Experienced Colleagues .....	13
Building Confidence in Communicating with Physicians .....	14
Differences in Responses Based on Educational Level .....	17
Consequences of Development of Competence Over Year 1 .....	17
Competence Development Over the First Five Years of Practice .....	17
Work Settings: Finding a Personal Comfort Zone .....	17
Seamless Integration of Characteristics of Highly Competent Practice .....	17
Do Nurses Display Early Signs of Exceptional Skill or High-Risk? .....	19
High-Risk Nurse: A Toxic Attitude .....	19
Do Nurses Believe their Basic and Continuing Education Enhances Competence? .....	21
Looking Back on their Nursing Education .....	21
Continuing Education Interests .....	23
Implications of these Findings for Support of Competence Development .....	23
Areas of Emphasis in Post-Licensure Competence Development .....	23
Teaching Methods to Promote Competence Development After Licensure .....	25
Methodological Notes: Approach to Data Management and Analysis .....	27
Lessons Learned from the E-mail Methodology .....	27
Summary of Points for Further Exploration .....	28
Appendix A: Post-Entry Study Questions .....	29
Appendix B: Post-Entry Study Interim Findings 2002-2004 .....	41

## LIST OF TABLES

Table 1. Characteristics of Core Longitudinal Sample (n=49) .....	16
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## INTRODUCTION

The Post-Entry Competence Study was a qualitative study designed by the National Council of State Boards of Nursing (NCSBN®) to explore the characteristics of registered and licensed practical/vocational nursing from entry through five years of practice. This study reported on a cohort of nurses who had been in practice for six to 18 months and were followed for a period of five years. The purpose of the Post-Entry Competence Study was to discover how nursing practice changed post-entry, when the changes occurred and the competencies needed by nurses with up to five years of experience.

An advisory panel composed of NCSBN members, at least one member of the regulatory community outside of nursing and nurse researchers with expertise in nursing education or practice, was assembled for the study. Advisory panel members provided feedback to the primary investigators about the overall value of the data for addressing the aims of the study, i.e., the characteristics of post-entry practice, identification of internal and external influencing factors, changes occurring in practice over time, and differentiation between safe and unsafe practices.

A Subject Matter Expert (SME) Panel of individuals, from all areas of the country and experienced in the major nursing specialty areas, who worked with or supervised newly licensed and post-entry nurses was created. The SME Panel identified activities performed by most newly licensed and post-entry nurses. Members of the SME Panel independently reviewed quarterly data summaries comparing the descriptions of practice provided by study participants with their knowledge of the practices of nurses with similar levels of experience.

## METHODOLOGY

Data collection was accomplished through e-mail surveys, allowing investigators to interact quickly with participants to clarify and expand activity descriptions. The nurse participants who completed all four activity descriptions during the past year were paid a \$100 yearly stipend.

Two sampling strategies were used for the study. First, data were collected from nurses to achieve a cross-sectional view of the characteristics of nursing practice. Eighteen groups were defined by two types of licenses, registered (RN) and licensed practical/vocational nurse (LPN/VN) and nine levels of nursing experience (6, 12, 18, 24, 30, 36, 42, 48, and 60 months of experience). Each cohort was sent a survey by e-mail at the beginning of the study. That survey collected several types of information, including demographic data, educational background, work setting information and self-assessment of proficiency within specific components of nursing practice.

The other sampling strategy consisted of following a group of nurses who had been employed six months or less through their first five years of practice, with each nurse providing data by e-mail at three month intervals. The questions that were asked at each time interval are included in Appendix A. Input from the advisory panel and SME Panel was used to modify the questions asked of the longitudinal nurse cohort to better answer the specific research questions. A total of 549 volunteered to participate in the longitudinal portion of the study.

The time frame for the longitudinal study was from August 2002 to June 2008. The reason the study encompassed more than the planned five years is because the first mailings to the longitudinal participants resulted in very low response rates. It was decided, therefore, to "accumulate cohorts over 12 months" until the desired numbers were reached. This process resulted in three groups of nurses who were mailed questions at different points in time. For example, Group 1 was mailed the first set of survey questions in August 2002, whereas Group 3 was mailed the same questions for the first time in July 2003. As a result, Group 1 received their last set of questions in 2007 and Group 3 received their last

set in 2008. At study enrollment, participants could have been licensed for up to one year, so the first year of data actually reflected nurses with six to 18 months of experience.

Data were analyzed using a qualitative descriptive approach. Two original investigators independently read narratives supplied by a portion of the cross-sectional cohorts, noting changes in daily work and in performance of selected activities. Patterns of practice, issues related to patient safety and changes in perceptions across cohorts were to be examined. The principal investigators examined 315 of the 1,010 cross-sectional responses to identify the early themes and the delegation concerns from 2002 to 2004. Their preliminary findings are presented in Appendix B. While the remaining cross-sectional responses could serve as a resource for validation of the longitudinal findings, such an analysis would not have the benefit of the focused questions that were asked in the final surveys.

The main analysis encompassed all the longitudinal data, beginning in late 2006. A total of 2,081 e-mail responses (1,203 from RNs and 878 from LPN/VNs) from the longitudinal data collection were analyzed to look for changes in individuals' responses over time.

Some files were not usable because no longitudinal comparisons were possible due to missing tracking information or sporadic responses. The major limitation was attrition. There was a 50 percent drop-off from the original 549 responses over the first three months in the longitudinal group and fewer than 100 were participating by Year 3. By the end of Year 5, about 60 nurses were still submitting data and 49 provided sufficient data for analysis across the five years.

Given their unusual persistence in participating in the study over five years, these nurses clearly must be viewed as a self-selected and non-representative group. Nonetheless, they are diverse in terms of educational background and work settings and their responses are similar to those of their peers in the larger dataset. Their reports, totaling hundreds of pages of text, are a key source of the study findings.

This report summarizes the settings and roles taken by these new nurses, including the issues of authority and delegation. The qualities of competence they demonstrated and admired are described, followed by the qualities of their early practice and how those differed based on education. Exemplars of true expertise developed over time, contrasted with one of a high-risk nurse whose responses were alarmingly negative from the outset and did not change over time. The report concludes with a discussion of implications for basic and continuing nursing education, followed by a description of the approach taken to manage and analyze the data, characteristics of the core sample that participated for the full five years and lessons learned from the e-mail data collection approach.

## FINDINGS

### Characteristics of Early Nursing Practice

#### Work Settings Over Time

Across the entire sample, the working conditions of newly licensed nurses were extremely diverse, ranging from intensive care units (ICUs) and emergency departments (EDs) to long-term care. The choice of setting did not seem to be related to RN/LPN/VN status or educational level, although the bachelor of science (BS) prepared nurses seemed to start in acute care more often and stay in acute care longer than the LPN/VNs or associate degree (ADN) and diploma nurses.

Many RNs and LPN/VNs changed their work settings within the first year, often because of untenable working conditions in acute care. Some became travel nurses and adapted to as many as three settings within their first year as an RN. Some went from one acute care setting to another seeking a better work climate or lighter caseloads. A fair number, perhaps more often LPN/VNs and AD-prepared RNs than BSNs (Bachelor of Science in Nursing), left hospital nursing for outpatient or ambulatory settings. These moves appeared to be to escape the pressure and sense of hopelessness or unsafe care, and/or find a level of acuity that was a better fit with their comfort level.

The few nurses who went to public health or home health care, mainly BSNs, depicted very impressive work with complex, needy clients. Most nurses who left the hospital moved to a more task-focused, narrow role with regular hours, which may still have a high level of responsibility for quite ill patients (such as in a day surgery or dialysis service), but with fewer diagnostic and therapeutic variations to keep track of. Some LPN/VNs and ADN graduates moved into an office nurse or insurance authorization role that focused on juggling appointments and asking favors of physicians on behalf of patients, but required very little nursing judgment on a daily basis.

Surprisingly, there was little movement from acute care floors into critical care, with more movement in the other direction. Although the numbers in

this study cannot be seen as representative, this is quite sobering, given the desirability of highly experienced staff in critical care. There were, however, heartwarming stories of outstanding nursing care delivered to some critically ill patients and their families. A few LPN/VNs who began in long-term care and then returned to school and became RNs sought and kept positions in critical care and emergency care settings.

RNs (or LPN/VNs who became RNs) who stayed on acute care floors were likely to be in charge positions and/or precepting others within their first two years of licensure. The shortage of nurses and high level of acuity in these settings was clearly seen in the rapid promotion of those who had acquired a year or two of experience.

#### Roles of RNs, LPN/VNs and Patient Care Assistants (PCAs)

Narratives revealed much variation in these nurses' reports regarding the roles of RNs vis-à-vis LPN/VNs and PCAs. In some settings, including acute care, LPN/VNs had assignments and responsibilities identical to RNs, using RNs only as back-up for questions or problems. On the other extreme, some described a functional model in which RNs did assessments and IV meds, and communicated with MDs and supervisors; LPN/VNs did all other medications (often there was one LPN/VN medical nurse for the floor); and PCAs provided hands on care and took vital signs. In other cases, LPN/VNs were given responsibilities based on their individual experience and skill level. There was only inconsistent depiction of the role of an LPN/VN in the system as performing a more technical function. In many settings LPN/VNs performed assessments, care planning, admissions, discharges and anything else the RN did, other than IV meds. In a few reports, however, the RN did assume oversight of LPN/VN practice.

These discrepancies were reported by both RNs and LPN/VNs. Clearly, LPN/VNs were not uniformly utilized or supervised across settings, but in many cases, there was little distinction between RN and LPN/VN practice, as the excerpts below reveal.

*I am responsible for assessments including vital sign monitoring, medication administration, patient education regarding care and medications, patient safety, and reporting of patient condition to necessary disciplines. [LPN/VN, Year 1]*

*There are two nurses in our office. Myself and a RN. There are also two surgeons in the office. We as the nurses bring patients back to the exam rooms and work them up (e.g.; find out why we are seeing them today, when the symptoms started, etc.) We also do wound care, remove sutures and staples, fit for braces and splints, and cast care. [LPN/VN, Year 1]*

*[I am responsible for] All patient care. I report to a charge nurse, RN. I only report any problems with my patients to the charge nurse. Patient bathing and vital signs are done by our Certified Nursing Assistant (CNA)/Techs. I am responsible for making sure vital signs are done and any personal care provided by the CNA/Techs...The needs I address during my shift include pain management, airway management, and anything typical of nursing care or responsibilities. Referrals to resources are made during the day shift by our Case Managers. [LPN/VN, Year 1]*

*I start out my day by seeing what rooms that I am assigned to and who my team consists of to take care of those patients. We work in teams of 1 RN, 1 LPN/VN and 1 CNA per 12 patients...Throughout the day I do all these things and then get with my RN to go over changes that I believe need to be made to the Care Plans and go over my assessments of the patients that I have been assigned... I take care of admissions to my assigned rooms as well as discharges. [LPN/VN, Year 1]*

*Where I work we have LPN/VN, RN and CNA teams that work together for 12 patients. I do all treatments, drug changes, oral meds and oversee the work of the CNAs. We have a charge nurse that we report to, as well as a nursing supervisor and a unit manager. We report to the charge nurse admits and discharges when patients expire and any changes in condition. [LPN/VN, Year 1]*

*We have all levels of nursing care in the hospital. I am in charge of the CNAs and treatments, PO meds and maintaining IV fluids. I give and receive reports*

*to the other nurses and staff that we work with. [LPN/VN, Year 1]*

*Something that is new to us is our acuity system, where we assign patients a number with a letter to denote the type of care that they need and at what level-- if they need an LPN/VN or RN to care for them. [LPN/VN, Year 2]*

*Some LPN/VNs felt that they were unfairly denied certain responsibilities that they felt capable of doing based on experience. Experience was seen as more significant than licensure, perhaps due to what they perceived as arbitrary distinctions in tasks they were and were not permitted to do, or in some cases, the absence of distinctions.*

*I have been trying to contemplate whether the facility I am working at is meeting my needs as a professional nurse. There have been several issues with regards to some of the RNs feeling threatened by some of our very strong LPN/VNs, myself included. These RNs feel that the LPN/VNs should be nothing more than a glorified CNA. [LPN/VN, Year 2]*

*It frustrates me to know that the health care world puts more emphasis and assumptions on RNs with little to no considerations for LPN/VNs who, at my place of employment, staff the facility and make more sound judgments. [LPN/VN, Year 3]*

*Working as an LPN/VN is very challenging in that people who are RNs do not see LPN/VNs on the same level. They look down at us, like we are nothing more than glorified CNAs.. There are quite a few limitations in the facility I work, which doesn't allow me to practice to my full potential. [LPN/VN, Year 3]*

*Where I work we have a group of LPN/VNs who are really talented and could take care of some of the higher acuity patients, but due to those LPN/VNs who can't, we had to make it so the higher, more complicated patients go to the RNs. [LPN/VN, Year 3]*

*Almost all LPN/VNs described planning to go back to school and many did. This trend may reflect their response to status inequality in their practice roles and/or a prevalent message that pursuit of an RN license was an expectation.*

*I hate being dependent on the RN to hang my IV meds and perform my IV pushes. I have looked at*

the Nurse Practice Act. I cannot find any part that says that the LPN/VN cannot perform IV therapy. I have read that the LPN/VN may perform IV therapy under the supervision of an RN or physician. This restriction is the hospital's policy. It is difficult to find an RN on the floor who is not busy when my patient is due for an IV. They are stressed out with their own patient load. I know that the RNs are complaining about having to hang the LPN/VN's IVs. There is talk that the LPN/VN could become IV certified by the facility. Then the LPN/VN could hang their own IVs, with the exception of blood. I look forward to becoming an RN soon, so that I can hang my own medicated IVs. [LPN/VN, Year 2]

PCAs were a source of angst to some new nurses. Some nurses reported not knowing who the PCAs reported to or how their job role was determined. Many PCAs were seen as uninvested in their work, sometimes testing the new nurses and unwilling to go out of their way to help. Nonetheless, most, but not all nurses, felt responsible for the care of their patients delivered by PCAs. This catch-22 was a source of frustration; nurses were physically unable to do all the hands-on care their patients required, but did not feel they could rely on or direct others who were supposed to be doing it for them.

*Q. Who decides which parts of the care will be done by assistive personnel?*

*A. I'm not sure--probably the managers. [RN, Year 1]*

*Q. Who decides which parts of the care will be done by assistive personnel?*

*A. That's just the way the unit is run--I'm sure it's an overhead policy or job description for our unit.*

*Q. Are you responsible for the care provided by assistive personnel or practical (or vocational) nurses?*

*A. Not for the aides, unless they are assisting with a circumcision or procedure for one of the infants under my care. The LPN/VNs have an RN do their assessment and cosign any charting that they've done. [RN, Year 1]*

*Supervision is always challenging because they [PCAs] are task oriented and unable to prioritize care. When I observe poor care, I always attempt*

*to reorient as to the correct and expected care they are suppose to give. Unfortunately I am not received well and then I suffer because they go on a "slow down". [RN, Year 2]*

*Assistive personnel take vital signs, do I&O's, help patients ambulate, change linens, baths and ADL's. Depending on how competent the RN thinks the aide is, other assignments may also be delegated, such as removing foleys, straight cathing patients, enemas and taking blood vitals. [RN, Year 1]*

*One thing that is different here in Florida than in Colorado on this neuro floor is that they hire LPN/VNs, RNs and CNAs. The LPN/VNs act as RNs with the exception that they do not do any IV pushes... The CNAs get vitals, do baths and try to meet the needs of the patient on a basic level. I am not responsible for the CNAs on the floor. I think that the charge nurse is or the manager of the floor who hired them. [RN, Year 1]*

*Most of my work day is spent in direct patient care; we carry a ratio of RN to patient ratio of six patients or five patients and act as resource to two to three additional patients of an LPN/VN (while the RN retains assessment duties, in addition to IV responsibilities, the LPN/VN handles PO meds and patient care). Now that I have completed a year, I am expected to take on the rotating role of charge nurse... In addition, due to cutbacks, we are expected to assist the CNAs and secretaries in their roles in order to save dollars. [RN, Year 1]*

*Some of the greatest variations were seen in the supervisory roles of LPN/VNs who worked with PCAs.*

*During the week (Monday thru Friday), we have a nurse manager, charge nurse, then an RN who covers the LPN/VNs. Unfortunately when you go to the charge nurse on shift, there is one person during the day who has been a nurse for over 20 years who does not do anything but watch TV. She does not nor will she help you if you need help. We do have CNAs on the floor, however, they only work when they feel like work, therefore the LPN/VN or RN has to do all the care and perform the nursing responsibilities as well. [LPN/VN, Year 1]*

*My job description says that as an LPN/VN, I am in a non-supervisory position. What my CNA does not*

know about that won't hurt her. I ask them to help out as needed. If there is a problem with patient care I am expected to inform the charge nurse. I have not had to do that yet. The CNA has always responded to my requests. I feel that our CNAs are great. As a new nurse, I appreciate the experienced CNAs input. [LPN/VN, Year 2]

Our hospital has two floors, one being the medical and the other the surgical floor. There is always one RN that we work under and there are usually two to four LPN/VNs on the floor. Sometimes, there will be two RNs on the floor depending on scheduling. The LPN/VNs do a beginning shift assessment of each of their patients: hang IV fluid;, start IVs; pass meds; provide documentation; dress wounds; monitor blood transfusions; give baths; empty bedpans; put in foleys; change sheets; discharge a patient after the RN assesses them; monitor vent patients; put in NG tube; and give enemas. We have an RN who is on duty if we need them and they will check on us from time to time to see if we need help. We do all of the aides' duties when necessary. We usually have one, if not two aides to help us. I report to the RN if I am going to do an invasive procedure or if I have a new patient coming to the floor, if I have a patient discharged when there is a problem, or if I need advice or a second opinion about a patient or situation. The nursing assistants assist patients when ambulating;, assist to the bathroom or bedside commode; pass meal trays; empty bedpans and clean patient;, give bath;, may give enemas; and takes vital signs when ordered. I am responsible for my patients' needs and it is up to me to make sure the aides do their duties for my patients. [LPN/VN, Year 1]

I'm an LPN/VN at a nursing home. I'm responsible for passing medications doing treatments, such as dressing changes and applying creams. I'm responsible for charting any changes the residents have, Medicare and topic charting. I'm responsible for taking blood sugars and giving insulin and other shots, such as influenza and mantoux. I'm also responsible for the nursing assistants and medication aides who work under me. I'm responsible for making sure the residents get the care they need. We have a weekend supervisor who is there and I report to her for any important events or changes

that happen. I also report things to any RN that is working on my station because they are an RN and I'm only an LPN/VN. The nursing assistants do all of the ADLs for the residents. I oversee what they do and the RNs oversee what I do. The RNs as well as I decide what parts each of us do for the residents. [LPN/VN, Year 1]

On my shift, there are two nurses who are LPN/VNs. We have a supervisor for the whole building who is an RN. I do the charting, passing meds and treatments. Should anyone fall, we need to call our supervisor to come down and assess. If someone's temperature should go over 102, we report that to the supervisor. The CNAs do all the hands on care, such as toileting, showers, etc. I am responsible for the care that the CNAs do. [LPN/VN, Year 2]

My understanding is that I work under the charge nurse's license. I can do everything at work that an RN can do, except when it comes to IVs... I have to either ask the RN down the hall to hang my medicated IVs or else track down the charge and ask her to do it for me.... I am responsible for the care provided by CNAs. I don't have any authority over them though. My job description said that I am in a non-supervisory position. If I have problems with a CNA not performing after I make the correction, I am expected to inform the charge. [LPN/VN, Year 1]

## How do Nurses Define and Demonstrate Competent Nursing Practice?

The characteristics below were identified in analysis of anecdotes submitted over the five year study period and augmented by data provided by the nurses when asked explicitly in Year 5.

### Juggling Complex Patients and Assignments Efficiently

Early in their careers, many nurses admired and aimed for good time management and efficiency above all else; this remained a baseline component of competence depicted by nurses in Year 5. For the new nurse, efficiency was the sum total of competence. Dealing with insufficient or reluctant assistance from unlicensed personnel and team members was a major source of irritation to some

in the early years because it impeded efficiency. For the experienced nurse, efficiency created a cushion of time to deal with serious events and downturns and to be helpful to others. In addition to simply working faster, being able to judge what could be done quickly and what warranted more time or consultation was an acquired skill.

*This person is well organized and has a knowledge of everything that is occurring on the floor. She is always aware of changes in patient condition. This nurse delegates responsibilities to others within their scope of practice. She is a good resource person for other nurses and always willing to jump in and assist. She has good time management skills and is a team player. [LPN/VNs, Year 5]*

*Good time management, patient oriented, knowledgeable, critical thinker, timely with caring for patients, answers call light in a timely fashion, knows how to handle all types of patients, team player, does all paperwork prior to end of shift, does not complain much nor encourage negative conversations about job, management, nor responsibilities. [LPN/VN, Year 5]*

*[A competent nurse is] Independent, self directed, good time management skills, knows resources and ability to utilize, positive patient feedback, consistently has great patient outcomes, always looking for opportunities to learn and expand, proactive, handles stressful situations well, and works well with others. [RN, Year 5]*

### **Intervening for Subtle Shifts in Patients' Condition or Families' Responses**

Nurses said and demonstrated in anecdotes that competence includes instant recognition of the abnormal, including very subtle changes not commonly seen or apparent to a novice. Critical thinking was named as a strength that enables rapid recognition of possible causes of changes in patients' condition. A competent nurse instantly knows how to respond to such changes and could anticipate needs for assistance or equipment based on experience. Nurses reported that positive patient outcomes were seen after such highly competent care.

*A highly competent nurse that I have worked with is very organized and thinks critically. She knows how to look at situations as a whole and knows how to prioritize appropriately. [RN, Year 5]*

*They know what to do in an emergent situation without having to think twice. They can read the doctor/physician assistant/ nurse practitioner's mind without being told what to do for a patient and have the items ready no matter what the patient is in for. [LPN/VN, Year 5]*

*She is always aware of diagnosis and medical information. She knows how to properly use all of the medical equipment in the office. She is kind and patient with everyone she works with... [example:] With the current weather we have had a lot of asthma patients coming in. I am quick to notice signs of distress, get the vitals signs we need, including pulse ox, and call the need to my doctor. As she assesses the patient, I begin to get the equipment and medicine out that may be needed to treat the patient. [LPN/VN, Year 5]*

### **Interpersonal Skills of Calm, Compassion, Generosity and Authority**

When asked to describe a competent nurse, the first response from many experienced nurses was to depict not a skill set but an interpersonal style. Management of crises with a calm approach or grace under pressure based on an authoritative grasp of the necessary actions and resources was highly admired.

*No matter how crazy things became, she was always calm and collected. She always completed every aspect of her job, no matter how long it took. [LPN/VN, Year 5]*

*The nurse that I think of as highly competent really knows her stuff. She has been a neonate/pediatric nurse for about 30 years and has loads of experience. I guess the behaviors that come to mind would be not panicking in a stressful situation, showing confidence to the patient and family, and knowing how to talk to the patient and family so that they understand what is happening. [LPN/VN, Year 5]*

*I believe that she shows her competence by the way she can take a situation and think it out with a clear head and keep a crisis situation under control when*

*it would be easy for it to become out of control fast. It's her critical thinking skills that make her one of the best nurses I know. ..We had a code recently and it wasn't going very well. People were frantic and it was sloppy and unorganized. There was no real "leader" of the code so I chose that we needed to save this life and the current path wasn't going to have that outcome at its end. I yelled out loud to stop and everyone take a breath and let's start again. They did stop and they took a breath and we started again. This time there was a leader and the code went much better. We were able to bring the man back and he comes to our unit every now and again to show his thanks. If he only knew... [LPN/VN, Year 5]*

*The competent nurse quickly converts a purposeless group of people into a focused team. To do this you need to identify priorities. Team members will feel a sense of relief as you task them out to help save the patient. The experienced nurse's motivation for this is not to derive a feeling of dominance or a power trip. The nurse will feel satisfaction in seeing the benefit the patient receives. [LPN/VN, Year 5]*

*The nurse I think of has experience, is able to critically think quickly on her feet and is genuinely caring. Being highly organized and competent in technical skills are also what make her competent.... I had an OB patient that came in early one morning with no doctor in house I quickly made decisions to call in extra help and a respiratory therapist. I set up for a difficult delivery since the baby was breech, the patient was a smoker and had minimal prenatal care. I continued calling the doctor who was not comfortable coming in. I was very adamant and continued calling important people that I needed now. In the end, we had one doctor and two nurses to do the delivery, but we maintained our calm and delivered a healthy baby. The situation showed me that even in a crisis situation, I was able to make appropriate decisions and stay calm. [RN, Year 5]*

*Equally important was the ability to listen well and treat all staff and participants as valued people in a warm, respectful manner.*

*The nurse that trained me during my early time on the floor is a nurse I still highly respect. She is*

*extremely compassionate and respectful towards the patients, even when they are not always kind to the staff. She is not prone to gossip and acts professionally toward other nurses. [LPN/VN, Year 5]*

*Competency, I believe, is measured not only by clinical knowledge, but also ability to interact well with those you work with and those whom you care for. The ability to critically think is also invaluable. Dedication to the job is also very important. [RN, Year 5]*

*Being in public health, competency isn't measured by clinical skills, but being able to connect with people and make an impact on their decision making process. My colleague is always researching the newest trends in child development and is always willing to lend a hand to others. She doesn't always know the answers but will answer to the best of her ability and get back to the person with the answer after she's had a chance to research it. She is very forthcoming with things and has a great way of dealing with people. She is very sincere and it shows to her clients and they respect and enjoy having her visit. She has the amazing ability to come up with other alternatives and ingenious ways of solving problems. She helps the families problem solve and come up with a solution that works for them. One of her best assets is her ability to create and maintain rapport with her clients. [RN, Year 5]*

*A competent nurse is one who listens and acts as an advocate for the patient and his family. A nurse can know all the theory and practical use of machines and computers, but if they cannot communicate and care for the patient as if they were one of their own family, then to me, they are not competent. [RN, Year 5]*

*Highly competent nurses were seen as visibly devoted to their work and self-directed. RNs and LPN/VNs differed little on what they viewed as competence; LPN/VNs more often noted that competent nurses were willing to go out of their way to help fellow staff and work cooperatively. Effective delegation also required this interpersonal competence.*

*The nurse is always there for you to ask questions, knows the answers and helps you without complaining or making you feel incompetent. She never makes you hesitate in asking for assistance or her opinion. She thinks and reacts quickly. She makes*

*you feel as if she cares as much about you as she does the patients. She is dependable, on time, is professional, neat in appearance, and does not speak unkindly of others. [LPN/VN, Year 5]*

*My colleague has been a nurse manager for many years and is close to retirement. I believe that the characteristics that stand out with her are her ability to always listen more than she speaks and she is fair. She always bears on the side of the employee and works hard to train them to policies. She quickly removes low performers from our staff in order to make it the best. She is very professional and respects everyone. She is also not afraid to get her hands dirty like some managers are. [LPN/VN, Year 5]*

### **Knowing How to Work the System**

Knowing how to obtain little-known or otherwise inaccessible consultation, resources and services for patients was valued and admired, a common example selected by experienced respondents to demonstrate how they addressed an unmet need. This skill was necessarily founded on a deep familiarity with the channels of communication, resources, and authorization strategies across the health care agency and the geographic region. This, coupled with an ongoing working relationship with key staff in positions of influence outside the home unit, a high level of self-confidence in negotiating on behalf of patients and families, diagnostic certainty about patients' needs, creativity in perceiving solutions to patients' needs, and a strong commitment to the good of the patient and family underpins going to unusual lengths on their behalf. This type of competence represents a capstone of expertise as it draws on a wide range of knowledge and skills.

*When I first started nursing I didn't know the system, I didn't know if I was the one who needed to address the patients needs. Plus I was also intimidated to talk to doctors, cm's, etc. I was so concerned about giving meds on time, looking for changes that the later needs of the patient weren't even an issue to me. Now I see the big picture. I know how to get things done. [RN, Year 3]*

*I was recently referred a case where the elementary school aged girl had traumatic brain injury (TBI). She*

*was suffering from a lot of set backs due to the TBI. I first met her when she was still in the hospital and worked with her and her family to try to get her back to school. The school was to provide OT/PT/SLP services while she was in school. Everyone seemed happy with the progress she was making. She suddenly started having violent seizures and she started regressing again. The family chose to pull her out of school, which resulted in a halt of her OT/PT/SLP services. Knowing the benefit these services bring and the benefit of her being in school, I worked with the family to identify what the concerns were and how to address them so they could resume her schooling. We pulled in different resources, got a nurse to be on campus to administer diastat PRN, trained the school personnel, etc. The knowledge of how to deal with this family, what resources could be tapped and the process of the school system came from past experiences. I thought back to another case I had when I was fairly new. I didn't know what could be done so when the family made a choice that resulted in a decrease in services I just sat by. I wasn't confident enough to recommend and advocate for what I would now. [RN, Year 5]*

*As I continue to grow in knowledge and experience as well as in increased responsibility I am able to see the bigger picture, therefore am better equipped to include other team members. The more efficient I become the more I tend to use all the other team members. The more experience I become, the larger my vision scope becomes and I the more capable of seeing the whole picture I become. [RN, Year 4]*

### **An Attitude of Dedicated Curiosity and Commitment to Lifelong Learning**

Asking good questions, being open to new knowledge, and readiness to grow and change in response to evolving patient needs and care approaches were commonly noted characteristics of highly competent nurses and may distinguish the merely skilled nurses from those who are truly experts. The additional characteristics of calm authority, interpersonal warmth and high efficiency, in combination with the competence qualities of skilled assessment and response systems perspective rooted in deep experience, enables nurses to stay ahead of the curve

and forge new approaches to increasingly complex patient care needs.

*One who seeks out ways to improve their day to day practice. One who seeks out and keeps up on new info concerning nursing practices. A person who does not get stuck in the day to day, but strives to make the nursing profession better and is a advocate for the practice. A leader. [LPN/VN, Year 5]*

*I think there are two characteristics that reflect a person's competence. The first trait is that a competent nurse is never satisfied with their level of knowledge... I feel that a second trait that highly competent nurses exhibit is confidence, or coolness under pressure... Finally I would emphasize that in an emergency situation or even just a trying situation, the nurse needs to demonstrate calmness and confidence to gain the trust of the general public as well as their fellow nurses. [LPN/VN, Year 5]*

*Not afraid to say they don't know, but will seek out the answer. Takes the time to research and study information and data before answering any questions. Is very knowledgeable in what they are certain they know. Wants to see different perspectives and other views to enlighten themselves. [LPN/VN, Year 5]*

*My current manager is experienced and knowledgeable... Several characteristics that come to mind are her eagerness to always be learning more and researching what she doesn't have a clear understanding of. Overall, in my experiences I believe an eagerness to learn more and experience itself are what develop and create highly competent nurses. [RN, Year 5]*

*And even with all her knowledge, if she encounters something she doesn't know about, she will go to references or other professionals to get answers. ... One of the greatest changes I've noticed in myself over the past few years is realizing that as a RN you will never have all the answers. It seems there is always something new/different that comes up. This could be new equipment, new procedures, a patient whose condition suddenly changes dramatically, etc. Luckily most people at the facility I work at work as a great team, helping each other as needed. My facility also provides a lot of educational opportuni-*

*ties, which I take advantage of as much as possible. [RN, Year 5]*

*A competent nurse embraces change and this is not only in medicine and treatments, but also in patients' lifestyles and how family life is changing. [RN, Year 5]*

## How Does Competence Evolve Over Time?

### Early Nursing Practice: Focus on Efficiency

By the time of study enrollment, most participants had been licensed for up to a year, so the first year of data actually represents six to 18 months of practice. By this time nurses were beyond preceptorships and orientation, were functioning on their own, sometimes in charge roles, and often on off-shifts.

Year 1 was characterized by a focus not only on tasks to be done rather than the big picture of each patient's situation, as the literature suggests, but also, and importantly, on efficiency. Being able to handle the myriad expectations and judgments in care of a heavy and complex patient load within their allotted shift was of the highest priority. Whether they took the time to be with patients or simply were less organized, the new nurses reported disappointment at having to stay late to finish charting, as this was seen as a sign of inexperience and inefficiency.

*I make up my schedule for the night with meds/ procedures and the hour each is scheduled. I begin my assessment of the patient(s), including giving meds for that hour, verifying IVs and making sure they are labeled, calibrating arterial and CVP lines and checking on the patient's comfort/sedation level. I then go to the second patient, if I have one and do the same thing. I try to chart as I go, but it depends on the nature of the problem. If it's meds, I absolutely chart as I go, but for each hour of care, I generally get the vitals down and then catch up during slower periods of the night. I do full assessments each 4 hrs, but hourly vitals assessments on a normal, stable patient. Obviously, if they've just returned from the ER or OR, I do more frequent assessments. By the end of the shift, I have bathed and changed the*

bed of my patient, verified the MAR for the next day, charted in the computer my vitals, I&Os, written on the flow sheet a narrative, including assessments and my plan of care for that shift. I print a lab history, replace electrolytes per orders, and prepared to give report to the next nurse. I generally am a bit behind and finish putting in my q4h vitals into the computer just after report (that's my Achilles heel... still trying hard to get out on time). [RN, ICU, Year 1]

I don't think I would have had enough confidence in my teaching or in the patients learning of diabetes to be effective when I first became a nurse. I probably would not have spent so much time educating and I know I would not have known how to really listen to my patients and be able to read what was going on with them. I would have thought this particular patient would have been unteachable. I would not have had the confidence to teach the patient to use the lancet and injecting the insulin. I believe I now have more experience, understanding, and patience to spend the time needed with them. My time management skills have also improved greatly, so I have the time to sit and visit, listen, educate, and observe. My understanding of Diabetes is better than it was although I still have a lot to learn. [LPN/VN, Year 5]

In the first six months of practice, I was very task oriented. I couldn't seem to see past the tasks that needed to be done, vs. the critical thinking and actions that come with more experience in nursing. When I was a new nurse, I don't think that I would have seen some of the subtle changes that were occurring, although I may have sensed something was wrong, would not necessarily been able to put the whole picture together. This comes with experience. When looking back at my first year as a licensed nurse, I believe it is rather scary that we are out there, fortunately the prudent nurse will always talk to her colleagues when something doesn't seem right, or she can't put her finger on the issue, in order to try to get a different perspective of what may be transpiring. In my early days of nursing, I would go to the experienced nurse, and still do today for input if something just doesn't seem quite right, and other nurses come to me for my opinion. [LPN/VN, Year 5]

Within this striving for efficiency, the focus for many new nurses was on physiologic needs and hands-on skills above thoroughness and sensitivity to patients' psychosocial needs. Some expressed regret, but a few described knowingly ignoring emotional distress because they saw physiologic issues as more pressing.

I was very nervous in my first six months of practice. I don't think I was aware that my patients were real people. I was more concerned with the procedure than the person. I was more focused on learning the job than on caring for the patient. [Now] I understand the importance of treating my patients with dignity and respect. I look at the whole picture and try and focus on what is wrong with my patients rather than placing my whole focus on procedures. [LPN/VN, Year 5]

Initially, I found it very difficult to manage my time efficiently. I always felt as though I was running from patient to patient and never having any time to actually spend with the patient. My organizational skills have improved significantly and I feel as though I am able to focus more attention on the needs of each individual. [RN, Year 3]

Because they were focused on completing assessments and procedures, and identifying and responding to physiologic needs, when asked to describe a situation of a patient's unmet need, many new nurses reported a physiological downturn identified during a routine or non-routine assessment. Identifying a serious change for the worse was a source of pride to many, and knowing the physiologic background of these changes and being able to give or ask for the appropriate treatments was their key focus.

As I entered on to my shift I met a 22 year old male patient. He had a MVA two days prior and just returned from having a pin in his knee. His vitals were stable, he was sitting up and talking without difficulty, his color was great along with his breathing. 20 minutes later upon entering room I noticed patient's respiration was becoming labored. His lips were a pale blue and he was having trouble staying awake. I quickly started his O2@2 that was ordered PRN. From patient BS, the RN charge nurse was called. Next Respiratory was notified. Both entered

the room around the same time. Calming interventions were used to relax the patient. The MD was notified by an RN. Patient was hooked up to pulse ox machine. Patient was 68% on two liters, 52% on RA, portable chest x-ray was done by x-ray tech. An emergency room MD asked BS for any assistance needed. Patient was put on non-rebreather mask to assist with rise in O2 sats. CNA and BS performing VS every 10 minutes. Patient stabilized. Paramedics and BS to transfer patient to larger facility per MD order. Patient again reassured things were going to be OK. Consent for transfer signed by patient. Lab and BS drawing blood. Final ABG done before transfer. Assist paramedics in loading patient in ambulance. Within hours, the facility where the patient was transferred called to tell us he had thrown a pulmonary embolism to the lung but was stable at this time and done fine. [LPN/VN, Year 1]

A patient recently had a very high temp which I found during my vital signs check. I called the doctor for an order for med for temp, administered it when pharmacy sent it up to floor and continued to check temp frequently. Temp decreased somewhat but remained elevated for all of shift. Gave med q 4 hours as ordered and passed this information on to the next shift. [RN, Year 1]

Providing care to kidney transplant post op, day three, second transplant, so the patient was receiving Thymo upon shift change. Vital signs were hourly. Assessing the patient and looking at all the vitals noticed that the BP was rising. Asked the patient if she had any symptoms; she stated she had blurry vision. BP at this time was around 180/111. Decided to notify the Renal primary doc (not resident) informed him of the situation and he gave me orders for Clonidine 2mg and then 1mg qhr until systolic was below 140 or max of 6mg. Started the order and monitored BP hourly; after three hours and total of 4mg of Clonidin BP was 136/88 or so. Placed patient on q4hour BP and it was maintained throughout the shift. PCT assisted me with obtaining BPs. [RN, Year 1]

Yesterday after 7 am report made rounds discovered 92 year old female, SOB, complaining of chest heaviness. Called house doctor, alerted supervision, did stat EKG, alerted respiratory to give patient a treatment, directed PCA to do a set of vitals, stayed

with the patient provided reassurance to reduce anxiety; suggested to house doctor that IV fluids be reduced as patient might be overloaded; IV fluids were running at 125cc/hr. Fluids were reduced to KVO patient responded with less wheezing, EKG revealed A- Fib. Monitored patient closely, less distress, then stable. My thoughts were...gosh its only 8 am. [RN, Year 1]

I had a patient who was having shortness of breath and severe respiratory problems. I first looked and his appearance his skin which he was pale and diaphoretic. Then I checked his vital signs, his oxygen SATs, and his lung sounds. I checked his oxygen to make sure it was on and working properly. I tried give neb treatments, pain meds and meds for anxiety. He did not get any better so I called an RN my supervisor and she assessed him and we decided that he should go to the hospital. I called the doctor and got the OK to send to the hospital. I called an ambulance and then called the family to let them know what was going on. Then I did the paper work and told the paramedics what was going on. He went to the hospital and I charted everything that had gone on, my assessments, and what I had done for the patient. [LPN/VN, Year 1]

### **Striving to Reduce Reliance on Experienced Colleagues**

As seen in the excerpts above, some nurses' responses to physiologic downturns in the first year were more often to get help than to take action on their own. Seeking help from a more experienced nurse or an MD was the typical first action. When asked to describe resources available to support their practice, no nurses described seeking research evidence, or consulting printed or electronic resource material to support their clinical decision-making. Mention of procedure manuals, reference books or online sources was extremely rare. Other nurses' experience was the highly prized resource tapped into by new nurses, and as they acquired their own experience, they drew on it to serve as a resource for others.

Preceptors and resource nurses were depended upon well beyond the first few months. Fellow nurses, specialists and supervisors were universally cited as the most important and first-line resource

for help, even as late as Year 3 when this question was specifically asked. Fellow nurses, leaders and supervisors with more experience were universally the first-line of support and physicians were often the second. Those who turned to MDs were often seeking physiologic explanations or medication orders. Delays in obtaining these orders or an MD assessment and action on a worrisome patient were a common source of dismay in the first year. When asked what frustrations remained with them at the end of the day, by far the most common report was of fellow staff who did not respond to requests for help, did not do their jobs and left work for others, or who did not work as a team.

Knowing what to do before having to ask for help was the implied definition of competence in the early years of a nurse's practice. As they progressed into Years 2 through 4, nurses increasingly described incidents in which they initiated first-line treatment before calling for assistance and/or reporting the situation and the patient's needs to supervisors or MDs. The ability to make independent judgments and act on them was based on several factors: a backlog of experiences with patients in similar situations with similar responses; a deepening of applied physiologic knowledge over time that enabled them to not only know theoretically what was happening in the disease process, but quickly recognize it in physical manifestations; familiarity with typical recommendations and actions of other nurses when asked for advice or assistance; and increased system-level awareness that increased their sensitivity to others' workloads and priorities.

*I find that I am much more comfortable about making decisions with little or no direction. If I have questions, I have learned what resources to consult or people to go to for assistance. I am now on a committee that discusses claims and appeals and I am the only medical person on the panel. I could not do this a few years ago. Now I have gained more knowledge and confidence in my decisions. The nurses in my department often consult each other to get another point of view, but ultimately, we are responsible for our own decisions and actions. [RN, Year 3]*

*I feel I am more assertive and less intimidated. I still ask for more experienced nurse's opinions, but*

*feel I'm doing better in that arena. I feel when I am asked to help the new nurse's learn the ropes, there is nothing like teaching to make what you know more evident to yourself. This in turn, boosts one's confidence. I also feel I know more drugs, more of what to expect from certain diagnosis, surgical procedures etc., so I'm not left with so many surprises. [RN, Year 3]*

*I have found that I am better able to determine when consultation is needed as I got more experience. I seem to ask for consultation less frequently now, but more appropriately. When I first started out I was asking everyone for everything. Now I handle what I can by myself and ask when it is something that is over my head. [RN, Year 4]*

Nonetheless, nurse colleagues remained an invaluable resource as a sounding board.

*I have always asked lots of questions and advice of other nurses with more experience than me, and I still do this. I'm fortunate on my unit to have lots of nurses who have loads of experience. I feel like I've gotten more confident in my decisions/interventions over time, and now when I bounce questions off other people, a lot of times it's more of a "I'm thinking of doing this, what do you think?" rather than an "I don't know what to do, what do you think I should do?" situation, as it was a lot when I first started. There are still times when I don't know what to do and I'm always grateful that there are people that I can ask questions of. I also feel like bouncing things off other people is good because they might be seeing the situation differently than I am and they might have ideas that I might not have thought about. [RN, Year 4]*

### **Building Confidence in Communicating with Physicians**

As important as knowing what needed to be done was knowing how to get the resources to do it within the specific setting. Being able to access equipment and staff quickly was essential, and being able to convince MDs that their presence or orders were needed was critically important.

*I am more confident and comfortable in taking action in certain situations and I feel more comfortable talking to doctors on the telephone. I use to*

*be nervous taking down orders over the telephone. I was afraid I would leave something important out and I felt dumb and scatter brained in front of the doctors and over the phone. I am more relaxed and confident to the point that I have got full use of my memory again that has always been great. [RN, Year 3]*

Having the courage to insist that a patient needed to be seen required several assets: a solid understanding of the physiology and pathophysiology of the patient's known diagnosis and possible comorbidities in order to defend the perception of a significant downturn in the patient's condition; experience with available treatments and care to be able to suggest a physician order or referral; and calm, clear, confident verbal communication and self-presentation skills.

*A competent nurse should stand up for colleagues and patients. Speak up when an error is made, apologize when things are not right and approach management and doctors when respect is not mutually maintained. [RN, Year 5]*

The example below serves as a summary and demonstrates many of the qualities of competence outlined above: juggling complex needs efficiently; skilled assessment of subtle changes; interpersonal skills of calm authority and therapeutic use of self; knowing how to work the system; and an attitude of continual learning.

*I had a very critical patient last week who was a 1 RN: one patient...very sick, constant interventions and care. He had a partial hepatectomy five days earlier and had been back to surgery four times after the initial surgery for bleeding. He was ventilated because of ARDS, sedated, in acute renal failure, 53 years old with a lovely family and had a likely good outcome following his surgery, but the subsequent surgeries had seriously impacted that probable outcome. He was finally a bit more stable on the third day I cared for him, and I was starting to think about shampoo, shave, good bath, etc. and his wife was feeling more comfortable, so she went to work for a couple of hours. His blood pressure had been stable with a systolic 110-115 and his urine output was steady at 15-20 cc/hr. I shampooed him, got the shaving equipment out and noticed that his*

*blood pressure had dropped to 108 and his urine output dropped to 11cc that hour. I quickly made the rounds of his five drains and found one had the same amount of drainage, but it was now much more sanguinous. I stood and watched his blood pressure for about three minutes, then called the doctor who was in another hospital in surgery. He gave me orders for a liter of Ringers, a unit of blood and four units of plasma immediately. As I put the orders in, I sent people running for the blood products, and had others priming tubing for the blood. Within 30 minutes, his blood pressure was 96, urine output had not improved and the drain had then put out 300cc. I called the doctor again, got him out of surgery and told him of the obvious bleeding. He gave me orders for more blood, told me to call the OR and said he'd be there in a couple of minutes. My charge nurse, break nurse and one other nurse who had only one patient helped me get him ready for the OR, squeezed in blood by the bags, disconnected all his drains and connections and I called his wife. I tried to gently explain that he was bleeding again and that we were taking him back to the OR, so I wanted her to know. She said, I'll be right there...but unfortunately, she was 25 minutes away. (She arrived in 15 minutes after traveling at about 100...not good). I had to coordinate with the OR, respiratory therapy, who had to accompany him to the OR, give report to the anesthesiologist and all the while try to chart what was happening, while my co-workers continued checking the blood products and then squeezing in plasma and blood. As soon as the doctor arrived, his wife arrived and we were off to the OR. I made the six person team stop at the OR door so his wife could kiss him goodbye and then he was gone. I spent some time with his wife and parents and gave them some hope that he was in good hands. Then I prayed for him by myself! He arrived back in the unit looking exactly as he did when he left, with the liver laceration repaired. As of this morning, he had not been taken back to the OR and it's been four days. He's now on hemodialysis daily and is still ventilated. That he is still alive is a very hopeful sign. The nursing team actions are what saved him (and me)! I could not have done this alone. It was a very, very slight change in his status that got my attention in the first place and I know that I would never had noticed that when I started*

**Table 1. Characteristics of Core Longitudinal Sample (n=49)**

		RN (n=24)		PN (n=25)	
RN educational level	Diploma at entry	2 + 1 unknown			
	ADN at entry	10			
	BS at entry	11			
Returned to school within five years		6		13	
Work settings over five year period		<b>First</b>	<b>Last</b>	<b>First</b>	<b>Last</b>
	Critical care or ED	8	5	2	3
	Acute care staff nurse	14	6	15	7
	Home care/PHN	1	1	0	3
	Long-term/residential care	0	1	6	3
	Office/outpatient	1	7	2	8
	Other role in acute setting (e.g., supervisor, IV team, case manager)	1	4	0	2
Average # of settings over five years (range)		2.2 (1-6)		2.7 (1-6)	

nursing. It was too slight a change. I'm not sure I would have noticed the change had it happened on the first day of the three days I cared for him, but the three days history made me aware of his condition. This was a real God day for him and for me. [RN, Year 4]

**Differences in Responses Based on Educational Level**

The narratives in Year 1 from BSNs were much more verbose and detailed than ADNs and LPN/VNs, the exception was foreign-trained BSNs for whom English was a second language. BSNs seemed more comfortable in this form of self-expression and usually engaged in more self-examination and insight.

However, the BS-prepared nurses were no less likely than the others to describe instances of poor judgment. The self-report form of data did not reliably reveal safety issues, but a small proportion of newly licensed LPN/VNs and RNs at all educational levels did share stories that raised questions about appropriateness of their responses to apparent downturns or patient needs. The difference was that the BSNs were more likely to analyze the situations and identify areas for self-improvement. ADNs working on their BS degrees showed more insight and commitment than ADNs who did not enroll in further education. RNs from second degree BS programs were especially insightful and motivated to

do better for their patients. There were exceptions, however; education did not reliably predict this.

One early difference based on education and license was seen in use of psychosocial interventions. A few new nurses, mostly BSNs, who resisted pressure to speed up for efficiency's sake and did make time to get to know their patients were proud to report their success at solving complex problems with psychosocial origins. Fewer ADNs or LPN/VNs focused on psychosocial complexities or depicted *therapeutic use of self* to get to know patients and families, and discover hidden causes of difficulties or non-adherence. Those who did spend time with patients for these purposes described it as a personal value or preference, rather than a component of nursing skill. In general, ADNs and LPN/VNs were more directed toward a medical model of diagnosis and treatment of physiologic problems. Those who returned to school, especially ADNs who quickly pursued their BS degrees, were more alert to the significance of interpersonal communication and psychosocial assessment. A few described skills of interacting with families and coworkers as something they had gained in their BS programs that their AD programs had not given them.

The pursuit of further education seemed to be linked to nurses' insight as to how much there is to learn, and a commitment to provide better and

more comprehensive care. LPN/VNs were highly likely to be enrolled in RN programs at or soon after study entry, as the table above reflects. Some BSNs went back to school to become nurse practitioners (NPs), to be in a role to develop long-term relationships with patients.

### **Consequences of Development of Competence Over Year 1**

Their ability to achieve these key components of early competence not only saved lives of patients, but played a role in the nurses' career paths and job satisfaction. Nurses who continued to feel insecure in their ability to efficiently identify and respond to important downturns in patients' conditions in a high-pressure, high-acuity environment; who felt continually beaten down in their attempts to get resources and help they needed for their patients from their fellow nurses; and/or who felt that physicians did not listen to them or respect them, appeared most likely to change jobs to less complex or less acute settings, or even leave nursing.

### **Competence Development Over the First Five Years of Practice**

Some, but not all nurses who persevered in the quarterly e-mail data collection showed growth in self-reflection, insight and in the characteristics of competence. By Year 4, there was less clear differentiation between the style of ADN and BSN responses, as the ADNs seemed to become more verbal and insightful. In general, the RNs were more able than the LPN/VNs to report their own limitations and specific areas of insufficient knowledge, and to describe growth in a systems perspective and professional insight over time.

### **Work Settings: Finding a Personal Comfort Zone**

A significant subset of study participants left acute care for an office or ambulatory setting, including insurance authorization; occupational health; primary care; specialty private practices or commercial venues, such as pharmaceutical sales or laser hair removal salons; or took positions in acute care with a narrow focus, such as IV team or dialysis service. Some explained their moves as to decrease

pressure, get better hours or pay, pursue an interest, or relieve boredom or frustration. This may reflect a self-diagnostic process in which the nurses with less professional career commitment, cognitive depth or tolerance for pressure selected less acute practice areas more in synch with their goals and abilities, but this hypothesis cannot be confirmed in these data.

There was a definite difference in the development of competence as defined by these characteristics between nurses who left acute care for settings such as offices and ambulatory care and those who stayed in hospital nursing. By and large, the RNs and LPN/VNs who left acute care for less acute or demanding settings did not evolve much in their narratives or demonstrate the same growth in all areas of competence as those who stayed in the challenging environment of acute care. The exception were RNs who took certain non-acute care roles that did require a high level of skill and experience, such as certain public health, home care, residential care or school nurse roles. They explained these moves as increasing their satisfaction at making a difference for their patients. A very high level of competence was demonstrated in many of these narratives.

By the five year mark, nurses in general were more able to solve problems on their own before reporting it or seeking help, and when help was needed, they relied less on their colleagues, having now reached the status where they were among the most experienced. They now relied more on sources of information beyond their units. To some degree, they had to start over in learning their resources and developing smooth efficiency each time they changed practice settings.

### **Seamless Integration of Characteristics of Highly Competent Practice**

The stronger nurses in acute care settings and a few with highly independent practices in home care and public health settings now had the confidence to set long-term goals for their patients. They focused on negotiating (with providers, support services, families and patients themselves) for care that was in line with the nurse's vision of a better life or death, rather than simply survival without complications. They described creative solutions for difficult

patients and families based on insights they might not have had in Year 1, and were more aware of and able to address families' distress and needs.

*We had a very long term patient in our medical/surgical ICU who was with us from early October until January 1 when he died. He had ALS and a very aggressive, untreatable cancer, but he and his family were not willing to accept his diagnosis, thus kept him as a Full Code. ...His mind was intact until the last few days when he developed renal failure. His wife was very difficult, constantly criticizing our care, constantly "checking him over" looking for a sheet crease or something to pin his deterioration on. She was so difficult, that most gave up trying to even talk to her. I spoke with my manager, who challenged me to understand her and to have her understand us and his prognosis. (I remember telling my manager that I didn't need any more challenges, but I ended up taking it on!) I spoke with all his doctors, even those who had "checked off" the case to understand their positions, used the Social Services and Case Management teams of nurses/social workers and finally spoke with him alone to see what his end of life decisions were and then I spoke with her alone in the conference room. He and she both wanted to maintain the Full Code status, so then we discussed his probable course. It took many conferences with her but she came to trust me and eventually called me "his favorite nurse". It taught me that patience is crucial, and that was nothing I thought I had in my arsenal! His room had a small window, but he hadn't been outside in many months other than his transfer from the ambulance from his rehab center to our hospital in October. The respiratory therapist and I decided to take him outside for some sun. We cleared it with the doctors, the charge nurse and finally with the patient. He was terrified and I explained we'd bag him while he was outside and then he could see the life outside. He agreed. It was a major undertaking, but he smiled in the slightly overcast day. We bundled him in warm blankets and he was out there for about 15 minutes, with the wind blowing his hair and he beamed. His wife was thrilled and asked if we could do it again, so we repeated the adventure the following day with her and that day was sunny, so we stayed out longer. We had four to five trips outside over the next two weeks. His deterioration was substantial*

*after Christmas; his code status was changed to No Code and she asked for a priest to come to give him a final blessing. Eventually, she agreed, on January 1, to take him outside, off the ventilator and allow him to go in peace in the sun where he had enjoyed some last pleasant days. It was a rainy day, but the sun came out for an hour and a half. He breathed for 45 minutes and had his family (real family and hospital family of RNs and "his" respiratory therapist, who had been with me on our first venture outside) around him when he finally passed away. It was one of the most beautiful experiences of my life and one I've learned a lot from! [RN, Year 3]*

They drew on community services and resources outside the institution and were more skilled at working the system on their patients' behalf.

*Now that I have gained knowledge and experiences I feel that I have more to offer my families. I also feel more confident in family advocacy. I know my role better and I know what resources and opportunities are out there so I know how to advocate for them now. ... I used to think that being a nurse I was the key person for medical interventions but now I see that I am just one of many people. It really helps for everyone to work together and draw on individual experiences to promote the health of our children we serve. [RN, Year 3]*

When the nurses were asked how their skills had changed over time, confidence in speaking to physicians and advocating for one's patients was a commonly reported area of growth.

*When I was a new RN, there was a lot of anxiety every time I go to work... Being raised under the Filipino culture, we were taught not to answer back or question others specially those who are older or superior than us in an effort to maintain a smooth interpersonal relationship (which by the way is not stress free). This kind of thinking can be a great hindrance when it comes to health care, patient safety and assuring a quality service to the clients. As a new RN, I was not used to carrying a beeper and a cellphone so that I may easily talk with my patient's provider or that anybody else could easily reach me. Talking to my patient's doctor scared me at first specially after hearing stories from other staff members about what doctors do and say to nurses....Most*

*of the times I have to forget my Filipino orientation of not shaking the boat and be a patient advocate FIRST. [RN, Year 3]*

Nurses in acute and critical care showed a different kind of appreciation for teamwork, not just in helping each other with workload, which was the meaning of teamwork in Year 1, but in shared values, commitment, and smooth functioning in response to patient needs and downturns. This level of belonging undoubtedly increased the staff's ability to communicate effectively and solve problems.

*On very busy days on the unit we have to rely on one another to get things done. We also have many new grads working on our unit whose skills and knowledge may not be as good as some of the more experienced staff. As a relief charge nurse on the unit I try to ensure that no one is left struggling. We all do what needs to be done for the best patient care no matter who the patient is assigned to. Thinking back to when I was a new grad I don't always know that I realized how important team work would be in the unit. However with time I have come to know that without it I would not enjoy my job the way that I do. I work with the same staff every weekend so we are all really close and I know that I can always count on them when I need them. [RN, Year 3]*

## Do Nurses Display Early Signs of Exceptional Skill or High-Risk?

The characteristics of competence described above occasionally show up very early, as early as the first e-mailed report in the first year of practice. Insight into system-level issues, resources and therapeutic use of self to uncover and solve complex patient and family problems are unusual, but present in some early responses. It is possible that these individuals had exposure to these care settings during their education or were on the later end of their first year, but the salient characteristic of these responses is a high level of self-reflection and insight that may be a product of the nurse's personality, prior life experiences or perhaps liberal arts education.

Nurses who appeared to burn out within the first five years, none of whom completed the study, had responses characterized by anger, frustration,

bitterness, and a sense of being devalued and unappreciated by others around them and by the health care system. These reports did sometimes include descriptions of giving possibly substandard care. Although the sample as a whole changed jobs an average of three times in five years, some unhappy nurses did write about multiple job changes as a search for a more compatible milieu. Some generalized their frustration to the nursing profession as a whole and others blamed it on the particular settings or staff groups in which they found themselves.

### High-Risk Nurse: A Toxic Attitude

The following series of comments were submitted from one BS-prepared RN who clearly was insightful about the system and articulate about her practice, but profoundly unhappy from the outset. Other similar responses were collected, but none persevered in the study as long as this individual, enabling us to see early signs of negativity and the lack of evolution in perspective over time.

*First entry in first year, acute care medical/surgical unit: I feel my charge nurse assigns me more work than anyone else because I am new and cooperative. I almost always have to do first admission, in addition to having a total care patient. The other nurses on this shift are for the most part unapproachable and it is awkward to ask them for help when I need it. Most physicians are condescending and don't spend enough time with their patients.*

*Three months later, travel nurse on psychiatry unit: There is occasionally a nurse manager on the unit, but she never does any patient care so does not really know much about what is going on. I find my nurse manager to be basically useless, ineffectual, and a total political bureaucrat....*

*1 year time point, third job in first year: I am working as a customer service representative for a pharmaceutical company and have no direct patient care anymore. I may be better able to answer this question if I take another travel job. I interviewed for one today and I am hoping I get it [note: apparently was not hired]. I am not really thrilled about going back into a floor nursing full time job so I am not actively looking a position besides travel.*

Nine months later: I would tell potential future nurses the truth about nursing. The pay and hours are lousy. You will get no respect. You will be constantly exposed to dangerous situations, such as potential for needle sticks, violent patients, back strain, mandatory overtime, etc. I will remind students that nurses are still considered to be handmaids of doctors and patients find them to be "cute" caregivers and are not taken seriously as professionals. I would advise all women to stay out of positions that are stereotypically female, such as nursing. I would tell them they will study hard for four years at college to get this degree, only for countless people to ask them if they had to go to college to become a nurse. I would remind nurses that there is a lot of changing diapers, bed pans, and dirty sheets in nursing. ...Overall I feel betrayed and disappointed by my brief career as a nurse. I was for the most part ineffectual at making any real change in peoples' lives (my patients). I missed countless family and personal events working evenings or nights. The only shining star was my brief stint as a travel nurse where I could overlook how lousy my situation was because I was making a ton of money. Long term, I can never stay in floor nursing. All my other friends feel the same way.

2 year mark, back in acute psych care unit part-time while continuing pharmaceutical sales work full-time: Overall my [nursing] job is not too difficult or involve many decisions. The physicians write all the orders. We just carry them out. I try to talk at length to each of my patients every shift, but depending on their mental status, sometimes there is a limit to how much conversation you can have with them. ... Basically I don't make too many decisions. I just do what I am told. Then I go to the bank and pick up my check. To me, this is a job only. Occasionally I like my patients and enjoy helping them. But mostly, it's just a job like any other. I am so much more than this job.

Three months later, same settings: My hospital allows you to take verbal orders from physicians over the phone. This is so they can be lazy and not have to write anything or come visit their patient. One of the doctors forgot to write an order or couldn't remember if he did. He called to say, "If I didn't order it already get me..." Our new rule at the hospital is that we have to "read back" the order to

the doctor to make sure we hear the right thing over the phone. I started to read back the order and he cut me off, said goodbye and hung up. In general most of our physicians are lazy, money hungry, self centered and egotistical. They don't need name badges and they waltz in and out at will, without using keys so we have to constantly let them in and out. I think they keep patients longer than necessary against their will to make money. This affects the quality of patient care because the nursing staff is mad and the less in control ones take out their anger on the patients.

Two months later; same settings: I don't attend any continuing education outside the hospital. Every now and then, the hospital has a silly little in-service for a new syringe or something and then they write down that I was there and had one contact hour. They have managed to scrounge up a bunch of hours for me like that, but I don't feel that I learned much significant. I would like to attend a seminar of some sort where I could really learn something, but the hospital only pays for 50% of the cost and all of those seminars are like \$100, so I'm not going to pay out of pocket for it or even have the time to attend even if I wanted to (since I work two jobs).

Two months later; same settings: The "system" of the 'doctor is god' prevents me from being valued and relying on my own good judgment. It compromises patient care. It could have killed our patient in this situation. We have had so many new directors and managers over the past two years it's not even funny. Only the nurses have been there for years. The higher up staff is a revolving door. When they fail, even more doctors are hired. We can't get our census up because the doctors refuse to cover the ER and take call so we can't get new emergency admits. All we have is our old frequent fliers who are dying off because they are mostly geriatric.

Year 3, same settings: The last time I worked at the hospital, we were short staffed. The patient census was low (eight), but the acuity was high. There were a lot of very demented and psychotic people that needed almost constant supervision. Of course the hospital doesn't pony up for sitters, so it makes life difficult. They floated one nurse to a medical unit and didn't give a secretary. A secretary must sit at the front door all day and buzz in visitors and enter

orders and let patients out and, answer the phone, etc. Without a secretary, a nurse must be posted at the desk for eight hours which left only one nurse on the floor at all times (plus me giving meds around here and there). To solve this problem we ran our tails off and had a lucky shift. No one fell or killed themselves which is fortunate. The charge nurse sat at the desk, the floor nurse ran around, and I gave meds (up and down the hall)... The day I make enough money to buy a townhouse in my other full time, non nursing job, I am soooo out of nursing.

Three months later, final submission: Since I only work PRN, I am not at the hospital very often (only three shifts a month). I can't think of a particular unmet client need since the last survey. I can only say the hospital has needs, because there is a low census and I get cancelled a lot. They have gone through director after director and no one stays and no one fixes the problems in our department. I choose to ignore this sinking ship because the other times I tried to get involved (such as when I spoke out against peer review or protested not getting a raise), I got burned. I will stay out of hospital politics and collect my \$30/ hour and keep my mouth shut.

It is difficult to determine which is more frightening about this story: the fact that this individual continued to practice nursing or the possibility that the care was as substandard as she described. Although objective examples of unsafe care could not reliably be identified in these self-reports, the attitudinal problems displayed by this individual clearly would contribute to substandard care in a mental health setting.

## Do Nurses Believe their Basic and Continuing Education Enhances Competence?

### Looking Back on their Nursing Education

The most common wish for their basic education, from both LPN/VNs and RNs, regardless of educational level, was for more clinical experience. The overall message was that book learning was only somewhat useful and much of nursing could only be learned on the job. Those with nursing assistant or emergency medical technician (EMT) experience described it as invaluable.

*I would provide more hands on training with machinery. I would incorporate a clinical week to work with the ward clerk... I think we need more clinical days working with the phlebotomist. We spent so much time giving baths and doing linen changes in clinicals that we missed so many opportunities for other skills because we were busy with baths... I think you need about one week of complete review after you have finished all of your work and clinicals, just before you test out, to refresh your memory and practice skills (like starting an IV or drawing blood). It would have given me more confidence. [LPN/VN, Year 3]*

*I got basics. I know how to write a care plan (which no one does, because we have computers to do that)... I would SIGNIFICANTLY increase the amount of clinical experience in the hospital and especially, for me, in the critical care area. I would have critical care theory classes at the same time as the clinical time. I would have an advanced pathophysiology class and an advanced pharmacology class that might coincide with the critical care clinical time. There's just too much I did NOT know when I began. [RN, Year 2]*

Two kinds of specific experience were sought: specialty practice expertise to prepare for the nurse's current choice of field, including the knowledge and skills unique to that specialty; and real-world multi-patient assignments with practice in time management and communication with physicians. Both RNs and LPN/VNs suggested an internship or extended precepted experience in which they would shadow a nurse who is carrying a full assignment,

rather than caring for one or two patients using skills, such as care plan development, that were seen as unrealistic or irrelevant in current practice. Some LPN/VNs wished for more acute care experience and regretted following the expected path into less acute care settings.

*I think new nurses could really benefit from weekly classes to review skills and equipment. In the past year, I have never had an opportunity to work with a CPM machine, perform an EKG, a chest tube with or without suction, start an IV on a pediatric and others. I have only once removed a central line, a NG tube and checked residual on an NG tube. We now have the new IV catheters and we do not like them at all. I have been unable to successfully start an IV with them. This greatly adds to my frustration and lack of confidence. Also, as a new nurse, I do not feel confident that I would know what to do in an emergency situation. I feel like a new nurse should have to go through a very long orientation (maybe a year). I feel like they need to work side-by-side with another nurse in ICU, the ED, OB, and all areas for awhile. As new nurses, we need to have more hands on emergency situations with close guidance and supervision. I think new nurses are rushed into the field. Honestly, the more I learn, the more fearful and less confident I become. I am afraid of making a mistake that will not only endanger someone, but will cause me to lose my license and I am trying as hard as I can. I hope to begin school in January to obtain my RN license. I am looking forward to the schooling part. I hope to learn and understand more so that my confidence will return and my skills will be greatly improved. [LPN/VN, Year 1]*

*If I had to start my career over knowing what I know now, I would start out on a medical/surgical floor at the hospital. I feel that I lost a lot of my skills by going directly into Dialysis from school. I have noticed changes in my experience as a nurse, however not as much as I would like. I regret not going to work at a hospital when I graduated from LPN/VNs school. [LPN/VN, Year 4]*

Nurses emphasized the need for experience with the interpersonal interactions involved in clinical care.

*I would only try to add more hands on and being able to know how to communicate to the doctor better. That was the only thing I believe I learned once I was out of school. [RN, Year 2]*

*I was really well prepared from a book-learning standpoint, but there is really no way to prepare for all the real-world issues you encounter. I was strong in medication administration - simple follow-the-direction task - but it took me a while to be able to identify an acute condition and know when to call the MD and when a fax or message would be OK (I called too often...). [I needed] more real world experience (although I recognize the liability involved); at the barest minimum, create critical thinking scenarios to teach how to process the objective and subjective info we receive. [LPN/VN, Year 2]*

*I have never enjoyed a job as much as I do mine. However, I wish that my education would have included more "real life examples". I have found my greatest challenge in nursing is facing the challenges of interactions with insurance companies, doctors, other nurses and difficult patients. [LPN/VN, Year 2]*

A number of nurses with AD and LPN/VN backgrounds recalled nursing school as an unnecessarily mean and difficult experience, in which instructors were out of touch, threatening and unfair. They described insufficient support for weaker students and harassment in the clinical setting by staff nurses. These reports were not seen from BS-prepared nurses. Others felt that the process of progressing from LPN/VN to RN and BSN was unnecessarily arduous and required them to repeat large portions of their previous training or cover content they had gained through clinical experience.

*I would also make it easier for LPN/VNs to obtain their RN without having to repeat everything over again. [LPN/VN, Year 2]*

*I am already tired of being understaffed and it seems like we LPN/VNs work so hard and the RN's get all the perks, for example: Farmers Insurance now gives a 5% discount to RN's on their auto insurance but not to LPN/VNs. I am wanting to go back to school for my RN license but I feel that the basic prerequisite classes are not all needed BUT that*

more specific classes are needed that pertain to nursing. I feel that the LPN/VN to RN fast track is a great program but that the information if given so quickly that it will be hard to absorb it all. I felt that we rushed through the LPN/VN program and I did not absorb as much information as I should have. It is harder for us older nurses to retain all of the information. [LPN/VN, Year 2]

### Continuing Education Interests

Nurses were asked explicitly what kinds of continuing education they had taken and what they wished for. Overwhelmingly, they reported attending in-service education on new equipment and techniques, and almost all asked for more pathophysiology and medical treatment knowledge in their clinical specialties. Some suggested that these take the form of monthly reviews, debriefings or periodic updates. A few wanted to stay competent in the areas in which they did not practice, such as psychiatric nursing for medical/surgical nurses or acute care skills for those in long-term care for fear of losing touch with the basic principles.

*I would like to gain general knowledge in learning new information on all the different diseases for the elderly and all the new treatments. I think we should be able to be taught this in the workplace. Like have a once a month workshop. [LPN/VN, Year 3]*

*I still do not have a complete understanding about diabetes, diabetes medications and diet. Our hospital provided us with a notebook with information on diabetes, but it does not make complete sense to me. I would like to see our hospital have a weekly or bi-weekly course offering a refresher course on all areas of nursing care... I can't think of any area of nursing that I don't lack understanding in some area. [LPN/VN, Year 3]*

*I would definitely suggest that all new nurses attend a class at least one time a month (an eight hour class) to review skills, knowledge and discuss situations that come up for the first two years. I have been a new nurse for a year and half and I would have loved for there to have been such a class. I leave work more times feeling inadequate than not. I also feel that round table discussions would have*

*helped in understanding things like why BP goes up or down in different instances. [LPN/VN, Year 2]*

Only a few expressed interest in classes on interpersonal skills or communication based on ongoing difficulties or feedback they had received. Despite their growing seniority in their high-acuity practice settings as second year nurses, no nurse expressed interest in learning about leadership development, team-building or patient safety.

## Implications of these Findings for Support of Competence Development

### Areas of Emphasis in Post-Licensure Competence Development

**1. Attention to forms of competence beyond diagnostic and therapeutic skills.** To function in today's acute care environments, nurses must be directed in appropriate strategies for time management and efficiency development. Practice settings must positively model the degree to which comprehensive approaches taught in basic education can be safely shortcut or modified.

Nurses also should receive skilled mentoring in interpersonal and communication skills, including self-presentation to patients and families, coworkers and physicians, and therapeutic use of self to facilitate skilled psychosocial assessment and intervention.

Delegation, unit-level collaborative practice and resource management, and team communication is another area of competence that is often touched on in basic education, but not fully appreciated until the new nurse is in the practice milieu. When is it appropriate to ask for help from a colleague or delegate a task to a subordinate? When would an expert nurse see the need to assess a situation and respond in person? What characteristics make one a good colleague? Study participants' complaints about other shifts leaving work for them and other team members not pulling their weight suggest a need for explicit attention to this area to reduce frustration and burnout.

Finally, support of competence development includes planned exposure of new nurses to the full scope of the system in which they practice, including

departments and services within and outside the agency and the individuals who staff them. These person-to-person contacts are often the mainstay of effective collaboration ranging from emergency responses to discharge planning. Insight into how the unit relates to other units, how nurses relate to other care providers and therapists, and how the hospital relates to the community can be intentionally fostered, rather than acquired serendipitously over time.

**2. Site-specific orientation, including in-depth training in specialty pathophysiology and treatment.** Nurses felt unable to begin to provide care and especially unable to respond effectively to physician communications without an understanding of the disease processes and principles of the treatment approaches that were ordered. Relying on basic education to provide specialty-level knowledge is clearly insufficient. The type of classroom orientation most often seen for critical care units is probably warranted for today's acute care specialty units as well.

**3. Extended preceptorships and expansion of the resource nurse role.** The extreme diversity of RN practice settings and the extreme acuity of the hospital settings, both far beyond the clinical experiences offered in basic nursing education, suggest a clear need for site-specific orientation followed by some form of preceptorship that continues throughout the first year and possibly beyond. New nurses have deep confidence in and respect for their experienced colleagues and are reluctant to go to any other source of help with complex patient needs.

Year 1 data suggest that some nurses may have been hampered in their ability to progress in their development by the lack of a designated resource nurse to guide them beyond the basic skills of care and into the judgments and sophisticated assessments of psychosocial issues that often produce more lasting solutions. The skill set required to become competent in today's acute care nursing involves balancing judgments, making graded qualitative distinctions and using interpersonal connections to leverage support services, which simply cannot be learned from classes, journals or the web. A strong and accessible role model who is experi-

enced in the system would have enabled some to acquire these skills more rapidly.

**4. Explicit focus on skills of self-reflection.** The narratives from recently licensed nurses demonstrate a real need to revisit actions and decisions and reflect on alternative pathways. Those nurses, mainly BSNs, who spontaneously did so in their written accounts did identify better approaches and depict more skilled care in their narratives. This was rarely seen in LPN/VN narratives and only occasionally in ADN narratives, suggesting that these programs may not be teaching reflective practice.

Nurses would benefit from reflection not only on the actual care they delivered, but on how they used their time. Some nurses reported insisting on taking an hour for lunch regardless of conditions on the unit, and others reported never taking a break and eating standing at the medication cart or while delivering care to patients. Some focused on routine assessments over responding to acute needs.

Guided debriefing in a safe environment may help those nurses who have not been exposed to practices of self-appraisal and insight. A talk-aloud method might be useful, possibly in conjunction with simulation training, in which nurses presented with a simulated patient downturn, either physiologic or psychosocial, could reflect as they went along in gathering information and addressing the problem, and then receive coaching on their responses.

**5. Role clarification in relation to LPN/VNs and PCAs.** New RNs were very uncritical of the different ways LPN/VNs were used. They seemed to delegate or let go of what is traditionally thought of as RN responsibility for assessment and care planning for patients. Certainly in shortage conditions, LPN/VNs were relied on to do whatever they could to relieve RN workload, but the level of supervision by RNs was often minimal or absent.

This was even more the case for PCAs, who despite questionable training and accountability, were often relied on to be the eyes and ears of RNs and LPN/VNs. Although some respondents reported they valued PCAs and could not function without them, both RNs and LPN/VNs described PCAs as of varying help depending on their willingness to work. Inconsistent understanding of how their duties were

determined and variations in PCA responsibilities and reporting relationships would make teaching on delegation and supervision skills difficult, either in basic or continuing nursing education. Yet all nurses, with or without perceived authority over the PCAs as workers, cited themselves as accountable for the care PCAs delivered. It is clear why new RNs were dismayed and frustrated.

At the time of orientation to the facility, health systems must clarify the roles and accountability of each level of provider, with specific rules and examples of responsibilities of each staff role conveyed at a level understandable to all involved and follow through at the charge nurse level to insure that the legal scope of practice is adhered to. State laws on scope of practice warrant national-level attention. NCSBN's work toward standardizing LPN/VN roles is extremely important here.

## Teaching Methods to Promote Competence Development After Licensure

Examinations are unlikely to capture the forms of competence depicted in these study findings. Even sophisticated simulations and vignettes are unlikely to capture the nuanced graded distinctions involved in highly skilled nursing diagnostic judgments and interactions. Unless the profession can agree on standardized priorities and order of procedures in patient care and time management, such as the sequence of actions used in CPR training, standardized exams are unlikely to tap even the most basic of these components of competence. Other approaches to assessment and intervention to promote competence are needed.

**1. Reflection and debriefing sessions.** One of the simpler strategies would be to build times for reflection and debriefing into acute care practice. The goal would be to develop an expectation that this is part of minimal safety standards, as is done in physicians' case reviews, or in psychiatric or counseling practices, where supervision sessions are considered mandatory, even for experts.

**2. Enhanced preceptor models.** Preceptors are clearly pivotal to the competence development process and as resources to nurses who are not

yet making independent judgments. Participants valued and consulted their preceptors long after their official relationship was over. Evidence on best models of preceptor practice should be applied in designing programs of extended support and collaboration.

**3. Classroom learning.** Some nurses demonstrate increased appreciation for the value of classroom learning once they have mastered the basics of patient care management. However, given the nature of the skills involved in extended competence, including time management, interpersonal skills and therapeutic use of self, self-presentation, and systems awareness, the classroom would best be used as a seminar or discussion group rather than a lecture format.

**4. Self-directed learning.** A number of nurses described using reference books or textbooks to learn about their patients' conditions and treatments on their own. None described reading nursing or other magazines, scholarly journals or using Web-based resources, and none described self-directed learning on topics other than diseases and treatment. Given the advantages of accessibility and self-pacing, self-directed learning modules on concepts and factual material may be useful as part of an extended specialty-specific orientation. It is likely that these would need to be built into the weekly work schedule, rather than assigned for non-work hours.

## **METHODOLOGICAL NOTES: APPROACH TO DATA MANAGEMENT AND ANALYSIS**

Each file was de-identified and reformatted to remove line break characters and other extraneous content for readability, and entered into Atlas-ti™. Each of the approximately 2,000 e-mail responses from the first four years was then coded, using basic descriptors of the kinds of clinical anecdotes they choose to tell, the actions they take, whether they intervened on their own or through others, what kind of interventions they used, their educational preparation and other basic labels for the text.

The analysis focused on the subsample of 49 nurses, 24 RN respondents and 25 LPN/VNs, who had consistently returned data at least once a year over the full course of the study. This subset formed a suitable sample size for an in-depth qualitative analysis, although the entire longitudinal dataset of about 2,100 e-mails contributed to the analytic conclusions. The core subsample was individually profiled and their responses coded and interpreted to produce the main findings presented in this report.

### **LESSONS LEARNED FROM THE E-MAIL METHODOLOGY**

This five year study yielded a great deal of anecdotal data about the daily lives of newly licensed nurses. It provided a one-of-a-kind window into the perspectives of nurses beginning their practice in the highly challenging period from 2002 to 2006. The anecdotes that were elicited revealed the complexity of patients in acute care today; the burden of large patient assignments carried by many new nurses; the intensity of pathophysiological and medical treatment knowledge they were expected to bring to their practice; and their ongoing challenges in communicating with members of their own and other professions on behalf of their patients and themselves in a high-pressure environment. Some heartwarming and inspiring stories were told of truly ingenious nursing responses to extremely difficult patient care situations. It also revealed how soon many nurses, almost half of the highly diligent and persistent subsample that stayed in the study five years, left acute or critical care for less intense

practice settings. These verbatim snapshots of the experience of contemporary nursing practice can yield many additional insights for future analysts.

The self-report e-mail format also revealed the diversity of education and writing skill of nurses joining the profession today, ranging from articulate insights and skilled reflection to poorly written or procedural communications, revealing serious literacy challenges (excerpts printed here were edited to correct punctuation and spelling) and shallow, routinized approaches to nursing practice. The self-report format was ideal for eliciting personal opinions and recollections, and uncovering how those changed over time. It also was a means of tracking changes in practice venue and, if volunteered, reasons for these changes.

This approach was not well suited to documenting growth in competence in terms of safe practice or performance and how it changes over time. The goal of identifying which factors influence the evolution of a nurse's practice was also overly optimistic. If self-reported influences were judged of interest, some of these goals might have been better achieved if the nurses were asked different questions, but even when asked explicitly to outline their reasoning or thinking during and after an event, many respondents ignored these instructions and continued telling their story or wrote that they did not understand what was being asked.

In general, these goals would require some objective or outside-the-nurse documentation of practice patterns. The self-report approach could not reliably reveal whether the nurse perceived and responded to what should have been assessed and treated in a given patient, or how judgments about individual patient care, delegation, communication or other aspects of practice improved over time. Finally, it was not well suited to building a grounded theory, which was the stated goal of the project originally, although theory was not explicitly cited as a desired product of analysis. This would require observation and interaction with the participants and the data, going back to specific participants for clarification, and further exploration of their comments and examples. Given the e-mail only design and the lack of researcher interaction with participants over time, in part perhaps due to the change in study

personnel and the cessation of analysis for its middle years, it was not possible to achieve this goal.

## SUMMARY OF POINTS FOR FURTHER EXPLORATION

The main contribution of this analysis is the qualitative depiction of an insider experience of high-level competence. Some aspects of competence depicted here are familiar, but others are less commonly described. These include the interpersonal characteristics seen as reflecting competence and the deep single-site experience with local personalities, processes and agencies that undergirds the expert's ability to work the system on behalf of patients.

The second salient finding is less positive, namely the contrast of the competence development seen in complex care environments to the narrowly-focused, lower-acuity and sometimes truly non-nursing roles taken by many nurses, particularly those less well-educated, within the first five years of practice.

The question to be pursued, if appropriate methodology can be determined, is whether these nurses' departure from acute care is a good or bad thing. Are there in-house supports that might enable some of these nurses to build both competence and coping skills? Or are some licensed nurses not capable of sustaining successful practice in acute care, regardless of orientation and mentoring? Does providing alternate career paths for those who are less intellectually or temperamentally equipped for high-acuity environments promote safety or simply prolong the nursing shortage?

In an ideal world, specialty-specific learning opportunities covering pathophysiology and common treatments would be provided on joining a unit staff, and booster sessions would be regularly offered based on staff's self-identified learning needs. Structures of authority, responsibility and delegation would be uniform for levels of licensure across similar practice sites, enabling delegation and teamwork skills to be transferable across settings. All new nurses would have extended supervision and precepting by a seasoned and expert peer, accompanied by structured time for self-reflection, feedback and skill development planning. Both

interpersonal and communication skills, including communication with physicians, and patient care approaches and techniques would be reviewed. These skill development approaches may enable less-prepared nurses to develop and sustain competence in today's complex care environments.

## APPENDIX A: POST-ENTRY STUDY QUESTIONS

### SURVEY 1

1. Question: What type of basic nursing education program did you attend, i.e., associate degree, baccalaureate degree, diploma, or other?
2. Are you currently enrolled in any educational program or have you attained any educational degrees (nursing or non-nursing) since graduating from your nursing education program?
3. Question: What nursing license do you hold, i.e., LPN or RN or both?
4. Question: If you are currently an RN, were you previously an LPN; and how long were you an LPN?
5. Question: How many months or years have you held your LPN or RN license?
6. Question: How many nursing positions have you held? Please list in chronologic order (starting with your first position and ending with your current position) the type of positions you held, the type of facility they were in and the length of time you held the positions. For example: staff nurse at a hospital 3 years, staff visiting nursing at a VNA 6 months.
7. Question: How many hours per week, on average, do you provide direct care to patients/clients?
8. Question: Please describe below the general characteristics of your most **recent typical work day**. How did you spend your time at work? Describe your relationship with other health care workers in your work setting (these might include, as applicable, charge nurses or directors of nursing, LPN/VNs, nurse aides or other assistive personnel, social workers, dietitians, respiratory therapists, doctors, etc.). What do you feel are the most important aspects of your work?
9. Question: Describe the last time you identified that a client had a problem or was experiencing an unmet need. Please include the way you identified the problem or need, including the information you collected, and what occurred after you identified it. Include all your thoughts and actions, communications with others, and any equipment or other resources used (including assistance from others) as pertinent.

Do not include the names of clients or others involved in your description of the situation. Staff and other health care workers should be described by their roles.

## SURVEY 2

1. Please describe the levels of nursing personnel who provide patient/client care in your work setting. Specifically, what parts of the care (the parts that you are responsible for) do you do? Is there a supervisor/manager/charge nurse to whom you report during the shift? What types of information do you report to that person and how often? What parts of the care are done by nursing assistive personnel? Who decides which parts of the care will be done by assistive personnel? Are you responsible for the care provided by assistive personnel or practical (or vocational) nurses?
  
2. Think back to your last typical workday. Consider the care you provided to one specific client and describe how you identified one (or more) need(s) your client had. How did you know about the need(s)? Please describe how you proceeded to address the need(s) (including any referrals you made, any resources you used, any help you sought, etc.). Include your thoughts and actions and communications with others as pertinent. What were the outcomes of your action?
  
3. In the situation you described for question # 2:
  - a. How did you determine the "truth" about what was going on?
  - b. What did you hope would be the result of the action you took?
  - c. Did you discuss this situation with anyone else?
  - d. Could you have done something differently?

## SURVEY 3

1. Please describe the levels of nursing personnel who provide patient/client care in your work setting. Specifically, what parts of the care (the parts that you are responsible for) do you do? Is there a supervisor/manager/charge nurse to whom you report during the shift? What types of information do you report to that person and how often? What parts of the care are done by nursing assistive personnel? Who decides which parts of the care will be done by assistive personnel? Are you responsible for the care provided by assistive personnel or practical (or vocational) nurses?
  
2. Think back to your last typical workday. Consider the care you provided to one specific client and describe how you identified one (or more) need(s) your client had. How did you know about the need(s)? Please describe how you proceeded to address the need(s) (including any referrals you made, any resources you used, any help you sought, etc.). Include your thoughts and actions and communications with others as pertinent. What were the outcomes of your action?
  
3. In the situation you described for question # 2:
  - a. How did you determine the "truth" about what was going on?
  - b. What did you hope would be the result of the action you took?
  - c. Did you discuss this situation with anyone else?
  - d. Could you have done something differently?

## **SURVEY 4**

1. Describe a recent challenging situation involving a client (or clients) with an unmet need. Please include the way you identified the problem or need, including the information you collected, and what occurred after you identified it. Include all your thoughts and actions, communications with others, and any equipment or other resources used (including assistance from others) as pertinent. What were the outcomes of your actions?
2. How do you believe assistive personnel should be used in a health care setting? How does that compare to the way they are used in your setting? Do you find supervision of assistive personnel challenging? What would you do if you saw assistive personnel giving poor care?
3. On the days that you go home feeling frustrated about your work, what caused that frustration? How could the situation be improved?

## **SURVEY 5**

1. Describe a recent challenging situation involving a client (or clients) with an unmet need. Please include the way you identified the problem or need, including the information you collected, and what occurred after you identified it. Include all your thoughts and actions, communications with others, and any equipment or other resources used (including assistance from others) as pertinent. What were the outcomes of your actions?
2. Preparation for practice: Looking back, how well prepared do you think you were by your basic education? In what areas were you strong? In what areas were you inadequately prepared?
3. If you could change nursing education, how would you change it?

## **SURVEY 6**

1. Describe a recent challenging situation involving a client (or clients) with an unmet need. Please include the way you identified the problem or need, including the information you collected, what occurred after you identified it including what you did to resolve the need. Include all your thoughts and actions, communications with others, care planning and any equipment or other resources used (including assistance from others) as pertinent. What were the outcomes of your actions?
2. What types of assistance are available to you if you need help with a clinical situation or if you need the answers to questions?

## SURVEY 7

1. Describe a recent challenging situation involving a client (or clients) with an unmet need. Please include the way you identified the problem or need, including the information you collected, what occurred after you identified it including what you did to resolve the need. Include all your thoughts and actions, communications with others, care planning and any equipment or other resources used (including assistance from others) as pertinent. What were the outcomes of your actions?

The following are case studies. Please read each case carefully and answer the questions following each.

2. The following is a case study reflecting a real-life nursing situation. Passages identifying assessment data, actions, conclusions and outcomes have been numbered. After the case study you will be asked a set of questions, some of which will ask you to select appropriate passages. Please read each question carefully and select the numbers of only those passages that pertain to the question. You will also be asked to write an answer to a question please write your answer legibly in the space provided.

A[1] old patient was brought to the medical-surgical unit [2] post-laminectomy/thoracotomy. He was [3] confused as he was coming out of anesthesia, was [4] picking at his IV lines, wound drain and chest tube and [5] had to be restrained. [6] The nurse called the primary orthopedic surgeon for Versed orders. [7] The nurse then gave 2mg Versed and 2 mg Morphine. [8] minutes later the patient was not breathing and had to be strongly aroused to take a breath. [9] The nurse put a NRB mask on the patient and found a RT. [10] O<sub>2</sub> sats were in the 80s, and the nurse [11] feared that this patient needed a ventilator again. [12] The nurse felt the patient couldn't inspire deeply because his incision and chest tubes hurt too badly and thought [13] he was at risk for infiltrates due to a very weak cough. However, [14] the nurse feared if she medicated him he would become apneic. The nurse also told the primary surgeon that the [15] chest tube output was 120cc in 15 minutes. The nurse thought [16] because this patient couldn't breathe and had increased chest tube output and agitation he might have suffered a pneumo/hemothorax. [17] After the nurse called the surgeon the O<sub>2</sub> sats were in the 90s on 100% O<sub>2</sub>, but [18] the patient remained confused.

The following are the numbers of passages describing actions taken by the nurse. Please circle the number(s) of the passages of actions you believe were correct based on the information in the case study.

6          7          9

For each of the actions (6, 7, 9) please record the numbers of one to three of the passages that support your decision that the action either was or was not the correct action within the circumstances. Passage numbers may be used to support your decisions about multiple actions.

Action number 6 \_\_\_\_\_

Action number 7 \_\_\_\_\_

Action number 9 \_\_\_\_\_

The following passages describe circumstances possibly influencing the patient's condition or the outcome of the situation. Rank the following passages according to potential or actual impact on the patient's safety by placing a 1 beside the circumstance with the most influence on the patient's safety, a 2 beside the next most influential, etc.

4 \_\_\_\_\_ 12 \_\_\_\_\_

5 \_\_\_\_\_ 13 \_\_\_\_\_

8 \_\_\_\_\_ 15 \_\_\_\_\_

What, if anything, would you have done differently than the nurse in this case?

3. The following is a case study reflecting a real-life nursing situation. Passages identifying assessment data, actions, conclusions and outcomes have been numbered. After the case study you will be asked a set of questions, some of which will ask you to select appropriate passages. Please read each question carefully and select the numbers of only those passages that pertain to the question. You will also be asked to write an answer to a question, please write your answer legibly in the space provided.

The nurse, working in a rehabilitation facility, [1] entered a patient's room at midnight and found the pt. nearly unresponsive. The [2] pt. was a 57-year-old male client [3] recovering from a multi-vessel coronary artery bypass graph surgery (he was 14 days post-op) and he [4] had been diagnosed with adult-onset diabetes at the age of 30 and was insulin-dependent. The [5] pt. was drooling, and he [6] responded with incoherent answers when the nurse asked questions to see if he was oriented. He was [7] lying slumped down on the bed with his feet hanging over the end. [8] He had sweat beads on his face and was cold to the touch. [9] The nurse thought his blood sugar might be too low as she [10] noticed an HS snack untouched on his bedside table. [11] The nurse got the accucheck machine and [12] his blood sugar was 27. [13] The nurse then called the Lab tech for a stat recheck and [14] notified the doctor. The [15] nurse gave the pt. the ordered stat infusion of high dose glucose and [16] that brought his sugar up to a normal level. [17] As a follow-up to the situation, the nurse passed along to day shift nurses how fast this patient can drop and to keep an eye on him.

Following are the numbers of passages describing actions taken by the nurse. Please circle the number(s) of the passages of actions you believe were correct based on the information in the case study.

11      13      14      15      17

For each of the actions (11, 13, 14, 15, 17) please record the numbers of one to three of the passages that support your decision that the action either was or was not the correct action within the circumstances. Passage numbers may be used to support your decisions about multiple actions.

Action number 11 \_\_\_\_\_

Action number 13 \_\_\_\_\_

Action number 14 \_\_\_\_\_

Action number 15 \_\_\_\_\_

Action number 17 \_\_\_\_\_

The following passages describe circumstances possibly influencing the patient's condition or the outcome of the situation. Rank the following passages according to potential or actual impact on the patient's safety by placing a 1 beside the circumstance with the most influence on the patient's safety, a 2 beside the next most influential, etc.

1 \_\_\_\_\_ 4 \_\_\_\_\_

2 \_\_\_\_\_ 10 \_\_\_\_\_

3 \_\_\_\_\_ 12 \_\_\_\_\_

What, if anything, would you have done differently than the nurse in this case?

4. The following is a case study reflecting a real-life nursing situation. Passages identifying assessment data, actions, conclusions, and outcomes have been numbered. After the case study you will be asked a set of questions, some of which will ask you to select appropriate passages. Please read each question carefully and select the numbers of only those passages that pertain to the question. You will also be asked to write an answer to a question, please write your answer legibly in the space provided.

Pt. is a [1] 10 year old [2] child that had suffered a severe brain injury at 3 years of age. [3] The pt. had been admitted to the hospital's pediatric unit 10 days ago with a mild case of pneumonia. The night RN reported [4] pt. had had several instances of bleeding from old gastric tube (GT) site during the night. [5] First thing in the morning the pt.'s mother removed the wound dressing and called the nurse. The nurse observed quite a bit of blood present (1/2 saturated abdominal pad and wet-to-dry dressing). [6] Minutes later with nurse still in the room the pt. began coughing, turned pale and failed to regain color once the mucus plug cleared. [7] The nurse concluded the patient was pale due to low red blood cells from the bleeding. [8] The patient continued to cough and the [9] nurse gave a PRN dose of cough suppressant [10] fearing continued coughing would increase the bleeding. [11] The nurse called the doctor for assessment and to get a hemotacrit (HCT) order. The doctor arrived 15 minutes later as the [12] nurse was setting up monitoring equipment for O2 sat and respirations/heart rate. [13] The doctor ordered a HCT that came back at 19.8. [14] The patient's O2 sat was 85. The doctor ordered, and the [15] nurse transfused, one unit of packed red blood cells (PRBC). [16] The doctors used silver nitrate sticks to cauterize edges of wound. [17] The nurse repacked the wet-dry dressing tightly. [18] A repeat CBC was drawn once infusion of PRBCs was complete and showed a HCT in the mid-20s.

Following are the numbers of passages describing actions taken by the nurse. Please circle the number(s) of the passages of actions you believe were correct based on the information in the case study.

9      11      12      15      17

For each of the actions (9, 11, 12, 15, 17) please record the numbers of one to three of the passages that support your decision that the action either was or was not the correct action within the circumstances. Passage numbers may be used to support your decisions about multiple actions.

Action number 9 \_\_\_\_\_

Action number 11 \_\_\_\_\_

Action number 12 \_\_\_\_\_

Action number 15 \_\_\_\_\_

Action number 17 \_\_\_\_\_

The following passages describe circumstances possibly influencing the patient's condition or the outcome of the situation. Rank the following passages according to potential or actual impact on the patient's safety by placing a 1 beside the circumstance with the most influence on the patient's safety, a 2 beside the next most influential, etc.

3 \_\_\_\_\_ 13 \_\_\_\_\_

5 \_\_\_\_\_ 14 \_\_\_\_\_

8 \_\_\_\_\_ 16 \_\_\_\_\_

What, if anything, would you have done differently than the nurse in this case?

5. The following is a case study reflecting a real-life nursing situation. Passages identifying assessment data, actions, conclusions, and outcomes have been numbered. After the case study you will be asked a set of questions, some of which will ask you to select appropriate passages. Please read each question carefully and select the numbers of only those passages that pertain to the question. You will also be asked to write an answer to a question, please write your answer legibly in the space provided.

When making a home visit to a [1] 72 year old pt. with a [2] diagnosis of coronary artery disease (CAD) and congestive heart failure (CHF) the nurse found the [3] pt. complaining of being nauseated and slightly dizzy for the past 24 hours. [4] Her skin and mucous members were dry, she [5] reported passing very little dark-colored urine and her [6] ankles were swollen due to being in a dependent position. [7] The pt. was afebrile. [8] The nurse called and got an order for an anti-emetic and made sure the pt. had a dose and then [9] encouraged her to increase her fluid intake. [10] The nurse then called the pt.'s daughter and asked her to look in on her mother several times that day. [11] About five hours later the pt.'s daughter called the nurse reporting that her mother had become short of breath while sitting and that her legs were now swollen up to her knees. The nurse returned to assess the pt. and [12] found her with a high pulse rate and crackles in her lungs. [13] The nurse concluded the pt.'s flu-type virus must have exacerbated her CHF and [14] arranged for the pt. to be taken to the ER.

Following are the numbers of passages describing actions taken by the nurse. Please circle the number(s) of the passages of actions you believe were correct based on the information in the case study.

8      9      10      14

For each of the actions (8, 9, 10, 14) please record the numbers of one to three of the passages that support your decision that the action either was or was not the correct action within the circumstances. Passage numbers may be used to support your decisions about multiple actions.

Action number 8 \_\_\_\_\_

Action number 9 \_\_\_\_\_

Action number 10 \_\_\_\_\_

Action number 14 \_\_\_\_\_

The following passages describe circumstances possibly influencing the patient's condition or the outcome of the situation. Rank the following passages according to potential or actual impact on the patient's safety by placing a 1 beside the circumstance with the most influence on the patient's safety, a 2 beside the next most influential, etc.

2 \_\_\_\_\_ 6 \_\_\_\_\_ 12 \_\_\_\_\_

3 \_\_\_\_\_ 7 \_\_\_\_\_

4 \_\_\_\_\_ 11 \_\_\_\_\_

What, if anything, would you have done differently than the nurse in this case?

6. The following is a case study reflecting a real-life nursing situation. Passages identifying assessment data, actions, conclusions and outcomes have been numbered. After the case study you will be asked a set of questions, some of which will ask you to select appropriate passages. Please read each question carefully

and select the numbers of only those passages that pertain to the question. You will also be asked to write an answer to a question please write your answer legibly in the space provided.

A Certified Nursing Assistant [1] (CNA) told the charge nurse that one of the relatives was asking if the had a change in medication. [2] The nurse went to speak with the relative and told her that she was not aware of any change in meds, but that she would check the Medication Administration Record/chart to see for sure. [3] But first the nurse performed a head to toe assessment of the [4] The nurse found the resident very clammy and pale with increased confusion. [5] There was new edema in ankles, [6] pulse was up and irregular, respirations were 24-26 with some difficulty, [7] lung sounds were wet and crackles were heard in all lobes. [8] resident was unable to stand. [9] The nurse put the head of the bed down so she could check his skin for any breakdown, bruises, cuts, etc and listen to his B/S. [10] The was flat for approximately minutes when he began to aspirate on his own fluid. [11] The nurse called for help from the other nurses, called EMS MD and hospital and gave report on condition, filled out transfer forms and collected all needed info.

Following are the numbers of passages describing actions taken by the nurse. Please circle the number(s) of the passages of actions you believe were correct based on the information in the case study.

2      3      9      11

For each of the actions (2, 3, 9, 11) please record the numbers of one to three of the passages that support your decision that the action either was or was not the correct action within the circumstances. Passage numbers may be used to support your decisions about multiple actions.

Action number 2 \_\_\_\_\_

Action number 3 \_\_\_\_\_

Action number 9 \_\_\_\_\_

Action number 11 \_\_\_\_\_

The following passages describe circumstances possibly influencing the patient's condition or the outcome of the situation. Rank the following passages according to potential or actual impact on the patient's safety by placing a 1 beside the circumstance with the most influence on the patient's safety, a 2 beside the next most influential, etc.

4 \_\_\_\_\_ 7 \_\_\_\_\_

5 \_\_\_\_\_ 8 \_\_\_\_\_

6 \_\_\_\_\_ 10 \_\_\_\_\_

What, if anything, would you have done differently than the nurse in this case?

## SURVEY 8

1. Describe a recent challenging situation involving a client (or clients) with an unmet need. Please include the way you identified the problem or need, including the information you collected, what occurred after you identified it including what you did to resolve the need. Include all your thoughts and actions, communications with others, care planning and any equipment or other resources used (including assistance from others) as pertinent. What were the outcomes of your actions?

2. Describe a recent decision you had to make in your nursing work setting. What information did you have available and what further information did you need? Was the decision easy to make or difficult? Have you had to make similar decisions frequently or was this an unusual situation? What kinds of decisions do you have to make every day?

## **SURVEY 9**

1. Describe a recent challenging situation involving a client (or clients) with an unmet need. Please include the way you identified the problem or need, including the information you collected, what occurred after you identified it including what you did to resolve the need. Include all your thoughts and actions, communications with others, care planning and any equipment or other resources used (including assistance from others) as pertinent. What were the outcomes of your actions? Describe an interaction with a physician. Provide an overview of the situation and your thoughts on the nature and quality of the interaction. How are your relationships with physicians in general and do you think the nurse/physician interactions in your setting influence the quality of care provided?

## **SURVEY 10**

1. Describe a recent challenging situation involving a client (or clients) with an unmet need. Please include the way you identified the problem or need, including the information you collected, what occurred after you identified it including what you did to resolve the need. Include all your thoughts and actions, communications with others, care planning and any equipment or other resources used (including assistance from others) as pertinent. What were the outcomes of your actions?

2. Describe the numbers and types of continuing education classes you have attended. Do you think those classes have improved your competency? In what ways, if any, would you like to see the types, quantity or quality of continuing education available to you changed?

## **SURVEY 11**

1. Describe a recent challenging situation involving a client (or clients) with an unmet need. Please include the way you identified the problem or need, including the information you collected, what occurred after you identified it including what you did to resolve the need. Include all your thoughts and actions, communications with others, care planning and any equipment or other resources used (including assistance from others) as pertinent. What were the outcomes of your actions?

2. Think about the client situation you described in Section Two, Question 1 above, and please tell us more about how the system you work in affected your thoughts and actions. The system can include any outside influences on your practice, including how you work with other staff (from nursing or other professions), the system of your unit and your hospital or agency, and/or the rules and regulations affecting your practice.

3. Compared to when you were first licensed as an RN, have you seen any changes in the kinds of actions you feel comfortable doing independently and how you see your limitations? Please give some examples and explain whether they have changed over time.

## **SURVEY 12**

1. Describe a recent challenging situation involving a client (or clients) with an unmet need. Please include the way you identified the problem or need, including the information you collected, what occurred after you identified it including what you did to resolve the need. Include all your thoughts and actions, communications with others, care planning and any equipment or other resources used (including assistance from others) as pertinent. What were the outcomes of your actions?
2. Think about the client situation you described in Question 1. Can you see any effect of the nursing shortage on what happened in that particular situation? Do you feel an effect of the shortage in your work in general? If changes in nursing staffing levels have affected you, please give some examples of the impact on the care you are able to provide.

## **SURVEY 13**

1. Describe a recent challenging situation involving a client (or clients) with an unmet need. Please include the way you identified the problem or need, including the information you collected, what occurred after you identified it including what you did to resolve the need. Include all your thoughts and actions, communications with others, care planning and any equipment or other resources used (including assistance from others) as pertinent. What were the outcomes of your actions?
2. In the situation above, where did you feel your greatest lack of knowledge or skill? Many experienced RNs still feel a need for continued learning or insight in one area or another. Can you identify a topic or kind of situation you would like to know more about and where you might gain that additional knowledge or experience?

## **SURVEY 14**

1. Describe a recent challenging situation involving a client (or clients) with an unmet need. Please include the way you identified the problem or need, including the information you collected, what occurred after you identified it including what you did to resolve the need. Include all your thoughts and actions, communications with others, care planning and any equipment or other resources used (including assistance from others) as pertinent. What were the outcomes of your actions?
2. In the situation above, what was your thinking about being part of a team to deliver health care? Did you pull in members of your own nursing team or other professions, or decide not to do so? Have you noticed any changes in your experiences of teamwork over your time as a professional nurse?

## **SURVEY 15**

1. Describe a recent challenging situation involving a client (or clients) with an unmet need. Please include the way you identified the problem or need, including the information you collected, what occurred after you identified it including what you did to resolve the need. Include all your thoughts and actions, communications with others, care planning and any equipment or other resources used (including assistance from others) as pertinent. What were the outcomes of your actions?

2. In the situation above, were you supervising or working with LPN/VNs or unlicensed personnel in the care of this patient? How did you direct them or why did you decide not to involve them? How do you work with LPN/VNs and unlicensed personnel in general in your nursing role? Has that changed over time?

## **SURVEY 16**

1. Describe a recent challenging situation involving a client (or clients) with an unmet need. Please include the way you identified the problem or need, including the information you collected, what occurred after you identified it including what you did to resolve the need. Include all your thoughts and actions, communications with others, care planning and any equipment or other resources used (including assistance from others) as pertinent. What were the outcomes of your actions?

2. Communication with other professionals is a key aspect of promoting patient safety. In the situation above, did this work well? How has your understanding of when, what, and how to share information about a patient's status with physicians, your supervisors and others changed over time?

## **SURVEY 17**

1. Please recall a recent patient care situation that was unusually challenging.

- a. Please describe your thinking and judgment about the situation.
- b. Please describe your actions in the situation and the outcome.

2. Now try to remember the way you viewed your patients and your approach to nursing care in your first months of practice. How would you have handled the situation you just described?

- a. Please describe how your thinking and judgment would have been different when you were a new nurse.
- b. Please describe how your actions would have been different when you were a new nurse.

## **SURVEY 18**

1. Please recall a recent patient care situation that was unusually challenging.

2. Please describe your thinking and judgment about the situation.

3. Please describe your actions in the situation and the outcome.

4. How did your handling of this situation demonstrate your advanced level of nursing experience?

5. Despite your years of experience, how could your knowledge or skills (in this situation or others) be improved?

**SURVEY 19**

1. Please think of yourself or a colleague whom you consider to be a highly competent nurse. What characteristics or behaviors come to mind that show this person to be highly competent?
2. Please give one or two examples of recent situations that showed your competence as an experienced nurse.
3. As you move ahead in your career, what knowledge or skills do you like to improve?
4. If you foresee a change in job or career in the next few years, what would that be?

**SURVEY 20**

1. What changes have you personally observed in the U.S. health care system since your nursing licensure?
2. What kinds of new skills or competencies, if any, will nurses need over the next 5 years?
3. What do you see as your most important skills or competencies as a nurse? Please give an example or two of patient care situations that showed these skills.
4. What kind of role or work setting would you like to be in 5 years from now, and why?

## APPENDIX B: POST ENTRY STUDY INTERIM FINDINGS 2002-2004

### Interim Findings: Delegation

As cross sectional data have been analyzed, delegation has been identified as a key area to study because of the frequency of responses relating incidences or issues and because of the potential of unsafe care described in the narratives. The themes that have emerged in the area of delegation include:

- Nurses do not feel accountable for the care provided by others;
- Tasks are assigned instead of delegated to assistive personnel; and
- Newly licensed nurses are not prepared to manage assistive personnel.

Examples of narratives that support these findings follow:

*The charge nurse is the one who assigns patients to the nursing assistants and we divide up the patients to chart on.*

*The charge nurse assigns most duties, but we are generally one big team that tries to help each other out whenever and wherever possible. The charge nurse is responsible ultimately for what happens on her shift, but each of us puts our license to scrutiny, no matter what the task or who it is performed by.*

*The charge nurse in some degree [decides the care assistive personnel will give]. Assistive personnel also volunteer on their own accord to help compromised patients.*

*The facility has a manual that states what they can and cannot do.*

*The staff nurse delegates duties that do not require critical thinking.*

*The doctors and nurses are the ones who decide which care is done by what personnel.*

*The LPN/VNs have set tasks they perform and do so without direction unless additional requests by the RN are made.*

*When I first came to my present job, I had several frustrations with some of the assistive personnel; maybe because I expected them to do their job and be able to meet the patients needs at the soonest time possible. I could not tolerate seeing them just sitting and not answering call lights promptly. For some time, I have felt like nothing can be done to those of them who would turn patients haphazardly, sometimes pulling out IV lines.*

*It seems to be very difficult to keep track of what they do. The nurse managers have a hard time supervising them and they even tend to disappear a lot. Perhaps if they had a specific assignment of certain beds or had a nurse that they were assigned to help, then they'd have more accountability for their work.*

*I personally do not like to have to tell assistive personnel what to do. I prefer that they are proactive on their own.*

*I sometimes find it difficult to delegate duties, especially when they are not attractive duties.*

*[If I saw assistive personnel giving poor care, I would] tell the charge nurse. I am not good at confrontation.*

*I do find the supervision challenging. I am so overwhelmed most days with my own work that the burden of overseeing this group is too much. As a perfectionist and very ambitious nurse, I am constantly frustrated with their lack of attention to detail or job performance.*

*I find it much easier to take a patient's blood pressure myself. This way I know it is correct.*

*I find the assistive personnel lazy. They have to be told to do every little thing. If things are slow, they sit around,....even if its busy, they still sit around sometimes. As for inappropriate care...I see it a lot, but more in respect to how they speak to patients than how they give care.*

*The staff nurse, charge nurse, and nurse manager decide what care nurse aid should do.*

*The charge nurse has full responsibility for the appropriateness of my actions within the policies and procedures of the hospital and under state and federal regulations. If there is any hassle in getting someone to assist me in my patient care when needed, the charge nurse has the final authority to direct that care or change the assignment.*

*As for who decides what they do, it lies in the RN position; if you ask and they have time then they do it, otherwise I do it. Sometime the docs ask them to do things and they do it. It just depends who asks them, no set rules on it.*

*The aides have their job descriptions but most will do what we ask of them even if it's not on their official list.*

*As charge nurse I am responsible for everything that the LPN/VN or CNA does. As charge, I am able to delegate certain things to the CNA or LPN/VN so that I may take care of more pressing orders.*

*The charge nurse makes the assignments for the day and she also checks all patients that are cared for by the LPN/VN.*

*Who decides which parts of the care will be done by assistive personnel? The supervisor.*

*We just implemented a little black book, where you actually write down the activities you would like the PCAs to complete during the shift. So really they are fairly independent.*

## **Interim Findings: Competencies**

As data have been analyzed, a very preliminary list of competencies has emerged. The eight competencies identified to date (but are subject to change as data analysis continues) are:

- Systems focus (seeing a bigger picture beyond the immediate patient situation and understanding the environment within which care is being delivered);
- Communication (with physician and the rest of the health care team);
- Care management (management of others);
- Critical thinking (assessment of problem; identification of solution; implementation of solution; appropriateness of solution; evaluation of care; and follow-up of care);

- Self-knowledge (knows own limitations and when support from others or validation of decision is needed);
- Nursing knowledge (and confidence in knowledge);
- Team work (collaborates with others as appropriate and properly utilizes other health care team members); and
- Patient orientation and advocacy (actions are focused on the patient and patient needs; acts as patient advocate as appropriate; willing to take the risk of reprimand when the best interest of the patient is not being respected; and persistent in advocacy and follow-up).

The first 315 cases have been coded for aspects of each of these competencies in order for a trial analysis to see if there are differences in these competencies over time. Once we are satisfied that our coding system can discriminate between less competence and more competence, all cases will be coded and analysis completed.