

Regulatory Model for Transition to Practice Report

National Council of State Boards of Nursing (NCSBN)

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NCSBN Transition to Committee

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BACKGROUND

Member Boards are responsible for making sure that safe and competent nurses are entering the workforce after they graduate from their nursing programs. This responsibility includes approving nursing programs in their jurisdictions and requiring graduates to pass the NCLEX[®]. However, is it time to take this a step further? Is it time to require new graduates, as medicine does, to complete a transition program? There are many factors inspiring this inquiry. First and foremost, medical errors have been a major concern for the health professions. The Institute of Medicine has reported that medical errors kill more people than breast cancer, AIDS or automobile accidents. (Kohn, Corrigan and Donaldson, 1999) At the same time, there has been an increased complexity of care for sicker patients with multiple conditions, a continued need for systems thinking, and technologic advances, along with a shortage of nurses and faculty that is expected to continue into the future. Another issue that prompted this transition to practice initiative was the unintended consequence of computer adapted testing, which allows new graduates to become licensed within days of passing the NCLEX. Previously new graduates waited months for their results, thus working under the supervision of licensed nurses.

All of this was the impetus for NCSBN to look at transitioning new nurses to practice, through regulation. NCSBN's work on transition to practice began in August of 2002 when the Practice, Education and Regulation in Congruence (PERC) Committee presented Delegate Assembly with the following initiatives, which the members supported, by their vote:

- Identify and promote effective models to facilitate a successful transition of new nurses from education to practice; and
- Participate in strategies for retention of the new graduate.

After these initiatives were supported by the members, the Board included transitioning of new nurses in its strategic objectives and its charges to the Practice, Regulation and Education (PR&E) Committee, and more recently the Transition to Practice Committee. Since that 2002 vote, the PR&E Committee collaborated with NCSBN's Research Department on a number of related studies, including:

- An employer's study (2003);

- A Practice and Professional Issues Study focusing on transition (2004);
- A study to look at the types of transition programs being offered across the nation and educational levels (2006); and
- A study linking transition programs to competencies, retention, and practice errors (in press).

Further, in 2005 the PR&E Committee published a literature review of transitioning new nurses to practice in the NCSBN Business Book, and this was updated in the *2007 NCSBN Business Book*.

NCSBN held a Transition Forum on Feb. 22, 2007, and nursing leaders from the National League for Nursing (NLN), American Association of Colleges of Nursing (AACN), American Nurses Association (ANA), American Organization of Nurse Executives (AONE), and the National Association for Practical Nurse Education and Service (NAPNES) took part in a panel discussion. The audience was composed of nurses from regulation, education and practice. The panel members and audience strongly supported the need for a national, standardized transition model that was implemented through regulation.

It is the belief of the Transition to Practice Committee that the need for transition programs is not because the education programs are failing to adequately prepare our nurses for practice. Nor is the need for this regulatory transition model because practice settings are failing and are expecting new nurses to hit the ground running. This need has arisen because of the tremendous changes we've seen in health care in the past 20 years. It is time for nursing education, practice and regulation to collaborate on this very important issue so that practice will be safer.

GOAL AND PREMISES OF THE MODEL

The following includes the goal, premises, and relevant definitions of the Transition to Practice Regulatory Model. A synthesis of the evidence that supports the model will be presented in the next section. Jurisdictions adopting the model will have the flexibility to adapt it to meet their particular needs.

The goal of the Transition to Practice Regulatory Model is:

To promote public safety by supporting newly licensed nurses in their critical entry and progression into practice.

The premises of the model are:

- The mission of the boards of nursing is the protection of public health, safety, and welfare.
- Nursing regulators recognize the value of evidence-based models in their responsibility of public protection.
- Transitioning new nurses to practice is best accomplished when practice, education, and regulation collaborate.
- Transition to practice programs should occur across all settings and all education levels.
- Regulation criteria for transition programs should reflect minimum requirements and be the least burdensome criteria consistent with public protection.
- Transition program outcomes are consistent with the knowledge, skills and attitudes required for safe and effective provision of nursing care.

Relevant definitions, for this particular model include:

Competent – The ability to demonstrate an integration of the knowledge, attitudes, and skills necessary to function in a specific role and work setting. (Modified from American Association of Critical-Care Nurses, Preceptor Handbook)

Orientation – The process of introducing staff to the philosophy, goals, policies, procedures, role expectations, and other factors needed to function in a specific work setting. Orientation takes place both

for new employees and when changes in nurses' roles, responsibilities, and practice settings occur. (ANA's Scope and Standards of Practice for Nursing Professional Development)

Preceptor – A competent nurse who has received formal training for the preceptorship role.

Preceptorship – A formal, one-on-one teaching-learning relationship of predetermined length between a competent preceptor and a new nurse graduate that facilitates transition to practice. (Modified from the Canadian Nurses Association)

Transition to Practice – A formal program of active learning for all newly licensed nurses (registered nurses and licensed practical/vocational nurses) designed to support their progression from education to practice across all settings.

THE EVIDENCE

While evidence-based health care is an essential foundation of any nursing model, evidence is limited at the beginning of any new initiative. Requiring substantial evidence before implementing new models can be a barrier to innovation. The committee reviewed the literature, particularly searching for evidence related to international, national, or statewide nursing models, as well as transition models from other disciplines. Individual projects, expert opinions/consensus statements, and research relevant to regulation were also reviewed. Whenever possible, the Transition to Practice Committee chair and staff interviewed individuals implementing transition programs. This added depth to the inquiry. The evidence is further explicated in Attachment C, the Evidence Grid, and numbers in this report refer to the numbers on the Evidence Grid.

The committee members reviewed the regulatory implications of transition models, as well as elements of successful models. After much review, the committee unanimously voted that there was enough evidence to support a regulatory transition model.

When reviewing the evidence for this regulatory transition model, the Transition to Practice Committee members used Sackett's widely-accepted definition for evidence-based practice to guide their inquiry. Sackett describes evidence-based practice as the integration of the best research evidence with clinical expertise and patient values. (Sackett, Straus, Richardson, Rosenberg and Haynes, 2000) The Transition to Practice Committee identified the available evidence by searching the literature systematically. They also considered the levels of research, which they defined consistent with other NCSBN work (8):

- Level I: A properly conducted randomized controlled trial, systematic review or meta-analysis.
- Level II: Other studies, such as quasi-experimental, correlation, descriptive, survey, evaluation, and qualitative.
- Level III: Expert opinions or consensus statements.

Of the available evidence, there were several Level II and Level III studies or projects, but none were Level I. One study, by Hofer (10) was a synthesis of national reports on transition to practice, but the methodology was not rigorous enough to consider it a systematic or integrative review. It is common in health care, health policy, and nursing research not to find randomized controlled trials because they are not always feasible or ethically possible. Expert opinions and consensus statements (such as standards by a professional organization) can be important supportive data, especially in an area as complex as transition to practice.

TRANSITION PROGRAMS PROTECT THE PUBLIC

An important question addressed by the Transition to Practice Committee is: should transition to practice be implemented through regulation? The Transition to Practice Committee members spent much time and debate on this issue. To adequately review this question, the committee members decided to review three research topics: patient safety, competency, and job retention.

Safety and New Nurses

The committee reviewed a total of 11 reports, besides the well-known IOM To Err is Human report (Kohn et al., 1999), regarding new nurses and patient safety, near misses, adverse events and practice errors. The 1999 IOM report called attention to errors in health care. Similarly, Behrens (6) reviewed three million state and federal computer records, for safe nursing practice. Of those 11 reports (6, 12, 16, 17, 23, 28, 31, 32, 33, 34, 38), two reported disciplinary data (12, 23) and one addressed incident reports (34). It makes sense that there isn't going to be more discipline for novice nurses (0-12 months) versus those in practice for 10 years, for example, because the latter group would have a much greater opportunity to make errors. Besides that, there is quite a leap between discipline and a near miss, which is more often seen in new nurses (32). The NCSBN Nursys® data on discipline in the boards of nursing (12) found that 4.1 percent of the discipline was with novice nurses. For all nurses there was a trend of increased discipline from 1996-2006 (32), thus supporting IOM reports of an increase in practice errors in health care. The Massachusetts's preliminary findings on discipline data from 77 nursing homes (23) had no novice RNs in the analysis. However, of 44 LPNs disciplined, seven were novices. In the Massachusetts study, the researchers concluded that errors with new nurses were linked to inexperience, lack of familiarity, and lack of consistent preceptors. They recommended more supervision and support for new nurses. A study out of Australia (34) found that incident reporting increased during the novice nurse's first year in a supportive transition program because they were taught about the importance of reporting errors and near misses for root cause analyses.

New nurses often engage in concrete thinking and focus on technology (38), thereby missing the bigger picture, and this can be devastating during these complex times in health care (7, 31, 32). Del Bueno (31) found that when novice nurses were given patient scenarios, 50 percent of them would miss life-threatening situations. Another study (32) found that of 12 recruited new nurse participants, 7 reported at least 1 near-miss event, while 1 nurse described 2 events. Carnegie (7) recommended a yearlong transition program for new nurses, in part because students don't have the opportunity to follow-up with their patients in their nursing programs. Therefore, novice nurses are often weak in detecting subtle changes in patient conditions. A supportive transition program would assist new nurses to identify subtle changes and avoid practice errors. Orsolini (38) cites statistics showing that if new nurses fail to recognize changes in patient status, those patients can deteriorate quickly. When CPR is needed, only 27 percent of adults and 18 percent of children survive (38).

Orsolini-Hain and Malone and Ebright and colleagues (32, 38) address the impending gap in clinical nursing expertise due to retiring nurses and faculty. They point out that novices assisting novices could be a safety issue if standardized transition programs are not in place.

An NCSBN national study (17) found that when transition programs in hospitals addressed specialty care, new nurses reported making fewer practice errors. Similarly, when nurses perceived they were more competent, they reported making significantly fewer practice errors, and this was especially true when they reported more competence in clinical reasoning abilities and communication and interpersonal relationships.

Johnstone and colleagues (33, 34, 35) studied integrating new nurses into clinical risk management systems in Australia. They stress the importance of not teaching new graduates deficit education. That is, don't assume that the transition program needs to re-educate the new nurse. Instead, the nurse needs to learn, by experiential means and with support of qualified nurses, how to manage risks in practice.

Competence and New Nurses

Keller (36) provides insight as to why new nurses need continued support for the first year, even though they graduated from an approved nursing program and have passed the NCLEX. She states that nursing education cannot prepare new graduates for acculturating into their workplace and for using a recently acquired new language. Keller goes on to assert that new graduates are expected to become skilled in a wide range of absolutely necessary skills, and gain a sense of the wider world of their organization and health care. She describes some of these necessary skills as being self-aware and learning about team dynamics, leading teams, coordinating care, managing conflict, understanding the psychological effects of change and transition, communication, evidence-based practice, systems thinking, and financial

pressures. Neophyte nurses become overwhelmed and stressed with all of these expectations (17, 19), and stress, in the first year of practice, has been significantly related to practice errors (16, 17).

The evidence the committee members reviewed regarding competence and transition (7, 14, 16, 17, 19, 28, 30, 31, 38) found that new nurses need a year of support to learn to work within complex systems. National reports have supported a need for novice nurses to revisit their actions and to reflect on alternate pathways for decision making (7, 8, 9, 10, 19). NCSBN has a similar study analyzing this need, as well (14). While some institutions have formal transition programs (20, 26, 30) that are less than a year long, they often continue to provide ongoing support to new nurses for 12 months.

NCSBN's unpublished transition studies (16, 17) reported that new graduates were significantly more likely to report practice errors when they also reported decreased competence and increased stress. In this study and the UHC/AACN national study (19), three to six months after hire was the vulnerable period where nurses reported more stress and less competence and therefore were at risk for practice breakdown.

In a longitudinal study from Norway, Bjørk and Kirkevold (28) analyzed the consequences of not having an extended transition program by videotaping nursing practice and conducting interviews with nurses and patients. Four nurses were followed for eight to 14 months as they performed dressing changes and ambulated new surgical patients. The nurses only had a short orientation to their units. While the nurses reported that they had become efficient and rated themselves as better nurses over time, the analysis of their practice revealed that they made the same practice errors (such as contaminating wounds) at the end of the study as they did at the beginning. According to Bjørk and Kirkevold, the nurses were considered regular nurses, and it was assumed they knew what they were doing. There were no opportunities for feedback or reflective practice, which likely would have improved the competence of these nurses. This is excellent empirical data about what can happen when new nurses don't have supportive transition programs.

In the Dartmouth-Hitchcock transition program (30), investigators measured confidence, competence and readiness to practice, all of which significantly increased after their transition program. This program uses simulation vignettes that highlight high-risk and low-frequency events, as well as commonly occurring clinical situations. According to this study, this is a highly effective way of developing competency and confidence in new graduates.

Job Retention

Some might argue whether job retention is a fair measure of patient safety because while nurses may leave one job during the first year, they generally move to another position. The first workplace, however, which may already be affected by the nursing shortage, is challenged with recruiting and orienting a new nurse. Further, there is data showing a trend of nurses leaving nursing altogether, which affects patient safety. In the late 1980s only 4.5 percent of nurses were employed outside of nursing, while in 2004, 16.8 percent were (38). It is unknown as to how many nurses who leave the profession are new graduates. Workforce studies should focus attention in this area.

Statistics indicate that temporary nurses, who are often hired when a new nurse resigns, have an increased number of disciplinary complaints filed at boards of nursing (6) compared to nurses hired on a permanent basis. These data were reported by a newspaper investigative reporter, so the results should be validated by a researcher. However, the Massachusetts preliminary data on nursing error also found that errors were often linked to lack of familiarity with the practice setting (23). Ebright and colleagues (32), in their investigation to identify factors leading to near-misses/adverse events in novice nurses, found that unfamiliarity with the unit and workflow patterns was one of the themes linked to error. Every study examined by the Transition to Practice Committee found increased retention resulted from a transition program. Of the studies and projects cited in the Evidence Grid, eight found decreased turnover rates associated with their structured and organized transition programs (17, 19, 20, 24, 26, 29, 36, 37), and these turnover rates, for the first year in practice, varied from 6 percent to 19 percent. Williams and colleagues (19) report, from a review of the literature, that first-year turnover rates of new nurses average

from 36 percent to 55 percent. The data clearly support that a well-planned transition program will improve the retention of new nurses in their first year of practice.

SUPPORT OF THE ELEMENTS OF THE MODEL

Across All Settings and All Education Levels

There is no doubt that the literature and research on long-term settings and licensed/ vocational nurses is not as strong as with acute care settings and registered nurses. One NCSBN report on practical nurses (16) found that PN transition programs averaged 4.7 weeks in length, which is so short that it most likely wouldn't provide any insight as to what the effect of transition on LPNs would be. Other NCSBN research (15) again found that PNs had limited and variable transition programs.

While there are many descriptions in the literature of transition programs in acute care, exemplars of transition programs in long-term care are limited (26, 27). Two statewide transition programs were implemented across settings. Personal communication with the project managers of each program has revealed that employers in the long-term care and rural settings have responded very positively to these programs. Similarly reports of nurses in these programs have been positive, though there is no formal data on these outcomes.

One national study (5) showed high annual turnover of PNs and RNs in long-term care (50 percent), though this was for all nurses in long-term care, and not just new nurses. A national survey on the nursing home workforce (18) calculated priority ratings on areas for needed improvement: 1) lower job stress; 2) management that listens; 3) management that cares; 4) training to deal with difficult residents; and 5) training to deal with difficult family members. If new nurses in long-term care were to receive more support through a standardized transition program, impact on these areas of priority could be made.

There is not much data on PNs in long-term care settings; however there is reason to focus attention on this area. In 25 years, it is expected that one in every four, instead of one in every six, Americans will be 60 years of age or older (38). Long-term care settings will become even more important. Relying on the limited number of studies and applying results from the acute care settings and registered nurses, the Transition to Practice Committee believes that there is sufficient evidence to support the inclusion of long-term as well as acute care settings and PNs as well as RNs in this model.

Modules

The committee identified eight modules that should be included in the transition model: specialty content, communication, safety, clinical reasoning, prioritizing and organizing, utilizing research, role socialization, and delegation and supervising. As Johnstone points out (33), these should not be presented as deficit education, meaning that those modules are being presented because students didn't learn it in the first place, or didn't learn it well. Instead, these concepts should be incorporated into the new nurses' experiences so they continue to learn, from preceptor role modeling, how to think like a nurse. While these are presented separately as modules, they should be integrated into the transition program.

Specialty content is an extremely important module because having specialty content in a transition program has been linked significantly to lower practice errors (17). Past work at NCSBN has found similar results. (NCSBN, 2004) Many of the reports we reviewed recommended integrating specialty practice into transition programs (2, 7, 9, 19, 20, 24, 26, 29, 30, 36, 37). A related element is **prioritizing and organizing** one's work. Prioritizing and organizing is a part of clinical practice that is often missing in novice nurses (8, 13, 28), most likely because of lack of experience. Specifically the UHC/AACN residency program measured ability to organize and prioritize before and after their program and found significant increases at the end of the program. Prioritizing and organizing was integrated throughout most of the transition programs that focused on specialty content.

Communication, and particularly interprofessional communication, has been in the health education literature frequently and is essential in any regulatory model. The 2003 IOM report on Health Professions Education (Greiner and Knebel, 2003) stressed the importance of teaching health care students to collaborate across professions. McKay and Crippen (2008) report that in hospitals where collaboration

occurs there is a 41 percent lower mortality rate than predicted deaths. In other hospitals, McKay and Crippen (2008) report, where collaborative communication doesn't take place, mortality rates were 58 percent higher than would be predicted. Similarly, enhanced communication in hospitals has been linked to nurse satisfaction, lower costs, and greater responsiveness of health care providers. (McKay and Crippen, 2008). Carnegie (7) and NCSBN (8) report that many nursing programs provide their students with few opportunities for interprofessional communication. Supporting McKay and Crippens (2008) NCSBN's unpublished transition study (17) found that new nurses perceived that they made significantly fewer practice errors when they reported being more competent in communication and interpersonal relationships. Most of the reports reviewed recommended a purposeful integration of communication, including interprofessional relationships, into transition programs (2, 9, 19, 20, 27, 29, 30, 36, 37).

Teaching **safety** is an essential part of a transition to practice regulatory model. Johnstone and colleagues in Australia have reported (33, 34) on the importance of experientially teaching risk management to new nurses, rather than providing deficit education. Cronenwett et al., (2007) using the expertise of national health care leaders across disciplines, have described in detail a module on safety that could be used in transition programs. This consensus opinion document, Quality and Safety Education for Nurses (QSEN), can be considered excellent evidence for this transition model. The Massachusetts Board of Nursing preliminary findings on nursing home errors (23) called attention to addressing safety issues in transition programs, based on their review of discipline of new PN graduates. Likewise, the NCSBN unpublished transition study (17) found that, according to self-reports, practice errors made by new graduates were prevalent. Many of the transition programs, reviewed by the Transition to Practice Committee, focus on safety (2, 19, 20, 27, 29, 30, 36, 37).

Clinical reasoning, also called critical thinking, is another essential part of a transition to practice regulatory model. Like most of these elements, it must be integrated through the program. As the Carnegie study (7) points out, this is where nurses learn to think like a nurse. The Dartmouth program (30) is exemplary as it uses simulation to assist novice nurses in making decisions during common clinical events or events that are uncommon, but life threatening. Transition programs that specifically report integration of clinical reasoning/critical thinking include: 19, 20, 24, 26, 27, 29, 36, 37. However, interviews with project managers of transition programs indicated that all programs examined attempt to integrate clinical reasoning.

Similarly, evidence-based practice, or the **utilization of research** findings needs to be addressed in transition programs as new nurses are expected to base their practice on the evidence. (Cronenwett et al., 2007; Greiner and Knebel, 2003) Yet, NCSBN research (8, 16, 17) has shown that new nurses are weak in this area. Evidence-based practice was integral to most of the programs that we had reviewed. In the Launch into Nursing program in Texas, for example, new nurses participate in an evidence-based project and present the results to the hospital unit they work on. The international and national programs support incorporating the utilization of research into transition programs (2, 19, 20), as do many of the individual programs (2, 19, 27, 36, 37).

Role socialization is a very important part of this model, particularly for regulation. New nurses must have a good understanding of their scope of practice, as well as that of others in the health care team. Role socialization has been studied by O'Rourke (2006) for a number of years, and she has developed a program and some metrics for measuring outcomes. Role socialization was an integral element of many of the transition programs we reviewed (2, 19, 22, 26, 36, 37). Closely related to this is the need for new nurses to develop a better understanding of **delegating and supervising**. NCSBN studies of new nurses, since 2002, consistently found that new nurses report a lack of understanding of delegation (8, 14, 16, 17). NCSBN's position paper on delegation and supervising would be helpful for this module. (NCSBN, 2005) Transition programs may be incorporating delegation/supervising into their curricula, though not many specifically indicate that. Only the Wisconsin Nurse Internship Program identified delegating and supervising as elements of their model.

Preceptor-Nurse Relationship

The evidence was overwhelming that transition to practice programs are most successful when they incorporate the use of preceptors, in a one-to-one relationship. All the programs detailed on our Evidence

Grid used the preceptor model. Past research at NCSBN (NCSBN, 2004) has shown that transition programs are more effective when the new nurse works with one preceptor with the same working hours. In the Massachusetts study (23) of nursing errors one PN commented that during her orientation to the unit, she “worked with three different nurses on three different days” after which she worked alone and was encouraged to ask questions of other nurses as needed.

The transition model developed by the Transition to Practice Committee also recommends that the preceptors be skilled in the role. In many transition programs, orienting preceptors to the role is important, however, the Vermont Nurse Intern Program (26) is an exemplary model of preceptor education. They have developed this model since the beginning of their initiative in 1999 and they now credential all their preceptors. There are also other models available in the literature. (Nicol and Young, 2007) Often, preceptors feel unprepared and unsupported for the preceptorship role. For example, in one study of 86 preceptors, researchers found that preceptors reported they were unprepared to precept new graduates and that they needed more support and recognition. (Yonge, Hagler, Cox and Drefs, 2008) As has been stated previously, the Transition to Practice Committee recommends to the Board of Directors that NCSBN develop a Web site for this standardized, regulatory, transition model. An online preceptor course, with credentialing, could be included. This has been successfully accomplished in other venues. (Phillips, 2006)

In areas where preceptors are not available (very small workplaces, remote geographic areas, or organizations with preceptor burn-out) the Transition to Practice Committee members recommends to the Board of Directors that NCSBN's E-Learning Productions department design a Web site where connections to preceptors, through a remote interface, will be possible. This approach has been successfully implemented in Scotland's program (2) and will provide new nurses with opportunities for feedback, reflection, and support even when preceptors are not geographically available.

Feedback and Reflection

Feedback and reflection are important threads in this model and should be formally maintained during the six-month transition program, as well as during the six months that follow. In the section of competence, Bjørk and Kirkvold's (28) longitudinal study, showed the importance of feedback and reflection. If new nurses cannot get feedback on their practice, along with an opportunity to reflect, their practice will not improve, and, as in Bjørk and Kirkvold's study, they are at risk of making the same mistakes time and time again. It's very important for preceptors to be taught how to provide constructive feedback and how to foster reflective practice. Many of the transition programs included in this review did provide opportunities for feedback and reflection (2, 8, 27, 29, 30, 35, 36). For fostering reflection, journaling and personal inventories were described as successful strategies (36).

Length of Program – Six Months with Continued Support for One Year

Two comprehensive national studies of transitioning new nurses to practice (17, 19), using different populations, different methodologies, and different tools, both came to the same conclusion: the three to six month period, after hire, was the most vulnerable time for new graduates. In the NCSBN study, it was most likely because this is when the new nurses began to practice independently. In this study new graduates reported more stress in the 3 to 6 month period of practice, and, interestingly, they perceived less competence at 3 to 6 months than in the 0 to 3 month period. In the UHC/AACN study the authors believe this is because during the first six months in practice, many residents have specialty classes and might be feeling overwhelmed by the amount they must learn. This would be similar to the phenomenon of reality shock that Marlene Kramer (1974) described. Because of this strong evidence, it was clear to the committee that the transition program should last at least six months (similar to the Mississippi state transition program), and there was significant discussion about whether it should be one year in length because of the evidence (2, 7, 11, 19, 21, 27, 29, 32, 36, 37, 38, 39). In the end, the decision was to keep it at six months because of the premise that “regulation criteria for transition programs should reflect minimum requirements and be the least burdensome criteria consistent with public protection.” However, the committee did note that even in some programs that were less than one year in length (20, 26, 30), project directors indicated (via personal communication) that often there was continued support after the program ended, and in some cases the preceptorships continued. In one instance, this was not the case. The Kentucky regulation (22) is for 120 hours of practice. Continued support is not included in the law.

Dr. Megan-Jane Johnstone, and colleagues, from Australia (35) have written extensively on providing support to new graduates. They define support as “a process that aids, encourages, and strengthens and thereby gives courage and confidence to a new graduate nurse or a group of new graduates to practice competently, safely, and effectively in the levels and areas they have been educationally prepared to work.” Some of the components of support, according to Johnstone and colleagues, (35) include being available and approachable being able to ask questions, without being ridiculed; being prompted to engage in best practices; providing benevolent surveillance, which is keeping an eye on the new graduate; providing constructive feedback and reflection; and having backup when there are problems. Formalized support systems should be built into the last six months of the new nurse’s transition program.

THE ISSUE OF COST

Cost of transition programs is an area of concern and warranted consideration. Several of the reports on the Evidence Grid have discussed cost factors, and, when the organizations consider the cost of turnover in the first year of practice, return on investment reports have all been positive. Return on investment (ROI) is a comparison of net financial improvements to the cost of the program. The formula for this calculation equals net program benefits (i.e., consider turnover costs) divided by program costs. The Joint Commission (9) reports that it costs \$46,000 to replace a medical/surgical nurse and \$64,000 to replace a critical care nurse. Program costs (36) include staff, office supplies, speakers, photocopying, journal subscriptions, refreshments, texts, etc. One study looking at the ROI found an 884.75 percent ROI (37), while another found an ROI of 67.3 percent (20). Keller and colleagues (36) estimated that it cost them \$1,000 per resident in the internship program, while replacing one nurse was \$60,000. The Mississippi Nurse Residency Program (24) reported a savings of over \$4 million with their six-month residency program through the elimination of agency/travel nurses. Further, they saved \$1.1 million through decreased turnover. Similarly, the Children’s Memorial Hospital (Chicago) yearlong residency (29) saved that hospital \$707,608 per year. The Transition to Practice Committee found no studies of transition programs that found a negative ROI. While there have been no studies on transition programs in long-term care, their turnover rates are as high as those in acute care, and it makes financial sense that they would also benefit by transition programs.

If this initiative is supported by our members, the Transition to Practice Committee recommends to our Board of Directors that we work with the Center for Medicare and Medicaid Services (CMS) to identify ways to fund transition programs for nursing, as is done with medical residencies and pharmacy residencies.

IMPLICATIONS FOR BOARDS FOR NURSING

One question for boards of nursing will be, how much will implementing, and maintaining this model cost them? This will have to be studied more comprehensively during the implementation phase, if the Board of Directors and the Member Boards adopt this model. Cost issues will include the initial time for the executive director and its board to implement the legislation to adopt the transition model. There will be the need for staff to process the first license and document and file applications. When new graduates do not comply with the regulation, there will be costs incurred for disciplining them.

Kentucky has implemented a transition to practice model, and they estimate it takes 15 percent of staff time annually to implement their transition legislation. However, in their state, new graduates must complete the transition program before they take the NCLEX, so most of that activity is during those months when large numbers of graduates are completing internships and applying for NCLEX. For this proposed national model, staff time would most likely be less than 15 percent since the paperwork involving NCLEX will have been completed. The Transition to Practice Committee recommends that NCSBN develop a national Web site for this transition model and this should decrease the cost to boards by having forms, etc., readily available online.

Another implication for the boards will be bringing legislators, practice, and other key stakeholders, on board. If adopted, the Transition to Practice Committee members will develop one-page fact sheets for those boards implementing the model that will provide talking points for legislators and others. Further,

the Transition to Practice Committee members, if the model is adopted, plan to work next year to build consensus and develop partnerships with stakeholders, including the American Hospital Association (AHA), AACN, NLN, AONE, NAPNES, ANA, CMS, the Joint Commission, and others.

CONCLUSION

Currently there is no national standard for transitioning new nurses from education to practice, and few states have regulations for the process of developing novice nurses as they enter the practice arena. Medicine has standardized accredited residency programs that are required of all new medical school graduates before they can be licensed. Physical therapy and pharmacy have national, standardized residency programs that are accredited, although voluntary.

Internationally, Portugal and Ireland (3, 4) are in the process of developing a national transition program to be implemented through regulation. Dr. Johnstone from Australia has been in communication with us and has indicated they are developing a national, standardized transition program. Canada (1) has developed an excellent guide to preceptorships and mentoring, though they don't have a national model. Scotland (2) has been a leader in designing a national, standardized transition program, and their Web-based model has inspired our committee members to propose designing a Web site for NCSBN's transition regulatory model. Scotland is still in the process of collecting outcome data.

Through collaboration with nursing education, practice and regulation NCSBN and boards of nursing can make this happen. After all, regulation, practice, and education have the same goal of safe and effective patient care.

If this transition regulatory model is adopted by our board of directors and Delegate Assembly, the following are the Transition to Practice Committee members' recommendations for their work in 2008-09:

- Collaborate and develop partnerships with key stakeholders;
- Identify and develop tools for measuring the outcomes;
- Develop a national Transition to Practice Web site;
- Develop model rules for Transition to Practice; and
- Identify funding sources.

REFERENCES NOT ON EVIDENCE GRID

Cronenwett, L., Sherwood, G., Barnsteiner, J., Disch, J., Johnson, J., Mitchell, P., Sullivan, D. T. and Warren, J. (2007). Quality and safety education for nurses. 55, 122, 131.

Greiner, A. C. and Knebel, E. Eds. (2003). Health professions education: A bridge to quality. Washington DC: The National Academies Press.

Kohn, L., Corrigan, J., Donaldson, M. Eds. (1999). To err is human: Building a safer health system. Washington DC: The National Academies Press.

Kramer, M. (1974). Reality shock: Why nurses leave nursing. St. Louis: CV Mosby. McKay, C. A. and Crippen, L. (2008). Collaboration through clinical integration. *Nursing Administration Quarterly*. 32(2), 109-116.

Nicol, P. and Young, M. (2007). Sail training: An innovative approach to graduate nurse preceptor development. *Journal for Nurses in Staff Development*. 23(6), 298-302.

NCSBN (2004). Models of effective programs that transition students to practice. Retrieved April 2, 2008, from <https://www.ncsbn.org/1247.htm>

- NCSBN (2005). Working with others. Retrieved April 2, 2008, from [https://www.ncsbn.org/Working_with_Others\(1\).pdf](https://www.ncsbn.org/Working_with_Others(1).pdf)
- O'Rourke, M. W. (2006). Beyond rhetoric to role accountability: A practical and professional model of practice." *Nurse Leader*. June, 28-44.
- Phillips, J. M. (2006). Preparing preceptors through online education. *Journal for Nurses in Staff Development*. 22(3), 150-156.
- Sackett, D. L., Straus, S., Richardson, S., Rosenberg, W., Haynes, R. B. (2000). Evidence based medicine: How to practice and teach EBM. 2d. ed. London, U.K.: Churchill Livingstone.
- Yonge, O., Hagler, P., Cox, C. and Drefs, S. (2008). Listening to preceptors. *Journal for Nurses in Staff Development*. 24(1), 21-26.

Transition to Practice Model. Description of Model • Pass NCLEX • Separate Orientation • Flexible and robust • 6 month preceptorship. Description of Model • 1 year institutional support • Feedback and reflection • License renewal. • Transition to Practice Fact Sheet • The problem • The impact • The solution. Transition to Practice Evidence Grid • International Work • National Work • Individual Work. FAQs • Why should this be implemented through regulation? • Interim Report on a Regulatory Model for Healthcare and Assessment. Facilities in Ontario. Willie Handler and Associates July 30, 2012. Deliverables. An oversight model for healthcare and assessment facilities that provides for: | Transparency in ownership, assessment costs and conflicts of interest. • Features of a Proposed Regulatory Model. | Barriers for healthcare/assessment facilities that wish to practice in the Ontario auto insurance system based on a benefit and proper test. | Sanction participants for fraudulent acts including denying the ability to operate in the Ontario auto insurance sector. | Evolve HCAI into a regulatory tool to support market conduct regulation and a mechanism to sanction fraudulent behaviour. 3 Regulatory back-testing of VaR models 4 Internal back-testing of VaR models 5 Methodology for VaR and stressed VaR 6 Methodology for IRC models focusing on default risk 7 Risks Not In the Model 8 Glossary Counterparty credit risk 1 Scope of the guide for counterparty credit risk 2 Trade coverage 3 Margin period of risk and cash flows 4 Collateral. • The TRIM on-site investigations will be used to explore the range of practices for which targeted topics requiring harmonisation should be implemented, and to identify potential shortcomings as against the best practices defined in this guide. • composition, mandate and reporting lines of committees responsible for internal model governance and oversight, as well as the decisions they take. The report was drafted prior to ITU Regional Forum on Use of ICT for transition to Smart and Sustainable Development that was held in Khartoum, Sudan, from 12 to 13 December 2016 and has been revised to include discussions and recommendations made at this event. • Promotion of open data principles and practices improves transparency, accountability, and the enabling environment for smart cities and climate change management. • Sample strategic plans and regulatory frameworks for smart and sustainable development in this report were picked from what the study established as key domain areas that form the walls between the economic, environmental, governance and social pillars¹ of sustainable development cube. The goal of the Transition to Practice Regulatory Model is: To promote public safety by supporting newly licensed nurses in their critical entry and progression into practice. The premises of the model are: • The mission of the boards of nursing is the protection of public health, safety, and welfare. • Transition to Practice • A formal program of active learning for all newly licensed nurses (registered nurses and licensed practical/vocational nurses) designed to support their progression from education to practice across all settings. THE EVIDENCE. While evidence-based health care is an essential foundation of any nursing model, evidence is limited at the beginning of any new initiative. Requiring substantial evidence before implementing new models can be a barrier to innovation.