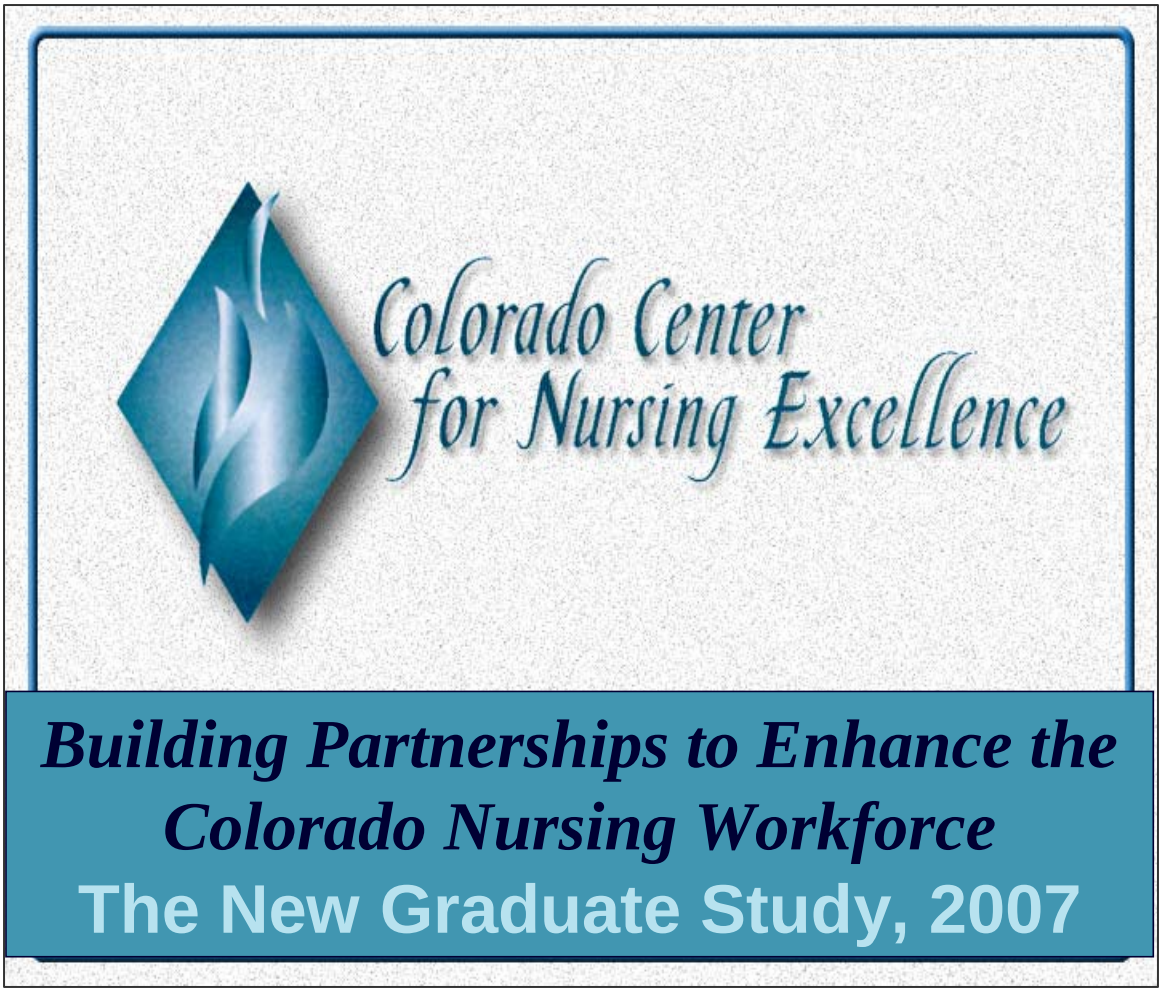


Building Partnerships to Enhance the Colorado Nursing Workforce

The New Graduate Study, 2007

New Graduate Nursing Transition to Practice: Current and Future Needs

The Colorado Center for Nursing Excellence, Sponsor
Sue Carparelli, Director and Project Leader

November 26, 2007

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Abstract and Implications

Background. Eighty-one hospital and ten academic responders in Colorado were surveyed in 2007 regarding new-graduate RN preparation and transition to practice. The study looked at critical factors in preparing and onboarding new RNs in practice, including

- Preparation
- Orientation
- Hiring/Retention
- Mentoring
- Areas of clinical practice

Overall, findings point to the need for policy-level and systems reform rather than single-issue programs, transitory projects, or one-time "fixes."

While some findings are anecdotally obvious to professional insiders, the perceptions of policy-makers in nursing schools and the healthcare marketplace can combine to build sound arguments and acquire funding to create lasting change in complex environments. This study can help those who work across functions and organizations better understand the multiple points of view that necessarily inform direction and change in academia and healthcare.

It is incumbent on nursing educators, healthcare employers, and regulatory agencies such as the State Board of Nursing, to strengthen and enhance the RN's transition to practice and come to shared vision and solutions regarding adequate RN preparation, orientation, and tracking into needed areas of care.

Strategic Use of Human, Fiscal, and Facility Resources. The most frequently cited concern with education-to-practice transitions is in the areas of resource deployment. Different and expanded resources are needed to successfully bridge the RN education-to-practice gap, a burden and risk that is now overwhelmingly underwritten by hospitals. Since preceptorships and mentorships have uneven application, acceptance, and results,

more formalized residency programs could be a next-level approach to meaningful and quality career orientation.

Residency programs could be organized similarly to the well-proven physician residency model, and funded through federal or state monies, grants, or special-term/forgiving loans, perhaps encouraging initial practice years in rural or underserved areas, or fast-tracking to clinical specialties begun in residency. This has implications for potential regulatory/legislative and curriculum reform and funding in RN education and residency.

A critical concern is the preparation of clinical mentors and coaches to enable their success. They need to be well prepared for the preceptor role, and have a workload that reflects the demand of that role; often precepting is additive to an already challenging work load. A specialty certification in adult or healthcare education could prepare the nurse educator to demonstrate adequate skills in adult education and field-based learning; release time from patient care could be negotiated. A dual path as practitioner/educator now rests on a broad range of nurses who differ widely in their inclinations, clinical depth, and teaching expertise.

The trends and concerns surfaced in this study indicate need now, and increased needs in upcoming years. Infrastructure and systems changes, including appropriate learning facilities, supplies, and time, are acutely necessary and will be needed even more in the future. All resources need to be leveraged to accommodate academia, the nursing student, the novice professional, and the employer. This needs to be managed in concert with regulatory agencies that assure patient safety and maintain the public trust.

Academic nursing curricula must meet regulation criteria from several bodies. Authentic curriculum solutions that are sustainable and practical may require top-level changes in policy and requirements. Current credit caps limit the ability of preliscensure nurses to gain sufficient course work in specific Areas of Clinical Practice and thus move more quickly into meeting specialty demands.

Nursing schools too, must meet the disproportionate cost of training nurses contrasted with other undergraduate disciplines. Modifications, adjustments, or additions to the curriculum carry additional costs. Schools of Nursing, especially in the public sector, bear the accelerated costs of any changes in academic focus.

Tracking into Areas of Clinical Practice. The informal but seemingly hard-wired expectation that new nurses spend a year in medical/surgical units is questioned outright and by implication in this study. With adequate residency or other support, new nurses could enter areas of preference or need and so be prepared academically and, later, in the field to meet Colorado needs. This has implications for who is likely to underwrite these costs, which have typically been shouldered by hospitals.

Application of Best Practices for Quality of Work Life and Retention. Quality of work life for RNs is a massive issue, evidenced in this study and documented in many others. Nurses can now leave the bedside for other healthcare-related employment or leave the profession to seek other options. New RNs need adequate preparation time to become confident in procedures; to employ sound communication skills; to develop a professional persona; and to grow in their affiliation to the workplace. It is clear that it takes time and support for new nurses to fully engage in best-practice care with confidence.

Healthcare leaders need to ensure that new RNs are initiated into the profession with respect and consideration for individual differences and preferences, as well as realistic appreciation for the learning curve. Such entry can begin at the undergraduate level and continue. In other professions it is known that quality and length of orientation increase affiliation and retention. In healthcare, orientation varies greatly and is impacted by both staffing/productivity needs and cost containment.

There is concern among our respondents regarding the issue of retaining nurses, including new nurses. There is a limit to the amount of retention that can be controlled by employers but it can be maximized, partly by attention to quality of work life. Like other professions now, nurses are an increasingly mobile workforce; 25% leave employers for reasons employers cannot overcome (Kovner et al., 2007). This also means newer nurses trained elsewhere will come to Colorado and the depth and experience of site-specific orientation becomes critical in their quality of practice and potential for retention.

Human Capital Management and Methods. Lifelong learning, professional development, and ongoing investments made in essential elements of the working healthcare environment are features of sound capital management for the human resource. Such methods can greatly impact the quality of work life. It is incumbent on healthcare decision makers to recognize and apply contemporary thought and approaches in managing the human resource.

Rural Areas Suffer Compounded Problems. The complexities and difficulties of initiating an RN into practice in urban areas are compounded in rural or outlying areas and include lack of tracks in professional advancement, lower pay, and fewer opportunities for advancement or practice in clinical specialty areas. In this study rural respondents consistently supported the need for innovation in addressing these realities to the benefit of the provider and the individual RN.

Increase in Usable Data for Optimum Decision-Making. This and similar studies encourage more consistent and reliable data collection and analysis about how to protect the investments made in nursing education and capitalize on collaboration among provider agencies to hire and successfully retain new graduates. Improving standards for data collection and analysis is necessary for ongoing resource acquisition and advisement for education, policy and practice.

The profession is just now collecting a body of evidence robust enough to underpin requests for funding and support. Much professional literature in the area of new graduates is both current and meaningful. This study contributes to that body of knowledge, specific to Colorado.

Introduction and Methods

While many approaches have been applied to reverse problematic issues and trends surrounding the training, transition, placement, orientation and functionality of new graduate nurses, there is common agreement that even enlightened solutions are insufficient to address the extremity of the problem, both in Colorado and elsewhere.

There is also wide agreement that documenting such trends will be very useful for academic institutions and health care providers/employers alike so decisions can be based on current, relevant facts.

Addressing these issues, two original surveys were commissioned by the Colorado Center for Nursing Excellence ("The Center"). These surveys were designed to collect current and meaningful data in the areas of uptake of new nursing graduates and their preparation to practice both before and after graduation. Metrics and qualitative data collected can help support mid- to long-range plans and projections for both healthcare providers and academic providers. Related relevant literature was analyzed with a special focus on the voice of the new graduate.

It is expected that this information will enable more informed and accurate projections regarding curriculum needs and hiring/orientation practices, along with identification of demands in clinical specialty areas of practice. It can also serve as a platform for academic and healthcare institutions, along with regulatory agencies, to engage in discussion using research-based information regarding training in specialty nursing areas and innovations in practice.

For the newly-graduated RN, this inquiry addressed:

- Key influences in adequate preparation for practice and subsequent onboarding;
- Viewpoints among academic and health provider institutions in areas critical to successful preparation and transition-to-practice;
- Current information about Areas of Clinical Practice referent to the new graduate.

This inquiry is iterative with input from experts. Design and instrumentation were informed by:

- Focused discussions with expert groups representing healthcare providers and academic institutions across Colorado;[1]
- Increasingly targeted versions of the surveys to capture information that will be useful across Colorado;
- Ongoing literature review for instrument content and context, informed by group discussions.

[1] Refer to "Acknowledgements," Attachments

- Literature review to expand context for findings.

The Healthcare Employer Survey included 27 items in five categories, and the Academic Survey contained 21 items including open-ended items in three categories; each survey requested open-ended commentary on key issues.[2]

For open-ended items, data were categorized and code. Representative quotations were extracted. Also themes across items have been examined to reveal frequency data that help to prioritize current concerns and issues. They are shown in this report as they apply to the findings under discussion.

Limitations

This is a descriptive study and results cannot be construed as representative of any population outside the study respondents, although trends may be meaningful and are often in accordance with available literature. Employer responses were voluntary and weighted heavily toward inpatient hospitals or hospital-based ancillary services or programs. Academic responses were received from 10 of the 27 solicited schools; smaller schools were under-represented.

While desirable in reporting to separate hospital-based from "other" respondents, the preponderance of hospital-related respondents left the "other" category sporadic and idiosyncratic, void of important patterns or differences. Thus, most employer data is presented in the aggregate. Commentary from rural respondents is called out when it is meaningful.

Not unexpectedly, respondents left cells blank in large matrixed items and presumably completed only those items about which they had information or opinion. Consequently, often the response rate was low from employer respondents, especially in items related to Areas of Clinical Practice.

Data have been reconciled as in some instances more than one response was received from a single institution.

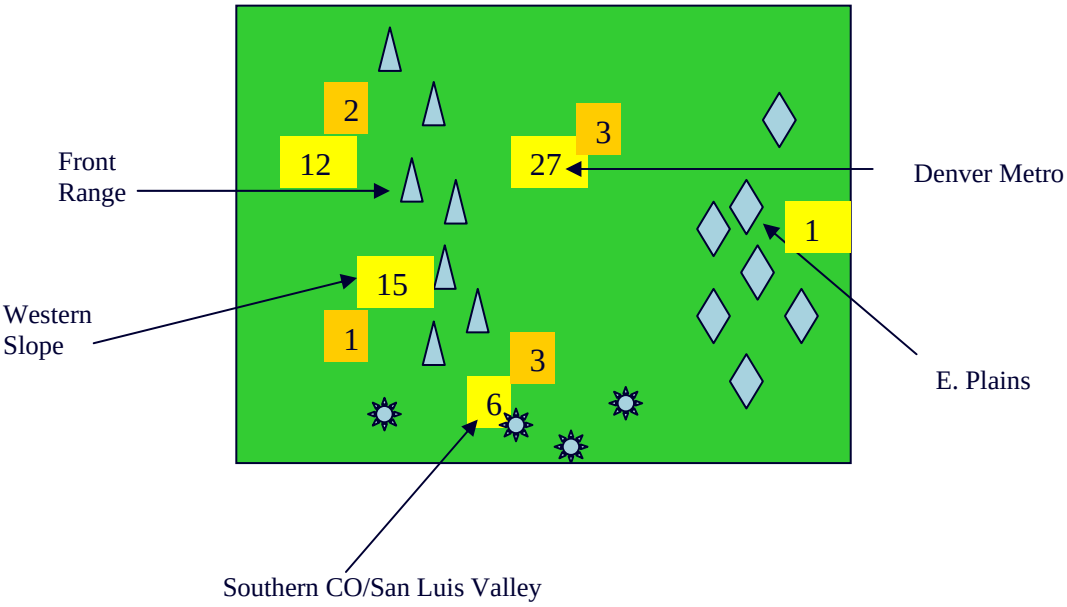
[2] See "Attachments" for PDF files that accompany this report.

FINDINGS
Demographics of Respondents

- **Employer Providers:**
  - 81 respondents.
  - Represented at least 25% of employed nurses across the state.
  - All major providers in the Denver Metro Area were represented.
- **Academic Providers:**
  - 10 respondents of 27 solicited.
  - Largest providers in the state were represented.
  - Respondents will graduate approximately 1,000 RNs annually.

Academic Respondents (orange)

Employer Respondents (yellow)



Types of Organizations: Employers

- 60 of 76 responding to this item were **inpatient hospitals** or ancillary functions (16) housed in inpatient hospitals (respondents could select more than one type of organization). These respondents employ more than 12,000 Colorado nurses.
- Second-most-common types of responders, in order, were: Hospice (15); Public/community organizations (14), and Home Health Agencies and Skilled Nursing Facilities (10); some of these are housed in inpatient hospital facilities.
- Also represented (less than 10% of respondents) were Ambulatory Care, Rehabilitative Care, Ambulatory Surgery, Specialty Hospitals, Assisted living, Long-

term Acute Care, School Districts, Senior Housing, Health Clinics, and Academic Tertiary sectors; some are housed in inpatient hospital's facilities.

Types of Organizations: Academic

- 2-year degree granting public organizations, 4 respondents
- 4-year degree granting public organizations, 3 respondents
- 4-year degree granting private organization, 1 respondent

Voice of the New Graduate (National data is so noted in reporting.)

- In this report the research of Kovner et al. (2007) is cited to provide this voice;
- Kovner surveyed 3,266 new graduates within 18 months of licensure;
- Results are applicable to national nursing populations.

Hiring Patterns and Trends

Employers prefer to hire RNs who are known to them in some capacity.

- 70% of employers report hiring from those who have been in "grow your own" programs or have a scholarship/payback commitment;
- 67% tend to hire new graduates from schools they know or with which they have agreements such as preceptorships;
- 58% often hire nurses with previous LPN experience;
- 43% hire nurses who have been "summer hires";
- 27% often hire BSN rather than ADN-prepared RNs even if both are available; *however 33% said they do not hire them regularly.*

Reasons for *not* hiring new graduates are multiple; our academic and employer respondents did not always cite the same reasons.

Patient outcomes are positively linked with higher proportions of BSN-prepared RNs (Aiken, 2003)

Reasons Applicant Not Hired Multiple responses permitted	Employer Opinion (73)	Academic Opinion (9)
Not enough jobs available/does not hire new RNs[3]	44%	66%
New graduate declines a job offer/does not find job match	27%	44%
Not enough mentors or experienced nurses to train them	21%	Repeatedly cited in open-ended comments
No job offers are made after interview	15%	0%
Nurse decides to go back to school in nursing or continue education	7%	44%
Geographic relocation		89%
Decides to continue education	7%	44%
Did not obtain license		44%[4]
Other	37%	0%

Nearly half of employer respondents said that lack of hiring was due to unavailability of jobs, often due to having met ratio requirements[5]; over one quarter of applicants declined a job offer.

"Other" reasons given by employers for not hiring included policies not to hire new graduates (common in Hospices); also, applicants may choose to go to another organization that comes closer to their career goals.

About 95% of new RN hires in Colorado graduated from Colorado academic institutions.

Nationally, 88% of new RN jobs are in hospitals; 7% are in ambulatory care.
(NCSBN 2004, cited in Kovner)

[3] Employers are constrained in hiring by policy ratios of new graduates to experienced nurses; some required a year of med-surg experience prior to hire
[4] Presumably, in a timely way (a problem mentioned in several in open-ended comments)
[5] Capacity of new graduates contrasted with experienced nurses available to mentor them

Schools of nursing help their graduates find jobs in various ways, including

- Job posting boards or list serv support
- Health career/job fairs with employers/recruiters
- Setting up internships or similar opportunities
- Career Services Offices
- Group advisement sessions

Schools also follow up on job placement in variable ways; response rates are given in parentheses if reported:

- "Required" questionnaire (100%)
- Telephone surveys (45%)
- Post graduation surveys (35%)
- Data collection companies
- Exit surveys
- Informal faculty contact
- Online alumni questionnaire
- Personal contact

Open Ended Comments: Summary

Positive Drivers or Factors Affecting Hiring or Retention of New Graduate Nurses

- Academic and employer partnerships
- Assistance with tuition, housing
- Leadership philosophies and work environment can be a draw
- Recognizing and rewarding experienced preceptors
- Simulation and learning labs are attractive to new nurses

Negative Drivers or Factors Affecting Hiring or Retention of New Graduate Nurses

- Fatigue of experienced preceptor
- Resources for training: clinical, people, $$
- Expectations/value differences between generations
- Employers and Schools of Nursing may be working toward incompatible goals
- Rural, LTC and Medical Surgical "specialties" limited
- "Lifestyle trumps everything" for newer nurses, including quality of work life

Retention of New Graduates

"Little is known about how long newly licensed RNs stay . . . or why they leave . . . better orientation and management may be the key [to retention]." (Kovner)

One in seven RNs leave the profession each year. (Williams, 2007)

Reasons New Graduates Leave a Position (multiple responses) (Number of responses in parens)	**Employer Opinion**	**Academic Opinion**	**New Graduate Nurse Findings** (Kovner)
Geographic relocation	42% (29)	22% (2)	25%
Goes to another job in nursing (outside your organization)	35% (24)	11% (1)	13% ~37% "ready to change jobs" ~49% not averse to leaving current employer ~10% planning to leave employer as soon as possible
Wants to better match nursing job desires	22% (15)		34%
Home/family needs conflict too much with job	20% (14)	66% (6)	25% Leave for partner's or own relocation
Insufficient flexibility in scheduling/dislikes shift work	17% (12)	56% (6)	
Nursing practice/career path not what was expected/wants nursing job outside direct care	16% (11)	100% (9)	37% Cite "stressful work"
Goes back to school in nursing	13% (9)	44% (from previous table)	
Conflict with direct supervisor or another manager/nurse to nurse or nurse to physician conflicts	1% (1)	56% (5)	41% leave first job due to "poor management" 62% report at least one instance of verbal abuse in the first year
Insufficient pay/benefits		55% (5)	85% view benefits as "somewhat" or "very" important
Does not see a career/future in nursing		44% (4)	41% "would go to another job" if they were "free to go" to "any type of job"
Other	see comments	see comments	47% My job is "much like the job I wanted"

It is generally recognized that some mobility is characteristic of the "new" workforce and sequential jobs is not unusual. In our sample, several employers noted that retention problems had to do with resource issues such as salary or cost of living, followed by a felt need to be in an organization that helped one's career along a desired path. Some (10) said that they did not hire new graduates. The following are verbatim.

Employers add that new RNs leave because:

- *The immediate desire to have a day shift position.*
- *After one year, eligible to travel.*
- *Hired into areas beyond capability without adequate support (CICU, OR).*

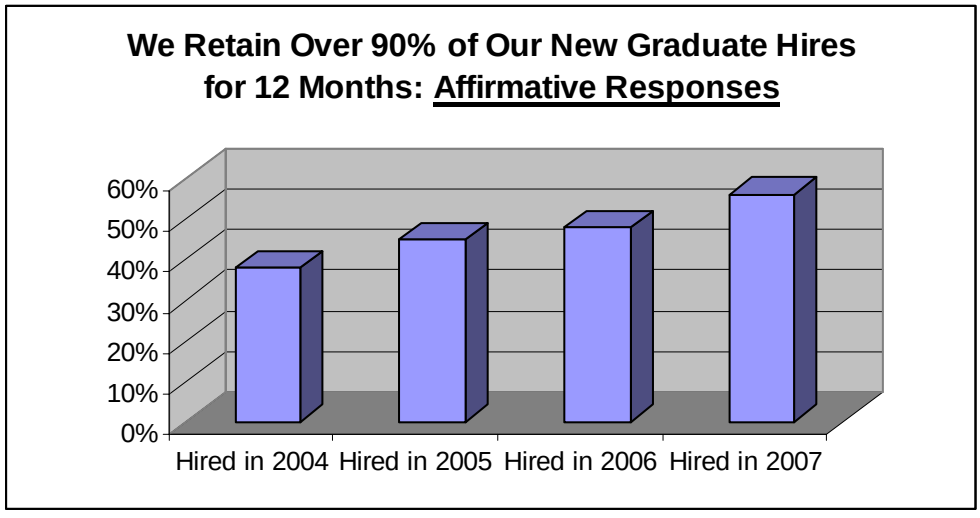
Academics add that new RNs leave because:

- *The job is too hard, with too little respect.*
- *Staffing ratios are grossly inadequate.*
- *Facilities put their resources into recruitment and do not pay attention to retaining experienced staff.*
- *Workplace environment and issues are big problem for many new nurses.*
- *Need more mentoring time and flexible schedules.*

New Graduate Nurse Researchers say:

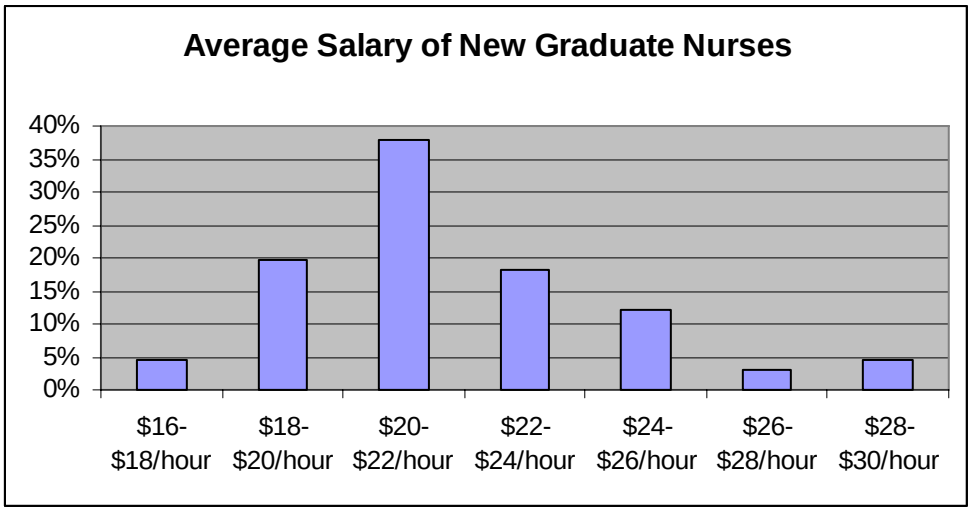
- *"Turnover is associated with empowerment, collegial support, including mentoring, having clinical partners, and having a preceptor; and comprehensive orientations."*
- *"Developing a sense of belonging and determining how they fit into the work group" are important*
- *"The complexity of the tasks they have to perform can be overwhelming."*
- *"[they] reported that the work was difficult . . . they experienced injuries and a substantial amount of verbal abuse [and] inadequate supplies and equipment."*
- *"Expectations of reducing turnover may be unrealistic. What may be more important is developing a realistic expectation of what turnover should be among newly licensed RNs, even when the employer is doing everything right."* (Kovner)

Only 20% of Colorado employer respondents indicate they retained new nurses hired in 2004 at the 80%-90% level. Note below that retention rates are increasing or projected to increase each year with an 18% increase over four years; however about a third of respondents skipped this item.



Salary

Current **new-RN** median income is $45,000 nationally while the US Department of Labor shows a Colorado 2006 mean salary for RNs **overall** of $58,620. Without overtime, Colorado new graduates, at $20/hour, would earn approximately $41,000, under the national average (additional income is likely due to overtime).



A near normal distribution (bell-shaped curve) can be derived from 66 Colorado employers who responded with salary data, with $20-$22/hour being the most frequent choice. Raises tend to occur at the one year mark with a few offering raises at the 3, 6, or 9 month mark. Nurses tend to work overtime, expanding their pay base; over 50% of new graduates accept voluntary overtime and 13%, mandatory overtime (Kovner).

Pay and benefits were cited by our respondents as one reason nurses leave their jobs or leave the profession.

How New RNs are Prepared: Curriculum

Exclusive to academic respondents is information regarding curriculum in preparing the new RN, and major areas of interest were in both clinical and transition to practice.

All academic respondents agreed that the following are *always* considered in developing curriculum:

- Student Feedback
- Faculty Review/Feedback
- Curriculum Committees
- Regulation Requirements

87% of academic respondents add:

- Documented changing needs in the profession
- Information/feedback from healthcare employers
- Employer/provider influence or requests

75% of respondents cited recommendations in journal articles or literature influence curriculum.

Regulatory caps on credit hours to graduation hamper academic curriculum development and suffocate impetus to change or expand core curricula.

Attrition is high among nursing students: Only 54% graduate (PwC, 2007); yet 147,000 applicants are denied admission annually because schools do not have faculty or facilities to educate them (National Public Radio, 2007).

How New RNs are Prepared: Employer Orientation

It is widely known that the effectiveness of proper clinical and classroom orientation can impact patient safety and help insure loyalty and affiliation among nurse populations. Several respondents noted that they did not hire new nurses, in part because of the expense of initial-year training.

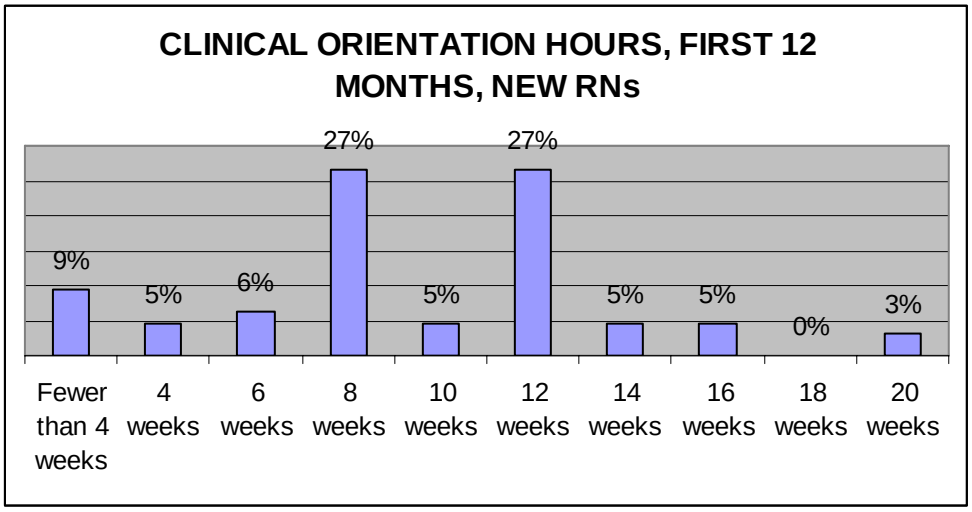
Average number of hours of *classroom* orientation new RNs receive after "all hire" orientation: 52; average *clinical* orientation: 8-12 weeks for Colorado respondents.

Open Ended Comments: Summary

Hospital Employers Feel Burden of New Graduate Transition Costs

- First year is resource-intense
- Reservoir of experienced nurses stretched
- Many jobs require one year medical-surgical
- They have the shortages or recruitment needs
- Providing clinical faculty support
- Increase in nursing school admissions means more new nurses to be transitioned to practice

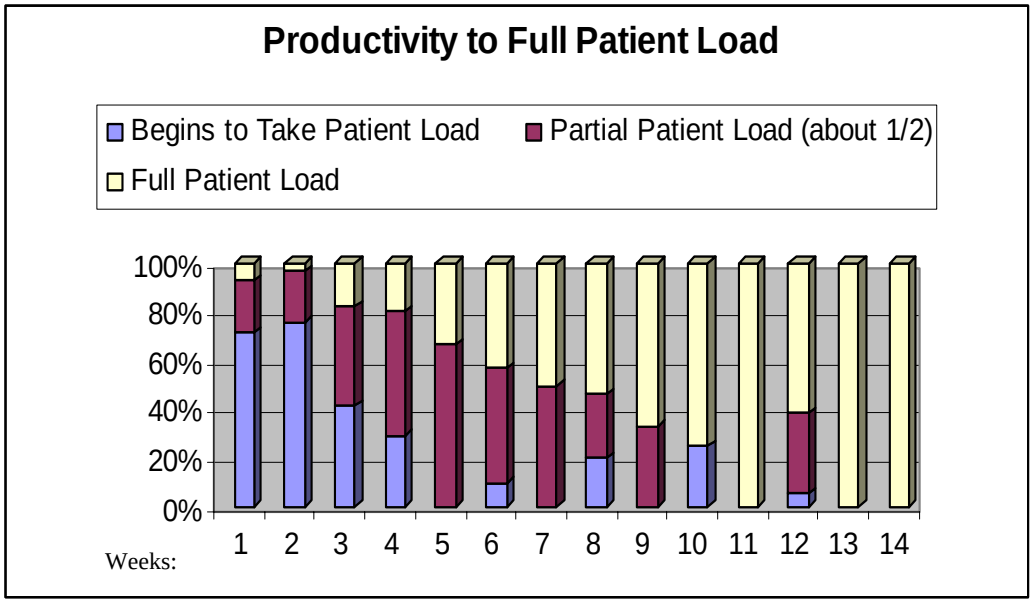
The resource and risk burden of new graduate on-the-job learning falls overwhelmingly on hospital employers and is rising. Some respondents suggest state or federal dollar support to defray. The med-surg "requirement" is challenged.



At what point new nurses can become productive and carry requisite numbers of patients and attendant duties? This may be a factor of classroom and clinical orientation; organizational policy; and organizational urgency.

Academic responders say new grads are ready to take a partial patient load. Employers see the time to productivity differently.

The following table represents 98% of those employers who responded (57).



Employers say:

- *Often, the ADN nurses have been LPNs and have much more clinical experience.*
- *The ADN is actually better prepared to take a full [patient load].*

10 ACADEMIC RESPONDERS		
New graduates . . .	**Agree**	**Somewhat Agree**
Are ready to perform well in most clinical settings.	6	4
Are ready to assume a partial patient load (up to 50% of a full patient load)	10	0
Need a thorough clinical orientation at their worksite to be able to perform	6	3
Need a period of mentorship with an experienced nurse or nurses prior to optimal performance	6	4
Should have clinical opportunities from employers (e.g., formal residencies)	6	2
Are ready for training in certain areas of clinical specialty	3	4

Nationally New Graduates have about five patients each at the beginning and 40% do not carry a full patient load; "the complexity of tasks they have to perform can be overwhelming . . ."(Kovner); in Denver CO only 4% were comfortable performing all procedures upon hire (Casey et al., 2004) and they carried 6-7 patients; most lack confidence in sharing data with physicians (Nursing Executive Center, 2002).

New graduates experience the following clinical development opportunities nationally (Kovner):

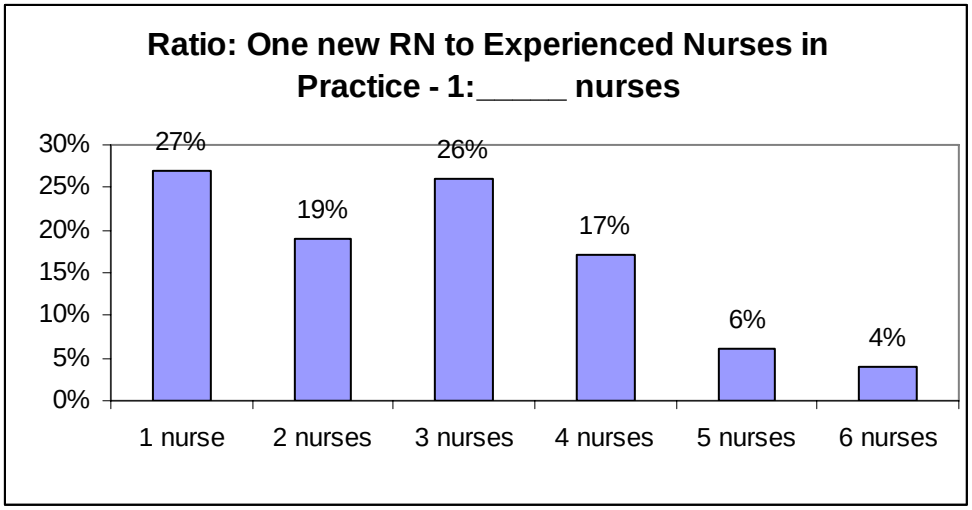
- Work with preceptor or mentor, 87%
- Supervised work with patients, 75%
- Classroom instruction/lab work, 68%
- Reduced workload, 43%
- Formal internship or residency, 21%

But, 6% have no formal orientation at all and 20% are not oriented to policy/procedures.

Fifty-four Colorado employer respondents indicated different ratios of new to experienced nurses, having implications for the orientation and onboarding experience of the new graduate and probable influence on retention.

Employer orientation and training for BSN and ADN nurses are nearly the same; sometimes, it is individualized.

Additionally, national figures cite that some 13% of new graduates "never" are shown how to work successfully within an organization, and 28% said "seldom" to his question; mentors were cited as being available "sometime" overall.



Open Ended Comments: Summary

Biggest Barriers to Clinical Practice Training

- Insufficient numbers of experienced preceptors and preceptor fatigue
- Expectations of "one year in medical surgical nursing influences demand and turnover"
- Lack of agreed upon standards for new graduate transition programs
- Lack of infrastructure: funds, experts, programs
- Tension between productivity expectations and training requirements

AREAS OF CLINICAL PRACTICE

Respondents were asked to rank organizational needs in Areas of Clinical Practice according to the anchors of High, Emerging and Low Priority or "not/applicable". They were offered these areas from which to choose:

- Ambulatory Care
- Community Health
- Critical Care
- ER
- Float/Floor Pool
- Geriatrics
- Home Care/Hospice
- LTAC/Long Term care
- Med/Surg
- Neonatal
- Perioperative/OR/ Recovery
- Oncology
- OB/GYN/L&D
- PACU
- Pediatrics
- Psych/Mental Health
- Public Health
- Rehab

AREAS OF CLINICAL PRACTICE: NEEDS AND PRIORITIES TOP FIVE AREAS

COLORADO EMPLOYERS		COLORADO ACADEMIC INSTITUTIONS			PLACEMENT of NEW GRADUATE NURSES[6]
Employer Highest Priority[7]	**Employer Emerging Priority**	**Academic: Most Requested by Students (5 point scale)**	**Academic: Offered in Core Curriculum[8]**	**Academic: 40% Plan to Offer in Next 3 Years**	**National Figures**
52% Med/Surg *39% Critical Care* *37% Periop/ Recovery 34% ER 25% Float/Floor Pool	31% Geriatrics; 30%PACU 29%ER 26% Critical Care 22% each: Surg, Periop/OR/ Recovery; Pediatrics; Ob/Gyn/L&D	4.38Critical Care 3.17ER 3.43Med Surg 3.44Ob/Gyn/L&D 2.5 Pediatrics	100%Quality/safety 83%Community Health 83%Ob/Gyn/L&D 80%Geriatrics 81%Pediatrics 77%Med/Surg	Geriatrics; Med/Surg; Ob/Gyn/L&D; Oncology; Pediatrics; Psych/Mental /Health	92% Hospital "staff nurses" ---------- 36% "General" 16%ICU 10% Step down, traditional beds 7% ED 5% Labor/delivery 3% Nursing Home 3% OR

* The two highest-need areas cited in a 2007 study confirms this priority (The Center for Nursing Excellence)

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[6] National Actual Placement (Kovner, 2007)

[7] Of non-hospital employers, a pattern was seen according to areas of practice; for example, a high or emerging needs in Geriatrics was cited by Hospices. Because these are minority and expected results, they are not detailed here.

[8] Almost all areas were taught in at least one school in undergraduate, post-licensure, graduate, or special programs. Special programs such as externships or internships showed over 50% of respondents providing training in the areas of Rehab. PACU, Oncology, Home Care/Hospice.

Employers say:

- *Over 40% of employers said the following areas were **not** a good area for new graduates to enter: Ambulatory Care, Community Health, Float/Floor Pool, Home Care/Hospice; Neonatal. Also cited were critical care, ER, LTAC/Long Term Care, Oncology, and Psych/Mental Health.*
- *Lowest need areas for RNs now are, in order, Pediatrics, Oncology, Psych/Mental Health, Geriatrics, and Community Health. This finding is likely influenced by the predominant number of hospitals that responded to the survey.*
- *Respondents who are not hospital based tended to cite higher needs in their own areas of specialty practice such as community health and geriatrics. The "low" need in pediatrics overall may be due to the specialty hospital provider in pediatrics in the Denver Metro Area (who cited higher needs).*

EMPLOYERS: TRAINING IN AREAS OF CLINICAL PRACTICE – TOP FIVE	
Currently Train in this Area	**Plan to Train Within Three Years**
93%Med/Surg	30% PACU
79% Geriatrics	28% Public Health
74% Rehab	25% Neonatal
71% LTAC/Long Term Care	22% Pediatrics
59% Pediatrics	22% Perioperative/Recovery
59% Psych/Mental Health	22% OB/GYN/L&D

BARRIERS TO PROVIDING TRAINING IN AREAS OF CLINICAL PRACTICE		
Reason:	**Employer Respondents**	**Academic Respondents**
Limited teaching resources	57%	78%
Competing clinical priorities for training time	49%	67%
Insufficient facility resources	48%	78%
Not enough dollar resources	49%	67%

Employers say:

- *Some units have up to . . . 60% [of nurses with] less than 2 years experience, so we try not to hire NGs [new graduates] on that shift.*
- *Limited number of experienced RNs*
- *[Challenge is] maintaining an appropriate RN experience mix.*
- *Because of our need for nurses in our institution and the inability to hire pool nurses or to obtain agency or traveler assistance until our new graduates are oriented, our regular nursing staff is "stretched" caring for patients.*
- *Limited staff availability to provide education/training, as a focus of their job.*

Rural Employers say:

- *Being a small hospital, what comes in the door is what you are trained in.*
- *Limited volumes for training to specialty areas, we send to tertiary centers for best experience (volume and exposure) in a shorter time.*
- *Have more limited resources, and we are down some clinical educators as well.*
- *Limited clinicals for practical nursing students [and] we rarely have RN students from any level, due to our rural location.*
- *Too many schools/students requesting clinical placement for the size of institution.*

Academics say:

- *Resources are the biggest barrier to providing training in clinical practice areas*
  - *57% Limited teaching resources*
  - *48% Insufficient facility resources*
  - *49% Not enough dollar resources*
- *Also cited are (49%) competing priorities for training time.*
- *Many note that regulatory restrictions on number of credit hours are a severe limitation.*
- *Deemed inappropriate for new graduates, in order, are Rehab, Home Care/Hospice, PACU or Oncology, and Neonatal.*
- *Most believe employers should offer clinical experiences as a continuation to undergraduate education.*

Respondents overall provided commentary on overcoming barriers to training and onboarding.

Open-ended Comments: Summary

How to Overcome Barriers

- Retain experienced staff
- Increase resources and infrastructure
- Reimbursement or funding for: preceptors, clinical scholars, residency
- Rural experience could be heightened: "everything is even less and need is more"
- Know and apply the evidence that is available
- Provide opportunities for greater clinical experiences and incorporate safety, regulatory and quality content into curriculum
- "We need to screen applicants for nursing school more appropriately"
- "Do we know what a novice nurse needs?"
- Innovative use of technology and geographic partnerships (i.e., simulation and Wells Center)

Conclusion

This study yields current expert opinion and information on preparing and supporting the newly graduated RN into the profession in ways that can help ensure better retention and quality of working life. Additionally, it supports stronger collaboration among academic, employer, and regulatory stakeholders in enabling the new RN to experience sufficient clinical preparation for quality care and patient outcomes. Also, it establishes a foundation for more rapidly tracking new RNs into areas of clinical practice.

The implications of this study can be found in the Abstract and Implications, beginning on page 3 of this report.

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Partnering in this study to access the correct populations to invite as survey respondents was broad and provided inroads into hundreds of potential respondents.

- **Colorado Association of Homes and Services for the Aging** (CAHSA**)** - 250 member organizations including nursing facilities, retirement communities, independent living, HUD housing, adult day and other community-based services
- **Colorado Health and Hospital Association** - 84 member hospital and healthcare facilities
- **Colorado Health Care Association** (CHCA) – representing 90% of Colorado's nursing homes and many assisted living care facilities; 154 members
- **Colorado Homecare Association** - Homecare Association of Colorado at least 87 homecare members
- **Colorado Hospice Organization** - 39 provider members
- **Colorado Organization of Nurse Leaders** - 104 members of varying levels of leadership in nursing in the State of Colorado

- **Colorado Schools of Nursing** - The Colorado State Board of Nursing recognizes 21 Approved ADN programs in nursing and 10 BSN programs in Professional Nursing; 27 institutions were invited to participate.

Survey Distribution Facilitation

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Amber Galloway	Kristy Reuss	Kris Wenzel

27 degree-granting Academic institutions in the state were invited to participate; to those who responded we acknowledge with our appreciation.

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ATTACHMENTS in Separate Files:
Summary of Relevant Literature and References
Full Text: Surveys