



When Supply Fails Demand, a Patient Care Catastrophe Looms

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AQ1 **T**HE UNITED STATES is in the midst of a national patient care cataclysm, due to both a nursing shortage and a patient care supply spike: that is, fewer people are entering and staying in hospital nursing, while the need for healthcare services is increasing exponentially.¹ Forecasts of a critical and exacerbating nursing shortage are not new, and although nursing school enrollments are up, over 30,000 qualified applicants were turned away last year. Considering that there is a 7.9% increase in the number of registered nurses,¹ nursing school enrollments (future RN supply) suggest a potential easing of the hospital nursing shortage. Yet, as noted by the American Association of the Colleges of Nursing (AACN), “the increase is insufficient to meet the demand for nurses.”² Further to the point, Robert Rosseter, AACN Director of Public Relations, stated that “to possibly stem the nursing shortage, nursing school enrollments would need to increase 40% a year over the next 10 years.”³ Also, the AACN and Buerhaus and

coworkers note that new data confirms the nursing shortage criticality and that nurse staffing will continue to be a major healthcare problem in the future.^{3,4}

According to Moody, Standard & Poor’s (S&P), and Fitch Reports (the “triad” of financial research and analysis firms), the US Healthcare Environment in 2006 through 2011 and thereafter will have increased volumes due to the aging population. This population is composed of 78 million baby boomers, who began turning 50 every 7.6 seconds in 1996 and who will begin turning 65 in 2011.⁵ Further, these triad firms forecast improved revenue cycle and supply chain management, access to capital for some hospitals, stronger physician hospital relationships, expansion of profitable service lines, and increasing market shares.

On the negative side, the triad reports an environment that will have lower Medicare and Medicaid reimbursements and a critical shortage of nurses.⁶ According to the US Bureau of Labor Statistics, the United States

lost 494,726 nurses in the period 2002 to 2005. It is now also projecting a shortage of physicians. In addition, the triad forecasts that hospitals will exhibit rising costs largely due to the use of contract nurses (wherein hospitals spend 7.1% to 12.7% of payroll on contract nurses, representing as much as twofold the cost of a regularly employed staff nurse);^{7,8} the dramatic increases in utilities and drugs costs; the higher cost of malpractice; and the rising competition from outpatient centers (which now surpasses the number of hospitals)^{9,10} and the increasing "Tax-Exempt Status" scrutiny from the Internal Revenue Service.¹¹

Add to this picture the growing state scrutiny on the issue of RN staffing ratios, which is exacerbated by the litigation brought by the American Nurses Association (ANA) against the US Department of Health and Human Services (HHS). The ANA suit alleges that HHS has failed to enforce Medicare and Medicaid's RN staffing regulations. Also, the ANA states that the "Joint Commission on Accreditation of Healthcare Organizations (JCAHO) has lowered the required standards from the Medicare and Medicaid regulations because JCAHO doesn't require hospitals to staff enough RNs to guarantee "immediate RN availability" and doesn't hold hospitals to the federal standard requiring staffing schedules to meet patient-care needs and to adjust for RN absenteeism."¹² The suit would require HHS to ensure JCAHO-certified hospitals to meet the HHS standard...ergo national staffing ratios.

In this environment, the 2005 healthcare consumer price index was 6.3%, with a national health expenditure of \$2077.5 billion, exhibiting a national health cost per capita of \$6830.¹³ Within this panorama, Bank of America and the S&P forecast hospitals "to exhibit slowly declining pricing and higher bad debt over the next 12 or more months". Overall there is a "relatively bearish" outlook for the industry, which is "decidedly negative, and will continue for 2006 and 2007-08".¹⁴

Within this context, the healthcare universe, composed of 875,785 beds having an average length of stay of 5.6 days, with rising ED visits, and flattening admissions,¹⁵ will see much structural change and expansion, with CMS reporting a need for 18% more beds by 2012. During this same period, the nursing shortage will reach 29% (1,200,000 nurses), while the demand will increase to 43%.¹⁵

Within this topography, NSI Nursing Solutions, Inc. performed a comprehensive national nursing supply and demand and institutional impact survey that was sent to 2995 institutions in 2006. Overall, 37% (1108) of the hospitals responded. The survey details are reported on the NSI website in five parts: (1) A Nursing Emergency: Impact of the Nursing Shortage on Hospitals, Recruiting and Staffing Strategies and Their Effectiveness Measurements; (2) Healthcare Financial Management: Healthcare Economics, Turnover and Cost; (3) Top CEO Challenges: Reducing Cost of RN Labor, Cost of Contract RN Labor and

Cost per RN Hire; (4) Dimensions of RN Burnout; and (5) Tomorrow-Scan 2007 "It's Getting Worse". Detail survey reports are available at: http://www.nsinursingsolutions.com/surveys_and_reports.html

This paper will provide survey data on the nurse supply and demand gap and discuss how effective hospitals consider their strategies to be. Survey responses fell into eight general categories: (1) CEO Priorities; (2) The Impact of the Nursing Shortage on Hospitals; (3) Vacancies; (4) Recruiting Strategies and Effectiveness (comparing high-volume US nurse recruiting to other approaches); (5) Foreign Recruitment; (6) Staffing Strategies and Effectiveness; (7) Strategy Measurements; and (8) Turnover.

CEO Priorities

This is an atmosphere raising financial concern, with 32% of the hospitals in the red,¹³ all of which explains the "CEO Surveyed Priorities" for 2006 and 2007:¹⁶

1. Financial challenges (Medicare, Medicare, bad debt)	73%
2. Shortage of RNs and talent competition	65%
3. Care for the uninsured	58%
4. Increasing return on investment and revenue cycle management	58%
5. Reducing costs (excess travel/agency nurse costs)	55%
6. Employee retention	57%
7. Increasing recruitment speed	45%

The Impact of the Nursing Shortage on Hospitals

Considering the healthcare environment holistically, hospitals are using an assortment of short-term and long-term strategies to deal with vacancies, the nursing shortage, recruiting, staffing, turnover, retention and the financial implications of all of them. The short-term reported strategies include nurse education, competitive compensation, foreign recruiting and contract (travel or agency nurses) staff, and sign-on bonuses. Respondents (8%) indicated that these activities, in conjunction with other factors have helped, although barely, in reducing vacancies in their hospitals (2006). However, these tactics have elevated costs and raised concerns about the probable impact on care. With 78% of respondents reporting that the shortages had become more severe, creating a nurse recruitment difficulty rating of 84.6%,¹⁷ there is a high degree of doubt regarding the ability to meet future staffing needs."¹⁸

The longer-term strategies included nursing educational financial support, career development, and the changing of work loads and the work environment. Given the shortage persists, experts suggest that the typical short-term solutions will not solve the long-term needs and will even adversely affect them (Table 1).¹⁹

The impact of this nursing shortage is clear and is further exacerbated when noting the adverse impact it will have on patients and the added stress that it places on

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Table 1. Surveyed Impact of the Nursing Shortage on Institutions

Impact Category	Respondents
Elevated RN cost of labor	84%
Increased RN turnover rate	81%
Negative impact on profitability	77%
RN contract labor	66%
Emergency department overcrowding	49%
Increased customer complaints	38%
Elevated call-outs	31%
Diversion	25%
Redistribution of work loads	22%
Older RNs could mean reduced productivity (Average age 48)	22%
Increased patient-to-staff ratios	21%
Delayed opening of new expansion beds	21%
Elevated incident rates	21%
Closed beds due to lack of staffing	21%
Elevated wait time	17%
Closed nursing units	13%
Cancelled electives	13%
Closed operating rooms	11%
Deferred capital expansion	4%

Data from Claw K, Colosi M (2007).²⁰

nurses, thus causing burnout.²⁰ Although a few studies have quantified the impact of the RN shortage with adverse patient outcomes, the *New England Journal of Medicine* reported²¹ that higher RN hours were associated with lower lengths-of-stay, and with improved patient outcomes in numerous specific categories. Another study determined that each additional patient in excess of a patient-to-nurse ratio of 4:1 was associated with a 7% increase in the likelihood of the patient dying within 30 days of admission.²² The implication is clear: high patient-to-nurse ratios will adversely affect patients and costs and are caused by the nursing shortage. In addition, these ratios will worsen the nursing shortage by leading to burnout and job dissatisfaction.²²

Hospital Vacancy Rates

Hospitals facing these impacts continue to establish strategies to respond to the nursing shortage. Many hospitals, including nine organizations with Magnet status, reported rising vacancies:^{23,24}

- 2% reported a vacancy rate to 8% vacancy.
- 17% reported a vacancy rate of 9% to 11%
- 44% reported an average vacancy rate of 12% to 14%
- 10% reported an elevated vacancy rate of 15% to 19%
- 13% reported a high vacancy rate of 20% to 25%
- 11% reported a very high rate of 26% to 49%
- 3% reported a severe vacancy rate of 50% or more

On a national basis, the reported vacancy rate for 2006 is estimated at above 8.1% and growing to over

Table 2. Surveyed Recruiting Strategies Utilized and Their Effectiveness

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Strategy	Utilization Frequency	Effectiveness Ratio
Newspaper advertising	97%	9%
Job fairs	79%	6%
Internet postings	81%	9%
Professional journals	73%	11%
Enhanced benefits	76%	52%
Travel/agency staff	67%	21%
Foreign recruitment	21%	7%
High-volume US nurse	4%	95%
Recruiting firms	59%	33%
Referral bonuses	59%	17%
Sign-on bonuses	41%	12%
Direct mail	32%	2%
Radio/TV ads	12%	0%
Billboards and theater advertising	9%	1%

12% in 2008 and to more than 15% in 2010.¹³ Current reported vacancies range from 7.4% to 24.1%.¹⁷ The vacancy rate reported for medical/surgical was 11.7% to 24.1%; for ICU/CCU 9.8% to 21.9%; and for ED/OR 7.3% to 20%.²⁵ This survey report confirms the VHA report projections noted in "A Business Case for Workforce Stability."²⁶

Although many hospitals are aiming at recruiting and staffing improvements, concern for the nursing shortage is widespread. Hospitals expect increasing pressure and fear that current efforts will be dramatically insufficient to meet future staffing needs. This concern is further exacerbated by hospital capacity expansions requiring more nursing staff that are under way in many markets.

Recruiting Strategies and Their Effectiveness

Hospitals' recruiting and staffing strategies bring cost, access, and quality consequences for the health care system and could have greater cost implication in the future.²⁰ Assuming that the hospital is market competitive in terms of salary and benefits, the recruiting strategies and their effectiveness are listed in Table 2.

Sixty-one percent of respondents reported an annual applicant flow range of 92 to 983 experienced nurses; 63% an average annual applicant flow of 428 nurses; and 49% a decrease in RN applicant flow from the prior year of 1% to 7.8%.²³ Fifty-three percent reported sizable financial costs associated with their recruiting strategies, with a dramatic increase in cost per RN hire. High costs and poor effectiveness were most often attributed to the use of travel or temporary nurses and to the use of sign-on bonuses. Further, an Institute of Medicine (IOM) report concluded that "the hospital environment where nurses work is a breeding ground for errors and will continue to threaten patient safety..."

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Table 3. Surveyed Staffing Strategies Utilized and Their Effectiveness

Strategy	Utilization Frequency	Effectiveness Rating	Cost Impact of Salary
Overtime*	92%	40%	≤ 173%
In-house pools	53%	31%	≤155%
On-call staff	43%	17%	≤ 180%
Flex scheduling	71%	73%	
Self scheduling	73%	75%	
Float pools	69%	39%	145% —190%
Contract nurses†	67%	21%	
Multi-area differential	22%	26%	5% — 20%
Self contained groups	31%	34%	
System rotation	13%	31%	
Parent scheduling	23%	31%	
Schedule surfing	11%	36%	
Retiree pull-backs	7%	5%	
Shift bidding	9%	13%	≤165%

AQ9 * Note: Aiken (2002) showed that RNs working 12.5+ hours were three times more likely to commit errors than RNs working less than 8.5 hours. †Temporary RN Workforce Commitment Index is 73.1, while the permanent RN WCI is 88.4. Scores above 100 indicate higher commitment.

Among IOM recommendations was that “...Healthcare facilities should avoid using nurses from temporary agencies.”²⁷

The expenses in other recruiting strategies, such as newspaper advertising, direct mail, and foreign recruitment also involved sizable costs and reflected poor effectiveness. Of our respondents, 19.3% expressed optimism over the use of high-volume US nurse recruitment firms because the return on these investments averaged \$3,108,500 and could be recouped in a matter of weeks. They hoped that such a strategy would have a sustained longer-term impact on staffing levels, which would then diminish reliance on travel or temporary nurses. Hospitals (4%) using high-volume US nurse recruiting reported a

AQ10 95% effectiveness rating.²³

The statement, “Hospitals are failing to realize profit potential due to overemphasis on budgets and costs,” elicited agreement from 56% of the respondents, while 89% of respondents agreed to the follow-up question, “Should emphasis be on profitability & ROI?”¹⁶ An analysis of the cost per RN hire elicited surprising results that are provided in two steps:²⁸

- *Step 1: Direct Recruitment Campaign Only:* includes media advertisement, journals, fairs, mailings (\$4328), interview travel (\$200), relocation (\$3500), and so forth. If not successful....
- *Step 2: Additional Recruitment Campaign:* includes employment agency fees (\$14,250 to \$19,140), sign-on bonuses (\$5,000), and so forth
- *The Total Cost per RN Hire:* \$27,278 to \$32,168. The total cost excludes travel and temporary agency costs and overtime incentives or overtime costs, cost of turnover, and the soft dollar costs (ie, orientation, process, preceptor and training costs, and lost intellectual capital, and so forth)

Foreign Recruitment

Although 21% of the respondents indicated that they are, were, or will use foreign recruitment strategies, only 7% indicated that it was an effective strategy. Survey respondents also reported:²³

- Foreign nurse applicant flow/hospital/trip: 75 to 223 RNs
- Foreign nurse interview-to-offer rate: 23%
- Foreign nurse time-to-fill: 18 to 30 months
- Foreign nurses taking US licensing exam: 67% failure rate
- Foreign nurse start rate (actually report for work): 9% to 27%

It is important to consider that under the new Department of Homeland Security (DHS) rules, foreign nurses working on temporary visas must meet permanent visa requirements, and DHS limits the number of visas granted. Therefore it could now take 16 to 30 months to get foreign nurses into a hospital. The average reported (21%) foreign nurse show rate was reported at 10% of the number hired.²³

Staffing Strategies and Their Effectiveness²⁰

Although respondents did not report any major impact on access to care as a result of staffing shortages, hospital operations have been affected. Three percent of respondents reported limiting capacity or patient volume because of inadequate staffing, two percent reported increased nurse workloads, and 71% increased overtime due to the nursing shortage. Responses are detailed in Table 3.

Hospitals also reported (53%) significant expenses associated with their staffing strategies. High costs were most often attributed to the use of contract nurses and increased overtime. Investment in other staffing

Table 4. Comparison of Five Recruiting and Staffing Strategies

Criteria	Per Diem Nurse Firms	Travel Nurse Firms	High-Volume U.S. Recruiting Firms	Foreign Recruiting Firms	Hospital Pool or its Agency
Lead Time	2 weeks	3 to 5 weeks	3 to 7 days	2 to 3 months	1 to 2 Days
Recruiting Geography	Local	National	Continental U.S. Only	International	Local
Applicant Flow	LOW	50 to 1001 Data Based focus	860 per client within 15 to 331 days	50 to 600 RNs Over months	492 nurses over a year
Screening	In-Person Data Base	Phone Data Base	Phone, In-Person, Data Base	In-Person	In-Person
Interview Referral to Offer Rate	POOR 10% to 15%	FAIR 40% to 60%	VERY GOOD 75% to 95%	GOOD 55% to 70%1	GOOD
U.S. Experience	6 Years	8 Years	13 Years	NONE to LOW	10 Years
Time to Fill	2 to 3 weeks	6 to 8 weeks	26 to 331 days	16 to 30 months	Mostly Internal Transfers
Start Rate	POOR 35%	GOOD 60%	VERY GOOD 80%1	VERY POOR 10% to 15%	GOOD
Turnover Rate	HIGH Per Assignment	LOW 4.9% First Year Annualized	LOW First 2 Years	LOW First 2 Years	Within Hospital Average
ROI	NONE Cost 150% to 250%1 of Employed RN	\$3,108,500 Net of Replacement RN Cost	NONE	NONE	NONE Cost 1.20%1
Cost Impact of Bad Hire or No Show	MEDIUM Added Labor Costs, Overtime and Lost Revenues,	HIGH	LOW Guaranteed U.S. Nurse Replacement	VERY BAD Lost Revenues, Added Labor Costs	SMALL Added Overtime & Per Diem RNs
Cost per RN Hire Range	NATIONAL 2006 RN SURVEY Step 1. HR Direct Recruiting: Advertisement, Journals, Fairs, Mailings (\$4,328), Interview Travel (\$200), Relocation (\$3,500), etc. Step 2. HR Additional Recruiting: Employment Agency Fees (\$14,250 to \$19,140), Sign-On Bonuses (\$5,000), etc. The Total Cost per RN Hire ranges: \$27,278 to \$32,168				

strategies, such as older worker schedules, retiree pull-backs, and segmented benefits, also involved sizable costs, but a number of respondents (3%) expressed optimism about the future return on these investments. Namely, they hoped that such strategies will have a sustained long-term impact on staffing levels, which will diminish future reliance on temporary nurses and salary increases. Efforts that improve nurse retention might also result in future cost savings through reduced nurse turnover.²⁹

Recruiting and Staffing Strategies Can Be Measured for Effectiveness

Human resources and nurse recruiting dash boards should be created to evaluate the performance of recruiting and staffing strategies (Table 4). Considering the fiscal impact on costs and revenues, the performance may

be tracked against industry or best practice standards (where available). Strategies may be measured against:

- Applicant flows and interview-to-offer (and acceptance) rate
- Average experience of the hired nurse
- Time-to-fill and cost per RN hire
- Bottom line improvements against the excess cost of contract nurses

The survey respondents indicated a national average RN applicant flow of 428 nurses annually, with an interview-to-offer rate of 66% and an average RN experience of over 6 years. The respondents also reported²³ the time-to-fill by specialty:

- | | |
|-----------------------|------------|
| • Medical/surgical | 111.2 days |
| • Step-down/telemetry | 116.4 days |
| • ICU/CCU | 117.7 days |
| • ED/OR | 116.5 days |

The respondents also reported an RN average time-to-fill at a 13.9% vacancy rate of 113.1 days with a range of 61 to 149 days and at 8% at over 73 days and a range of 61.2 to 108 days (Magnet hospitals fell in this category). On a regional basis the respondents reported²³ a time to fill as follows:

- West 59 to 203 days
- South 84 to 152 days
- Southeast 73 to 145 days
- Midwest 34 to 96 days
- Northeast 61 to 158 days
- Southwest 95 to 206 days
- West 57 to 223 days

Nurse Turnover

Although the national turnover rate is 21.1%, the surveyed respondents reported¹⁷ an average 22% turnover rate, with a range of 6.3% to 27.5%. The respondents also reported³⁰ turnover by specialty as follows:

- Medical/surgical 22.8%
- ICU 19.8%
- ER/OR 18.9%

Irrespective of the type of turnover, the cost of turnover is conservatively estimated at 100% to 200% of the RN's salary.³¹ Turnover costs can consume considerable resources; are staggering; and may also include lost intellectual capital, lost efficiency (productivity) capital, terminal payouts, overtime, closed beds, cancelled surgeries, untimely opened new expansion beds, hiring costs (cost-per RN hire, training costs, and so forth).

The 2006 cost of turnover ranges from \$58,470 to \$116,940 per nurse, and, with a national turnover rate of 21.1%, it could cost the industry as much as \$15.962 billion. To put this into perspective, "if some of this money (\$6.4 Billion) could have been used to hire more nurses, increase nurses' salaries, and improve working conditions" or "if that money had been paid exclusively as bonuses to the RNs employed in those units, they each would have received \$13,000."^{29,32,33} In a more practical scenario, a hospital employing 500 experienced nurses, assuming this 21.1% turnover rate and a salary of \$58,470, would experience a cost of turnover of \$6,168,585. Imagine—retaining just 10% of those nurses could save the hospital \$616,859.

Although a few studies have quantified the impact of RN staffing with turnover costs, a study by VHA clearly shows that the cost of turnover is dramatic. This VHA report²⁶ indicates that a hospital "with a turnover rate of 20% with 600 nurses will spend \$5.52 million to fill those vacancies" and "if the turnover rates were dropped by a mere 5%, the savings would be \$1.38 million a year" or "with a turnover rate of 22%+, they had a 36% increase in the cost per adjusted patient discharge. This cost was \$7190 per adjusted discharge with a 17% cash flow margin and 17% return on assets" or "with a turnover rate of 4% to 12%, their cost per adjusted discharge was \$5268 and had a cash flow margin of 22%

Table 5. Catalysts of RN Turnover

Category	Reason
Work load / Staffing:	93%
Peer & Nurse Manager Relationships:	83%
If Pay is Not Competitive:	98%
With Competitive Pay, but Better Pay elsewhere:	44%
More Flexible Scheduling elsewhere:	83%
Better Employer Reputation / Image elsewhere:	83%
Better Career Opportunities elsewhere:	43%
Increased Market Demand:	33%
Better Benefits elsewhere:	69%
More Desirable Work Culture elsewhere:	81%
Poor Nurse Management Skills:	56%

and an return on assets of 23%" or "with a turnover rate of 12% to 21%, their cost per adjusted discharge was \$6120 and had a cash flow margin of 18% and a return on assets of 19%".

A key question then becomes ... "What are the catalysts of RN turnover?" Responses were based on the assumption that salaries and benefits are market competitive (Table 5).²³

Weather Forecast

"Though nursing school enrollments are moving in the right direction, we are far from satisfying the demand for nursing care in this country. The most recent projections from the US Bureau of Labor Statistics indicate that one million new and replacement nurses will be needed by the year 2010", explained AACN's, Executive Director Geraldine Bednash, PhD, RN, FAAN. Further, surveys and studies published this year in the Fitch Reports, Moody's, the S&P, the New England Journal of Medicine, the Journal of the American Medical Association, JONA, and by the JCAHO all confirm that the shortage of registered nurses is impacting the delivery of health care in the United States and is negatively affecting patient outcomes and hospital bottom lines.

According to Fitch Reports, "Hospitals are focusing on quality strategies, clinical staffing (nursing), and information technology investments to achieve improvements as regulators, third-party payers, and consumers increasingly seek to tie performance to reimbursement". Moody's added that "a strategy focused on quality affects all hospital operations, especially staffing. Many teams have cited the need to change paradigms, especially those that emphasis a cost-based decision-tree, rather than one focused on a return on investment foundation, and to recreate the operating culture of the organization to be successful." This change and organizational shift is required, especially in light of a recent Press Ganey satisfaction report that indicates that "executives may be losing touch with nurses, etc."³⁴

The Nursing Shortage Affects Patient Care Which Effect Profits

Considering that the shortage of nurses in 2006 and 2007 may range from 168,387 to over 375,215 and is being exacerbated by HHS regulations that impose the staffing ratio requirements in the Medicare and Medicaid regulations coupled with JCAHO stressing staffing (as noted in the JCAHO's increase of 6.7% in the number of requirements for improvement), hospitals need to reflect on creative, measurable recruiting, staffing, and retention strategies.

The prevalent recruiting and staffing strategy that depends on diverting, closing beds, or using excess overtime and contract nurses is expensive and unnecessary. From the revenue side, hospitals diverting or unable to keep open one bed or to timely open one new expansion bed could lose \$547,500 to \$730,000 per bed per year in revenues. From the expense side, the cost of contract nurses ranges from \$114,400 (\$55/hour) to \$156,000 (\$75/hour) per nurse per year,³⁵ while the cost of an employed nurse based on the national average salary of \$58,470, would reflect an excess cost to the hospital (net of nurse replacement costs of salaries and benefits) of \$41,313 to \$97,530 per nurse per year. For example, by extension, for every 25 experienced US nurses employed by the hospital, the hospital saves and improves its bottom line by \$1,032,825 to \$2,438,250.

A key issue is that of management's philosophy toward nurses and that is... "are they cost or are they revenue generators?" According to HFMA, nurses are regarded as revenue generators and may generate \$250,000 to \$300,000 in revenues per nurse per year.³⁶ So, the question is never cost, but rather the patient care, the bottom line, the return on investment, the speed to hire, the ratio of interview to hire, the experience level, and the attending quality of patient care.

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Conclusion

Finally, with the 78 million "baby boomers" turning 50 at the rate of one every 7.8 seconds, by 2011 they will begin to reach age 65 and need more patient care. Add to this panorama the new medical techniques, the advancing technologies, and improved pharmaceuticals and the healthcare industry begins to have a picture of what the future will need. This segment of the population not only has greater longevity, but when healthcare will be needed they may also have higher acuity levels, requiring more nursing care.

The healthcare industry's strategies of the future have turned to "bricks and mortar"—new facilities, expansion facilities, and (re)modernization. But the real issue is that of a simple economic principle...that of "supply and demand". Where will the nurses come from? When RN supply (-29%) fails demand (+43%), a patient care catastrophe looms. Those organizations that focus on RN retention, staffing, and recruitment will provide quality of

care, have profitability, and will survive... hospitals that can recruit and retain the nurses will own the market place.

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- AQ1: You have used percentages in parenthesis. I have incorporated them into the sentences at times. Please check my changes and consider rewriting to clarify their use throughout.
- AQ2: Where does quote start? Please insert initial quotation mark
- AQ3: Please spell out CMS
- AQ4: of the respondents 8% said... or only 8% responded to this question or what
- AQ5: where does quote begin? Please insert initial quotation mark
- AQ6: what is category high-volume US nurse? Should that be combined with recruiting firms below it?
- AQ7: identify VHA
- AQ8: is that what you meant?
- AQ9: Spell out WCI
- AQ10: what does the 4% mean?
- AQ11: Spell out JONA
- AQ12: spell out HFMA
- AQ13: provide location for publisher
- AQ14: Please provide author(s), title, year, volume, and page range. (If this is an online reference, please provide URL and date accessed in place of volume and page range.)
- AQ15: Please provide authors.
- AQ16: Please verify accuracy of this reference.
- AQ17: Please provide author(s), title, volume, and page range. (If this is an online reference, please provide URL and date accessed in place of volume and page range.)
- AQ18: Please provide section and page number. (If this is an online reference, please provide URL and date accessed in place of section and page number.)
- AQ19: Please provide author(s), title, year, volume, and page range. (If this is an online reference, please provide URL and date accessed in place of volume and page range.)
- AQ20: Please provide author(s), title, year, volume, and page range. (If this is an online reference, please provide URL and date accessed in place of volume and page range.)
- AQ21: Please provide author(s), title, year, volume, and page range. (If this is an online reference, please provide URL and date accessed in place of volume and page range.)
- AQ22: Please complete this reference. Ibid not allowed by AMA style
- AQ23: Please provide authors.
- AQ24: Please provide title, volume, and page range. (If this is an online reference, please provide URL and date accessed in place of volume and page range.)
- AQ25: Please complete this reference.
- AQ26: Please complete this reference. Op Cit not allowed by AMA style.
- AQ27: Please complete this reference.
- AQ28: Please provide author, verify publication title, provide volume, and complete page range.
- AQ29: Please complete this reference.
- AQ30: Please provide author and year.
- AQ31: Please complete this reference.
- AQ32: Please provide author and year.