A MANAGER’S GUIDE: HOW BETTER NURSE TO PATIENT RATIOS CAN IMPROVE THE HEALTH OF YOUR PATIENTS & LOWER STAFFING COSTS.
RN-to-Patient ratio is another key component to the quality of patient care equation. Research has shown that any number greater than 4:1 can have a direct negative impact on the quality of patient care. And bringing in quality travel staff is one easy way to lift this number when your census levels change. Studies by the nation’s most respected scientific and medical researchers affirm the significance of RN-to-Patient ratios for patient safety as seen in California, the one state that has passed such laws. As the Institute of Medicine’s research now documents “what physicians, patients, other health care providers and nurses themselves have long known: how well we are cared for by nurses affects our health, and sometimes can be a matter of life or death.”

Patients in hospitals with higher RN staffing levels were 68% less likely to acquire a preventable infection, according to a review of outcome data of 15,000 patients in 51 U.S. hospitals — Medical Care, June 2007

Improved RN staffing ratios are associated with a reduction in hospital-related mortality, failure to rescue, and lengths of stay. Every additional patient assigned to an RN is associated with a 7% increase in the risk of hospital-acquired pneumonia, a 53% increase in respiratory failure, and a 17% increase in medical complications — Agency for Healthcare Research and Quality, May 2007

Patients hospitalized for heart attacks, congestive heart failure, and pneumonia are more likely to receive high quality care in hospitals with better RN staffing ratios — Archives of Internal Medicine, December 11/25, 2006

If all hospitals increased RN staffing to match the top 25% best staffed hospitals, more than 6,700 in-hospital patient deaths, and overall 60,000 adverse outcomes could be avoided! The findings do not include the ancillary value to families of reduced morbidity, such as decreased pain and suffering and days lost from work, and huge economic savings for the hospitals — Health Affairs, January/February 2006

Cancer surgery patients are safer in hospitals with better RN-to-patient ratios. A study of 1,300 Texas patients undergoing a common surgery for bladder cancer documented a cut in patient mortality rates of more than 50%. Hospitals with low volume on cancer procedures can match standards of high volume urban medical centers just by increasing their RN ratios — Cancer, Journal of the American Cancer Society, September 2005

Cutting RN-to-patient ratios to 1:4 nationally could save as many as 72,000 lives annually, and is less costly than many basic safety interventions common in hospitals, including clot-busting medications for heart attacks and PAP tests for cervical cancer — Medical Care, Journal of the American Public Health Association, August 2005

The Institutes of Medicine of the National Academy of Sciences reports that “nurse staffing levels affect patient outcomes and safety.” Insufficient monitoring of patients, caused by poor working conditions and the assignment of too few RNs, increases the likelihood of patient deaths and injuries — IOM, November 4, 2003

Inadequate staffing precipitated one-fourth of all sentinel events — unexpected occurrences that led to patient deaths, injuries, or permanent loss of function — reported to JCAHO, the Joint Commission on Accreditation of Hospital Organizations, from 1997 to 2002 — JCAHO, August 7, 2002

Up to 20,000 patient deaths each year can be linked to preventable patient deaths. For each additional patient assigned to an RN the likelihood of death within 30 days increased by seven percent. Four additional patients increased the risk of death by 31% — Journal of the American Medical Association (JAMA), October 22, 2002

— Agency for Healthcare Research and Quality, May 2007

**RN-TO-PATIENT RATIOS & PATIENT SAFETY**

Improved RN staffing ratios are associated with a reduction in hospital-related mortality, failure to rescue, and lengths of stay.

— Agency for Healthcare Research and Quality, May 2007
RN-to-Patient ratios have been demonstrated to produce significant long term savings for hospitals by reducing patient care costs. Safe RN ratios have produced cost savings for hospitals in reduced spending on overtime costs, lower RN turnover, shorter patient lengths of stays, and improved patient outcomes. Data also shows that most hospitals can afford to employ sufficient numbers of RNs to provide safe ratios.

RN understaffing in hospital intensive care units increases the risk of pneumonia and other preventable infections that can add thousands of dollars to the cost of care of hospital patients. — Critical Care, July 19, 2007

Raising the proportion of RNs by increasing RN staffing to match the top 25% best staffed hospitals would produce net short term cost savings of $242 million — Health Affairs, January/February 2006

Improving RN-to-patient ratios from 1:8 to 1:4 would produce significant cost saving and is less costly than many other basic safety interventions common in hospitals, including clot-busting medications for heart attacks and PAP tests for cervical cancer — Medical Care, Journal of the American Public Health Association, August 2005

Johns Hopkins University researchers found that hospitals with fewer RNs in intensive care units at night incurred a 14% increase in costs — American Journal of Critical Care, November 2001

Harvard researchers cite a 3% to 6% shorter length of stay for patients in hospitals with a high percentage of RNs, reducing costs — Nurse Staffing and Patient Outcomes in Hospitals, Harvard School of Public Health, 2001 report

Hospitals spend about $42,000 to replace each general medical/surgical unit RN, and $64,000 to replace each specialty RN — Journal of the American Medical Association, October 23/30, 2002

Aggregate hospital profits in 2004 nationally climbed to an all-time record of $26.3 billion, with net profit margins at a six year high — Modern Healthcare, November 7, 2005

From 1993 through 2004, $157 billion was consumed by mergers and acquisitions in the hospital industry — an average of $402,000 per bed, the highest ever.

Finally, let’s take a look at the numbers and how using travelers is actually a cost savings. Paying your permanent staff overtime pay at the standard time and a half rate can end up costing your hospital more per hour than the standard bill rates of most healthcare staffing companies. In fact, if you have three staff working one extra shift a week, you can start to see savings by placing just one traveler to cover those three overtime shifts at a normal pay rate.

In addition to these up-front costs are many hidden and high costs associated with the turnover that can occur as a result of nurse burnout; burnout caused by high RN-to-Patient ratios and high overtime hours due to too much reliance on perm staff to fill open hours. 1 Industry research estimates that it costs hospitals $50,000 per RN in visible or invisible turnover costs to replace a nurse. 2 Add in the $60,000 annually in quality of care savings that occur for each additional full-time RN employed (Dall) and the soundness of the decision to staff with travelers instead of overtime perm staff becomes easy to see.
 Legislative Purpose

To address the nationwide shortage of hospital direct-care registered nurses; provide minimum safe patient protection standards — such as safe staffing ratios — for short-term and long-term acute-care hospitals in the United States; protect direct care registered nurse as patient advocate, create registered nurse education grants, and living stipends to recruit and retain direct-care registered nurses.

To create a hospital nursing service environment that will immediately attract new RNs and provide the foundation for ultimate restoration of the hospital direct RN workforce; and

To establish clearly defined, legally protected and enforceable duties and rights to direct-care registered nurses as advocates exclusively for the interests of patients. Whistleblower protections that encourage patients, RNs and other healthcare workers to notify government and private accreditation entities of suspected unsafe patient conditions that will greatly enhance the health, welfare, and safety of patients.

The essential principles of staffing in the acute-care hospital settings must be based on patient’s individual acuity and needs; severity of conditions; services needed; and complexity surrounding those services.

CURRENT LEGISLATION:
NATIONAL NURSING SHORTAGE REFORM AND PATIENT ADVOCACY ACT

RATIO BASICS

RN RATIOS
No RN can be assigned responsibility for more patients than the specific ratio at any time, under any circumstances, based on patient acuity and scope of practice laws. An LVN cannot be assigned overall responsibility for a patient.

DHS RATIOS ARE MINIMUMS
Once the DHS minimum ratios are in place, additional staffing must be assigned based on patient acuity.

NO AVERAGING
The ratios are the maximum number of patients assigned to any one RN at all times during a shift.

BREAK COVERAGE
A competent charge nurse, RN manager or break RN must relieve an RN during their breaks.

### The Ratios

<table>
<thead>
<tr>
<th>Setting</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intensive/Critical Care</td>
<td>1:2</td>
</tr>
<tr>
<td>Neonatal Intensive Care</td>
<td>1:2</td>
</tr>
<tr>
<td>Operating Room</td>
<td>1:1</td>
</tr>
<tr>
<td>Post-anesthesia Recovery</td>
<td>1:2</td>
</tr>
<tr>
<td>Labor and Delivery</td>
<td>1:2</td>
</tr>
<tr>
<td>Antepartum</td>
<td>1:4</td>
</tr>
<tr>
<td>Postpartum couples</td>
<td>1:4</td>
</tr>
<tr>
<td>Postpartum women only</td>
<td>1:6</td>
</tr>
<tr>
<td>Pediatrics</td>
<td>1:4</td>
</tr>
<tr>
<td>Emergency Room</td>
<td>1:4</td>
</tr>
<tr>
<td>ICU patients in the ER</td>
<td>1:2</td>
</tr>
<tr>
<td>Trauma patients in the ER</td>
<td>1:1</td>
</tr>
<tr>
<td>Step Down Initial</td>
<td>1:4</td>
</tr>
<tr>
<td>Step Down in 2008</td>
<td>1:3</td>
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<tr>
<td>Telemetry initial</td>
<td>1:5</td>
</tr>
<tr>
<td>Telemetry in 2008</td>
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<tr>
<td>Medical/Surgical Intensive Care</td>
<td>1:6</td>
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<tr>
<td>Medical/Surgical in 2005</td>
<td>1:5</td>
</tr>
<tr>
<td>Other Specialty Care initial</td>
<td>1:5</td>
</tr>
<tr>
<td>Other Specialty Care in 2008</td>
<td>1:4</td>
</tr>
<tr>
<td>Psychiatric</td>
<td>1:6</td>
</tr>
</tbody>
</table>
MEDICAL SOLUTIONS was one of the first travel nurse and allied healthcare staffing companies to be certified by the Joint Commission and has been continuously certified since 2004. Its focus is on meeting the urgent and short-term staffing needs of its clients with highly skilled allied health professionals, nurses and technologists. A nationwide network of travelers allows Medical Solutions to help its client hospitals continue to provide excellent patient care amidst a nursing and allied health shortage. Medical Solutions has contracts with nearly 1100 client hospitals nationwide and is one of the fastest growing companies in the travel nursing and allied health industry. This eBook is a free public service from Medical Solutions, please share this with fellow colleagues!

By visiting Staffing.MedicalSolutions.com/knowledge/one-minute-whitepaper/ as well as Staffing.MedicalSolutions.com/NursingBurnout-ebook you can learn more about the ways you can save money with alternative staffing measures and more importantly, save your nurses from being burned out. Together we can keep our nurses healthy, happy and more importantly, taking care of those who need it.

REFERENCES & RESOURCES
1. In the mix: Avoid Burnout by Caring for Yourself
2. Rn-to-Patient Staffing Ratios & Patient Safety
3. 15 Useful Techniques for Nursing Stress Burnout
   http://www.stressreductionbasics.com/techniquesfornursingstressburnout.html
4. Rn-to-Patient Ratios: Current Legislation