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Patient Care at Risk in Washington, DC

A Report Submitted to the
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Redacted Version

Patient Care Report on Hospitals in the District of Columbia

The crisis of hospital understaffing is a chronic and national problem.

The highly regarded *Journal of Patient Safety* reported in its September 2013 issue that between 210,000 and 440,000 patients across the country who go to the hospital each year suffer some type of preventable harm that contributes to their death.¹ According to the DC Department of Health's December 2011 report (the most recent one available) on Patient Safety in the District, there was a 36 percent increase in adverse events (events which are largely, if not entirely, preventable²) in DC facilities from 2010-2011.³ Eighty-eight percent of these events occurred in DC's acute care facilities, and they included medication errors, developments of bedsores, falls, and hospital-acquired infections—**all events which have been proven to be prevented by an increase in registered nurse staff.**⁴

This egregious problem is allowed to persist because hospital staffing plans are not regulated. Requirements by the federal Centers for Medicare and Medicaid Services on staffing are vague and unspecific—they only require hospitals to be “adequately” staffed with no standards outlining safe and proper staffing levels.⁵

Furthermore, because the Joint Commission (TJC) can accredit hospitals in standards-based performance areas—such as environment of care and emergency management—it is misleadingly assumed to be a regulatory body. It is not. TJC was created by the hospital industry, is funded by fees from the hospitals, and its board is comprised of representatives of the American Hospital Association and American Medical Association. Additionally, nurse staffing levels are not one of the criteria surveyed during a TJC evaluation.

Title 22 Chapter 20 of the DC Municipal Regulations states, “Supervisory and staff personnel shall be provided for each department of patient care unit to ensure the immediate availability of a professional nurse for bedside care of all patients at all times. Qualified personnel shall be provided in sufficient numbers to provide nursing care not requiring the services of a licensed registered nurse.” These broad guidelines leave staffing plans up to hospitals and their management staff to design and implement. The lack of oversight and regulation allows management to understaff as it sees fit.

On February 4, 2013, nine District Councilmembers, including Chairman Phil Mendelson and Health Committee Chair Yvette Alexander, introduced the Patient Protection Act, a bill that would rectify this problem by creating mandatory, minimum nurse-to-patient ratios to ensure every patient in every hospital in DC would have a nurse available at his or her bedside when needed.

During the November 8, 2013 hearing on the Patient Protection Act, executive witness Sharon Lewis, Program Manager at the Health Regulation and Licensing Administration (HRLA), acknowledged that hospital staffing plans do not need to be approved by HRLA and are only evaluated during annual inspections or when the department receives a complaint.

The health and safety of hospital patients in the District of Columbia should not be forfeited to tepid government policies and executive profit margins. Standardized minimum nurse staffing levels based on patient census and acuity are a necessity for ensuring sufficient patient care.

Section 5414 of the District of Columbia Municipal Regulations for Registered Nursing defines an RN's scope of practice as including "the performance of services, counseling, advocating, and education for the safety, comfort, personal hygiene, and protection of clients, the prevention of disease and injury, and the promotion of health in individuals, families, and communities." The following patient care report has been generated as a direct result of DC's registered nurses' commitment to their profession.

EXECUTIVE SUMMARY

This report is a representative summary of written Assignment Despite Objection (ADO) forms, tools for identifying and tracking professional practice issues within the hospital when a registered nurse objects to an unsafe, or potentially unsafe, patient care assignment. ADOs are filled out when a nurse lacks consistently available working equipment, or insufficient supplies, and/or there is unsafe staffing to meet the needs of each patient.

All of the ADOs included in this report were written by staff RNs employed in direct patient care at MedStar Washington Hospital Center, Providence Hospital, or United Medical Center. Before an ADO is filled out, the RN must first orally object to the assignment and ask her supervisor to address the problem. If the supervisor fails to provide a resolution, the nurse completes the ADO, signs it, and asks the supervisor to sign it as well. Copies are then given to the supervisor and the union.

In addition, it is important to note that not every adverse incident or incident of understaffing has been documented because nurses have reported to union leaders fear of threats, retaliation, and reprisal by their supervisors if they submit an ADO.

All incidents reported herein are believed to be not only accurate in their particulars but also representative of common or typical assignments. As required by HIPAA guidelines, names, specific dates, and any other identifying factors have been removed from this report; however, a full report has been submitted to the DC Department of Health.

During the more than fifteen months that have passed since the Patient Protection Act was introduced, 362 ADOs have been written by RNs working in six different District hospitals (MedStar Washington Hospital Center, Providence Hospital, United Medical Center, Howard University Hospital, Children's National Medical Center, and the DC Veterans Administration Medical Center), the Department of Mental Health, and Children's School Services. These ADOs represent 346

separate incidents (an incident being an occurrence on a different day, different shift, and/or different unit). Of these 346 different reported incidents, understaffing was explicitly cited as the problem 215 times. Only RNs at Providence and Washington Hospital Center are able to access their unit's staffing plans (also known as a matrix), but these are not consistently available. Of the 106 times the matrices were known at these two hospitals, RNs reported they were unmet 104 times.

This means that 62% of the time an RN at these hospitals, the Department of Mental Health, or Children's School Services objects to an assignment it is because she or he does not have sufficient staff on the unit to safely care for patients. And on the occasions when Providence or Washington Hospital Center generate and publicize their staffing plans (which may or may not be sufficient), they still fail to uphold them 98% of the time.

Most units at these hospitals are regularly understaffed. Though the effect of understaffing differs depending on the patient and the unit, the result is often the same: needless patient suffering and health complications.

- The units most acutely affected are the Emergency Departments and Women and Infant Services Departments (such as Labor and Delivery and the Neonatal Intensive Care Unit). Endangering someone's health at the start of life or failing to promptly address a serious health emergency can have severe and long term impacts. With ER patients at Providence Hospital sometimes waiting for more than 12 hours to be seen or 3 or 4 hours to even be triaged, the likelihood of their malady escalating is high. Not appropriately staffing laboring mothers and newborn infants can leave women susceptible to seizures or other serious problems that could endanger the life of the mother, the baby, or both.
- Understaffing in oncology units often compromises the dignity and quality of life of patients. For example, not having enough nurses or patient care technicians on staff means incontinent cancer patients undergoing painful chemotherapy and radiation treatments are sitting in soiled bedsheets for long periods of time because no one is available to change their linens.
- Catheterization procedures are frequently performed in hospitals, but failing to have enough RNs at the bedside at all times means these patients are at risk of bleeding out because there is no RN to perform frequent assessments of the puncture site.
- Not enough nurses on Medical-Surgical units means they are unable to "round" (visit each patient) as often as they should. This can and has had dire life-and-death consequences.
- The primary responsibility that many nurses—regardless of the unit—said they are forced to skip whenever they are insufficiently staffed is the charting of nursing interventions. In the short term, immediate harm to patients is usually avoided because nurses can verbally share patient health information when transferring patient assignments during changes of shift; however, in the long term, failing to be able to record changes in a patient's condition—such as response to different medications, mobility needs, cognition, level of discomfort—could mean a health problem in its initial stage is being overlooked.

GLOSSARY OF USEFUL TERMS

Aides—Have less training than PCTs; can only help with non-specialized tasks like helping patients go to the bathroom and eat, turning patients, or retrieving needed equipment from another unit.

Critical Care—Patients who are currently undergoing life-threatening health problems and are at risk of dying.

Failure-to-Rescue—A preventable death after complications due to a registered nurse being responsible for more than four patients. The *Journal of the American Medical Association* found that for each patient assigned to a nurse who was already carrying four patients, the likelihood of death for any of the patients increased by 7%.⁶

Orientation—Nursing orientation for acute or critical care nurses typically occurs in 3 stages: general hospital orientation (1 day), general nursing orientation (3–5 days), and a 6- to 12-week (or longer) precepted clinical experience whereby new nurses are paired with experienced nurses to learn directly on the unit of hire. Preceptors assist orientees to acquire basic nursing/unit-specific skills and become familiar with patients, protocols, care providers, and the unit's culture.

Patient Care Technician (PCT)—Unlicensed personnel with specialized skills in nursing assistive services.

Resource/Charge Nurse—RN in charge of all other nursing staff on the unit, patient care assignments, and the individual who is supposed to be available for assistance with immediate patient care needs (among other duties). Standard practice is for each unit to have a resource nurse for each shift.

Safe patient care—A somewhat subjective term, but which, in the context of this report, is used to refer to the level of care an RN—as a result of her/his clinical training and experience—needs to provide in order to prevent adverse events and unnecessary pain, and ensure better patient health outcomes.

Total Care/Complete Care—A patient incapable of self-care and in need of assistance for the basic functions of daily living.

Triage Nurse—Initial point of contact in an Emergency Room/Emergency Department setting; nurse responsible for establishing priorities and initiating treatment for patients.

WOMEN AND INFANT SERVICES

The American College of Gynecology, American Academy of Pediatrics, the Association of Women's Health, Obstetric and Neonatal Nurses (AWHONN), the National Association of Neonatal Nurses, American College of Nurse Midwives, and the American Nurses Association have endorsed nurse staffing of one nurse to two or fewer women in labor and one nurse to one patient in the second stage of labor, during induction of labor, or with complications.

The American College of Obstetricians and Gynecologists (ACOG) and American Academy of Pediatrics' "Guidelines for Perinatal Care" (care for the five months before and one month after childbirth) recommend four mothers and four babies as the maximum number of patients per RN.

- **###/###/2013, 5 NE Labor & Delivery, MedStar Washington Hospital Center:** The shift started with 14 women in labor and ended with eight. During the shift, insufficient staff made the unit extremely unsafe. Two women at the same time were having cesarean sections during which each operating room needed one RN as circulating nurse responsible for the mother and one RN for the baby. That meant four of the eight nurses on the unit were occupied. The fifth RN had to respond to a rapid response for a hemorrhaging patient on Post-Partum whose blood pressure was unstable. That left only three RNs to care for the 10 women in labor at that time. National standards are for two or fewer women in labor to be assigned to one RN. Such unsafe staffing levels endangered these babies at the start of their lives, and put laboring mothers at risk of complications.
- **###/###/2013, 5A Neonatal Intensive Care Unit, MedStar Washington Hospital Center:** An RN was assigned to three critically ill newborn babies, including one requiring mechanical ventilation—placing the lives of all seven babies on the unit at risk. All of the above professional organizations and laws in several states require two or fewer critically ill neonates per RN. Language barriers also made communicating with some of the parents difficult and took extra time. If there had been more RNs on the unit, important discharge and care instructions for new parents could have been given more effectively.
- **###/###/2013, 5A Neonatal Intensive Care Unit, MedStar Washington Hospital Center:** Ten RNs reported that in their professional judgment their assignments were unsafe. Four RNs were assigned to three babies each. One started with four babies and had to accept an admission. Nurses in orientation were caring for babies without sufficient clinical supervision. RNs had reported that the schedule did not provide enough staff the previous week, yet the lives and future health of the newborns were continued to be put at risk.
- **###/###/2013, 5A Neonatal Intensive Care Unit, MedStar Washington Hospital Center:** There were 16 babies and six RNs. Some of the babies met criteria for intermediate NICU, which are three or fewer patients per RN. One premature mother was in the process of being admitted while another premature mother was in labor and a woman only 28 weeks pregnant was likely to go into labor during the night—which meant that these babies would become critical admissions themselves. Though two more RNs were scheduled for regular shifts that night, their

shifts were canceled. One RN told the immediate supervisor there was no room to admit safely with this patient load, and that at least one of those two canceled RNs should remain on staff. The supervisor told the RN to call the night shift nursing supervisor. At 7:05 pm, seven RNs called the nursing supervisor with this information and she replied, "I don't know the staffing ratios for NICU," and then refused to sign the ADO. No extra staff was provided.

- **##/##/2013, 5A Neonatal Intensive Care Unit, MedStar Washington Hospital Center:** Eight RNs and one resource nurse reported jointly that nine total RNs for 22 babies was unsafe. Six babies required mechanical ventilation, 14 of the babies in the unit needed oxygen, and eight were at ICU status. In the nurses' professional opinion, a census and acuity of that level required at least 10 RNs to provide optimal care. The nursing supervisor told the resource nurse to call the nursing director only if they received a "few" additional admissions. No additional staff was provided.
- **##/##/2013, 5B Step Down Nursery, MedStar Washington Hospital Center:** Two RNs and no other staff were assigned to care for eight babies. The professional judgment of the registered nurse was that 8 patients required three nurses. An overtime nurse was on call, but was canceled. With that heavy of a patient assignment there was no time for the RNs to go over discharge instructions with the parents or answer any of their questions. This meant the infants were sent home with parents who might well be unable to properly care for them.
- **##/##/2014, Labor and Delivery, Providence Hospital:** With five patients the matrix called for six RNs, however, only four nurses were scheduled and one called out sick. No provision was made to replace the call out. One RN informed her supervisor of the problem, and the supervisor sent a post-partum nurse to the unit. But the post-partum nurse was not trained to care for laboring mothers and thus was not capable of accepting a patient assignment and delivering a safe level of care.
- **##/##/2014, Labor and Delivery, Providence Hospital:** Only three nurses were provided and eleven patients were "on the board"—meaning eleven mothers were going to go into labor at some point during the shift and double the number of patients from 11 to 22. An additional woman who was already in labor was admitted to the unit. A nurse had to leave her 1:1 patient to attend to the new admittee—meaning the 1:1 patient could have had a seizure or some other complication and would have had no one to attend to her. Fortunately, no complications arose.
- **##/##/2013, Labor and Delivery, United Medical Center:** Only one RN and one tech were provided to care for two mother-baby pairs (meaning four patients) and one woman who had recently had gynecological surgery. There was no additional staff provided throughout the shift—meaning neither person was able to take a break during a more than twelve hour period.

MEDICAL-SURGICAL SERVICES

Medical-surgical units cover a broad range of acute care services requiring nursing actions directed toward preventing disease, arresting further disease and dysfunction, assisting with rehabilitation, and/or assisting patients through comfortable and dignified end of life care. Inherent in medical-surgical nursing practice is the belief that all individuals have many rights including the right to be treated with dignity; to self-determination; to accessible, high-quality care; to respect for their privacy; and understandable information about choices available and consequences of action or inaction.

- **##/##/2013, 3 NE Medical Oncology, MedStar Washington Hospital Center:** Five RNs on nightshift reported that each one was assigned to six patients when the matrix called for seven RNs. The resource nurse had four patients so she was unable to provide clinical supervision or perform other needed duties. Patients needed chemotherapy infusion and blood transfusions, glucose testing and insulin administration, frequent pain assessments, and wound care. With this heavy of a patient assignment, RNs could only make sure the proper medications were given and the procedures were done as safely as time allowed.

One patient needed 1:1 RN care due to unstable blood pressure and risk of falling. To provide this 1:1 care another RN had to look out for her five patients (meaning one RN was caring for eleven patients). RNs were dismayed they didn't have time to provide teaching and emotional support for their patients and their patients' loved ones. A 2011 report produced by the *Health Services Research Journal* found that for every additional 45 minutes an RN spends with a patient, she reduced the odds of that patient's readmission to the hospital within 30 days by 4.4%. Researchers found this translated into a net potential savings of \$409.59 per hospitalized patient.⁷

- **##/##/2013, 3 NE Medical Oncology, MedStar Washington Hospital Center:** RNs reported they were unable to deliver even minimal safe patient care to all of their patients. The medical oncology unit exists to provide nursing care for patients that require medical management for solid and non-solid tumors. Non-oncology hematology patients are also cared for on the unit.

That night one RN began the shift with three patients with one requiring an initial assessment with head to toe observation of the patient's physical condition and behavior, lung and bowel sounds, interpretation of data including vital signs, pain assessment, lab results, and the results of other tests, reading physician's progress notes and recent doctor's orders, and checking that ordered medications were available and appropriate. Two of the patients were in pain. One had a patient controlled analgesia pump (PCA) with the medication nearly empty. The nurse needed to go to the Pyxis (the machine which dispenses all medications on the floor) and sign out another bag of medication, program the machine, and try other ways to alleviate discomfort.

Another patient was bleeding from the rectum. That patient was also neutropenic so was at high risk for infection. The cancer and complications made the treatment regimen more complex, including the need for multiple administrations of IV antibiotics. Physiologic decomposition

(breakdown) and organ dysfunction were present, but not yet severe. This patient required very frequent vital signs.

It was not possible for the nurse to take vital signs and assess the patient as often as needed—resulting in unnecessary pain for the patient and a higher chance the nurse could miss an important change in the patient’s condition.

Meanwhile, a new patient was waiting to be admitted. This patient required droplet isolation for a possible infection, pain management, and many antibiotics.

By the end of shift, that RN was assigned to four patients. Other RNs were assigned to five patients. The health of every patient on the unit was put at risk by this insufficient number of nurses.

- **##/##/2013, 3 NE Medical Oncology, MedStar Washington Hospital Center:** There were 29 patients and only six RNs on nightshift. The RNs reported to their supervisor that with several RNs assigned to five patients each, staffing was insufficient to provide even minimally safe patient care. One RN could not leave a patient with a very severe nose bleed. Fourteen patients required complete assistance with activities of daily living. They needed two or more nursing staff for mobility needs. They were at risk for falls. Many patients with barriers in language, sensory and/or motor skills were on the unit. Because the nurse caring for the patient with the nose bleed was the resource nurse and was carrying four patients herself, the supervisor assisted by administering routine medications to the other three patients. When the resource nurse expressed it was unsafe for a resource to have four patients, one of whom was complete care, the supervisor said the patient was a “light complete” and refused to increase staffing on the unit.
- **##/##/2013, 3 NE Medical Oncology, MedStar Washington Hospital Center:** The matrix for core staffing called for seven RNs for 28 patients, but on this day only six RNs were provided for 27 patients with an admission during the night. One RN had four patients, two of whom were post-chemotherapy and incontinent and one who was currently undergoing chemotherapy. One of the incontinent patients also had very low blood sugar, an insulin drip, and required the administration of food through a feeding tube and frequent assessments. This meant two patients were complete care patients who needed help with basic functions like eating, bathing, and relieving themselves in addition to all of the tests, assessments, and treatments the nurses needed to provide. With only one patient care technician on the unit, patients were forced to wait in soiled bedsheets until the RN could come and change them.
- **##/##/2013, 3C, MedStar Washington Hospital Center:** Five RNs reported that in their professional judgment their assignments were unsafe and placed their patients at risk during their twelve-hour shift. However, they did, under protest, attempt to carry out their assignments to the best of their abilities. Staffing was insufficient to meet individual patient needs, to perform effective ongoing comprehensive assessments of their patients, and to meet the teaching needs of assigned patients. RNs could not take breaks to prevent fatigue and

hunger, accidents, and errors. Direct patient care duties did not allow time for charge nurse duties of clinical supervision and coordination of care for the six RNs and 30 patients. Only one patient care technician was provided to assist. No unit clerk was provided from 3:00 pm to 7:00 pm. Nurses had to leave their patients to attend to clerical tasks. Given the high acuity of their patients, they were short staffed. Many patients were totally dependent on nursing staff for mobility, safety, and for activities of daily living such as feeding, elimination, bathing, brushing teeth and other such needs. Many were incontinent of urine and stool. Several patients were combative and/or confused. Some patients' family members' required continuous supportive teaching and emotional care. Because so many patients required two or more nursing staff for mobility needs, nurses often had to leave their patients to help a colleague lift, reposition, or clean a patient.

- **##/##/2014, 2C, MedStar Washington Hospital Center:** Only one PCT and six RNs were provided to care for 32 patients. 2C is a specialized Med-Surg unit where patients with behavioral health problems are treated for acute care problems. Thus many of the patients were complete care patients needing assistance feeding themselves, requiring frequent turning so as not to develop pressure ulcers, were incontinent, etc. However, in addition, they also had severe behavioral and mental health needs that required greater attending than the average Med-Surg patient. All six RNs filed the ADO, but no relief was provided.
- **##/##/2014, 3F, MedStar Washington Hospital Center:** Nightshift on the unit started with 25 patients, six RNs, two PCTs, and no unit clerk. Four additional patients were admitted during the night bringing the census up to 29—meaning each RN was responsible for five patients. The nurses called their nursing supervisor and told her none of the nurses had been able to take a break during the 12-hour shift, and they were worried about the safety of their patients under these conditions. The supervisor refused to sign the ADO and failed to provide any additional support.

With so many patients and so little staff the RNs were not able to round as frequently as they would have liked. This had serious detrimental effects on patients on the unit.

- **##/##/2014, 3 NE Medical Oncology, MedStar Washington Hospital Center:** One nurse had five patients. One patient was receiving an infusion and required vitals to be taken every 20 minutes, and another patient was scheduled to start a transfusion at the same time but had critically low H/H levels requiring additional attention first.

Before a blood transfusion, the RN must verify the physician's orders and the unit (the blood being transfused). To identify the unit, the RN uses the label on the bag and the Transfusion Record Form, which must be checked by two people at the patient's bedside against the identification of the intended blood recipient using the patient's wristband. This step must never be bypassed. This must be performed by licensed individuals such as a physician and registered nurse (RN) or two registered nurses. These two individuals must sign the Transfusion Record Form before blood transfusion is initiated.

If possible, the RN should ask the patient to state his or her name, and correlate this information with available identification including the patient's birth date and hospital identification number. Remember there may be two patients with the same first and last name. The RN must verify the blood type, donor number, component name, compatibility, and that the product is not outdated.

Both persons must sign the Transfusion Record Form. The person who hangs the blood must record the date and time the transfusion is started. The date, time, component, and unit number must be recorded in the patient's permanent medical record.

The RN must remain with the patient for the first fifteen minutes of the transfusion. Infuse the first 25mL of blood slowly to allow for recognition of an acute adverse reaction. The infusion time should not exceed four hours.

Fifteen minutes after initiating transfusion of a unit of blood or blood component, the registered nurse must document the patient's vital signs including temperature, blood pressure, respirations and pulse, and examine the skin for urticaria (itching). Such monitoring is essential for the prompt recognition of any adverse reaction to transfusion.

Vital signs, rate of flow, and patient assessment should be done every 30 minutes during the second hour of the transfusion and hourly until one hour after the transfusion is complete. The RN must be available to intervene in the event of a transfusion reaction or any problem with the infusion.

One RN had to do all of this for just one of her five patients.

Meanwhile, all five of her patients were also on blood sugars, which required frequent monitoring. There had originally been two PCTs on the floor but one was pulled to another unit soon after the start of the shift. That means one PCT was available to help the nurses on the floor take care of 27 patients. At night, RNs are frequently asked to act as unit clerks and phlebotomists in addition to their primary roles as nurses. An RN reported her concern to her supervisor regarding this unsafe level of staffing, but no resolution was provided.

- **##/##/2014, 8 Medical Unit, Providence Hospital:** A nurse reported that despite a heavy workload with two nurses, one medical-surgical tech, and 12 patients, another medical-surgical tech was provided only when an additional thirteenth patient was admitted to the unit. The RN told her supervisor that the staffing conditions were still too low to provide optimal care to her patients, but no additional RN was sent to the unit.

In general, a safe standard for these units is a maximum of five patients to one RN. In addition, the seminal 2002 University of Pennsylvania study published in the *Journal of the American Medical Association* found that for each additional surgery patient per RN, the likelihood of the patient dying within 30 days of admission increased by 7 percent.⁸

- **##/##/2014, 5 South, Providence Hospital:** An RN reported she started out with two other RNs on the unit and one tech for 13 patients. About an hour into her shift she was told their unit's tech was going to be pulled to the seventh floor to act as secretary and the seventh floor's tech would be transferred to her unit. For two hours her unit had no tech even though the charge nurse and supervisor made multiple phone calls to the seventh floor requesting one of the techs be released. Meanwhile, the three RNs had to fulfill direct care duties as well as tech duties for all thirteen patients.
- **##/##/2013, 4 NE Medical Cardiology, MedStar Washington Hospital Center:** At the Hospital Center, the majority of patients on the medical cardiology unit are admitted from the catheterization lab, the electrophysiology lab, and the coronary care unit. The most frequent diagnoses are coronary artery disease (CAD), severe heart failure, resuscitation from sudden cardiac arrest, arrhythmias and conduction changes, peripheral vascular disease (PVD), carotid artery disease, and patients awaiting heart transplantation. Patients require advanced cardiac treatment (e.g., IV vasoactive medications).

This unit cares for patients who, just a few years ago, would have been cared for in a critical care unit. They require increased intensity of care and nursing vigilance due to a high potential for becoming unstable.

At 11:00 pm six registered nurses and one patient care technician had to care for twenty-eight patients and assess two new admissions. The matrix called for seven RNs, two PCTs, and one unit clerk. A unit clerk was provided temporarily from 11:00 pm-2:00 am. Two float nurses had been assigned to the unit from 7:00 pm-11:00 pm, and one remained from 11pm until the end of the shift; however, they were not properly trained to assist patients on a medical cardiology unit where there were many complete care patients, high fall risks, IV drips, frequent vital signs and assessments required, blood products needing to be received, multiple mini bags (IV medications), and patients less than four hours post-operation.

After the catheterization lab (cath lab) procedure, the patient may have a femoral arterial line (sheath) in place. This is a very large hollow sterile line into a very large artery. A patient can rapidly bleed to death if this line is pulled out. Some patients have the line removed in the cath lab.

Every 15 minutes upon admission from the cath lab or after the sheath is removed, the RN must observe the site for bleeding or swelling, check the color and sensation of the extremity, check distal pulses, and observe and palpate the abdomen for a retroperitoneal bleed. If the artery is punctured internally the patient could bleed to death in a matter of minutes. If the line is in place it can occlude the circulation leading to loss of limb. As for any arterial sheath the extremity must be checked hourly for temperature, coloring, sensation, motion, and capillary refill.

Six RNs could not diligently perform such an assessment every hour with 30 patients to care for.

- **##/##/2013, 4 NE Medical Cardiology, MedStar Washington Hospital Center:** The unit was short two registered nurses according to the matrix requirements. The unit was nearly full with 26 out of 30 beds occupied and an additional two admissions coming onto the unit during the night. One of the staff nurses on duty objected to her assignment citing inadequate staff for acuity and a serious threat to the health and safety of the patients. The RN already had four patients with a new admission from another hospital being assigned to her, and with the RN's patients already including one on a Lasix drip, one patient on a Heparin drip, and a ninety-seven year old patient on falls precaution. Lasix and Heparin drips are high risk IV medications requiring two RNs to double check the dosages. There were five RNs on the unit, two patient care technicians, one unit clerk, and one float nurse responsible for twenty-eight patients
- **##/##/2013, 4D, MedStar Washington Hospital Center:** Nightshift started with 18 patients and an additional nineteenth patient in the process of being admitted and seven RNs. The matrix called for eight RNs. At the start of shift, one RN was told they would cap admissions at 19 because of low staffing; however, at 10pm a twentieth patient was admitted. The RN urged the nursing supervisor to transfer at least one of the patients to a different unit, but the supervisor refused. Instead, the resource nurse was assigned two patients and thus unable to provide break relief to the other RNs.
- **##/##/2014, 4NE/5E, MedStar Washington Hospital Center:** Every bed was occupied—meaning there were 30 patients—and only six RNs. For the first four hours there was no unit clerk, and only one patient care technician was provided for the whole unit. The resource nurse had a full patient assignment and thus direct patient care duties did not allow time for her other duties of clinical supervision and coordination of care. All six RNs alerted their supervisor that they were having to answer the phones while also making frequent assessments, distributing high risk medications, and having to provide post mortem care for one patient and that patient's family. Post mortem care is not only about preparing the body for the morgue, but also about taking time to care for the emotional needs of the patient's family. The RNs received no extra help and were dismayed that they weren't able to provide emotional support to the grieving family.
- **##/##/2014, 8 Medical Unit, Providence Hospital:** Only two nurses and one patient care technician were provided to care for 16 critically ill patients. For one of the nurses to go to the pharmacy to get medications for the unit, he had to leave the second nurse alone with 16 patients. If two patients coded while he was gone, only one could have been attended to, and patients in pain were forced to suffer because the tech and nurse were not able to get them.

One of the two nurses went down to the 7th floor to see if an additional RN could help them because calls for additional staff were not being fulfilled. This floor was also overburdened with 19 patients, two nurses, and one tech so no help could be given.

- **##/##/2014, 8 West Medical-Surgical Unit, United Medical Center:** Patient acuity of the 45 patients on the unit was very high, yet only six RNs and three techs were provided. The charge nurse had five patients and the other RNs each had eight patients—with additional admissions

throughout the shift so that most nurses were caring for nine patients. This is almost twice the recommended number of patients per nurse.

TELEMETRY/STEP-DOWN UNITS

- **##/##/2014, 6 South Telemetry, Providence Hospital:** Only three RNs and one tech were provided. One RN had the extremely unsafe assignment of having to care for four critical care patients and two telemetry nurses had five telemetry patients each. All three nurses informed the Senior Vice President of Support Services and Behavioral Health (who happened to be on the floor) of the unsafe conditions, but no additional staff was sent to the unit.
- **##/##/2014, 6 East Telemetry, Providence Hospital:** There were three nurses and three techs for 22 patients. Industry standard is for no more than four telemetry patients per RN because the RN needs to be able to continuously check all of her patients' monitors and intervene in the event of a problem. All three nurses reported to their supervisor they couldn't provide minimally safe care with 7-8 patients each. The supervisor refused to sign the ADO.
- **##/##/2014, 6 East Telemetry, Providence Hospital:** Two night shift nurses stayed five hours late to help because only two dayshift nurses were provided to care for 21 patients. No techs were provided.

The National Institutes of Health published a study in 2010 stating, "[Registered nurses] who worked more than 40 hours per week were 28% more likely to report that patients occasionally/frequently received the wrong medication or dose. For each additional hour of voluntary paid overtime worked each week, the likelihood that a nurse reported occasional/frequent wrong medication or dose administration increased by 2%."⁹

MEDICAL (MICU) AND SURGICAL INTENSIVE CARE (SICU)

Patients on this unit often require titrated vasoactive drips. The major use for these medicines is in the treatment of one kind of shock. Vasopressors that increase blood pressure include Dopamine, Dobutamine (Dobutrex), neosynephrine (phenylephrine), Levophed (norepinephrine), and epinephrine. Patients on these medications require frequent assessments.

The other kind of vasoactive IV drips make blood pressure go down instead of up. They include IV nitroglycerine, IV labetalol, and nipride (nitroprusside). Nitroglycerine (NTG) is used for controlling anginal symptoms and for acute blood pressure control. It works by dilating arteries and veins.

These medications are ordered only for a life threatening condition. Ongoing assessments must be performed at least every 15 minutes. Often vital signs and hemodynamic measurements must be made every one to five minutes when the patient is particularly unstable. The rate of the drip may need to be changed every 1 to 15 minutes.

Registered nurses often prevent hypertension due to anxiety and fear. (Sympathetic “fight or flight” hormones raise blood pressure.) When understaffed there is not time for this. Sometimes the result can be hypertensive crisis leading to a stroke or kidney damage.

Staffing for patients received from the catheterization lab or who require titrated vasoactive IV drips must be no more than two patients per RN regardless of the name of the unit.

- **##/##/2013, 3H, MedStar Washington Hospital Center:** Four of the nine patients required 1:1 RN care. They met the American Association of Critical Care Nurses (AACN) Criteria for 1:1 status. Only six RNs were scheduled. The matrix called for eight. With four patients whose lives depended on constant assessment and intervention two nurses had to provide care for the other five critically ill patients. One of the two RNs had to take over a 1:1 patient while the assigned RN went to the bathroom. No nurse could take a break to prevent fatigue, accidents, or errors. The supervisor said, “I don’t know what else to do. I’m sorry.”
- **##/##/2013, 3H, MedStar Washington Hospital Center:** Four nurses on nightshift reported to their supervisor that six RNs were insufficient for their ten patients. The agreed upon matrix for the unit was seven RNs for that level of acuity. Three patients were in critical enough condition to require 1:1 care so that left three nurses to care for the remaining seven patients. Without speaking to the resource nurse, the supervisor responded by determining that one of the patients requiring 1:1 care did not meet 1:1 criteria and told the nurses to “work together.”

In the professional judgment of the RNs on the unit, they disagreed with their supervisor’s claim. The patient she concluded didn’t meet 1:1 criteria was bleeding from the groin and had highly unstable blood pressure that required constant monitoring.

In addition to failing to provide any further nursing support, the unit was also forced to accept an admission throughout the night who had just suffered a cardiac arrest on another unit and was thus also extremely sick.

- **##/##/2014, 3G ICU, MedStar Washington Hospital Center:** One nurse was asked to admit a rapid response from the ER. The resource nurse called the nursing supervisor to let her know that with only nine RNs and no PCTs for 14 critically ill patients, they were not safely able to care for a patient with such a high level of acuity. The supervisor told the resource nurse the patient was not that critically ill and could be admitted. Upon admission, the nurse discovered the patient was profoundly hypotensive and ultimately required 1:1 care—which this RN was not able to provide because she had an additional critically ill patient. The nurse repeated to the nursing supervisor that the assignment was unsafe. The supervisor came to the unit to provide help, but stayed for only 30 minutes.

PERI-OPERATIVE SERVICES

- **##/##/2013, Same-Day Surgery, MedStar Washington Hospital Center:** At approximately 4:30 pm, eight nurses on the unit alerted the Assistant Nursing Director of Same Day Surgery that four nurses were scheduled to end their shifts in one hour—leaving one nurse to cover four pre-op patients, one of whom was to receive a nerve block and would require 1:1 monitoring—and a fifth nurse was scheduled to get off in two hours. Of the two remaining nurses on the unit, only one was trained in pre-op care while the second was in the process of receiving training.

The nurses stressed to the director how precipitous the situation was for safe patient care, and urged her to work with other units to stop admitting patients to pre-op and instead allow other units to discharge their own patients—allowing more RNs to remain at the bedside.

The Assistant Nursing Director refused to follow the nurses' professional judgment and continued to admit patients, including an emergency patient from the ER with a ruptured ectopic. At 5:01 pm she then imposed mandatory overtime on all four RNs scheduled to end their shifts at 5:30 pm. The American Association of Critical Care Nurses' official position is that "mandatory overtime is not an acceptable means of staffing a hospital" and that the practice leads to an:

- Increase in medication errors
- Decrease in safe, quality patient care
- Decrease in patient satisfaction
- Increase in hospital length of stay
- Increase in mortality and morbidity
- Decrease in recruitment of new nurses
- Decrease in retention of nurses
- Increase in legal liability issues against nurses.¹⁰

The eight RNs reported that the Assistant Nursing Director never assisted with patient care that night.

- **##/##/2014, Main Operating Room, MedStar Washington Hospital Center:** A nurse was scheduled to end her shift at 7:30 pm; however, at 7:25 pm she was informed that no nurse would be coming onto the unit to relieve her. The nurse was horrified that her patient would be abandoned if she left so she remained on duty for an additional two hours until another nurse was provided—this means that nurse worked more than 14 hours straight.

EMERGENCY DEPARTMENT

The Emergency Nurses Association's official statement on ER nurse staffing is that there should be two nurses "whose responsibility is to provide care in the emergency department at all times." In addition, the ENA identified six key factors which should be used to determine staff needed on top of that baseline. The six factors are patient census, patient acuity, patient length of stay, nursing time for nursing interventions and activities by patient acuity, skill mix for providing patient care based on nursing interventions that can be delegated to a non-registered nurse, and an adjustment factor for the non-patient care time.¹¹

The standard matrix for night shift in the ED at Providence Hospital is seven RNs and six PCTs; however, the staff RNs' professional judgment is that this is inadequate because it does not take into account the previously mentioned six key factors for appropriate ED staffing. Between December 2013 and April 2014, the census varied from a low of 20 patients to a high of 48 patients yet the matrix was never changed to adapt. Of the 48 ADOs filed by Providence nurses since they joined the union in December 2013, 28 were from ED nurses of which all but one were filed as objections to an unsafe patient environment due to understaffing.

- **##/##/2013, Emergency Room, Providence Hospital:** No orientation was given to the RN assigned to charge duties. Without supervision or training she had to admit 19 patients throughout the night. As a result, patient assignments for the other six RNs were delayed and assessments and other immediate duties were not performed in as timely of a fashion as was needed. Most of the RNs were not able to take their breaks or lunch breaks and worked straight through 12.5 hour shifts.
- **##/##/2013, ER, Providence Hospital:** Matrix for night shift required seven RNs and six PCTs yet only six RNs were scheduled. One nurse called out and four PCTs were provided—leaving five RNs and four PCTs to care for 35 patients. The triage nurse was pulled to the floor leaving the charge RN with the impossible task of trying to provide charge, triage, and direct care to patients—three different skill-sets which are thus usually the function of three separate nurses.
- **##/##/2014, ER, Providence Hospital:** Only six RNs and five PCTs were provided to care for 33 patients. Basic supplies including butterfly needles and water cups were missing. There was no unit clerk and no transport tech, meaning RNs who were already carrying more than four patients each had to leave at least three of their patients unattended to accompany the fourth off the floor. All six RNs informed their supervisor of the situation and she told them she was too busy to help out. No further support was provided.
- **##/##/2014, ER, Providence Hospital:** Six RNs and two techs were provided to care for 48 patients in the ER. Basic supplies in the patient rooms were not replenished, stretchers were broken or malfunctioning, medications in the Pyxis were never replenished, and there was only one functioning EKG machine in the entire ER. Once again, all six nurses called their nursing supervisor to inform her of the extremely unsafe conditions, but were never given a response.

- **##/##/2014, ER, Providence Hospital:** Seven RNs and two PCTs were forced to care for 47 patients. The charge nurse had to take a full patient assignment so there were excessive wait times and patients left unattended as the other nurses on the unit had to help admit the 17 patients that came to the Emergency Department throughout the night.
- **##/##/2014, ER, Providence Hospital:** Electricity in the hospital went out for 20 minutes in the middle of the night plunging waiting rooms, patients rooms, and the hallways in darkness. The lights were eventually restored in the ER, but the malfunction interrupted essential telecommunication on the unit. Patient names were failing to transfer from electronic records to the Pyxis which meant that the seven nurses were having problems retrieving life-saving medications for their 38 patients. There were also no cleaning supplies on the unit so already overburdened staff had to leave the unit to acquire some and thus further delay assessments and admissions of patients. The nursing supervisor refused to sign the ADO.
- **##/##/2014, ER, Providence Hospital:** Only three RNs were provided to cover the main ER floor with a census of 35 patients. With so many patients and only three nurses, the nurse who should have been doing triage was forced to take a full patient assignment. One RN who was already assigned to four patients was given an additional fifth patient. The fifth patient underwent a conscious sedation procedure and required frequent vital sign checks to ensure no adverse reactions. However, this 1:1 care was impossible with the patient load and acuity.
- **##/##/2014, ER, Providence Hospital:** Because of continued pressure from ER nurses to improve staffing, an intradepartmental meeting was held. However, instead of adapting the matrix and assigning additional RNs to the unit, ER staff was instead told that techs from the radiology department would come to the ER to help transport patients needing X-rays. Though this policy was supposed to have already been in effect, when radiology techs were requested during the nightshift, they told an ER nurse that management had never informed them of this policy and thus couldn't provide them with any transport assistance. Meanwhile, there were 36 patients in the ER and only six RNs and four ER techs. There weren't enough empty beds in the ER for that many patients and they couldn't transfer any patients to other units because other units were also understaffed and not equipped to accept them. Patients had to remain in the waiting room or sit on chairs in the hallway. All six RNs on duty reported the problem to their supervisor but no additional staff was provided.
- **##/##/2014, ER, Providence Hospital:** Thirty-three patients with eight RNs and three techs for the whole Emergency Department. Basic supplies like urine cups had never been replaced. One RN reported to her supervisor that some patients in the ER, though admitted, waited for up to and over 12 hours to be seen.
- **##/##/2014, ER, Providence Hospital:** An RN reported that the urine collection cups still hadn't been replaced after being missing for two days. There was no unit clerk, no triage tech, no saline flushes, and only one working EKG machine. The water was also not working meaning nurses couldn't wash their hands, flush toilets, or provide drinking water to their patients. All seven

nurses in the ER reported to their supervisor that the RN to patient ratio exceeded the safe limit of one to four. The acuity of patients was severe yet only one RN was provided to do triage. One patient waited in the waiting room for over two and half hours to even receive an initial triage assessment. No extra support was provided to the department.

- **##/##/2014, ER, Providence Hospital:** A nurse reported to her nursing supervisor that every stretcher and chair in the department was occupied and there were over 20 people in the waiting room. There were only five RNs provided and three techs and one of the techs went home sick. There was no triage nurse and only one charge nurse, who also had to perform direct care duties due to understaffing. The nurse reported that patients were waiting 3 to 4 hours before even being triaged. This was a perilous situation for patient health and safety, however, no additional staff support was provided.
- **##/##/2014, ER, MedStar Washington Hospital Center:** All winter long the ER had been operating at critical capacity. For a stretch of more than two months, every gurney in the ER was regularly occupied and there would be nowhere to put the 20-30 people in the waiting room. Chronic understaffing on other floors meant patients would be admitted, but could not be transferred to other units. Nurses had been demanding additional gurneys be provided to the ER, but to no avail.

After a serious incident, the hospital has instituted a policy of making sure empty gurneys on other floors are brought down to the main lobby and held there for use in the ER. However, the lobby is down a hallway and closed off from the ER. So for a nurse to retrieve a gurney, she or he needs to leave the ER and give her/his patient assignment to an already overburdened nurse. The likelihood for further adverse incidents is high.

- **##/##/2013, ER, United Medical Center:** Eight RNs were provided for 24 patients needing emergency care. In addition, multiple supplies were missing, and there was not one working IV pump on the unit.
- **##/##/2013, ER, United Medical Center:** Serious understaffing in the emergency room meant one nurse was forced to care for a critically ill patient with highly unstable blood pressure and who needed a blood transfusion, in addition to four other patients. There was no tech support provided to the unit.
- **##/##/2013, ER, United Medical Center:** Twenty-two patients were admitted to the ER. There were only seven RNs and one aide on staff and no techs. None of the RNs was able to take a break or lunch break during their 12.5 hour shifts. For one RN to quickly run to the break room to grab some food meant that she was doubling another RN's patient assignment for the time she was gone. The risk of error was high.

INTERMEDIATE CARE UNITS

Patients in these areas require a higher level of support than provided by the general medical/surgical floors. Whether named Progressive Care, Step-Down Unit, or Intermediate Care, the national standard for staffing these units is three or fewer patients per RN.

- **##/##/2013, 1E Intermediate Care Unit, MedStar Washington Hospital Center:** Fourteen patients—12 of whom were total care—were staffed by five RNs when the matrix required six. The resource nurse, who is supposed to only be assigned one patient according to the staffing matrix, was forced to care for two. Meanwhile, multiple patients needed to be escorted to procedures in other units which took already overburdened RNs away from the bedside of their other patients for extended periods of time.
- **##/##/2013, 1E Intermediate Care Unit, MedStar Washington Hospital Center:** Dayshift began with ten patients and five RNs. Although the unit staffing matrix listed six as the number of RNs needed, the staffing office had cancelled one nurse. No clerk or nursing assistant was provided. As new patients were admitted, the unit became extremely unsafe since the staffing was already insufficient. When informed of the patients to be admitted, all five RNs reported to their supervisor that they needed more nurses.

An RN assigned to three patients had to accompany one patient for a HIDA scan and stay with that patient for more than four hours. The patient was too unstable to travel without an RN, monitor, advanced cardiac support (ACLS) medications, and equipment including a portable defibrillator.

The RN's other patients had to be taken over by nurses who were already assigned to two and three patients for the entire four hours. Two other patients had to be accompanied off the unit for tests for shorter periods of time. For the time three RNs were off the unit, two RNs were attempting to care for five patients each. The risk of "failure to rescue" was very high. Patients were totally dependent on an RN for all ADLs and safety. Those who had a femoral arterial line could not be assessed as often as needed. They were at high risk of losing a limb or bleeding to death. A clerk wasn't sent to help until three hours before the end of the shift.

- **##/##/2014, 1E Intermediate Care Unit, MedStar Washington Hospital Center:** The matrix for nightshift required six RNs and one PCT yet only five nurses and no techs were provided to care for 13 patients. Four patients were admitted during the night, and though all five nurses called their nursing supervisor asking for at least a tech to assist them none was ever provided.
- **##/##/2014, 2 South Intermediate Critical Care, Providence Hospital:** A nurse with four patients was told to take a direct admission. A direct admission is a patient that wasn't seen in the ER, but may be coming from a doctor's office or another hospital and is thus being directly admitted to the unit. The four patients she already had were considered a heavy assignment: two for respiratory problems, one on isolation (meaning physically separated from the rest of the unit to prevent the spread of a contagious disease), and one receiving a blood transfusion and

continuous IV medications to control blood pressure. After speaking to the nursing supervisor regarding this heavy assignment, she was told one of her patients would be transferred to another floor before the direct admit would come. The direct admission arrived before the transfer and the admit had a BP of 211/120, which is hypertensive emergency—meaning this patient was at high risk of having a stroke. The nurse did the best she could to care for all of her patients, but she was not able to provide optimal care.

- **##/##/2014, 5th Floor Post Cardiac Care Unit, United Medical Center:** Patients on these units have acute coronary illnesses, and these nurses are trained to care for patients requiring close monitoring after receiving invasive procedures, during infusion of cardio-selective drugs, and coordinating care with various specialties within cardiology. Considered an intermediate care or step down unit, nurses should not have more than three patients; however, on this day six RNs and one LPN were provided to care for 42 patients. The charge nurse had a full patient assignment of five patients, and there was no tech on the unit. The nurses protested the heavy patient load, but instead of providing additional staff the supervisor accepted additional admissions to the unit.
- **##/##/2014, 5th Floor Post Cardiac Care Unit, United Medical Center:** Seven RNs were provided to take care of 38 patients. The charge nurse had 3 patients. There were three aides and one monitor tech to help with all the patients on the floor. No one was able to take a break or lunch break. As soon as a patient was discharged, the supervisor for the unit expected the nurse to immediately accept a new admission.
- **##/##/2014, 5th Floor Post Cardiac Care Unit, United Medical Center:** There were 6 RNs (one of whom was a float nurse and thus did not have specialized training for the unit) for 42 high acuity patients—including one nurse who had seven total care patients who could not feed or relieve themselves without aid. No ancillary support was provided. In addition, the machine used to check patients' blood sugar was malfunctioning.
- **##/##/2014, 5th Floor Post Cardiac Care Unit, United Medical Center:** Dayshift had a census of 42 patients. Only six RNs were provided. There were also 4 aides on the unit. Each RN had seven patients including the designated charge nurse. The acting manager for the unit took one patient who had been admitted from the ER and briefly acted as charge nurse. There were no water cups, mouthwash basins, toothbrushes, or toothpaste provided to the unit until three hours into the shift.

PYSCHIATRIC UNITS

The American Psychiatric Nurses Association has yet to make a recommendation on a maximum number of psych patients per nurse; however, they do have an official statement in which they conclude, “It is the position of APNA that the likelihood of adverse outcomes increases with an increase in the number of patients assigned to each nurse.”¹²

- **##/##/2014, Psychiatric Unit, Providence Hospital:** Nightshift started with only two RNs and 15 patients. An additional RN was provided at 11pm, but there was no secretary and six more patients had to be admitted during the shift. These patients have severe behavioral and mental health disorders, but no security staff was provided.
- **##/##/2014, Psychiatric Unit, Providence Hospital:** Twenty-four patients were on the unit during nightshift and only two RNs and two PCTs were provided and no unit clerk. No medications are stored in this unit at Providence and are instead kept in a building on the other side of the parking lot. Only RNs are legally allowed to handle and administer medications so one RN had to exit the building to get the medicine—leaving the second RN alone with 24 highly volatile patients.
- **##/##/2014, Psychiatric Unit, Providence Hospital:** The unit was beyond capacity with 26 patients and only two nurses. The unit was informed that an additional patient was being held in the Emergency Department and needed to be admitted to the unit. The outgoing shift charge nurse called the nursing manager and told her that was inadvisable because all of the beds were occupied. The supervisor told the charge nurse to call the staffing office. No other staff was provided.
- **##/##/2014, 4W and 4E Behavioral Health Units, United Medical Center:** There was one RN provided to cover two units. One aide was provided on the 4 East side and two aides on the 4 West side. This nurse had total responsibility for 25 seriously mentally ill patients.

¹ James, JT. A New, Evidence-based Estimate of Patient Harms Associated with Hospital Care. *Journal of Patient Safety*. 2013; 9: 122.

² National Quality Forum (NQF), Serious Reportable Events In Healthcare—2011 Update: A Consensus Report, Washington, DC: NQF; 2011.

³ HRLA, DC DOH. Patient Safety Reporting Program Annual Report. *ECRI Institute*. 2011.

⁴ McHugh, Berez and Small, “Hospitals with Higher Nurse Staffing Had Lower Odds of Readmissions Penalties Than Hospitals with Lower Staffing,” *Health Affairs*, October 2012, 32:10; Needleman, Buerhaus, Pandratz, Leibson, Stevens and Harris, “Nursing Staffing and Inpatient Hospital Mortality,” *The New England Journal of Medicine*, 2011; 364:1037-45; Aiken, Sloane, Cimiotti, Clarke, Flynn, Seago, Spetz and Smith, “Implications of the California Nurse Staffing Mandate for Other States,” *Health Services Research* 2010 Aug;45(4):904-21; Cimiotti, Aiken, Sloane and Wu, “Nurse Staffing, Burnout and Health Care-Associated Infection,” *American Journal of Infection Control* 40 (2012) 486-90; Aiken, Clarke, Sloane, Sochalski and Silber, “Hospital nurse staffing and patient mortality, nurse burnout, and job dissatisfaction,” *Journal of American Medical Association*, 2002 Oct, 23-30;288(16):1987-93; Weiss, Yakusheva and Bobay, “Quality and Cost Analysis of Nurse Staffing, Discharge Preparation, and Postdischarge Utilization,” *Health Service Research* 46:5

(October 2011); "State-Mandated Nurse Staffing Levels Alleviate Workloads, Leading to Lower Patient Mortality and Higher Nurse Satisfaction," *AHRQ Health Care Innovations Exchange*, September 26, 2012.

⁵ DC Municipal Regulations 22-B2021 and US Code 42 CFR 482.23(b).

⁶ Linda H. Aiken, Sean P. Clarke, Douglas M. Sloane, Julie Sochalski, and Jeffrey H. Silber. "Hospital Nurse Staffing and Patient Mortality, Nurse Burnout, and Job Dissatisfaction." *Journal of the American Medical Association* 288:16 (October 2002), page 1987.

⁷ Marianne E. Weiss, Olga Yakusheva, and Kathleen L. Bobay, "Quality and Cost Analysis of Nurse Staffing, Discharge Preparation, and Postdischarge Utilization." *Health Services Research Journal* 46:5 (October 2011), page 1484.

⁸ Aiken, Clarke, Sloane, Sochalski, and Silber. "Staffing and Patient Mortality." *JAMA*.

⁹ Danielle M. Olds and Sean P. Clarke. "The Effect of Work Hours on Adverse Events and Errors in Health Care." *Journal of the National Institutes of Health*. April 2010. Pg. 7.

¹⁰ "Mandatory Overtime." American Association of Critical Care Nurses. March 2003. www.aacn.org.

¹¹ "Staffing and Productivity in the Emergency Care Setting." Emergency Nurses Association. 2003. www.ena.org.

¹² "Staffing Inpatient Psychiatric Units: A Call for New Staffing Models." American Psychiatric Nurses Association. September 2011. www.apna.org/i4a/pages/index.cfm?pageid=4662#sthash.ZtGfpLBI.dpuf.