Leaders at Ascension Health and Kaiser Permanente conducted a comprehensive, multi-site study to identify how nurses in hospitals spend their time, in an effort to find more time for nurses to provide patient care at the bedside. *Time & Motion* – the largest environmental study of its kind – was conducted over a 12-month period, ending in June 2006. Investigators collected data from 767 nurses in 36 geographically diverse hospital medical-surgical units. In all, data as to how nurses spend their time were collected and analyzed from 2,201 nursing shifts comprised of almost 22,000 total nursing hours.

**Key findings:**
- More than three-quarters of nurses’ time was devoted to nursing practice.
- Activities considered to be waste consumed 6.6% of reported time per ten-hour shift.
- Nonclinical activities accounted for 12.6% and unit-related functions 15.2 minutes or 2.8% of nurses’ time.
- Nurses spent the largest proportion of their time—38.6%—at the nurse station, compared with less than one-third of their time in the patient room.
- Three subcategories accounted for most of nursing practice time: documentation (35.3%; 147.5 minutes), medication administration (17.2%; 72 minutes), and care coordination (20.6%; 86 minutes). Patient care activities accounted for 19.3% (81 minutes) of nursing practice time, and only 7.2% (31 minutes) of nursing practice time was considered to be used for patient assessment and reading of vital signs.
- Study unit nurses traveled between 2.4 and 3.4 miles per 10-hour daytime shift. On night shifts, the median unit average dropped by .8 miles per 10-hours. Individual nurse travel distances ranged from 1 to 5 miles per 10-hour period.
- No consistent, statistically significant relationship was found between the various unit architectural types and nursing time spent with patients.

**The Link to Hospital Design and Technology**

Preliminary key study findings were presented in January 2007 to more than 200 health care executives and frontline staff from across departments, who explored the relationship between the amount of time spent directly with patients and the quality of the care patients receive. They agreed that limitations in hospital work space – and inefficiencies associated with the medical technologies used by frontline staff – must be addressed in order for nurses to have more time available to directly care for patients.

These health care leaders said all hospital space decisions and electronic health technologies should:
- Enable nurses and other frontline staff to spend more time providing direct care to patients, rather than hunting and gathering, juggling gadgets, searching for information and coordinating with other caregivers.
- Help caregivers consistently provide safe, high-quality care in a timely fashion.
- Be well-integrated, so as not to create inefficient work or wasted motion.
Issuing a Proclamation for Change

Recognizing that the United States is currently undergoing the largest hospital building and renovations boom in its history, while the demand for nurses simultaneously continues to outpace supply, many health care leaders see this as a timely opportunity to improve the quality of patient care. Based on the results of the Time & Motion study, these leaders have developed principles to guide decisions about hospital design and technology and issued a proclamation to be shared with hospitals, health systems and health care organizations. It states:

In order to transform the hospital-patient care environment and improve the delivery of safe, high-quality, patient-centered care, we believe in the need for:

1. Patient-centered design. Hospital and technology design should be organized around patient needs – helping patients and their families feel engaged in the caregiving process rather than removed from it – and be tailored to address unique factors and diverse patient populations.

2. System-wide, integrated technology. Architects and technology vendors should work closely with nurses, physicians and other caregiving departments (i.e., pharmacy, lab, housekeeping, admitting) in all aspects of designing workspace and technologies in order to ensure a system-wide approach to meeting patient needs.

3. Seamless workplace environments. To consistently provide the highest quality care to patients, the physical design of medical-surgical units should be completely integrated with caregiver work processes and the technologies they use, so caregivers always have the right medication, materials and information, in the right place, at the right time.

4. Vendor partnerships. The design and operation of technology devices should be intuitive, error-free, and part of interoperable systems – so that health care providers can access information in hospital or outpatient settings – and not waste time serving as human bridges that link multiple technology devices in different locations.

While the principles outlined in this proclamation sound simple in theory, implementing these principles requires that the silos that America’s hospital staff operate in – technology, nursing and facilities – be removed. Only then can hospital leaders work cross-functionally to design the best systems for delivering high-quality care that is safe, standardized and cost-effective. The proclamation enables the work of all hospital staff, as well as our vendors and suppliers, to align with the best interests of our patients.

In an effort to improve both clinical outcomes and overall patient care, we believe that the following principles must be adhered to and endorsed in hospitals nationwide:

- Patients and their families will interact more often with nurses and other care providers who spend more time in direct patient care, because impediments have been systematically eliminated.

- Documentation will be a byproduct of care – generated at the point of care and in real-time – rather than an additional work process.

- Needed patient supplies and medical equipment will be available on demand; whenever and wherever health care providers and their patients need them.

- Medications will be administered as part of a seamless system that provides accurate and timely information about the patient, such as allergies, potential reactions and preferences.

- Communications systems will link health care providers as appropriate, being sensitive to communications preferences and needs, while enabling efficient, effective communications across and between disciplines resulting in coordinated patient care.
Join Us

The undersigned organizations agree with this proclamation and will encourage others to adopt it as well.

Ascension Health
Kaiser Permanente
American Academy of Nursing
Academy of Medical-Surgical Nurses (AMSN)
Saint Barnabas Health Care System
Inova Health System
St. Joseph Mercy Oakland, Trinity Health
American Nurses Association
Carolinas HealthCare System
HIMSS – Healthcare Information & Management Systems Society
North Shore-LIJ Health System

The following health systems provided study sites, funding, and resources, and are continuing to move these principles forward nationally:

Ascension Health - Aurora Health Care - Carolinas HealthCare System - Christiana Care Health System – Duke University Health System - Henry Ford Health System - Intermountain Healthcare - Inova Health System – Kaiser Permanente - Legacy Health System - Moses Cone Health System - NewYork-Presbyterian (The University Hospital of Columbia and Cornell) - North Shore-LIJ Health System
Saint Barnabas Health Care System - Sisters of Mercy Health System - Trinity Health - Vanderbilt University

Multiple publications pending – DO NOT reproduce without written permission from the authors 07-10-08