A Legacy of Data Use by Donna Diers

Yale School of Nursing
Dean Emerita, Annie Goodrich Professor, and American Academy of Nursing Living Legend Donna Diers, PhD, RN, FAAN, died February 23, 2013. Professor Diers is renowned for her work as a visionary, scholar, thought leader, scientist, and writer in areas of advanced practice, nursing, and public policy. Her passion for teaching and ability to use language in such exquisite ways to write and talk about nursing can only be described as extraordinary. In recent years she focused her intellectual curiosity on mining hospital administrative data to better understand nursing practice, resource use, and patient care outcomes. She harnessed her intellectual power to address real world hospital service challenges. This body of work is of interest to all nursing leaders across the country and offers significant value in efforts to realize the Institute of Medicine’s Future of Nursing (2010) recommendations and its call to continuously learn in health care for the “Best Care at Lower Cost” (2012).

A Visionary

Ever comfortable on the leading edge, Donna Diers envisioned a relationship between diagnosis-related groups (DRGs), the work of nurses in resource consumption, and patient outcomes. For many years, Dr. Diers and John D. Thompson, an RN and one of the developers of DRGs, formed a partnership to explore nurse’s work through the analyses of administrative data commonly available in hospitals (Thompson & Diers, 1985, 1988, 1991). They reasoned, “The effective management of nursing resources requires a linkage between the cost of services and the patients who receive them” (1991, p. 121). They examined several levels of analyses, such as individual patient data across an episode of care, aggregate patient data by DRG, and trends of patients, nursing resources, and outcomes at the clinical unit level. The focus of many published studies during this era were national multi-site studies using aggregate hospital-level data. The power of “local knowledge” or rather data at the unit level were less recognized.

Dr. Diers observed that clinicians rarely knew how to find and use data. This was particularly problematic when DRGs were accepted for prospective payment under Medicare, fundamentally changing both how hospitals were reimbursed for care and how they used clinical and financial information. As a result she and then Chief Nursing Executive at Yale New Haven Hospital (YNHH), Diana Weaver, DNSc, RN, FAAN, forged new ground through creation of a process built upon actual clinical, financial, and operational data so clinicians might investigate and gain understanding to

EXECUTIVE SUMMARY

- Donna Diers, PhD, RN, FAAN, is renowned for her work as a visionary, scholar, thought leader, scientist, and writer in areas of advanced practice, nursing, and public policy.
- She envisioned a relationship between diagnosis-related groups, the work of nurses in resource consumption, and patient outcomes.
- Dr. Diers helped blaze the path for creating a hospital-based service dedicated to answering operational questions from clinicians through analysis of clinical and financial data sets.
- She recognized the value of nurses’ access to data experts to contemplate and analyze the critical patient care questions and their impact on clinical quality and cost.
- Dr. Diers was the master of using local data for change at the unit level.
- Her lifetime contributions and dedication profoundly affected the uses of data for future generations of nurses.

SHARON ECK BIRMINGHAM, DNSc, MA, BSN, RN, is Chief Nursing Executive, Eck Birmingham & Associates, Hillsborough, NC, and Adjunct Faculty at the Universities of North Carolina, Iowa, Colorado, and Yale.

SUZANNE M. BOYLE, DNSc, RN, is Vice President, Nursing and Patient Care Services, New York Presbyterian Hospital/Weill Cornell Medical Center, New York, NY.

NOTE: The authors were the first and second doctoral students of Professor Diers at Yale School of Nursing.

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EDITOR’S NOTE: As further testament to Dr. Diers’s endearing work, see the article “Understanding Nursing Units with Data and Theory” in this issue of Nursing Economic$.
vexing questions (Diers, Bozzo, & RIMS/Nursing Acuity Group, 1997; Diers, Bozzo, Blatt, & Roussel, 1998). Dr. Diers led new and strong partnerships with nursing, finance, and decision-support colleagues at YNHH, engaging them in the quest to analyze available data. The available data during this period included: (a) Transitions Systems International, Inc., with actual cost information at the patient level; (b) the Automated Nurse Scheduling Office System: the first automated scheduling system, invented by Michael Warner, PhD, with actual nursing hours worked by the nursing staff; and (c) the Uniform Hospital Discharge Data Set, containing data elements such as date of birth, race, admission and discharge date, attending MD, and disposition of the patient at discharge (e.g., home, nursing home, death) (Pickard & Eck Birmingham, 2010; Pollack & Diers, 1994).

A Trail Blazer

This path blazed the way for creating a hospital-based service dedicated to answering operational questions from clinicians through analysis of these clinical and financial data sets. Nurse managers, who represent the largest constituency of operational hospital leaders, gained access to decision support and began understanding the value of unit-level data (Diers, Torre, Heard, Bozzo, & O’Brien, 2000). Like physicians, nurses practice and think about individual patients and the hour-by-hour and shift-by-shift changes in a patient’s condition. So, thinking about an “entire clinical unit of patients” or groups of patients in a given DRG was a challenge for nurses. Dr. Diers conducted sessions where nurses vetted the variability of patients with a stroke, as an example, and discussed such factors as type of stroke, age, gender, ethnicity, and residence that may impact nursing care delivery, length of stay, mortality, cost, and other outcomes. Discussions using case studies of patients with robust data review were of great value (Diers & Allegretto, 2001). Nurse leaders tapped the new services to better understand how data could discern the formerly unexplainable patient care variation at the unit level and remedy critical issues with clinically sound redesign strategies (Diers & Potter, 1997; Diers, Weaver, Bozzo, Allegretto, & Pollack, 1998; Diers et al., 2000). Her approach empowered clinicians with information and demonstrated the value and power of administrative data for practice and management (Diers & Bozzo, 1999). Clinical nurse specialists were better able to manage diabetes care across populations and demonstrated: “The essence of these analyses was defined as understanding the work of patient care. Once the work is understood, it can be managed to improve clinical efficiency and effectiveness” (Bozzo, Carlson, & Diers, 1998, p. 86).

This body of work flourished as nurse leaders relied upon the data methodology to scientifically investigate unit-level effect of nurse staffing on various clinical and administrative outcomes. As the author of the book Research in Nursing Practice (1979), Dr. Diers suggested several prerequisites for conducting research, such as a curiosity and a questioning attitude, “but also a most important attitude, before one launches into the study of nursing one must believe nursing is important enough to study” (p. 5). The comprehensive evaluation of nurse staffing is articulated by the recently revised ANA’s Principles for Nurse Staffing to include outcomes and other organizational, work culture, and practice environment variables (American Nurses Association, 2012; Weston, Brewer, & Peterson, 2012). Boyle (2004) examined nursing unit characteristics and how they influenced patient outcomes in the form of nurse-sensitive adverse events and failure to rescue. Results showed a significant association between nursing unit characteristics (e.g., autonomy, practice control) and nurse-sensitive adverse events of pressure ulcers, failure to rescue, and urinary tract infections. The unit-level analyses provided a better understanding of the effect of the work environment on nursing practice and patient outcomes. More recently, Duffield and associates (2010) found fewer RNs, increased workload, and unstable nursing unit environments were linked to negative patient outcomes including falls and medication errors on medical-surgical units.

A Foundation for Generations

The research publications and their findings that grew out of this body of work are extensive and beyond the scope of this column, but strong evidence was generated related to nurse staffing, nursing unit volume and specialization, and its effect on length of stay (LOS) (Czapinski & Diers, 1998; Flood & Diers, 1988; Rimar & Diers, 2006). This area of inquiry begs for further research, but these studies reveal when a clinical unit cannot maintain an adequate level of qualified nursing staff, patients may suffer from lack of care and hospitals suffer financially from increased LOS.

In speaking about the future, Dr. Diers recognized the value of nurses’ access to data experts to contemplate and analyze the critical patient care questions and test changes and their impact on clinical quality and cost. She was the master of using local data for change at the unit level and sought the wisdom of others through collaboration with financial, decision support, and performance improvement colleagues. The nurses caring for patients 24/7 and in primary care ambulatory settings and medical homes will always, however, have the best vantage point to understand the meaning of patient care variability, resource use, and outcomes.

The deepest times of reflection allow one to ponder the lifetime contributions of how one dedicated nurse has profoundly influenced the uses of data for continued on page 154
future generations of nurses. Our intent was to offer a brief glimpse into one of the many legacies of Dr. Donna Diers. 

REFERENCES