

Sean P. **Clarke** (Ph.D., Nursing, McGill, 1998) is Class of 1965 25th Reunion Term Associate Professor of Nursing and Associate Director of the Center for Health Outcomes and Policy Research (CHOPR). He is a Fellow of the American Academy of Nursing, on the adjunct faculty of the Université de Montréal, and a member of Joint Commission on Accreditation of Healthcare Organization's National Nursing Advisory Council.

Scientific Accomplishment. In the past 36 mos., Clarke has published a dozen papers or chapters on safety issues in health care, especially those related to how hospitals are managed, using survey methods and a variety of large databases. He studies aspects of hospitals that make them good (safe) or bad (unsafe, unhealthy) places for both patients and nurses in order to understand what needs to be changed. A key finding is the importance of nurse staffing. In a paper (with **Aiken** and others) in the *Int J Nurs Studies*, it is noted that although there is growing evidence in the US that lower patient loads for nurses are associated with higher rates of patient survival and retention of staff nurses, these results have not been extended to other populations. In a study linking ~4000 nurses with ~120000 surgery patients in 30 English hospitals, similar impacts of staffing on outcomes are found to those reported in the US. Clarke was a lead author in an editorial in *Qual and Safety in Health Care* that summarized this literature in which he has been instrumental, on the need to connect organizational components and outcomes for improved patient safety: The implications for action from the growing body of research on nursing and patient safety are straightforward: hospitals seeking to improve safety outcomes should put a premium on adequate nurse staffing, a high proportion of registered nurses, a well educated nurse workforce, positive nurse-physician relations, and responsiveness of management to addressing problems in patient care identified by nurses at the bedside. A critical mass of research confirms an association between hospital nursing capacity and patient outcomes, both within and across countries with differently organized and financed health care. Recent studies undertaken in the United States, Canada, England, Switzerland, New Zealand, the Russian Federation, and Armenia all show that the adequacy of nurse staffing and the quality of the nurse working environment are associated with the quality of patient care. In hospitals with poor nurse work environments, patients tend to be at a heightened risk for adverse outcomes—including mortality.

Present and Future. Clarke's current projects involve the relationship of organizational climate to safety issues in hospitals, how nurse staffing and work environments in hospitals affects patient outcomes when patient volume is taken into consideration. He is currently working on manuscripts that examine two new types of outcomes data in relation to the practice environment for nurses in group of hospitals studied in earlier publications: negative outcomes other than mortality for conditions where larger volume providers appear to provide superior care. His current grants (see below) relate to nurse staffing and practice environment conditions as predictors of the quality of the process of care that patients receive (using newly-available publicly-reported data from the Centers for Medicare and Medicaid Services) and will examine whether quality of care can be documented as the missing link between structure and outcomes. Clarke will also be replicating and expanding his work on the epidemiology of needlestick injuries in hospital nurses, this time in 4 US states, including yet more work environment factors, for instance, safety climate; and will also look at risk issues in long-term care and home health as well as hospital settings. He maintains collaborations with teams in other countries (Belgium, Switzerland, Japan, Canada and others) and is doing exploratory work with American colleagues in academic and practice settings looking at measures and data sources other than survey and administrative data in acute care to continue his program of research oriented towards organizational influences on micro (bedside) issues of quality and safety and the modifiable features of hospitals).

PSC and Research. Clarke is the PI on an NIOSH R01 to study workplace organization and the incidence of needle sticks among nurses (a follow-up on a project done by **Aiken, Smith**, and others over a decade before); and the PI on a RWJ Foundation grant (**Smith**, Co-Project Director; **Aiken**, Co-Investigator) on validating nurse-sensitive performance measures. He was the PI on a PSC Trio award that provided funding for a sample of non-respondents to previous waves of a study of nurses in California and Pennsylvania (with **Smith**). This work was also supported by two grants to study nursing outcomes research, on which Clarke is a Co-Investigator: an NINR P30 and an NINR R01 (**Aiken**, PI of both). His research is also abetted by his role as a Co-Investigator on 2 training grants, an NINR T32 (**Aiken**, PI) and a CDC T32 (L. McCauley, PI). Clarke relies heavily on the PSC CITID core for data management services as well as statistical consulting. A nurse with an international background, he will serve on the working group for the Best Practices core.