

Linda H. **Aiken** (M.N., Nursing, Florida, 1966; Ph.D., Sociology, Texas, 1973) is the Claire M. Fagin Leadership Professor of Nursing, Professor of Sociology, and Director of the Center for Health Outcomes and Policy Research (CHOPR). She is a member of the American Academy of Arts and Sciences, the Institute of Medicine, a Fellow and former president of the American Academy of Nursing, an Honorary Fellow in the Royal College of Nursing of the U.K., and a member of the National Academy of Social Insurance. She has received honorary doctorates from the universities of Wisconsin—Madison, Florida, and SUNY—Downstate.

**Scientific Accomplishment.** Aiken is an authority on causes, consequences, and solutions for nurse shortages in the United States and around the world. Dr. Aiken leads the International Hospital Outcomes Consortium studying the impact of nursing on patient outcomes in 8 countries, and directed the Nursing Quality Improvement Program in Russia and Armenia demonstrating the successful application of twinning initiatives in nursing to improve hospital quality. She is a member of the Expert Advisory Panel guiding the World Alliance for Patient Safety. She is a leading expert on global nurse migration, its consequences, and solutions in developing and developed countries. Her research is frequently cited by the press. Her policy research agenda is motivated by a commitment to improving health care outcomes by building an evidence base for health services management and providing direction for national policymakers. Her program of international outcomes research deals with the impact of modifiable organizational attributes on patient outcomes and workplace stability in hospitals, causes and consequences of, and solutions for, cyclical nurse shortages, and managerial innovations such as magnet hospitals. She has published 20 papers on these topics—most first-authored—in the past 36 months. A population-related example, from *Health Serv Res.*, reviews estimates of US nurse supply and demand, document trends in nurse immigration to the US and their impact on nursing shortage, and consider strategies for resolving the shortage of nurses in the US without adversely affecting health care in lower-income countries. Production capacity of nursing schools is lagging current and estimated future needs, suggesting a worsening shortage and creating a demand for foreign-educated nurses. Increased reliance on immigration may adversely affect health care in lower-income countries without solving the US shortage. The current focus on facilitating nurse immigration detracts from the need for the US to move toward greater self-sufficiency in its nurse workforce.

**Present and Future.** Aiken and colleagues have a working paper on the outcomes of mandated minimum nurse staffing legislation in California documenting positive outcomes for the nurse workforce. Future papers will examine the impact of the legislation on hospital mortality in California. CHOPR has amassed unique data on the population of hospitals, their patients, and nurses in four states (PA, NJ, CA, FL) that will enable a series of analyses on the impact of the variation in nurses' educational achievement and country of education on hospital mortality. A competing continuation R01 application will be submitted to NINR in early 2008 with a new focus on co-morbidities associated with high prevalence chronic health conditions in keeping with NINR research priorities: How much of an additional hospital mortality risk for surgical patients is posed by the co-morbidities of obesity, diabetes, serious mental illness, and dementia? Do nurse staffing and the quality of the nurse practice environment have even larger effects on the chronically ill as compared to hospitalized patients without these co-morbidities? The NINR T32 will also shift to a focus on chronic conditions in hospital and ambulatory care contexts. Aiken and CHOPR are co-directing with Univ. of Leuven, Belgium, a proposal to the European Union for September 2007 submission that will replicate Penn's International Hospital Outcomes Study in 10 EU countries and will include in observer status for pilot studies researchers in China, South Africa, and Botswana. The study will address the impact of the global nurse shortage on hospital mortality.

**PSC and Research.** Aiken is PI on NINR P30 and T32 grants to foster research and training in nurse outcomes research and she is the PI of an NINR R01 to examine nursing workforce and patient mortality outcomes associated with nurse practice environments. She is a Co-Investigator on 2 other NINR R01s (E. Lake, and M. Blank, PIs), on a NIOSH R01, and a grant from the RWJ Fdn. (**Clarke**, PI on both). As a member of the Graduate Group in Demography she participates in training in population research (NICHD T32, **Smith**, PI; NIA T32, **Soldo**, PI). Her research program at CHOPR routinely draws upon **Allison**, **Rosenbaum**, and **Smith** for statistical consulting. CHOPR is intimately connected with the PSC through its reliance on the CITID core for computing services: consulting on programming; secure data access across research sites; and the provision of programming staff. The latter has created great efficiencies for both CHOPR and the PSC, since it has allowed SSC to manage a larger more flexible staff, even across 2 Schools.