

Statement of Interest

College of Nursing

Research faculty in the College of Nursing utilize “Big Data Science” to study health and disease in populations with health disparities. “Big Data” is essential for this research as the results inform the application of precision medicine. Some of our faculty have experience within a particular area of health sciences big data; others work in the general areas of big data technology and analytics. These faculty include:

1. **Dr. John Lowe** - *Director of the Indigenous Nursing Research for Health Equity (INRHE) Center*. Dr. Lowe is funded by NIH to study the impact of interventions to increase resilience and reduce substance abuse in Native American youth. Health data analytics (behavioral, clinical demography, genomic and social) are critical to predict the impact of these interventions in Indigenous persons, nationally and internationally.
2. **Dr. Graham McDougall** – Dr. McDougall studies cognitive aging and dementia from the cellular level to caregiving among families and communities. The aim of his program of research is to generate knowledge to address the global dementia epidemic. Big data analytics using modeling and simulation offers a holistic and integrative approach to diagnosis and the development of evidence-based interventions and models of care.
3. **Dr. Eugenia Millender** – Dr. Millender is indigenous to the Republic of Panama and studies the impact of social, behavioral, environmental and genetic factors on health in Indigenous populations. She partners with multiple community health centers and analyzes clinical data to identify gaps in care. Dr. Millender’s program of research requires health data analytics (behavioral, clinical, genomic and social).
4. **Dr. Frank Wong** - *Associate Director of INRHE*. Dr. Wong is funded by NIH to study the impact of HIV/AIDS interventions in gay and bisexual men in the United States, Russia, China and Vietnam. Health data analytics (behavioral, clinical demography, genomic and social) are critical to his understanding of etiology and to inform precision medicine.

The College of Nursing has invested in this core group of funded researchers. Infrastructure support for “Big Data Science” is critical to their success and to the future research trajectory of the college.