

2020-2021 Partnership Update

Niagara Health and Brock University

On March 8, 2019, Niagara Health and Brock University signed a Memorandum of Understanding (MOU) to formalize a collaboration that places a focus on co-creating research and student experiences that help people stay healthy and improve both patient outcomes and the way health care is delivered across Niagara. Together, Brock and Niagara Health are working towards a shared commitment of improving the health and vitality of residents in Niagara. The agreement represents the mutual advantage of working together in research and knowledge mobilization to inform local health care delivery and provide real world experiences for students to apply and inform in-class learning.

Projects and Initiatives in 2020-2021

Below is an overview of partnership initiatives that occurred in 2020-2021 between Niagara Health and Brock University.

Research

Niagara Health and Brock collaborated on a variety of studies and co-created meaningful research through partnership with researchers from across the university. In 2020-2021, collaborative research included:

Interprofessional Education for Quality Improvement Program (I-EQUIP): I-EQUIP was created in 2012 by Dr. Madelyn Law at Brock University in the Department of Health Sciences. I-EQUIP aims to provide experiential education opportunities for students to learn about and apply change management, quality improvement and teamwork principles to projects to enhance health services and programs. In 2021, I-EQUIP collaborated with Niagara Health on ongoing projects including:

- Connecting patients with primary care for long acting injectables
- Neonatal Ontario Telemedicine Network Care
- Review of Visitor Restrictions in Hospitals
- Niagara @ Home - Integrated Comprehensive Care pathways for individuals transitioning home

Faculty of Applied Health Sciences

The Faculty of Applied Health Sciences is involved in a number of research projects including:

- Peds-TECH
 - This project is a major collaboration across Brock, Niagara Health and McMaster Children's Hospital focusing on how Pediatric Telemedicine is connecting hospitals. This collaboration originated from an I-EQUIP project.

- This study aimed to explore the Out of Pocket (OOP) costs and time/productivity losses for parents whose children presented in the emergency department (ED) and underwent resuscitation in five Niagara Hospitals.
- The study identified that OOP costs resulting from treatment using Peds-TECH were largely related to travel from the Niagara region to the tertiary hospital. This can be explained by the proximity of the hospital to the Niagara region where our participants reside, which was found to be 73km on average. For the Peds-TECH program. Those who are treated are often under extreme circumstances and require transfer, as seen by the high transfer rate (77%). This high transfer rate along with the proximity of the tertiary hospital, resulted in parents making the commute multiple times. Therefore, this explains the large OOP fee associated with travel.
- Physical Demands in Ultrasound Technicians - a project that evaluates biomechanical loading and injury risk across patient sizes
 - Supported by:
 - Mike Holmes, Associate Professor, Kinesiology Canada Research Chair in Neuromuscular Mechanics and Ergonomics, Brock University
 - Thomas Longland, Occupational Health and Safety, Niagara Health
 - Krystle Etherington, Injury Prevention Consultant, Niagara Health
- Hospital factors in reducing emergency department patient flow
 - Supported by Brent Faught, Professor, Health Sciences
 - The primary objective of this study was to determine what factors increase the odds of long-stay delayed discharge in ALC patients.
 - Through a retrospective cohort study utilizing data from Niagara Health's WTIS database researchers found that long-stay ALC patients were more likely to be directly admitted males with discharge destinations to LTC and assisted living facilities with the presence of bariatric, feeding and/or isolation requirements.
- The impact of social connections therapeutic recreation programming on the social integration of people with mental health issues
 - Supported by Colleen Hood, Professor, Recreation and Leisure Studies
- Health-span trajectories: scientific wellness via transdisciplinary research
 - Supported by Jens Coorsen, Professor, Health Sciences and Biology
- Study on reflection from the patient's perspective focusing on We Move, part of the new We Care initiative in Niagara Health's strategic plan.
 - Supported by:
 - Karyn Taplay, Associate Professor, Department Chair, Nursing
 - Derek McNally, Executive Vice-President, Clinical Services and Chief Nursing Executive, Niagara Health
 - Janice Feather, Registered Nurse, Niagara Health
 - Darlene Venditti, Manager, Clinical Services, Professional Practice, Niagara Health

- Factors Influencing Canadian Community Intensive Care Unit (ICU) Participation in Clinical Research: A Qualitative Study
 - A collaborative research project that also includes researchers from the University of Toronto and McMaster University.
 - This research project received a 3-year \$243,000 grant in September 2021 from the PSI Foundation to explore the influencing factors of community ICU participation in clinical research.

Goodman School of Business

- The Goodman School of Business' Centre for Business Analytics worked with Niagara Health to analyze data related to lengths of stays, falls, etc.

Service

Niagara Health and Brock University supported each other through service in several ways in 2020-2021. These mutually beneficial efforts worked towards addressing their shared priority of helping people stay healthy and improving patient outcomes:

- Students in the Brock University Students' Union (BUSU) Music and Memory Club volunteered to support the virtual delivery of this program to patients.

Student Experiential Learning

Student experiential learning provides unique opportunities for students at the university to gain real world experience as part of their studies. In 2020-2021, the partnership between Brock University and Niagara Health led to significant experiential learning opportunities including:

Experiential Education

- 25 students studying MBAB 5P12 participated in a service-learning project supported by:
 - Anteneh Ayanso, Professor of Information Systems, founding Director of the Centre for Business Analytics
 - Teresa Struk, Director Finance & Decision Support Services at Niagara Health
- 3 students studying *PSYC NEUR 3P59 Human Neuropsychology* supported the online delivery of a Music and Memory program by being paired with residents in long-term care and preparing playlists for the senior residents that feature their favourite music.
- 2 students spent 50 hours each working directly with the Hepatitis C Care Clinic developing promotional material for health education.
- A student completed a 560-hour internship in Therapeutic Recreation at Niagara Health.
- 2 students completed practicums in therapeutic recreation at Niagara Health

Co-op

- A student completed a co-op placement at Niagara Health where they focused on engaging in various project work surrounding risk and learned about the patient relations and risk process by observing practices, researching, and communicating findings on ongoing initiatives for academic publications, reviewing and updating materials for various projects, and additional tasks as assigned.
- A student completed a co-op placement in Niagara Health's extended care unit where they focused on engaging patients to meet their social and cognitive needs.
- A student completed a co-op placement in Niagara Health's Patient Education unit where they distributed materials related to treatment, medications, and survivorship. The student was also responsible for updating drug regimens from Cancer Care Ontario and the Walker Family Cancer Centre protocols.

Career Education

- 9 students volunteered a total of 863 hours with Niagara Health in roles that included an ICU Research Project, Site Wayfinders and Restriction Support Volunteers.
- Kate Doppenberg, a Registered Nurse at Niagara Health, spoke to 53 Med Plus Level 2 students providing an overview of healthcare careers and community health care.
- Dr. Tyler Plyly, Niagara Health anesthesiologist, spoke to 55 students about career opportunities in anesthesiology.
- Chris Green, Director of Communications, Marketing & Community Engagement, Niagara Health Foundation, spoke to students about hospital funding and associated challenges.

Next Steps

Brock University and Niagara Health collaborated on a variety of research and student experience initiatives in 2020-2021. Together they advanced their shared goal of collaborating with one another to provide meaningful student educational experiences and co-creating research that helps Niagara residents stay healthy and improve both patient outcomes and health care delivery in Niagara. 2022 presents an exciting opportunity to build on successful ongoing partnership activities as well as to explore new ways that Brock University and Niagara Health can work collaboratively to improve the health of Niagara's residents.