

COVID-19: PARTNERING TO SUPPORT COMMUNITIES THROUGH RESEARCH AND INNOVATION



Ontario's universities are supporting families, workplaces, businesses and industries across the province. Our institutions are applying world-class research and innovative solutions to help build stronger communities as they navigate COVID-19.

Below are just some of the ways that universities are helping by leveraging expertise, adapting equipment and infrastructure and creating made-in-Ontario solutions.



● Working with local businesses to find solutions

- In an effort to help Dixon's Distilled Spirits pivot operations from producing liquors to bottling much needed hand sanitizer for local frontline workers, the **University of Guelph** supplied ingredients to create up to 2,000 litres of hand sanitizer. The product was distributed to essential workers in medical clinics, the local fire department and the local OPP dispatch centre.
- To help provide essential protection to frontline workers, made-in-Ontario high filtration masks have been designed, tested and manufactured through a partnership between **McMaster University** researchers, Woodbridge Foam Corporation and Canada's Automotive Parts Manufacturers' Association. The masks will soon be certified as safe for filtering pathogens, allowing them to be designated as N95.



- In order to support and promote small food service businesses in the community during the pandemic, the **University of Toronto Scarborough** is working with Centennial College and the City of Toronto on an innovative summer program. The multimedia initiative is bringing community leaders together to champion Scarborough's food scene and encourage more people to take advantage of local restaurants.
- A made-in-Windsor-Essex hand sanitizer has been brought to market to help local health-care facilities get the essential supplies they need through a partnership with **University of Windsor** researchers, Wolfhead Distillery, Inner Seasonings International and Peak Processing. The collaboration has helped fill an important need within the community during the pandemic.

● Supporting the health-care needs of our communities

- More than 300 headbands have been shipped to Health Sciences North to help build the face shields that protect health-care workers, due to the efforts of **Laurentian University** researchers.

Using an open-source design created by a Swedish firm, researchers were able to 3-D print the headbands and plan to deliver hundreds more to the frontlines.

- In order to help health-care professionals adapt to changing local needs and ensure the community understands the risks, guidelines and physical distancing protocols, the Health Design Studio at **OCAD University** has collaborated with front-line physicians to develop an easy to understand self-management and self-isolation handouts in multiple languages.
- An indoor mapping technology has been adapted to help frontline workers who may be exposed to COVID-19 inside hospitals and other health-care facilities. Created by a **University of Waterloo** math graduate, Mappedin can be adapted to hospital settings to help manage risks if a worker tests positive by identifying others who may have been exposed to COVID-19.



● To help health-care workers during emergencies, a **Western University** researcher has designed a transportable medical unit to help screen patients before they enter the hospital. Each unit can be fully equipped with medical supplies, ventilators and power, as well as built-in climate control and air filtration, and can be deployed in minutes.

● A new app is connecting doctors and patients through virtual or home visits in order to support health-care practitioners as they care for patients during the pandemic. Developed by a **York University** alumnus, the MediSeen software enables patients to request and schedule either a virtual or home visit with a Canadian medical professional.

● Expertise that betters our communities

● Our knowledge about the COVID-19 virus continues to change as we learn more. To help community members stay informed, **Algoma University** researchers from eight disciplines are offering a Science of COVID course for the summer term. The course explores topics that include examining the psychological, ecological and sociological impacts of the virus.

● As communities seek creative ways to stay connected and remain informed during COVID-19, **Queen's University's** only community and campus radio station is using the airwaves to connect people across the region, providing critical COVID-19 information and updates. Radio Pandemic, a call-in show that discusses news about COVID-19, helps inform and support its listeners.

● Long-term care homes in Canada have faced significant challenges during the COVID-19 pandemic. To help address this issue, researchers from **Ryerson University** are working to identify best practices in relational care during pandemic conditions and create innovative strategies to support the well-being of older Ontarians and their health-care providers.

● To help create a more resilient food system during and after the pandemic, **Trent University** researchers are working with multiple emergency food organizations. Prompted by challenges such as climate change, the urbanization of farmland, food insecurity and inequitable distribution, they are looking to create localized solutions that increase access to healthy food.

● While social distancing measures are helping minimize the spread of COVID-19, researchers are interested in the effects of these measures on Canadian workers' mental well-being. An assistant professor at **Wilfrid Laurier University** is leading a team of researchers, who will observe how shifts in work arrangements, personal relationships and living dynamics have impacted their mental health.

● Helping families and workplaces during challenging times

● As Ontario schools continue to provide lessons online, many K-12 educators are seeking tools and resources to help ensure quality digital learning experiences for their students. Education researchers at the Faculty of Education at **Brock University** are sharing online resources and recommendations with K-12 teachers and teacher candidates to support the transition to online teaching.

● To better understand how COVID-19 is impacting the mental health and well-being of those working at home, **Carleton University** researchers are investigating how the pandemic is affecting their day-to-day lives. Their research explores challenges, stressors and coping strategies of working adults and their families.

● Facing a global pandemic, as well as school and childcare closures across the province, can lead to parents and caregivers feeling overwhelmed. To help, **Lakehead University** launched free courses for community members that provide expert advice on parenting, learning at home and managing anxiety, as well as, free live and on-demand webinars.

● To help mitigate the physical and mental health impacts of the pandemic for children, researchers at **Nipissing University** are working with community partners to explore behaviours, such as diet, exercise and sleep habits. They plan to help families develop and reach their health goals, and examine how they have coped during COVID-19.

● As more people work from home during the pandemic, they are struggling to create daily routines, maintain productivity and achieve work-life balance. To help bring more structure and productivity to working from home and alleviate some of the stressors, a researcher at **Ontario Tech University** is sharing evidence-based, work-at-home strategies with employees and workplaces.

● In an effort to better understand how organizations respond to the COVID-19 outbreak, the **University of Ottawa** is collaborating with researchers across Canada to determine what role organizations play in health promotions and how managers can support mental health in the workplace. The research looks at how practices, policies and communications encourage or discourage health-promoting behaviours among their employees.