Western Research

Western University

COVID-19 Research Recovery Plan | May 28, 2020

General Guidelines For Research Recovery

1. Guiding Principles

a) Safety of students, faculty and staff and others remain the first priority.
b) Public Health and Provincial government guidelines will determine our actions.
c) Deans, in partnership with Human Resources and Facilities Management will dictate the schedule of return and activities. Approval to open a research area for initiation of research activity will be provided by the Dean or, if designated, a Department Chair or School Director.

2. Websites to Consult for additional information, training and guidelines.

- The full list of COVID-19 information from Public Health Agency of Canada
- PHAC Risk-Informed Decision-Making Guidelines For Workplaces and Businesses During COVID-19 Pandemic
- PHAC: Non-medical masks and face coverings
- Public Health Ontario offers online training modules
- High quality printable signage for cleaning of public spaces and for handwashing and for mask use
- Self-screening signage
- Western Return to Campus Updates
- Western Health & Safety Measures
- Western Occupational Health and Safety
- Addendum to COVID-19 Research Recovery Plan: Animal-Based Research (OWL)

3. General Parameters and Concerns Affecting Recovery Plans

a) Research spaces, Investigator offices, or student work areas and other research resources cannot open until a) their respective buildings are opened by the institution and are deemed ready for occupancy, and b) approval is received by the Dean or designated Department Chair or School Director.
b) Research recovery has to occur in concert with recovery of other University activities and in adherence to public health and provincial guidelines for safety. Therefore, research recovery will occur as a gradual scale-up of research facilities and activity.
c) All employees must complete a Health Assessment Questionnaire prior to returning to work. The questionnaire can be found within the PeopleSoft system online at myhr.uwo.ca. The questionnaire will appear as a tile within "*My Human Resources,"* titled "Return To Work Questionnaire".
d) Physical distancing: This single action remains the fundamental defence against infection. In your plan consider the following in determining how physical distancing can be achieved, or not, in your research areas.

   i. Capacity of the research area or office to accommodate seated people and their movements within the space. Consider pinch points and how to avoid them.

   ii. Lunch/coffee/social spaces and/or movement about larger buildings (e.g., In transit from the research space/office to a lunch area or administrative office)

e) Work remotely when possible.

f) Support services personnel will be brought back first to open buildings, ensure their safety, security and achieve cleanliness.
g) Be flexible: Conditions, and standards of behaviour, are expected to be variable, particularly in the early phases of return. Not all research team members may be able to return, want to return, or need to return. If not needed on campus, they should work remotely, particularly in the first phases of return.
h) Plan your group-specific recovery model. For example, anticipate supply chain delays (order early), and rebuild animal colonies in a thoughtful manner (anticipate a reversal of recovery should the viral rebound occur).
i) Plan the safe practices for your research space (See Page 4 for ideas)
j) If you conduct community-based research, library research, or other types of off-campus research (e.g., online, field) ensure physical distancing guidelines can be achieved, and adhere to public health policies and those policies in place of the building or community in which you work.
k) Be prepared for the rebound effect. Retain options for return to essential services model and remote work if needed.
l) Equity: Look for, recognize and act upon structural and other inequities and health vulnerabilities unique to different groups and research settings to maximize equitable treatment for all trainees, staff and faculty. Develop an accommodation strategy with your ADR and Department oversight personnel.

4. On-Campus Research:

The following guidelines have been compiled from information received through MLHU, St. Joseph's Medicine Lab, PIDAC, Ontario Ministry of Health, Veterinary Services and Human Resources, Western's Health and Safety Office, discussions with other institutions across Ontario, and documents obtained from other sources throughout North America.

These guidelines apply only FOR ASYMPTOMATIC INDIVIDUALS

Consult with your Department or School Chair and Associate Dean (Research) on all matters of implementation and follow-up.

- **Detailed Health & Safety Measures at Western.**

Screening: (faculty, staff and students must complete Western's questionnaire)

- For each student before they enter the research space: Ministry of Health Screening Questions (LHSC Adaptation). See Appendix 1.
- If student or participant answers "yes" to any question, they are not allowed into the building and will be directed to Telehealth, Western Student Health and Wellness or MLHU Website for additional guidance.
- Any student or participant with a positive screening test may report back in two weeks after symptoms have ceased, and will undergo another screening.
- Screening occurs every day during the initial phases of return as per guidelines.

Personal Protective Equipment (PPE):

Primary defences against spreading the COVID-19 infection include physical distancing, frequent hand washing and not touching your face. Personal protective equipment (PPE) is the final line of defense in protecting **asymptomatic** students, researchers and participants against occupational exposure. PPE cannot be used to minimize physical distancing guidelines; rather, PPE is used when physical distancing cannot be maintained.

There are several levels of protection to be considered first before considering the need for PPE.

1. **Eliminate risk** by limiting the number of people attending the workplace. Western's phased return does this, allowing units/faculties to permit employees who must return to campus to have a gradual, rotational, and periodic presence on campus.
2. If physical distancing isn't always possible, **engineering controls** like installing barriers such as plexiglass to separate people are an important second level of protection. Western is reviewing several areas of campus where installing plexiglass will help prevent the spread of the virus.
3. **Administrative controls,** such as rules and guidelines to keep people physically separated. Western is working with a global architectural and space planning firm to inform our guidelines, signage, and wayfinding. Signage and posters are being installed across campus for elevators, dining areas, shared spaces and washrooms, to name a few examples.
4. When the first three levels of protection aren't enough to control people's risk, the fourth and final level of protection is PPE. Non-medical masks, when worn properly, can reduce the spread of one's own respiratory droplets.

Guidelines for Use of Personal Protective Equipment (PPE):

- **Non-medical masks/face coverings**: We highly recommend the use of non-medical masks/ face coverings in the workplace. These act as a personal hygiene measure to protect others from potential infectious droplets. Tips for wearing non-medical masks.
- **Surgical masks**: We require those working in 'wet' research labs and teaching labs to wear surgical masks due to physical distancing challenges that may exist in these environments. It is recommended that those working in a shared lab environment should take breaks every 50 minutes, leaving the lab and preferably getting some fresh air outdoors. Two surgical masks per person per shift is recommended, and the mask should be changed if it becomes wet.
- **N-95 respirators:** Only those working in a clinical setting or in labs where N-95 respirators are normally required should wear them.
- PPE in labs: Any PPE **normally required in your lab** should be worn at all times. These items could include: face shields, N-95 respirators, surgical masks, safety glasses, gloves, gowns, booties, etc.

Ordering Personal Protective Equipment (PPE) and Pandemic Supplies:

It's important to remember that PPE is the final line of defense in protecting employees against occupational exposure. Employees who feel they require PPE should speak with their supervisor.

Any PPE or pandemic supplies (outlined below) **must be ordered through the individual identified as designated requisitioner for your faculty/unit via Mustang Market**. This process will enable Procurement Services to properly manage inventory during this critical time.

Researchers can buy supplies from research accounts. Students should buy their own personal masks outside of research lab use. Procurement Services has outlined helpful information for ordering important pandemic supplies, including:

- Ordering pandemic sanitary supplies
- Ordering plexiglass barriers and face shields

Any other office or lab supplies not on this list can be ordered through normal channels.

Pandemic supplies include:

- Pandemic-related Sanitary Supplies
    - Personal size hand sanitizer (keep empty containers to refill)
    - Medium, 2L pump bottle hand sanitizer (for higher traffic areas)
    - Large, 4L pump bottle hand sanitizer (for refilling personal size bottles)
    - Pump, threaded for use on 4L bottles (for refilling personal size bottles)
    - Sanitizing wipes or spray – with disinfectant (review label before using)
    - Surgical Masks, with ear loops
    - Disposable Nitrile Gloves for use in the disinfection process (small, medium, large & x-large sizes)

- Plexiglass Barriers
    - Temporary plexiglass barriers may be useful when physical distancing is challenging such as higher frequency customer service/reception areas, and other common-use space applications.
    - Product is composed of clear acrylic sheets, precision-cut to sit on a sturdy free-standing base without the use of any adhesive or tape.
    - Material is easy to clean and sanitize, shatterproof, and easy to assemble and disassemble for storage.
    - Standard sizes should be appropriate for most applications, however, if there are specific requirements for permanent or customized barriers, University Machine Services (UMS) will review and advise while working with Facilities Management as appropriate.
    - A Crime Prevention Through Environmental Design (CPTED) review will be required for permanent solutions and will be coordinated by Campus Community Police Services once contacted by UMS.

- Face Shields
    - Clinical and other specialty areas may require face shields when maintaining physical distancing is challenging and individual mobility is a necessity.
    - Product is composed of clear PETG plastic sheets, with adjustable Velcro head strap.
    - Material is easy to clean and is reusable.

Cleaning:

Our Facilities Management (FM) caretaking staff will continue cleaning floors using a hydrogen peroxide-based cleaner (ES65H) on a weekly basis. Caretakers will empty garbage receptacles at that time or as requested. FM caretakers will focus on cleaning high touch surfaces such as door handles and light switches at least daily using disinfectant cleaner. The disinfectant is dispensed through spray bottles or an electrostatic sprayer containing ES65H.

Caretakers do not clean workbenches, countertops or desks to ensure they do not adversely affect any research equipment or specimens. Research labs should procure cleaning supplies from Mustang Market, through their 'designated requisitioner' as outlined in the following document: Ordering non-commercial cleaning products.

Between each participant or student: sterilize bedside table, BP cuff, lab benchtops and other counters, chair or computer desks and keyboards, door knobs, light switches, (high touch areas) with a sterilant containing a DIN number. Examples include hydrogen peroxide solution, Lysol wipes; latex gloves must be worn. Given limitations with facilities support staff, students and/or staff of each research area will be responsible for this action and, therefore, may need training.

5. Field Research

- If conducting field research, ensure that you do not impose risk or burden on the community into which you are moving. For example, bring your own food so you do not need restaurants. Proactively ensure that the site you visit is accessible and open. Learn about that site's requirements and guidelines. For example, field work conducted in national parks will require permission from appropriate authorities.
- Maintain a minimum of 2 metres of physical distance
- Arrange travel so that physical distancing is maintained - this may mean multiple vehicles need to be taken to the site of fieldwork
- Keep vehicle windows open and sanitise door handles, steering wheel and other common touch areas at the start and finish
- Minimum field party is two persons
- No overnight trips are to occur
- Every effort must be made to have designated food and equipment allocated for individuals for the entirety of the work
- If absolutely necessary, shared equipment must be limited. If shared, it must be sanitised before and after use
- No work on boats is permitted until Phase 4. Shore-based work may be considered during Phase 3, including diving and snorkelling; however, diving and snorkelling plans must be approved by your supervisor
- The plan must include communication methods, logging of the plan with your Unit's administration and a defined check-in schedule.

6. Community Research and Artistry

- Some research work areas may be too confined to accommodate more than one person while maintaining 2 metres of physical distancing. Consider limiting the number of trainees occupying such spaces, and how they move about these spaces.
- Be aware of the guidelines and risk levels of the various groups with which you work. Physical distancing remains the primary means of infection mitigation. Prioritize online methods, avoiding face-to-face studies in the early phases of recovery.
- Remote contact with research participants is encouraged if feasible and does not compromise the quality of the research.
- When/if in-person contact is allowed by public health officials and the relevant setting (e.g. public spaces, participant homes, community agencies, archive facilities) the following applies:
- **Screening** – anyone engaged in research in community settings (for example in which data collection would typically not happen at the university) should self-screen according to Appendix 1 and follow guidelines as listed for on campus research. Researchers should screen potential participants with the same criteria and avoid in-person contact as needed.
- Conducting the research:

- PPE: when both the researcher(s) and participant (s)are symptom-free, in person meetings may occur, following the applicable, current public health guidelines for protective equipment, such as staying 2 metres apart, wearing masks.
- Having contact with the same materials should be avoided. If parties do need to touch the same materials then these materials should be cleaned before and after each use as per on-campus guidelines.

7. Considerations for Building Your Research Workplace Plan

We highly recommend that each PI, in collaboration with the local administration, develop re-entry plans that are specific to their research situation with the mindset of safety. These plans should consider the following:

- The ability to adhere to safety guidelines will be considered in decisions regarding research ramp-up. For example, depending on research space, community engagement conditions or other research models in use, and the number of students/trainees, perhaps only 20% of students can return into the space to achieve physical distancing guidelines of 2 metres. Therefore, consider a rotational model of student activity in the space. Students not collecting data should stay home in the early phases of the recovery to minimize risk and minimize the work required by institutional staff to support cleanliness, safety and security.
- Evaluate the workflow within your research area to establish the pinch points (where two or more people may be forced to come within 2 metres of each other). You may have to reorganize to mitigate these risks.
- Consider plexiglass shields between work stations, and the direction of air flow within the room (avoid people sitting downwind from others).
- Varying types of studies and research settings will require varying applications of the guidelines:
  - Non-human single investigator research. Consider the guidelines for travel or accessibility of library use and their restrictions.
  - Bench top settings – single or multiple students per bench.
  - Bench top settings – more than one student in lab.
  - In research settings involving interviewing or other contact-involving human participants, move to online or phone versions when possible. If face-to-face contact is necessary consider delaying and discussing the options with your supervisor.
  - Risk level and PPE/cleaning requirements will vary depending on how many researchers are required to conduct the study, the level of contact required for the study, biohazard collections (blood, saliva, biopsy), etc.
  - Group training studies. Group sizes and physical distancing rules apply as per Public Health Guidelines.
  - Consider pinch points in work areas and work-flow schemes.

List of Specific Issues to Consider

1. Review the Public Health Agency for updated health guidelines (see URL sites provided above)
2. Review the Human Resources Health and Safety guidelines for safe return to campus and research spaces
3. Direct faculty, staff, students to complete Western's Health Assessment Questionnaire
4. Obtain screening report from students and participants – at least weekly (See My Human Resources for staff and faculty).
5. Consult with your ADR, Department/School Chair or Director about your plan
6. Ensure the general safety of the research space that has been left untouched for several weeks: electrical cables, biohazard/sharps containers, cleanliness, air flow, running water,
7. Change footwear and don PPE upon entry, and doff at exit.
8. Determine trainee and staff workflow through the research areas or community site in which they work. Create a flow of traffic to minimize pinch points and contact. You may need to re-arrange furniture or equipment to facilitate this goal. Draw a map of the traffic flow and mount in clearly visible places.

9. Provide hand sanitizer and other regularly needed items along the workflow pathway for frequent use and to prevent reversal along that pathway.
10. Have face masks, shields, gloves and appropriate garments organized and available while minimizing risk of viral transfer. E.g. each student could have their own supply of masks and gloves to prevent cross-contamination.
11. Have appropriate sterilant or wipes available without having to move through a high risk area
12. Students need to be trained in surface and high-touch area cleaning
13. Is there a plan for cleaning counters, other surfaces and high-touch areas?
14. Consider plexiglass barriers between workstations or counter-current walkways to minimize viral transfer.
15. Plan experiments to minimize personnel and work flow challenges.
16. Prioritize studies according to University and Provincial guidelines (critical, longitudinal, risk for careers, etc.).
17. Schedule student presence in the research area versus at home to minimize the number of students on campus.
18. Establish your need for face masks, latex gloves, face shields, footwear and clothing. Ensure that these are ordered in advance of the need in accordance with guidelines from your supervisors and procurement services.
19. Remember viral exposure can occur anywhere: touching a surface outside of the research area and then re-entering that area could make the viral transfer. Therefore, sanitize hands upon entry and exiting the research area(s).

8. Phased-In Approach to Research Recovery

- **General Guidelines for On-Campus Research Recovery One-Pager**
- **Western's Detailed Return to Campus Updates.**
- The phased approach will progress based on Western's capacity to sustain the safety and security of students, staff and faculty.
- Recall that all phases are reversible should external or internal circumstances change.

Phase 1: Open Buildings in a phased manner using capacity to protect and clean as major determinants of order.
Estimated timeframe – two weeks

This period will see the reopening of some buildings on campus, with the return of critical support services personnel only. Not all buildings will be opened. Decisions regarding which buildings and which support services personnel will be determined by Human Resources and Facilities Management as part of the global re-entry plan.

No research areas that were closed in response to the COVID-19 emergency measures will be opened during this period. This is a period for all lab supervisors to prepare for lab opening by establishing their plans. Potential preparation activities for research space occupancy include:

- Determine which supplies, or categories of supplies, will be critical in the next 2-3 months. You can purchase these through normal procurement services at any time. Anticipate supply chain delays. In your decisions regarding supplies, anticipate the possibility of a viral rebound and reversal in the phased re-entry model.
- All trainees and staff should refresh or obtain online training in safe use of PPE, cleaning, and safety of research space.
- Work with your ADR and Department Chair/Director to develop plans for research staff, students and activities (see possible options below). Consider how the principle of physical distancing interacts with work areas, type of work, work-flow, pinch-points for people moving about, lunch and coffee areas, requirements for elevator capacity, and other lab-specific details.
- Consideration of new hiring vs. redeployment and impact of funding reductions.

- Conditions for hospital laboratories must follow hospital guidelines.
- If your work involves animal studies, begin to re-establish animal colonies in accordance with ACVS discussions.

Phase 2: Start to recover research activities
Estimated Timeframe – 2-3 weeks

During this phase, research activity will be restricted to ~20% occupancy at any one time. Consider use of staggered working hours or even shift-work models that will enable a greater number of trainees and studies to advance while maintaining the occupancy guideline.

Prioritization of COVID-related research projects will continue. An adjudication process will be implemented for approval of all research activities. This adjudication will occur at the Departmental/School and Decanal levels of each unit. Priority studies might include:

- New COVID research projects that need to ramp up as fast as possible.
- Projects with deadlines for publication, deadlines for student graduation, or extensive longitudinal studies where significant cost would be incurred.
- Grants or contracts that have specific time-sensitive milestones that need to be completed.

Existing moratoriums on in-person seminars, conferences, and international travel will remain in place until specifically lifted.

Note that visitors, including researchers from outside Western, service personnel, delivery personnel, and vendor representatives must follow existing COVID-19 restrictions for booking appointments. We anticipate face-to-face research models will be among the last to re-start in accordance with risk assessments. In urgent cases the proper use of PPE will enable these studies to advance but only through the use of an approval process administered through the Department oversight models.

Phase 3: Expand research activities
Estimated Timeframe – 1-2 months

Research activity (personnel activity) will be restricted to ~40% occupancy at any given time. Consider use of staggered working hours or even shift-work models that will enable a greater number of trainees and studies to advance while maintaining the occupancy guideline.

- Phased-in return to activity based on approvals of research group plans by the unit-specific oversight team. Any uncertainties must engage discussions with the Western Research and/or Human Resources Occupational Health and Safety team
- Some research activities will be able to move straight to Phase-4 if maintaining physical distancing is not an issue, or where working remotely is a significant component.

Phase 4: Further expansion of research activities.
Timeframe – while Covid-19 remains a community health risk

- Increase activity to ~60% occupancy at any one time. This is an anticipated maximum of activity for some time given concerns that it will be more difficult to recruit participants, students and research personnel may not be comfortable or feel safe returning to the research environment, supply chain challenges, etc. Again, consider use of staggered working hours or even shift-work models that will enable a greater number of trainees and studies to advance while maintaining the 20% occupancy guideline.
- Work from home when possible when not directly working in the research area.

- Engage collaborative efforts where possible to ensure optimal use of research space and to expand options for groups with many trainees who could not advance otherwise.
- In all cases, establish lines of responsibility and accountability between trainees, research staff, investigators, Departmental/School administration and the Dean's office.

Appendix 1

Screening Questionnaire: Provided by Public Health Ontario, May 1, 2020 (Note, there are frequent changes in the questionnaire and we will attempt to keep the most up-to-date version available)

Screening questions being asked of staff are:

1) Do you have:
- Fever?
- Any new/worsening acute respiratory illness symptoms?
- New or worsening cough?
- Shortness of breath/difficulty breathing?

Two or more of the following:
- Sore throat or hoarse voice?
- Runny nose, sneezing or nasal congestion without other known causes?
- Difficulty swallowing?
- Chills?
- Headaches?
- Any new, unexplainable symptoms of fatigue or generalized muscle aches?
- Nausea, vomiting or abdominal pain?
- Diarrhea?
- New loss of smell/taste disturbance?
- Conjunctivitis?

If over 65 yrs of age:
- delirium?
- falls?
- worsening of chronic conditions?

2) Have you travelled within the last 14 days outside of Canada?
3) Have you had close contact with a confirmed case or probable case of COVID-19?
4) Have you had close contact with a person with acute respiratory illness who has been outside of Canada in the 14 days before their symptom onset?

Answering “Yes” to any of these will require you to leave the campus, contact appropriate health authorities for advice and then wait two weeks for return to campus.