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Recommendations for Field Work

during the COVID-19 pandemic

last updated: 20 March 2020

Our Aim

We recognize that research conducted in “the field” (out of doors) presents a unique application for UMS policies on pandemic response. Here we provide guidance that simultaneously attempts to:

1. Minimize and slow disease spread among our students, staff, and communities
2. Maintain our high expectations for student and staff safety in the field
3. Continue the research mission of the University as much as is possible

Importantly, these recommendations only address field work that *does not* involve the use of human subjects. We also refer to students, staff (both full-time and temporary), and faculty in their research tasks as “employees” for the rest of this document. This term also includes volunteers for whom the experience is a necessary part of their career training (although housing and travel must be identical to paid employees).

We further recognize that field work often occurs during small windows of opportunity, and that its delay for even a few weeks may functionally mean its delay for more than a year or even indefinitely. We are also aware that the nature of field work means that no single policy is likely to capture all possible situations. We encourage you strongly to discuss situations that are not addressed by this document with your unit chair or director.

These recommendations are superseded by policies or decisions of the landowners or state and federal governments where fieldwork is conducted. They do not give you permission to conduct research in ways that these entities prohibit. This document, however, may be helpful for entities that have not developed guidelines and have concerns. We encourage you to share it in those situations.



I. General Guidance

A bulleted summary of all policy rules mentioned in this document can be found at the document's end.

Because disease transmission is possible among asymptomatic individuals, care should be taken for all university business to **limit the size and member turnover of in-personal social networks**. This means, A) interact with as few people as possible and B) favor repeated interactions with the same people over interactions with new people. We will consider the social networks created by UMS employees working at home (i.e., those created by other UMS policies) as a standard against which to measure the impacts of field work on disease spread. Consider family/roommate groups of <10 individuals who live together, work at home, and go to the supermarket and pharmacy periodically as the Social Network Standard (**SNS**). Any research activity that causes greater social interactions than the SNS should be curtailed unless

1. Employees are asymptomatic and have not been in contact with known symptomatic individuals,
2. The research is “essential”, following the same rules for lab research and campus use,
3. Activities require less than 10 employees to interact, AND
4. All activities allow for 6-foot social distancing.

Activities that follow these four guidelines do not violate any standing UMS policy as of the writing of these recommendations, and are thus allowed. The most benign example of this would where a single employee leaves their house to conduct research in a field situation without any other employees or community members (e.g., the forest) each day, and then returns to their housing. That type of activity represents no increase in risk for disease transmission relative to the SNS and further, does not violate any standing UMS pandemic policy (of course care would still need to be taken for the risk involved in working alone, per other UMaine safety policies). Even in slightly more complex situations that do not violate UMS pandemic policy, however, records should be kept for interactions that occur (e.g., crews of two or three who meet at a field site and practice social distancing while conducting essential research activities) in case authorities need to track the spread of the disease. Field books should record the date and employees present during any research activity.

II. Using the Social Network Standard to assess risk of disease spread

There are many conditions, however, where field work does not meet these strict criteria but still presents no greater risk to either UMaine employees or the community at large than does the SNS created by current UMS policy. For instance riding in a truck to a field site, or using a boat with an enclosed cabin (both of which do not allow for 6-foot social distancing), would not increase the risk of disease spread relative to the SNS if those employees were also sharing living spaces. In these cases, such activities, if still deemed “essential”, are allowable because



they do not represent increased risk relative to the SNS. In general, situations that do not increase risk relative to the SNS are those where field crews:

- Are small (< 10 people),
- Share living quarters that allow for cooking on site,
- Work at field site(s) that are all commutable from a single housing base (i.e., employees are members of the same greater community during all field work when shopping for supplies),
- Have stable membership (no member turnover in a given month), and where
- Field work persists for a disease-spread relevant time period (> 1 month).

Whenever possible, researchers should use the SNS idea to design field experiences that limit social network size and turnover. Large crews, the exchange of crew members between field camps or housing, the inclusion of crew members using different group-housing situations with non-crew members, and the frequent switching between times with “field work with crews” and “working at home with family/roommates not involved in research”, should all be avoided.

III. Remote crews for long-term efforts with shared housing

These guidelines above highlight the idea that long-term field efforts with shared housing create no more risk than the UMS guidelines to work at home, because, from the perspective of disease spread, the location of home has changed. In most of these situations, however, the start of field work thus represents the creation of a new social network and a period of enhanced risk for disease spread. While pandemic conditions exist, any time that new field work can be delayed for a month without interrupting essential research operations, research should be delayed. Even when essential field work must begin, the creation of new field crews should be done with care and as infrequently as possible (no more often than once per month). Only essential research with crews < 10 are permitted. In situations where entire crews assemble in a new location with plans to remain there for > 1 month, particularly when they come from different communities, they should self-isolate, as a group, with enough supplies to prevent interaction with the community until at least 7 days have passed (or 14 if any member shows any COVID-19-like symptoms). Symptomatic individuals or those in contact with symptomatic individuals should never be permitted to join field crews or enter field-crew housing. The establishment of out-of-state field housing is permitted so long as quarantine procedures are enacted both upon arrival and departure from the field housing and the length of stay is long enough to delay disease spread (> 1 month).

At any time, if any members become symptomatic, quarantine should be enacted for the entire interacting field crew. In most cases this will mean that field work is canceled. In the most remote settings, however, crews may be functionally in quarantine even when conducting work outside.



As with *all* field work, crews should have medical supplies on hand to deal with minor illnesses (e.g, acetaminophen, cough suppressant, thermometers, access to fluids and bedrest) and established protocols for how higher levels of medical care would be procured, should those be necessary. We will not reiterate all of those standing field safety policies here (see <https://sem.umaine.edu/training/course/13/slideshow/view>), but it should be stressed that immune health is also a function of general health, and care as always should be taken to ensure employees are appropriately dressed, warm, dry, well hydrated, well fed, and well rested. Further, field crew emergency plans should be updated to include

- specific actions for responding to COVID-19-like symptoms and severe respiratory infections
- plans for the continued delivery of food and water to crews in quarantine, should symptoms arise.

These self-quarantine rules may be updated for individuals who have been infected, recovered, and are now symptom free, but this guidance will require more information on how individuals recover from the virus.

Whenever field work is completed and crews are released from shared housing, remember that this causes the creation of another new social network and thus a period of enhanced risk of disease spread. If pandemic conditions still exist at the completion of field work, and employees must travel across state lines to return to their next residence, they should again self-quarantine (7 days if asymptomatic, 14 days if any symptoms present). **Whenever possible, employees (even temporary employees) should be paid during quarantine periods, both at the beginning and the end of field work.** Work should be arranged whenever possible for individuals to conduct during these periods (e.g., online trainings before field work begins, data QA/QC after field work ends).

Other behaviors that decrease the size of social networks during periods of remote field-work with shared housing are also encouraged:

- Minimize the number of different businesses used within a community for food and necessary supplies. Whenever possible visit the same ones repeatedly rather than spreading interactions across businesses.
- Consider, where possible, splitting crews into smaller, distinct teams who only work together (e.g., A Team, B Team, who work in the field together, cook meals together and share sleeping space, while both teams may occupy shared space in shared housing).
- Avoid shared housing with research teams on other projects (these situations are prohibited if combined groups are greater than 10 people).

Crews that travel among different communities (within a state or between states) are particularly problematic if they interact with people or business in those communities or if they change their base of operations (i.e., housing) during the course of field work. These field



designs should be avoided. Even those crews with stable membership should limit movement between communities, and should not move their base of operations more than once per month.

IV. Guidelines for the use of Citizen Scientists & Stakeholder Participation

UMaine employees should take every precaution to prevent passing infection to or among members of the community at large. In most instances, in-person interactions indoors with stakeholders are prohibited. Whenever possible, interactions should be digital, on the phone, or through the mail. There are many instances where research using stakeholder participation might continue, however. Examples might include stakeholders who are conducting a research-relevant activity anyway (e.g., farming practice, forest harvest), and they simply need to deliver data on their efforts to the researcher, but delivery can be done without in-person contact. These interactions do not increase interactions above the SNS. Meetings with a single stakeholder with proper social distancing in field settings, likewise do not increase interactions above the SNS. In all collaborations with stakeholders, however, including these relatively simple situations, **the first priority of the UMaine employee should always be the health, safety, and comfort of the stakeholder.** Remember that individuals may be dealing with their own personal crises during this time, and their interest in participating in research activities may have changed. Do not take their continued participation for granted, and expressly let them know that any former arrangements are renegotiable.

Employees are prohibited from organizing any in-person meetings of multiple stakeholders from different social networks (i.e., those who live in different houses and do not otherwise interact on a daily basis). Exceptions for the ban on in-person interactions include:

- The use of individual contractors (whose addition does not lead to groups ≥ 10 people including the field crew) who are required to complete essential research activities, especially contractors who depend on the income for their livelihood (e.g., boat operators)
- Access of stakeholder properties (with their permission) that do not require in-person interactions

Even in cases where stakeholder participation in essential research continues, no University employees should ever show up to the property, homes, or businesses of stakeholders without first discussing plans and assessing stakeholder comfort with these plans on the phone or via mail or electronic means ahead of time. We serve the State and its citizens.

V. Sample storage on campus or transitions between campus labs and field work

Employees may visit campus to deposit samples so long as *not* doing so would degrade the research value of the sample (e.g., it must be placed in -80° C to avoid sample degradation) or would pose a safety risk to the employee (e.g., preserved in a chemical that should not be



stored in field housing). Unit leaders should be made aware of all employees who will be visiting campus and care should be taken to limit interactions among employees while on campus. Field employees should practice proper hygiene (e.g., hand sanitation) both before *and* after visiting campus facilities.

In the case that field work is coupled with lab work, lab work should only be conducted if it is also essential (following other UMS guidelines). Whenever possible, the on-campus analysis of field samples should be delayed. When both lab and field work are essential, care should still be taken to keep social networks at or below the SNS as much as possible, by including the interactions due to BOTH activities.

VI. Other Concerns

The use of diving equipment – please follow advice of the UMS Diving Control Board (www.umaine.edu/scientificdiving)

Effect of canceled data collection on progress toward tenure – administration is actively considering the ability of tenure-track faculty to pause the tenure clock as the result of pandemic-related effects on productivity. More guidance will be provided on this soon.

Effect of canceled field research on existing research contracts – please see other guidance provided by the office of the VPR and address specific questions to ORA.

Effect of canceled research on the salaries of soft-money researchers or the summer salary of employees with 9-month appointments – There is no current direction as of the writing of this policy. Please speak with ORA, HR, and your unit chair/director.

Increased cost of research due to these policies – PI's should discuss with the Program Officers the relative impact of altering budgets and scopes of work to complete essential research now versus delaying the research entirely until the original budgeted research plan can be followed.



Summary of policies for University-funded field work during the COVID-19 pandemic:

1. These recommendations are superseded by policies or decisions of the landowners or state and federal governments where fieldwork is conducted
2. Any time that new field projects can be delayed for a month without interrupting essential research operations, research must be delayed
3. Essential research that allows for 6-foot social distancing and does not require groups ≥ 10 employees is allowed for healthy employees
4. Gatherings of ≥ 10 people are prohibited (this includes dining facilities and shared housing)
5. Travel from Maine to out-of-state locations is prohibited, unless employees then remain there for longer than one month (see additional policy summary on shared housing below)
6. Field books should record the date and employees present during any permitted essential research activity
7. Whenever possible, interactions with stakeholders should be digital, on the phone, or through the mail
8. Do not take the continued participation of stakeholders for granted, and expressly let them know that any former arrangements are renegotiable as situations regarding the pandemic change
9. Employees are prohibited from organizing any in-person meetings of multiple stakeholders from different social networks, even when they would form groups of less than ten individuals
10. Employees may visit campus to deposit samples so long as *not* doing so would degrade the research value of the sample or would pose a safety risk to the employee. This is an “essential” on-campus activity and should follow all applicable policies for such.

Policies specific to remote field work with shared housing

11. Use the Social Network Standard (SNS) that is created by UMS “work at home” policies to assess how field work with shared housing affects disease transmission risk
12. Field crews of >10 interacting people are prohibited
13. The creation of new field crews should be done with care and as infrequently as possible (no more often than once per month)
14. New field crews from different communities must self-quarantine for 7 days (14 days if symptomatic) upon arrival at field locations
15. Even crews with stable membership should limit movement between communities, and should not move their base of operations more than once per month
16. Symptomatic individuals or those in contact with symptomatic individuals should never be permitted to join field crews as employees or enter field-crew housing.
17. The establishment of out-of-state field housing is permitted so long as quarantine procedures are enacted both upon arrival and departure from the field housing and the length of stay is long enough to slow disease spread that might result from travel (> 1 month).



- 18.** At any time, if any members become symptomatic, quarantine should be enacted for the entire interacting field crew
- 19.** Field crew emergency plans should be updated to include the actions necessary if COVID-19-like symptoms occur
- 20.** If pandemic conditions still exist at the completion of field work, and employees must travel across state lines to return to their next residence, they should again self-quarantine (7 days if asymptomatic, 14 days if any symptoms present) upon arriving at their next residence
- 21.** Whenever possible, employees (even temporary employees) should be paid during quarantine periods, both at the beginning and the end of field work.
- 22.** Work should be arranged whenever possible for individuals to conduct during these periods (e.g., online trainings before field work begins, data QA/QC after field work ends).