

What Does Return to Campus / Resumption of On-Campus Activities Look Like? Johns Hopkins University¹

COVID-19 Most-Likely Scenario for Planning Purposes

Framework: American Enterprise Institute Report (March 28, 2020) *National Coronavirus Response: A Road Map to Reopening*

In the AEI report, the authors identify four phases to the pandemic in the U.S.:

- **Phase I: Slow the Spread** – This phase focuses on social distancing (telework, school closures, malls and gyms closed, no large gatherings, restaurants for pickup or delivery only, reduced or no travel) to reduce transmission.
- **Phase II: State-by-State Reopening** – In this phase, the public health focus shifts from community mitigation (social distancing) to case-based interventions focusing specifically on those who are infected and their close contacts. This phase includes a measured reopening of schools and businesses, and the beginning of resumption of normal life, but some social distancing remains in place (e.g., for high-risk subgroups). Telework is encouraged when possible, large gatherings are still discouraged or not permitted, and public hygiene (cleaning of high-contact surfaces) must be sharply enhanced.
- **Phase III: Establish Immune Protection and [Then] Lift Physical Distancing** – This phase depends on the combination of effective population surveillance, treatments, and especially the availability and widespread deployment of an effective vaccine to lift any remaining control measures and restrictions.
- **Phase IV: Rebuild Our Readiness for the Next Pandemic** – This phase focuses on strengthening public health preparedness and requires significant investments in research and development and the expansion of the public health and healthcare infrastructure and workforce.

Transition from Phase I to Phase II: Of perhaps greatest importance to us is the progression from Phase I to Phase II. The AEI report's authors indicate that this progression should be triggered by the presence of four elements:

1. When a state reports a sustained reduction in cases for 14 days (which means that the number of new cases diagnosed each day steadily declines for two weeks); and
2. Local hospitals are able to treat all patients requiring hospitalization safely and without resorting to crisis standards of care; and

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3. The capacity exists in the state to promptly test all persons with COVID-19 symptoms; and
4. The capacity exists in the state to actively monitor all known COVID-19 cases and their contacts, and have them be in isolation or quarantine.

Of note, triggers (3) and (4) are consistent with other commentaries^{2,3} that 4 elements must be in place to ease up on social distancing and stay-at-home orders: widely-available testing, isolation of all persons with COVID-19, rigorous and reliable contact tracing, and quarantine of all close contacts.

The AEI report's authors recommend moving from Phase I to Phase II gradually, by progressively easing restrictions, and increasing surveillance. The authors indicate that a state may move out of Phase II if the triggers for Phase III (most especially, the widespread deployment of an effective therapeutic or vaccine) are in place, or if renewed community-based transmission moves the state back to Phase I.

Most-Likely Scenario: Late Spring to Mid-Summer 2020

- First wave of the epidemic (as measured by new infections, hospital resources use, and deaths) peaks late-April in Maryland (range = mid-April to end of May)
- State stay-at-home order gradually lifted beginning sometime in May or June in Maryland, when at least some of the Phase II triggers are more fully realized
- This gradual easing of control measures will likely go through June and July in phases, with monitoring of new case counts to determine progression (or not) of the easing
- Testing capacity in Maryland will continue to improve enough to help guide treatment, and some isolation and quarantine, but will not be sufficiently scaled up to completely satisfy the AEI triggers above before the Fall; it is possible that Gov. Hogan will aggressively put enhanced testing and isolation and quarantine into practice
- Inadequate PPE challenges will continue; the healthcare workforce will continue to be impacted but, while burdened, does not collapse; if elective surgeries are reinstated, challenges could be exacerbated
- Limited, if any, impact of summer heat on viral transmission (consistent with new National Academy of Sciences report⁴)
- Not enough herd immunity to be meaningful

² [Fineberg, Kim, & Shlain. The United States Needs a 'Smart Quarantine' to Stop the Virus Spread Within Families. NYTimes April 7, 2020](#)

³ [Sharfstein & Marx. Testing is Just the Beginning in the Battle Against Covid-19. NYTimes March 30, 2020.](#)

⁴ [National Academies of Sciences, Engineering, and Medicine 2020. Rapid Expert Consultation on SARS-CoV-2 Survival in Relation to Temperature and Humidity and Potential for Seasonality for the COVID-19 Pandemic \(April 7, 2020\). Washington, DC: The National Academies Press.](#)

Most-Likely Scenario: Late Summer and Fall 2020

- The current wave of community-based transmission in the U.S. lasts through the Summer, with continuing spread and sporadic outbreaks continuing amongst urban areas and select populations, particularly with those in dependent-care settings (nursing homes, correctional institutions).
- At a minimum, some low level of community-based transmission will continue until an effective vaccine is widely deployed.
- International epidemics will vary significantly, with the likelihood that some countries have hidden COVID spread (especially in the setting of limited testing) and some in a second wave of resurgence as social distancing measures are relaxed, while the situation in the U.S. improves. Imported cases from countries with disseminated epidemics will be of concern if U.S. travel restrictions are lifted.⁵ Unless aggressive rapid testing at points-of-entry are fully in place, this will be a significant threat. This will be a very important consideration for both the potential for international students to participate in academic activities as well as the need for mitigation strategies.
- If outbreaks appear to become more widespread in Maryland, periodic shelter-in-place actions may be recommended to reduce case incidence. Such actions will require timely and widespread COVID testing.
- A possible brief apparent hiatus may occur before a second wave arises, but even in that setting there will be continued community-based transmission at a low level. (In fact, because at a minimum, low-level transmission will be constantly occurring until a vaccine is available, the notion of “waves” per se may not be as helpful as a rolling up-and-down of new cases.)
- While initial evidence suggests that COVID-19 may not be affected by summer heat or other environmental changes, it may act consistent with other cold-weather seasonal viruses (e.g., influenza, other coronavirus species), with a second wave that arises in the Fall, but is less severe than the first wave (because of advances in control measures, testing, and treatment). The likelihood of a second wave will be increased if control measures are more aggressively lifted in the late Spring and Summer.

Most-Likely Scenario: Longer Term

- Vaccine is available in 12-18 months, to be initially used in targeted healthcare and long-term care workers and high-risk subgroups. (The range of uncertainty here is considerable, between very late this calendar year to very late 2021.)
- Full progression to Phase III and corresponding return to pre-COVID normal life (suppression of domestic community transmission and controls that prevent international spread) thus isn't achieved until mid- to late-2021 (or into 2022).⁶

⁵ [Lai. Why Coronavirus Cases Have Spiked in Hong Kong, Singapore and Taiwan. NYTimes April 9, 2020.](#)

⁶ <https://science.sciencemag.org/content/early/2020/04/14/science.abb5793>

Return to Campus Guiding Principles

Public Health Considerations:⁷

Strategies for limiting COVID exposure. Approaches include social distancing (staying at least 6 feet away from other people), not gathering in groups and avoiding crowded places and mass gatherings, limiting travel, using cloth face masks in public, and disinfection.

COVID-19 testing, isolation, contact tracing, and isolation and quarantine. Critical local capabilities and capacity include:

- Rapid testing of all symptomatic persons and meaningful (systematic) random sampling and testing of asymptomatic persons (e.g., 5% of all asymptomatic persons). “Rapid” means point-of-care immediate collection of samples and point-of-care assay (e.g., with portable PCR systems) with results in 10-15 min.
- Immediate isolation of all positive persons.
- Contact tracing of potential close contacts (as disclosed by the positive index case and/or via cell phone-based mass surveillance).
- Quarantine of all identified close contacts for 14 days.
- Active monitoring of all isolated and quarantined persons.

Special populations. Any lifting of control measures (e.g., stay-at-home orders) must consider vulnerable subgroups within the population (e.g., persons > 60 years of age, those with pre-existing medical conditions) and special instructions or requirements for such subgroups.

Mission Considerations:

The core mission of JHU remains unchanged: *To educate its students and cultivate their capacity for lifelong learning, to foster independent and original research, and to bring the benefits of discovery to the world.*

JHU is committed to providing opportunities for every student to achieve their degree or certificate program requirements to the extent possible during the COVID-19 disruptions.

JHU will resume on-campus activities to enable faculty, students, and staff to continue advancing JHU’s mission and their professional work and personal goals to the extent possible

⁷ <https://www.cdc.gov/coronavirus/2019-ncov/>

in a manner consistent with guidance from public health authorities and experts, using the best available scientific information.

JHU will balance the benefits of resumption of activities with the risks, and will work to reduce the risks with strategies that protect the community from COVID exposure, recognizing that with any reopening all risk cannot be eliminated.

JHU will identify activities that cannot be continued until the pandemic is fully over and offer substitutions and alternatives to achieving program learning objectives to the extent feasible.

Issues and Challenges That Must Be Addressed in Any Reopening

Fundamental Capabilities That Must Be in Place:

- Rapid testing (as defined above) for students, faculty, and staff who have any symptoms.
- Effective contact tracing capacity of all potential close contacts of positive cases.
- Systematic randomized testing of all healthy students, faculty, and staff to identify asymptomatic positives and to gauge background risks.
- Enforced isolation and quarantine of positives and close contacts, with daily telehealth monitoring of symptoms.
- Mass daily temperature taking via non-contact infrared thermometers. (This capability has the greatest uncertainty re utility: febrile persons often self-isolate; antipyretics would give a normal reading; thermometers have varying accuracy, etc.)
- Consistent implementation of social distancing and universal masking at all times except when alone in a room.
- Intense and frequent cleaning / sanitation of facilities.
- Availability of sufficient trained staff (including healthcare providers), equipped with proper PPE.
- Extensive education and socialization of students, faculty, and staff of policies and expectations we have of each other.

Research Activities:

Research activities are very likely the earliest to resume on campus. Key questions include:

- Which research gets started first, and what is the sequence for resuming additional research? How are postdoctoral, graduate student, and undergraduate research efforts prioritized?
- What are the triggers for adding additional research? How do those triggers translate to predicted start times?
- How do we deal with supplies and PPE for restart?
- Can and how will researchers include support for ramp-up activities within grant proposals and funding for current grants?

- How do we address concerns regarding possible coercion or retaliation if PIs inappropriately insist on all personnel returning to the lab? Is opting out an option?
- When does human subjects research resume, and under what conditions? Do we keep our current multi-phase approach in place?

Hypotheses:

- Institute multiple 6-8 hour shifts to keep density low and respect social distancing
- Require use of masks and decontamination procedures when more than one person is in the lab
- Start reopening research cores (service centers) first; they have a backlog of samples and are low-density areas and activities

Instructional Activities:

Instructional activities represent significant challenges in the setting of remaining COVID concerns. Key issues include:

Program options:

- Uniform approach to scheduling and modality for all programs
- Differentiate undergraduate, masters, and doctoral programs in the approach
- Differentiate by program activities: Lectures, seminars, design and performance studios, clinical activities, etc.

Schedule options:

- Start Fall term, fully and as scheduled
- Start Fall term on its regular date, but with only a portion of students (upper years; defer on-campus instruction for freshmen until either late fall/early winter or Spring semester)
- Start Fall term later and compress breaks/eliminate intersession to make up for the late start
- Reformat offerings to separate 8-week terms instead of semesters
- Completely cancel Fall term/semester (noted mainly for the sake of completeness)

Instructional modality options:

- Fully in-person with contingencies for remote teaching if in-person instruction is suspended
- Fully online – either synchronous and/or asynchronous format
- Hybrid (simultaneous online and in-person for the entire term)
- A combination approach: Some in-person offerings (that have contingencies for remote teaching), some online offerings, and some hybrid courses

Challenges include:

- Didactic experience with remote teaching and online alternatives may not be the modality of choice for many students (or faculty)
- Challenges in maintaining hybrid posture for an extended period of time (faculty and student fatigue)
- Substantial logistical challenges for reformatting classes to fit alternative calendars (priorities for class sequencing, classroom space, assessments)
- Logistical concerns expressed by students with remote/online modality: challenges with time zones, scheduling, low bandwidth and connectivity issues interfering with exams and exams being scheduled at odd times, not having quiet spaces at home and a family environment not conducive to learning, not having the necessary technology to participate in classes, such as access to laptops, printers, or specific technology for their courses.
- Instruction that is not conducive to online/remote instruction. Audio quality is a big issue in voice and music lessons. Many ensemble performance opportunities cannot be offered with this modality.
- In-person instruction may need to shut down at any time on a course, building, or campus-wide basis depending on many factors, including occurrence of COVID cases and governmental direction.
- Ensuring social distancing for in-person classes:
 - Unclear what would be acceptable size of an instructional setting – no minimum risk without full knowledge of the COVID status of each participant, number of students, and physical size of the classroom. Basic guideline would be to have students no closer than 6 feet.
 - Reschedule large (e.g., >50) in-person courses into staggered seating and/or smaller sections
 - Reduce enrollments for seminar and lab courses and internships
 - Ensuring social distancing when entering/exiting classrooms and in hallways
- Personal protective equipment by students, faculty, TAs?
- Limiting on-site teaching / direct exposure of vulnerable faculty (> 60 years old or with serious pre-existing conditions)
- Offering non-didactic courses online:
 - Laboratory courses
 - Design courses
 - Performance courses
- Approved start dates for F-1 visas may not be flexible to allow for mid-semester starts.
- Modifications would require continued regulatory flexibility by Dept of Education and regional accreditors.

Hypotheses:

- Given that JHU commits to finding a way for all currently-enrolled students to complete their programs, including students who are overseas and cannot get back to the U.S.

because of visa and travel restrictions, it is likely that some online options will be necessary regardless of if-and-how on-campus activities resume.

- Program continuity is particularly essential to maintain in line with Dept of Education regulations and specialty accreditation bodies.
- The hardest programs to effectively deliver on-site are the undergraduate programs, especially because of the current residential requirement for freshmen and sophomores, as well as those programs that have needs that are not conducive to online instruction (e.g., performance).
- One possibility is to keep all undergraduate programs fully remote for the Fall semester and assess by October whether Spring can reopen. This would free up Homewood facilities for use by other graduate programs (e.g., Carey, Bloomberg, Education), to de-densify and institute better social distancing for in-person courses by making larger classrooms available.

Residential and Dining Activities:

Minimum moves in order to consider a residential undergraduate presence include:

- Thinning out the density of our residence halls – e.g., go to single person rooms
- Proper handling of shared restroom facilities (e.g., cleaning by each student after use, shift schedule)
- Creating designated space and facilities to house infected (isolated) and quarantined students (separate from other students and each other)
- Intense and frequent cleaning / sanitation of facilities
- Thinning out dining (grab and go, timed seating, maintain social distancing, no cafeteria lines)
- Connecting to off campus housing and enforcement of new norms there

Key considerations / issues include:

- Implementation of spring move-out and fall move-in
- Review of existing housing inventory; capacity assuming we move to single-occupancy rooms
- Evaluation of potential for additional residential capacity in adjacent properties (e.g., Mt. Washington, Colonnade, Blackstone)
- Usage limitation on residential common spaces
- Shared bathroom protocols; scheduling usage, scheduling cleaning
- Identified spaces for self-quarantine and COVID+ isolation (capacity for both residential students and off-campus undergrads)
- Appropriate messaging/interventions for off-campus undergraduate student population

Co-Curricular Activities, Advising, and Student Support:

Key co-curricular activities include:

- Athletics
- Greek Life
- Student Organizations
- Public lectures and seminar series
- Other student activities (e.g., Orientation)

Key questions / issues include:

- How do we conduct student activities while ensuring safety and adherence to public health guidance (social distancing, etc.)?
- How do we deliver student activities if our student community is divided between online and on-campus experiences?
- How do we handle large-scale campus traditions?
- How do we manage large student groups who tend to live in the community?
- Can we even permit in-person group meetings? With restrictions?
- Is suspension of Greek Life necessary?
- Would we allow community placements/internships given our inability to monitor these settings?
- How do we deliver programming in an online or hybrid format that fosters connection, engagement, etc.?
- How do we prepare students academically from afar for the rigor of online courses?
- How do we foster a sense of what Baltimore is as their community, including civic engagement and campus community?
- Do student conduct and ethics guidelines and procedures need to be modified?
- Given that Athletics involves particularly intense and close interactions – practices, locker rooms, showers – how do we adequately prepare and protect student athletes, coaches, and others?
- How do we ensure appropriate orientation, academic and pre-professional advising, and student support for certain vulnerable populations including first-generation students and students with disabilities and academic, developmental, and career-related needs?

International Students:

Key issues include:

- Travel restrictions remain in place with no timetable for resolution.
- Visa processing remains uncertain, and it is unclear if international students will be able to secure interviews and get visas in time. Current visa wait times can be found [online](#),

but this does not give any indication of whether interviews are being conducted on a regular basis

- Even with visa processing started, will international students be able to get flights, and will they be allowed into the U.S.? Will international students be prepared to abide by quarantine regulations that may change as the COVID epidemic and governmental actions evolve on a country by country basis?

Faculty and Staff:

Key questions / issues include:

- **Testing, contact tracing, isolation and quarantine.** Do we have the capacity to test, contact trace, and isolate or quarantine employees? Would we for certain do this ourselves rather than rely on local and State government agencies?
- **Vulnerable subgroups.** Do we limit the on-campus presence of those > 60 years old or with pre-existing medical conditions? Can we legally do so? Confidentiality issues with medical disclosures?
- **Understanding workplace exposures.** How do we discern exposure in versus out of the workplace (and is it helpful to do so)?
- **Transportation to and from the workplace.** With reliance on public transit and a scaled-down public transit system, how do we ensure adequate transportation and social distancing (in transit and in waiting areas)? Can and should we substitute with a lower risk network (e.g., our own transit system)?
- **Faculty and staff who do not want to return to on-campus work.** Would we allow individual discretion, and – if so – under what circumstances? What HR actions would we take, and would these differ for faculty versus staff?

Campus Facilities and Services:

Key facilities include:

- Offices
- Laboratories
- Libraries and study spaces
- Rec Center

Key services include:

- Health, mental health, including those that may be initiated for COVID-19
- Custodial
- Security

Beyond maintaining basic campus operations, important COVID-19-related questions include:

- How will we continue to administer student health care under the different scenarios?
- What level of testing capacity will we have and what will be the protocols and procedures for wellness checks (temperature monitoring), testing and contact tracing
 - Staffing capabilities
 - Associated costs
- What would be a testing schedule for students, faculty and staff?
- Procedures and Protocols for Quarantining and Isolating sick students
 - Residential
 - Non-Residential – undergrad vs. grad/professional
- How do we maintain social distancing in these spaces (e.g., two students per large desk, significant gap between single desks)?
 - Can we ensure adequate cleaning and maintenance? (Acknowledging that the primary route of transmission is airborne/inhalation.

Legal Considerations:

Key questions include:

- Required use of cell phone-based surveillance as a complement to direct contact tracing?
- Consequences of noncompliance (students, staff, faculty)?

Communications:

There have been and will sadly be adults working for JHU who get COVID-19 in course of the year; most will get better, some will get hospitalized, and some may die. This will be the same for all institutions across the U.S. But communications around reopening will need to come to grips with fact that all in the country and all in every institution will have to live with some level of risk. This document describes a very strong path for reducing risks as much as possible, but JHU will still need to acknowledge that the “safest” thing we all could do would be to stay home, and that everyone who reengages in work and school has to accept some at least low level of risk in reengaging, albeit with as much risk reduction as is feasible.