COVID-19 Containment and Campus De-Densification Diagnostic

Assess Institutional Readiness for Repopulating Campus

EAB Research

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Cautions and Limitations

This diagnostic is not intended to replace the advice of public health authorities or government entities. It is designed to support institutional strategic thinking and planning, not to provide industry health and safety guidance. Health and safety standards are established by relevant public health authorities along with federal, regional, and local government mandates. These standards and mandates are subject to revision as new research emerges and the pandemic evolves. A compilation of sources and the date of their publication that guided the development of this diagnostic can be found at the end for reference.

About EAB

At EAB, our mission is to make education smarter and our communities stronger. We harness the power of more than 1,500 institutions to uncover and apply proven practices and transformative insights. From primary school to higher education and beyond, EAB partners with education leaders to accelerate progress and drive results in three key areas: enrolment, student success, and institutional strategy. For more information, visit eab.com.

How to Use This Diagnostic

To assist leaders in the unprecedented challenge of safely repopulating campus this autumn, EAB developed a diagnostic focused on COVID-19 containment and campus de-densification. This diagnostic evaluates your institution's readiness to implement seven key mitigation strategies.

These strategies fall into two categories based on how they intervene to disrupt COVID-19 transmission. First, containment strategies seek to identify and isolate individual cases as well as their exposure networks. Second, environmental de-risking strategies systematically reduce transmission opportunities when cases slip through the containment net.

Containment
Identifying and Isolating Infections

- **Symptom Monitoring**
  Have people on campus self-report symptoms
- **Testing**
  Assess virus load within the community
- **Contact Tracing**
  Identify and notify exposed individuals
- **Quarantine and Isolation (Q/I)**
  Isolate confirmed cases and insulate exposure chains

Environmental De-risking
Lowering Infection Transmission Opportunities

- **Personal Protective Equipment (PPE)**
  Supply the community and ensure appropriate usage
- **De-Densifying Academic Space**
  Reduce transmission opportunities in academic facilities
- **De-Densifying Residential Space**
  Reduce transmission opportunities in residential spaces

Deploying a combination of these strategies will best limit, although not eliminate, COVID-19 community spread and reduce operating risk for the autumn. **While this diagnostic assists in institutional strategic planning, it is not intended to be exhaustive nor to replace the guidance of public health authorities.**

DIAGNOSTIC INSTRUCTIONS

How to Complete the Diagnostic
For each strategy, identify your institution's tier by assessing which corresponding capabilities you will have for the autumn term. You should select the tier that best aligns with your institution's current investment and planning strategy for the upcoming year. If your planned capabilities do not perfectly overlap with the tier descriptions, select the lowest-numbered tier with the greatest overlap. Note your self-assessed tier on the self-assessment document.

How to Interpret the Results
The tiers plot the relative level of your institution's strategy capabilities. Higher-numbered tiers correspond with greater maturity. As the tiers progress, the assumption is that the added capabilities of the lower tiers are already achieved.

Upon completing the diagnostic, contact your strategic leader (Brett Schenkel, BSchenkel@eab.com) to schedule a consultation with one of EAB's repopulation experts.

Source: EAB interviews and analysis.

Before We Begin: Imperatives for Investment

Each of these seven strategies plays a role in mitigating risk and bolstering institutional readiness for the autumn term. To illustrate the need for investment, we have articulated the primary risk of underinvesting in each component and highlighted the interdependence between them. The risks identified here are not intended to be exhaustive but rather to present the primary consequence and the potential ripple effects of underinvestment.

Symptom Monitoring

Risk of Underinvestment
Without consistent symptom monitoring, levels of influenza-like illness or COVID-19-like illness go undocumented. Mildly symptomatic cases will be less likely to be tested and enter the contact tracing and Q/I apparatus if confirmed to be positive cases.

Testing

Risk of Underinvestment
Testing underwrites all other containment activities: it enables the identification of positive and non-positive cases for contact tracing and Q/I. If testing is inadequate, institutions risk undetected and escalating outbreaks that could significantly disrupt campus operations and endanger the university community.

Contact Tracing

Risk of Underinvestment
Contact tracing mitigates community spread by locating exposure networks and moving them into the Q/I infrastructure. It is dependent on robust testing and Q/I capacity to control outbreaks. Low investment in contact tracing will lead to a wasting of testing capacity, as positive cases will not be contained. In addition, there will be no ability to quarantine exposure networks without this capacity.

Quarantine and Isolation (Q/I)

Risk of Underinvestment
Q/I infrastructure contains confirmed and potential cases. Isolation capacity is the first-order investment, as it reduces the spread of confirmed cases. Quarantine is second-order but essential to proactively reduce community caseloads. Without adequate Q/I capacity, institutions risk undermining other investments in testing and contact tracing by letting cases spread unfettered.

PPE

Risk of Underinvestment
PPE lowers the number of transmission opportunities and achieves the greatest benefits when applied at scale. Failure to invest in PPE supplies and policies will increase the risk of widespread community transmission, especially in settings where physical distancing is difficult to maintain.

De-Densifying Academic Space

Risk of Underinvestment
Reducing the density of academic spaces helps lessen community transmission within academic settings. Limited or insufficient de-densification increases the likelihood of community spread and the risk of outbreaks that could overwhelm containment capacity.

De-Densifying Residential Space

Risk of Underinvestment
Limits on residential facility occupancy can reduce the extent and speed of infection transmission. Without adequate de-densification, an outbreak in a residence hall could quickly accelerate beyond institutional containment capacity.

Source: EAB interviews and analysis.

Strategy #1: Symptom Monitoring

Have People on Campus Self-Report Symptoms

	Description	Added Capabilities
0	Institution will not conduct symptom monitoring	
1	Conduct optional symptom monitoring	• Daily prompts to community members to check for a list of symptoms • Web- or app-based platform to record screening responses • Education of community on symptoms and need for reporting even mild ones
2	Conduct compulsory symptom monitoring	• Policy requires regular symptom reporting • Enforcement mechanism or follow-up protocols do not discourage honest reporting

Health Screening Tier Assessment: ☐/2

Source: EAB interviews and analysis

Strategy #2: Testing

Assess Virus Load Within the Community

	Description	Added Capabilities
0	Institution will not provide a dedicated testing function or protocol on how to test students	
1	Test fully symptomatic cases (e.g., fever, cough, vomiting)	• Sufficient polymerase chain reaction (PCR) testing kits and supplies to cover demand • Sample collection sites, personnel, and protocols to conduct tests • Appropriate testing licenses and certifications
2	Test fully and mildly symptomatic cases	• Students with mild to minimal symptoms are able and encouraged to seek testing • Symptom reporting identifies potential mild cases and promotes testing
3	Test all symptomatic cases and conduct a blanket population test upon return to campus	• Sufficient capacity for one-time testing on an institution-wide scale • Tests are free to students • One-time population testing policy and student compliance mechanisms
4	Test all symptomatic cases and conduct surveillance testing throughout the semester	• Testing capacity can handle repeated testing of a targeted percentage of university community • All subsequent tests are free to students • A defined protocol governs whom to test
5	Test all symptomatic cases, conduct surveillance testing, and offer tests for local/regional community	• Testing capacity can handle both institutional and community volume

Testing Tier Assessment: ☐ /5

Source: EAB interviews and analysis.

Strategy #3: Contact Tracing

Identify and Notify Exposed Individuals

	Description	Added Capabilities
0	Institution will not conduct contact tracing or have external contact tracing resources	
1	Local public health entity contact traces any confirmed positive case (student, faculty, staff) on campus	▶ • Cooperative relationships exist with external contact tracers • Information is shared between public health entity and institution on potential cases and exposure networks
2	Contact trace using university staff for small outbreaks	▶ • Existing staff or new employees, potentially student workers, conduct tracing • University personnel are trained on effective contact tracing practices • Contact tracers have protocols for interviewing infected individuals • Institution establishes mechanism for notifying close and potentially exposed contacts
3	Contact trace using university staff for large outbreaks	▶ • Number of contact tracers reaches the 30 tracer to 100,000 population ratio • Surge capacity of students or redeployed staff to respond to a large outbreak

Contact Tracing Tier Assessment: ☐ /3

Source: EAB interviews and analysis.

Strategy #4: Quarantine[1] and Isolation[2] (Q/I)

Isolate Confirmed Cases and Insulate Exposure Chains

	Description	Added Capabilities
0	Institution will not provide either dedicated isolation or quarantine facilities	
1	Provide isolation rooms only for students living on campus and expect all students to quarantine in their existing rooms or at home	• Designated isolation units are physically separated from other student residencies • Isolation units are equipped with private bathroom facilities and essential health items (e.g., thermometers) • Protocols for monitoring and caring for students in isolation are established • Surge capacity procedures are in place in case of widespread outbreak
2	Provide isolation and quarantine units only for students living on campus	• Quarantine rooms are set aside for students potentially exposed to the virus • Protocols exist for monitoring and caring for students in quarantine • The ratio between isolation and quarantine units is flexible based on case volume
3	Provide isolation units for all students and quarantine units only for students living on campus	• Capacity exists to isolate a specified percentage of student population at any given moment
4	Provide isolation and quarantine units for all students and select other community members	• Capacity exists to accommodate an exposure network of 7 students to 1 confirmed infection

Q/I Tier Assessment: ☐ /4

1) Refers to protocols for handing *potential or exposed* COVID-19 cases
2) Refers to protocols for handing *confirmed* COVID-19 cases

Source: EAB interviews and analysis.

Strategy #5: Personal Protective Equipment (PPE)

Supply the Community and Ensure Appropriate Usage

	Description	Added Capabilities
0	Institution will not provide additional PPE to students or staff	
1	Supply PPE to staff charged with responding to COVID cases (e.g., student health, police, emergency management services, etc.)	• PPE inventory acquired and reliable supply chain secured for the semester • National guidelines for PPE protection levels achieved and protocols developed when managing potential or confirmed COVID cases • PPE stockpiled for potential surge in use if major outbreak occurs
2	Supply PPE to all staff who have direct exposure to students or work where robust physical distancing cannot be maintained	• PPE acquired to cover identified constituencies • Expectations promulgated on usage and disposal
3	Supply PPE to all staff and create mask policy for students, especially when physical distancing cannot be maintained	• Mask usage requirement policy developed and communicated to students • Students supplied with masks and/or allowed to provide their own

PPE Tier Assessment: ☐ /3

Source: EAB interviews and analysis.

Strategy #6: De-Densifying Academic Space

Reduce Transmission Opportunities in Academic Spaces

	Description	Added Capabilities
0	Institution will not modify academic spaces to account for physical distancing or lower occupancy	
1	Encourage minimal physical distancing	• Signs/reminders encourage students to remain more than 1 m (3 ft) apart in classrooms • Signs/reminders encourage students to wear masks
2	Enforce robust physical distancing and mask-wearing	• Classroom layout modified to create more than 2 m (6 ft) distance between occupants • Seats removed or taped-off to prevent non-compliance • Students required to wear masks to attend in-person instruction • Furniture removed or sectioned off in public spaces to minimise congregation
3	Account for hygiene, flow, and ventilation	• Ventilation increased to the maximum extent possible • Hand sanitizer distributors placed throughout academic spaces • Plexiglass barriers constructed for instructors • Movement protocols created for student and staff traffic • Course schedule adjustments imposed to avoid clustering

De-Densifying Academic Spaces Tier Assessment: ☐ /3

Source: EAB interviews and analysis.

Strategy #7: De-Densifying Residential Space

Reduce Transmission Opportunities in Accommodation Spaces

	Description	Added Capabilities
0	Institution will make no changes to residential occupancy or layout	
1	Q/I facilities take some rooms offline but otherwise remain at nearly 100% capacity	• Quarantine and isolation facilities take some rooms offline, but otherwise residence halls operate at nearly 100% capacity
2	Bedroom occupancy capped at 2 people per bedroom	• Living arrangements with more than two individuals per room eliminated (e.g., no triple- or quadruple-occupancy in suites)
3	Building occupancy capped at a specified number of people per bathroom	• Lower ratio of residents to bathrooms or bathroom fixtures imposed to reduce overall residence hall occupancy
4	Any student can request a single-occupancy room	• Housing assignment policy allows students to elect a single-occupancy option without being cost-prohibitive
5	All students retuning receive a single-occupancy room	• All students assigned single-occupancy accommodations

De-Densifying Residential Facilities Tier Assessment: ☐ /5

Source: EAB interviews and analysis.

Diagnostic Scoring Sheet

Use this page to plot your capabilities across each of the seven strategies. Higher numbered tiers correspond with greater maturity. There is a varying number of tiers per strategy to reflect the unique capability curve of each strategy.

Use the results to confirm your institution is cognizant of the practices it is choosing to adopt, based on risk tolerance, resource constraints, and public health guidance.

Upon completion of the diagnostic, reach out to your strategic leader (Brett Schenkel, BSchenkel@eab.com), who will arrange a conversation with EAB's repopulation experts to discuss your institution's assessed readiness and recommendations for further action.

Capability Tiers for Key Mitigation Strategies

Symptom Monitoring

1 — 2

1. Conduct optional symptom monitoring
2. Conduct compulsory symptom monitoring

Testing

1 — 2 — 3 — 4 — 5

1. Test fully symptomatic cases
2. Test fully and mild symptomatic cases
3. Test all symptomatic cases and conduct a single population test upon return
4. Test all symptomatic cases and conduct surveillance testing throughout the term
5. Test all symptomatic cases, conduct surveillance testing, and offer tests for local/regional community

Contact Tracing

1 — 2 — 3

1. Local public health entity contact traces any confirmed positive case
2. Contact trace using university staff for small outbreaks
3. Contact trace using university staff for large outbreaks

Quarantine and Isolation

1 — 2 — 3 — 4

1. Provide isolation rooms only for students living on campus and expect all students to quarantine at home
2. Provide isolation and quarantine units only for students living on campus
3. Provide isolation units for all students and quarantine units only for students living on campus
4. Provide isolation and quarantine units for all students and select other community members

PPE

1 — 2 — 3

1. Supply PPE to staff charged with responding to COVID cases
2. Supply PPE to all staff who have direct exposure to students or work where robust physical distancing cannot be maintained
3. Supply PPE to all staff and create a mask policy for students

Academic Space

1 — 2 — 3

1. Encourage minimal physical distancing
2. Enforce robust physical distancing and mask-wearing
3. Account for hygiene, flow, and ventilation

Residential Space

1 — 2 — 3 — 4 — 5

1. Q/I[1] facilities take some rooms offline
2. Bedroom occupancy capped at 2 people per bedroom
3. Building occupancy capped at specified number of people per bathroom
4. Any student can request a single-occupancy room
5. All returning students receive a single-occupancy room

Source: EAB interviews and analysis.

1) Quarantine and isolation

Public Health References and Sources

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