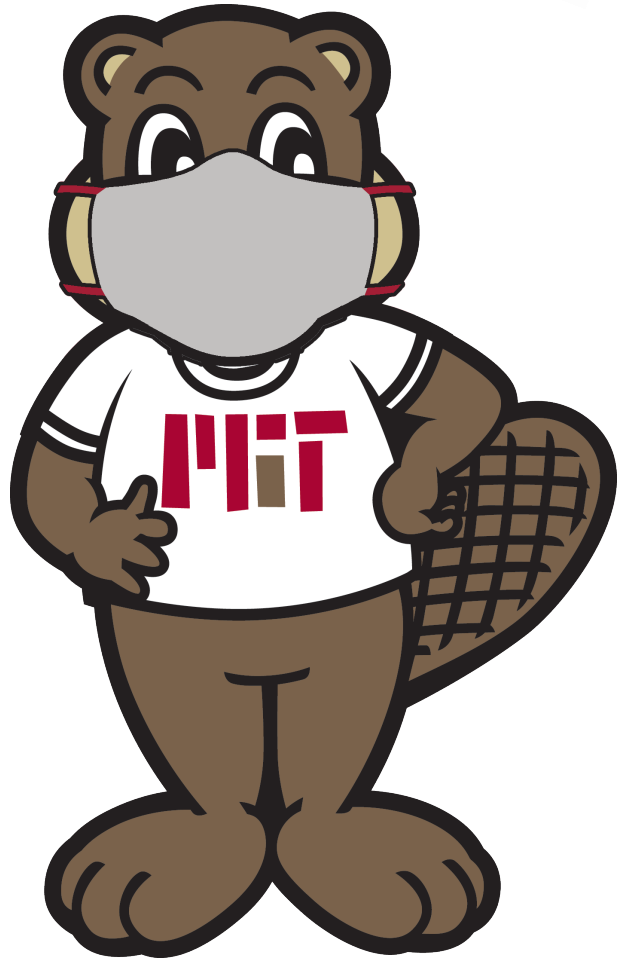
The Anatomy of a Positive COVID-19 Case at MIT

November 23, 2020 8am call

Anatomy of a positive case

- **Goal: Reduce the spread of COVID-19**
  - ✓ People management and information systems
  - ✓ Testing
  - ✓ Positive test alerts
  - ✓ Contact tracing
  - ✓ Notifications (beyond the positive case and close contacts)
  - ✓ Additional communications
  - ✓ Cleaning and disinfection of spaces
  - ✓ COVID-19 Monitoring Team
  - ✓ COVID-19 Decision Team
  - ✓ Support during quarantine and isolation
- Summary



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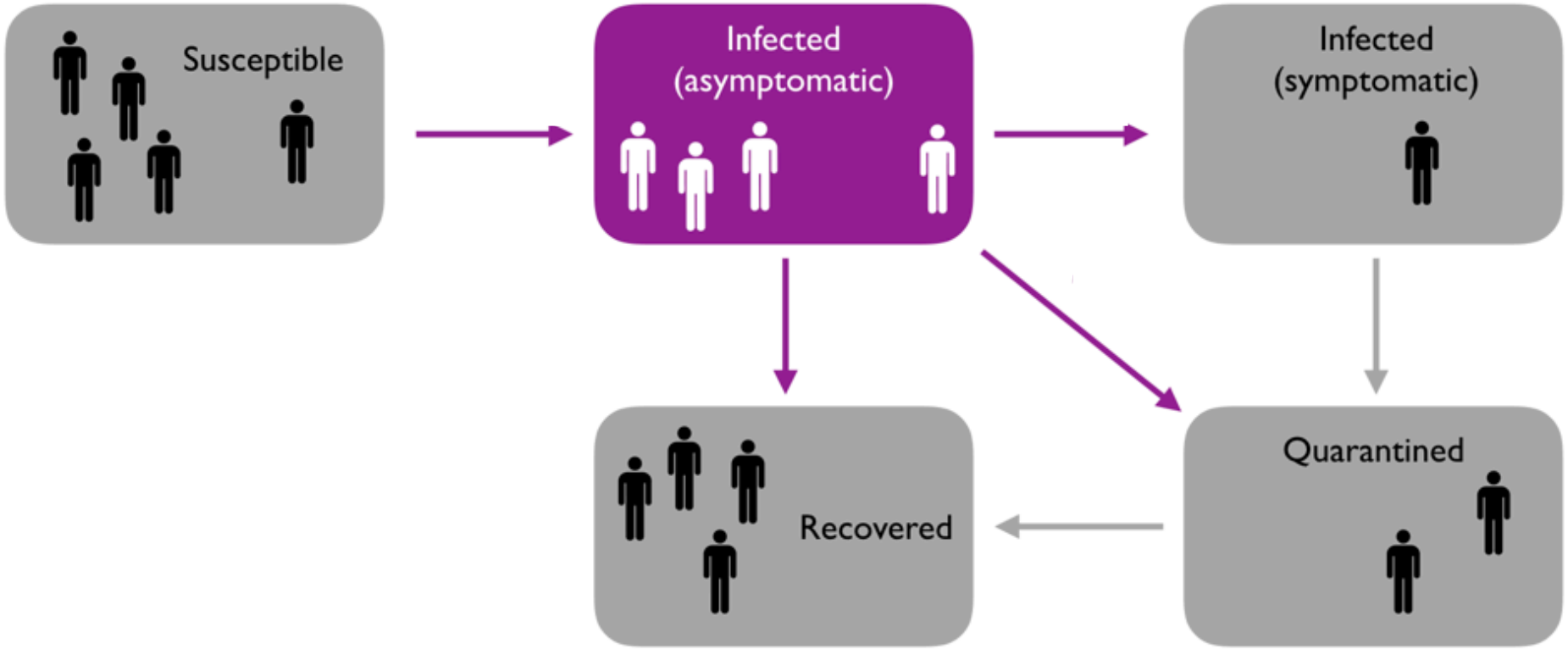

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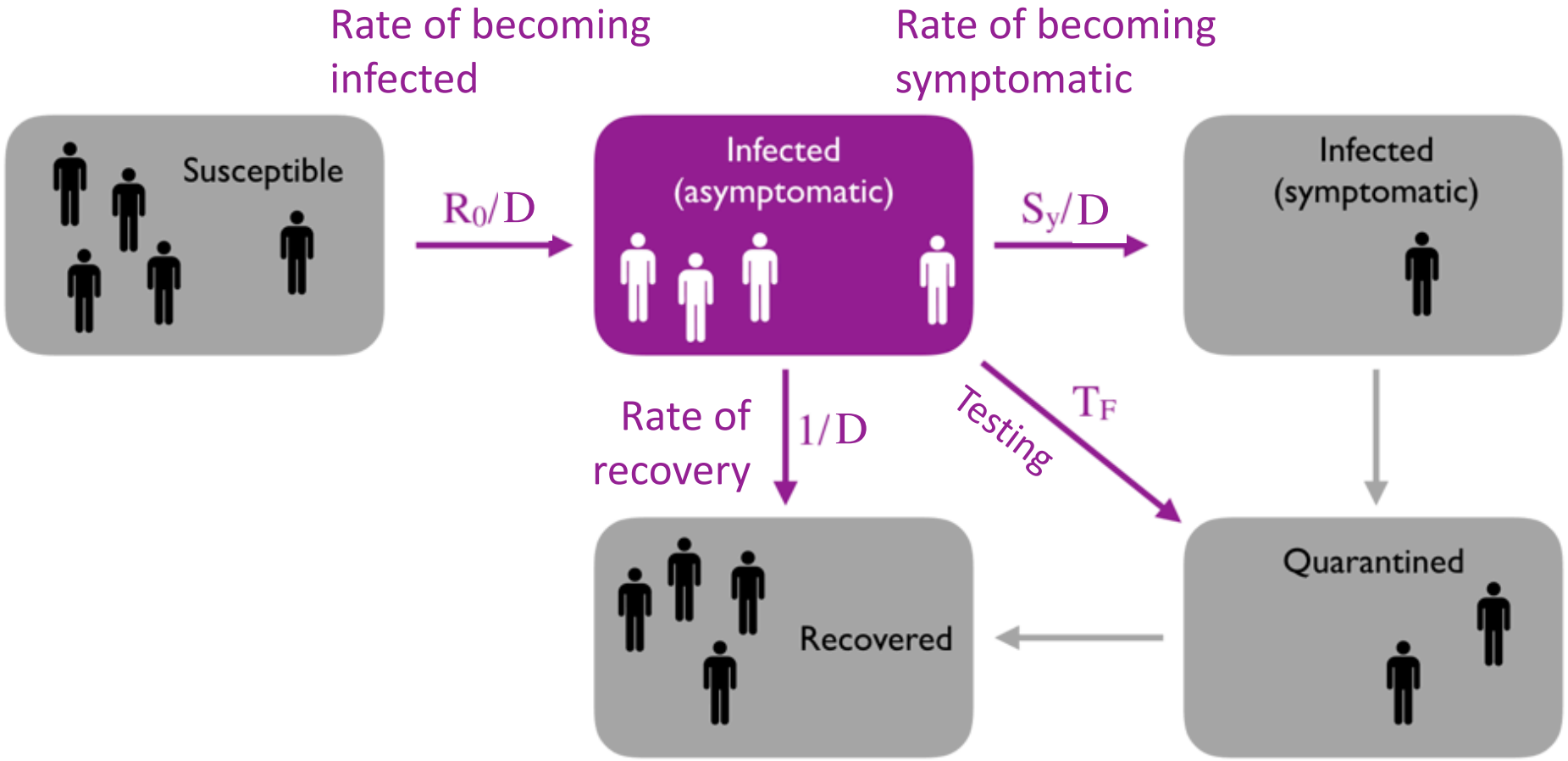

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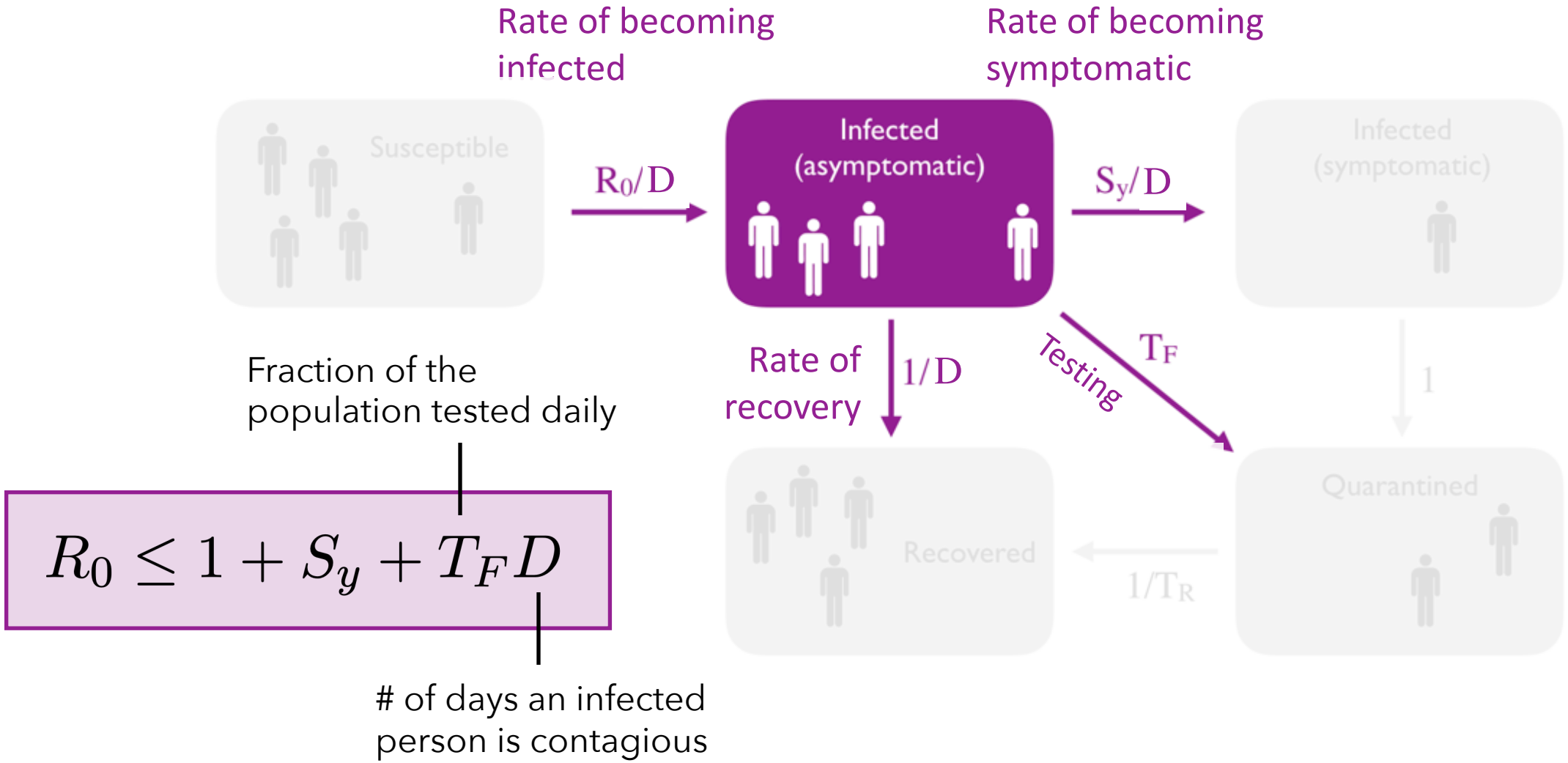
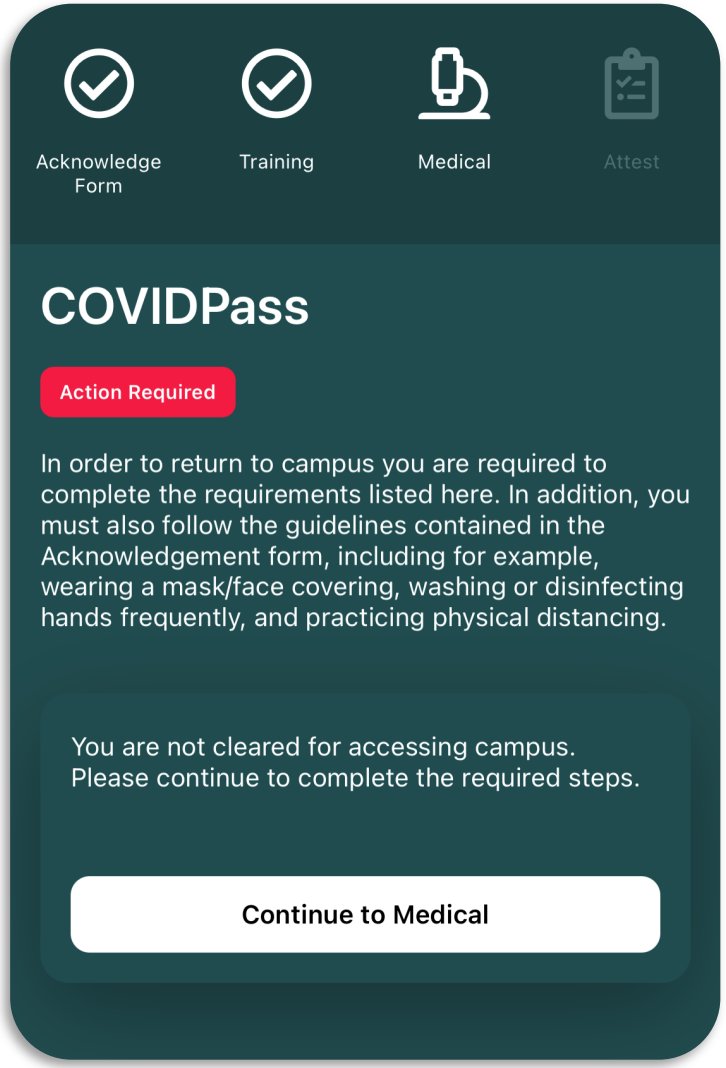


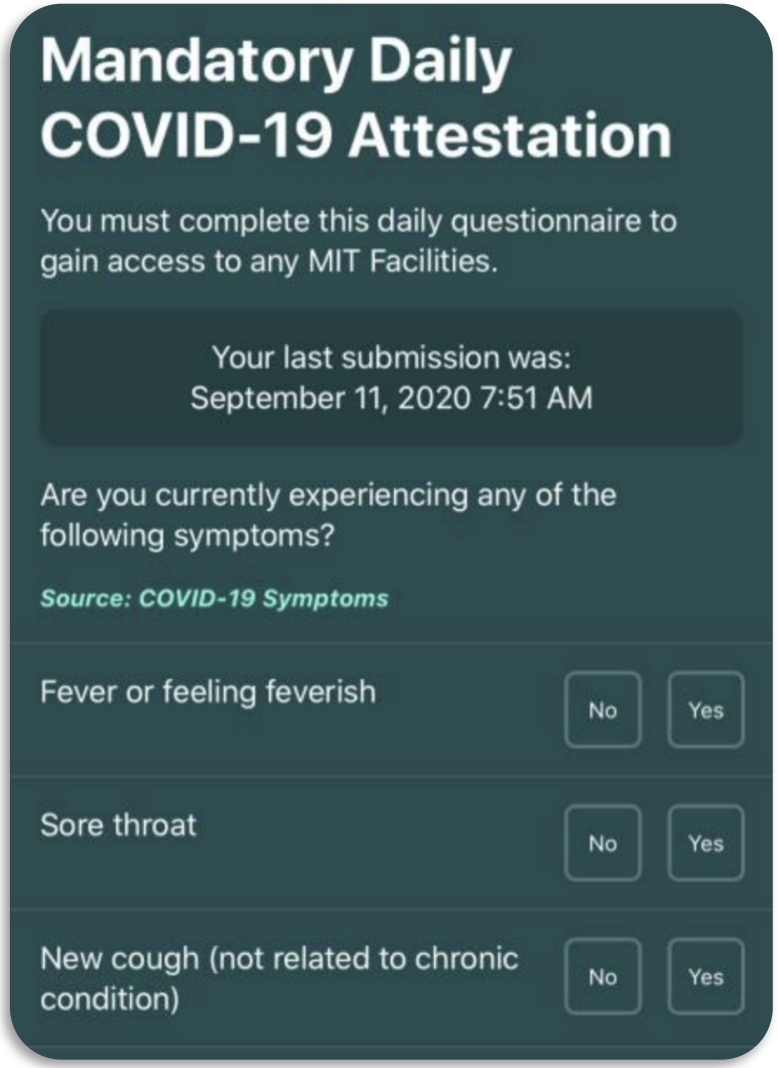
Fraction of the population tested daily

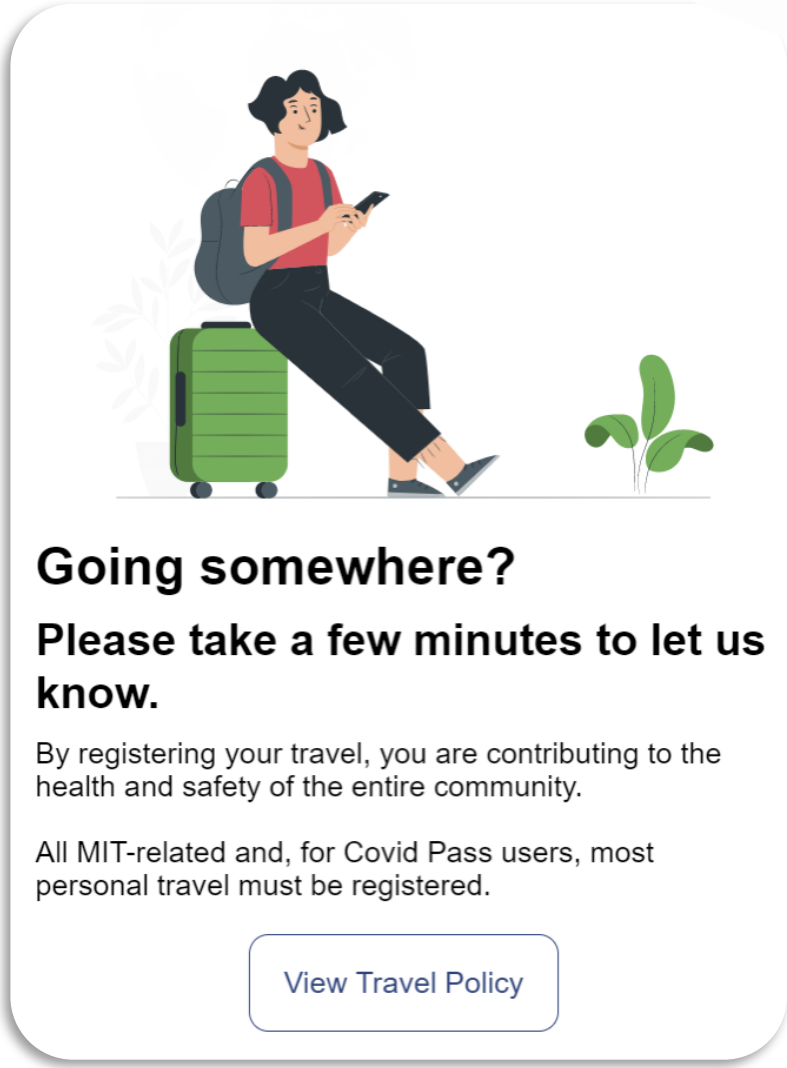
$$R_0 \leq 1 + S_y + T_F D$$

# of days an infected person is contagious

It all begins with people management: communications and information systems







It all begins with people management: communications and information systems

- COVID Pass remains a critical element of the MIT COVID infrastructure
  - Manages all “customer” interactions, including attestations and testing
  - Facilitates MIT Medical’s clinical activities: symptom review, managing positive results, etc.
  - Supports compliance via reporting and physical security integrations
  - Automatically locks ID of anyone who tests positive

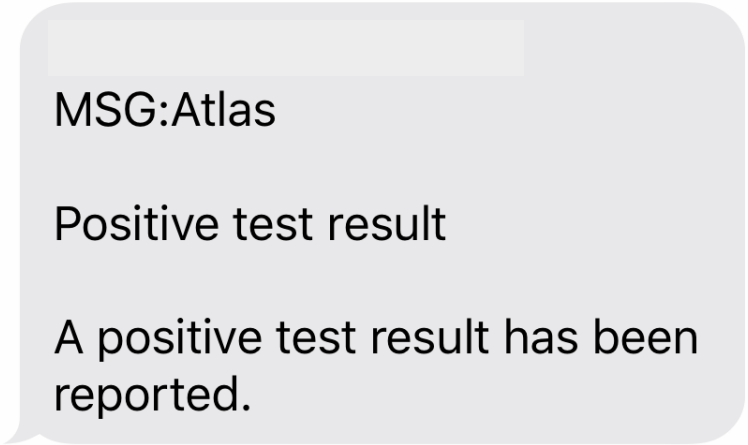
Then on to testing…

Current testing approach is working very well

- PCR testing remains the gold standard
- Averaging ~17,000 tests per week
- Little to no wait times at testing sites
  - MIT Medical
  - Johnson
- Significant additional capacity available
- Back up plans and alternative testing modes in place
- Compliance > 95%
- All tests sent to Broad, turnaround time typically < 24 hours

A positive test result is received…

- MIT Medical receives a notification that includes the person's information so they can immediately:
  - Contact the person
  - Put them into isolation
  - Begin the contact tracing process
- Emergency Management receives a notification that a positive result has occurred (no identifying information) for situational awareness purposes
- Number of positive results and number of tests returned is monitored on the COVID Pass dashboard (results often show up the next day)



Contact tracing begins…

- The **first** step of the process is to notify the + individual, and assist them into isolation (take them out of the purple box)
  - This is done as quickly as possible.
  - Goal is to quickly end any ongoing exposures.
- Contact tracing is the most manual and labor-intensive portion of MIT's COVID-19 activities
  - The definition of a close contact is designated by the CDC, not MIT Medical.
  - CDC close contact definition: Any individual who was 6 feet or closer to a positive individual for 15 minutes or more (mask or no mask). 15 minutes can be cumulative over 24 hour period.
- Contact tracers then work with the positive individual to identify any close contacts over the previous 48 hours.
- Each close contact is then called and arranged for quarantine and testing.
- If any close contact converts to positive, another cycle of contact tracing is performed.

Notifications occur…

For positive individuals who are *students:*

- MIT Medical notifies Student Support and Wellbeing for all student cases.
- Student Support and Wellbeing handles **ALL** notifications for student cases:
  - DSL and Housing leadership
  - Advisors, professors, PI(s), academic department leadership, class instructors, family/loved ones, roommates, Student Support Services/GradSupport, other key supports.
  - *The name of the individual who has tested positive will not be shared unless they have given permission to do so,* with the exception of the student's house team if they are a residential student.

Notifications occur…

For positive individuals who are *employees:*

MIT Medical will initiate the notification about a positive case, which will exclude any identifying information.

- **MIT Medical** will coordinate with the positive individual to notify their supervisor.
- **Ron Hasseltine** will notify DLC leadership for positive cases in VPR areas.
- **Peko Hosoi** will notify deans, assistant deans, and department heads for positive cases in schools.
- **Jennifer Walsh or MIT Medical** will notify department leadership for positive cases in administrative departments.
- **Marianna Pierce** will notify Labor Relations for positive cases in union areas.
- **Steve Bradt** will notify school communication directors for positive cases in schools, and will work with any departments where a broader communication is necessary.
- *The name of the individual who has tested positive will not be shared unless they have given permission to do so.*

Notifications occur…

- **MIT Medical contacts all close contacts directly.** If you are not contacted by MIT Medical directly, you are not considered a close contact of the positive individual. Therefore, you are at low risk of contracting COVID-19 from the positive individual.
- The notification process occurs as quickly as possible. However, sometimes DLC leadership will first learn of a positive case directly from the person who has tested positive, and/or from their manager.
  - Not a sign of system failure, but a sign of redundancy
  - Notification process is built to ensure DLC leadership learns of positives in their area from ***someone***
  - If you hear about a positive case before the official notification process, ensure the positive individual has gone home. *There is no need to shut down your space.*

Additional communications may be needed (but probably not)…

- We discourage DLC-wide communications about each positive case.
  - Could cause undue alarm to others who are at little to no risk
  - You could create an unrealistic precedent / expectations for notifications
- However, in cases where DLC leadership feels a broader notification is necessary — e.g., to combat misinformation — we can offer a template.
  - Carefully crafted to protect the privacy of the person who has tested positive, and to avoid alarm
  - Includes key messages, such as that those who have not been contacted by MIT Medical are not at risk in this situation
  - School and DLC communications staff are involved in this process to ensure coordination and accuracy, minimize anxiety, and protect privacy

Cleaning and disinfection will occur in any impacted spaces…

- ***Frequent cleaning and disinfection of touch points is already performed in all campus locations.***
- MIT Medical initiates notifications to begin any additional cleaning needed after contact tracing is performed.
- Special decontamination procedures are only required for spaces occupied by individuals who are suspected or confirmed to have COVID-19.
- Disinfection is coordinated by Marty O'Brien and Nick Paquin and performed by an external vendor as needed.
- Process involves people familiar with the spaces, i.e. Facilities Managers and EHS Coordinators.
- Assessment made locally about specialized/sensitive equipment.

The COVID-19 Monitoring Team (CMT) meets at noon…

- Pre-meeting with MIT Emergency Management and MIT Medical
- Primary agenda item: Daily detailed analysis of positive cases (**the story behind the positives**)
- Daily agenda:
  - Updates from the CDT
  - Highlights and summary of positive cases
  - Positive case review
  - Upcoming and in-progress communications
  - Wastewater testing results
  - COD updates
  - Issues discussion/resolution/strategy
  - Items for the CDT
- Focus on big picture, broader impacts, potential actions
- Patterns in positive cases, or an increase in positive cases on campus or externally, could trigger responses to control the spread of the virus. ***This begins at the CMT.***

The COVID-19 Monitoring Team (CMT) meets at noon…

- Suzanne Blake (Lead)
- Krystyn Van Vliet
- Kimberly Allen
- Steve Bradt
- Kim Haberlin
- Ron Hasseltine
- Suzy Nelson
- Nick Paquin
- Marianna Pierce
- Cecilia Stuopis
- Ian Waitz
- Jennifer Walsh
- Jay Wilcoxson
- Shawn Ferullo
- Richard Crook
- Rick Danheiser
- John Dozier
- John Fernandez
- Suzanne Glassburn
- Joe Higgins
- Peko Hosoi
- Maryanne Kirkbride
- Jag Patel
- Mark Silis
- David Barber
- Steve Taddonio
- Andrea Finnin
- Xin Li

The COVID-19 Decision Team (CDT) meets at 4pm…

- Receives updates on positive cases, testing, and other aspects of the Institute's COVID-19 management and response work
- In addition to coordinating with CMT, CDT also works closely with Deans' Council and student leaders
- Makes policy or operational decisions based on recommendations from CMT and input from stakeholders across MIT
- Coordinates broad communications for content and consistency

The COVID-19 Decision Team (CDT) meets at 4pm…

- Cindy Barnhart (Lead)
- Ramona Allen
- Sanjay Sarma
- Marty Schmidt
- Glen Shor
- Alfred Ironside
- Maria Zuber
- Mark DiVincenzo
- Suzanne Glassburn
- Kim Haberlin
- Cecilia Stuopis
- Suzanne Blake

All MIT community members who test positive are supported…

- **Anyone who has tested positive will isolate for 10 days. All close contacts will quarantine for 14 days.**
- MIT Medical follows up with all positive individuals and close contacts.
- For **students** who test positive or are close contacts:
  - Handoff from MIT Medical to Student Support and Wellbeing
  - Quickly get students out of the purple box
  - Provide students with support
- For **employees** who test positive or are close contacts:
  - Employees who are unable to work because they have Covid-19 or are quarantining are paid at 100% of their usual pay for up to 10 days, using a special pay code of Sick-Covid19.
  - If their exposure to Covid-19 is from their MIT work, they are paid at 100% and do not have to use their 10 days of Sick Covid-19 pay.
  - Example: employee who is a close contact of a co-worker who tests positive for Covid-19 is paid for their quarantine period and does not have to deplete their 10 days of Sick-Covid19 pay

In summary…

- This process is **WORKING** so we would like MIT community members to TRUST THE PROCESS. We appreciate all of the coordination and patience you have provided so far.
- There are **real people** behind this entire process who are working very hard to prevent the spread of COVID-19 among MIT community members.
- We have learned a lot this semester and we are **always improving.**
- We plan to use the same process for the rest of this year and into the **Spring semester.**