

Basic Research Response during the COVID-19 Pandemic

Andi Hernandez, Vice President, Tanya Santos, Director, and Kim Chun, Project Manager, Research Operations
Beth Israel Deaconess Medical Center

Introduction

In March 2020, the City of Boston declared COVID-19 a public health emergency. Research Operations was tasked with safely shutting down basic and translational research labs by instituting new operational protocols and best practices. Only essential research and maintenance staff were allowed on-site and all non-essential research work was transitioned to remote. In facilitating the Research shutdown, we recognized the potential in improving our operational and communications plan for reopening the Research labs in June 2020.

Goal

Our overall goal was to effectively shut down and reopen basic and translational research labs while ensuring the safety of all Research Employees and animals and regularly communicating progress with the Research Community.

The Team

Leadership

- Gyongyi Szabo, MD, PhD; Chief Academic Officer, BIDMC and BILH
- Andi Hernandez, Vice President, Research Operations

Research Operations

- Tanya Santos, Director, ResOps
- Kim Chun, Project Manager, ResOps
- Barbara Garibaldi, Director, ARF
- Denise Glass, Assoc. Director, ARF
- Mark Varhol, Lead Project Manager, ResFac
- Lucero Vega, Sr. Project Manager, ResFac
- Kim Tablante, Research Administration
- Chris Botte, Academic Research Computing

Environmental Health & Safety

- Kristin Piticco, Interim Director
- Peter Schooling, Safety Officer
- Rob Griffin, Biosafety Officer

Research Reopening Planning Committee

- Al Charest, PhD, Research Safety Committee Chair
- Steven Balk, MD, PhD – Professor of Medicine
- Jack Lawler, PhD, Professor of Pathology
- Leo Otterbein, PhD, Professor of Medicine, IACUC Chair
- Evan Rosen, MD, PhD, Principal Investigator

The Interventions

Interventions in preparation for Research Shutdown

- Generated Lab Ramp-Down Checklist, Remote Access to Systems tools for Research Community
- Work from Home Assessment/Staffing Survey distributed
- Managed the process for research lab donations for Clinical Supply shortages
- Managed Redeployment to COVID-19 clinical efforts
- Delayed New Hires/Visa Processing
- Kept abreast of changing NIH Grant Management guidelines
- Continued on-site management/maintenance of labs by Research Facilities
- Converted research lab space to Clinical COVID-19 testing and PPE reprocessing facilities

Interventions in preparation for Phased Research Reopening

- Hosted Town Hall meetings regularly (2x per month from April 2020 to July 2020) to update Research Community
- Organized a Research Reopening Planning Committee comprised of members of leadership, Research Operations, EH&S, and Research Community leaders
- Discussed and Coordinated timing of Reopening with: BIDMC COVID-19 Command Center, Harvard University Committee of Research Laboratory Re-Entry, Conference of Boston Teaching Hospitals group & AAMC Dean's group
- Created a Reopening Survey for completion by the Research Community to obtain feedback about their safety concerns with returning to the lab
- Implemented the Section Chiefs Program to assist in COVID-19 Safety efforts during Reopening
- Created the Research Reopening Resources Page on the BIDMC Portal
- Created and implemented myPATH Return to Research Training for all returning staff and new incoming staff during Phase I and Phase II
- Produced Research tools: example: checklists, signage, and put engineering controls in place for social distancing
- Opened a direct e-mail line for Return-specific questions: researchreturn@bidmc.harvard.edu

For more information, contact:

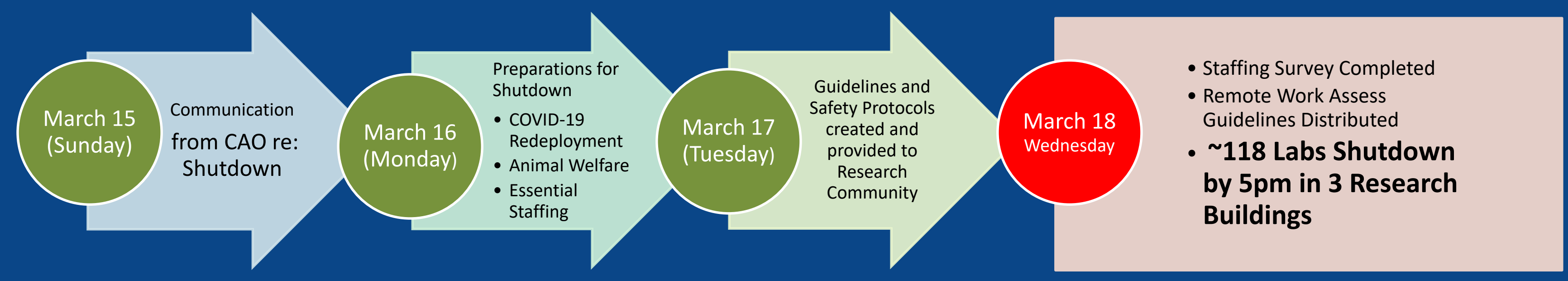
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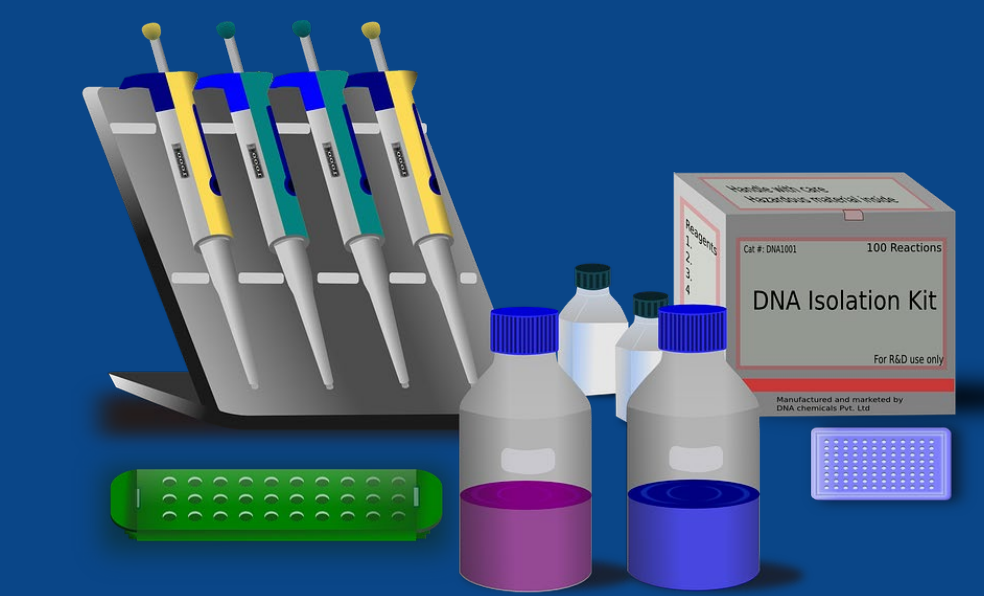
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Results

Basic Research Shutdown Timeline



55 out of 99 Research employees redeployed



Due to supply shortages, Laboratory supplies/PPE donated for clinical needs

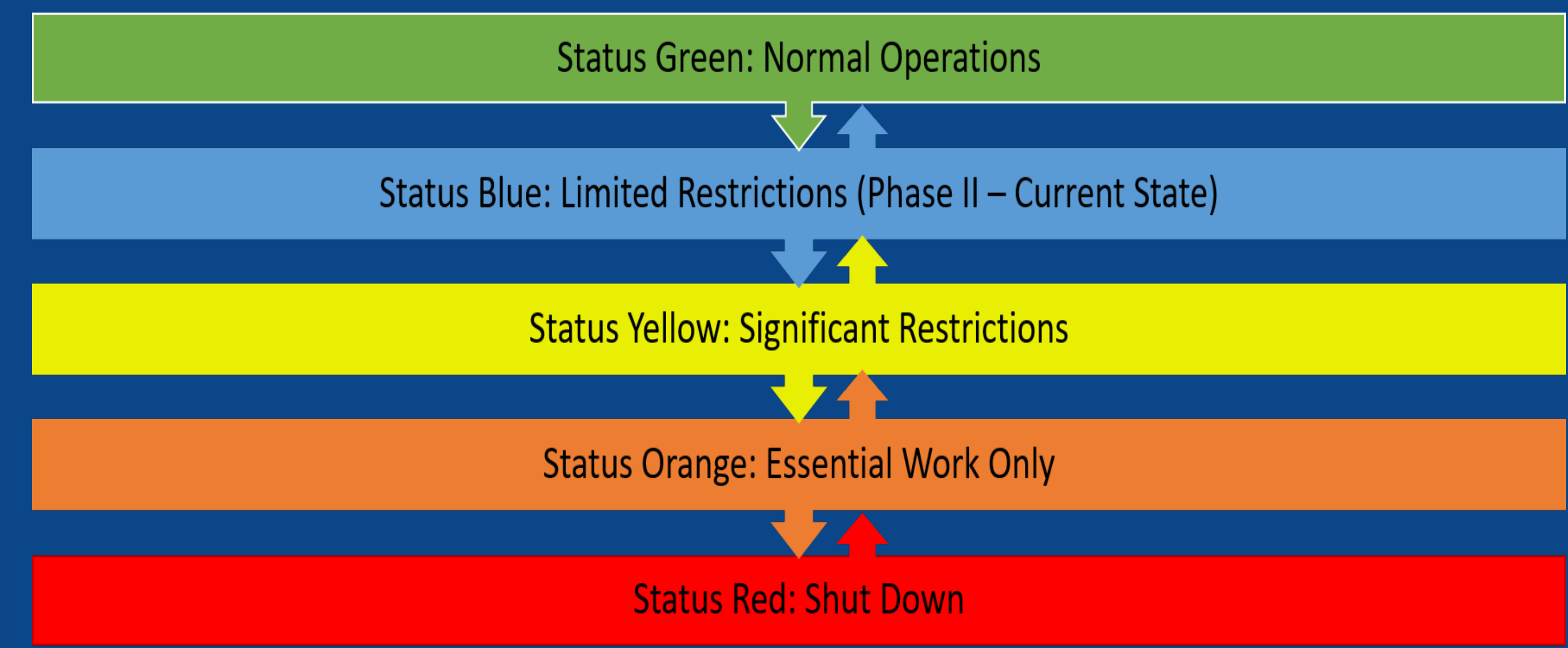


Lab Spaces were made available for COVID-Testing and Masking Stations while not in use

1. Basic Research labs and core facilities were shut down by 5:00pm on March 18, 2020. As shown by the graphic above, Research was successful in shutting down labs within a 3-day period.

3. During the Research shutdown, the Research Community contributed to BIDMC's overall COVID-19 management effort by diverting personnel assistance, supplies, and lab spaces.

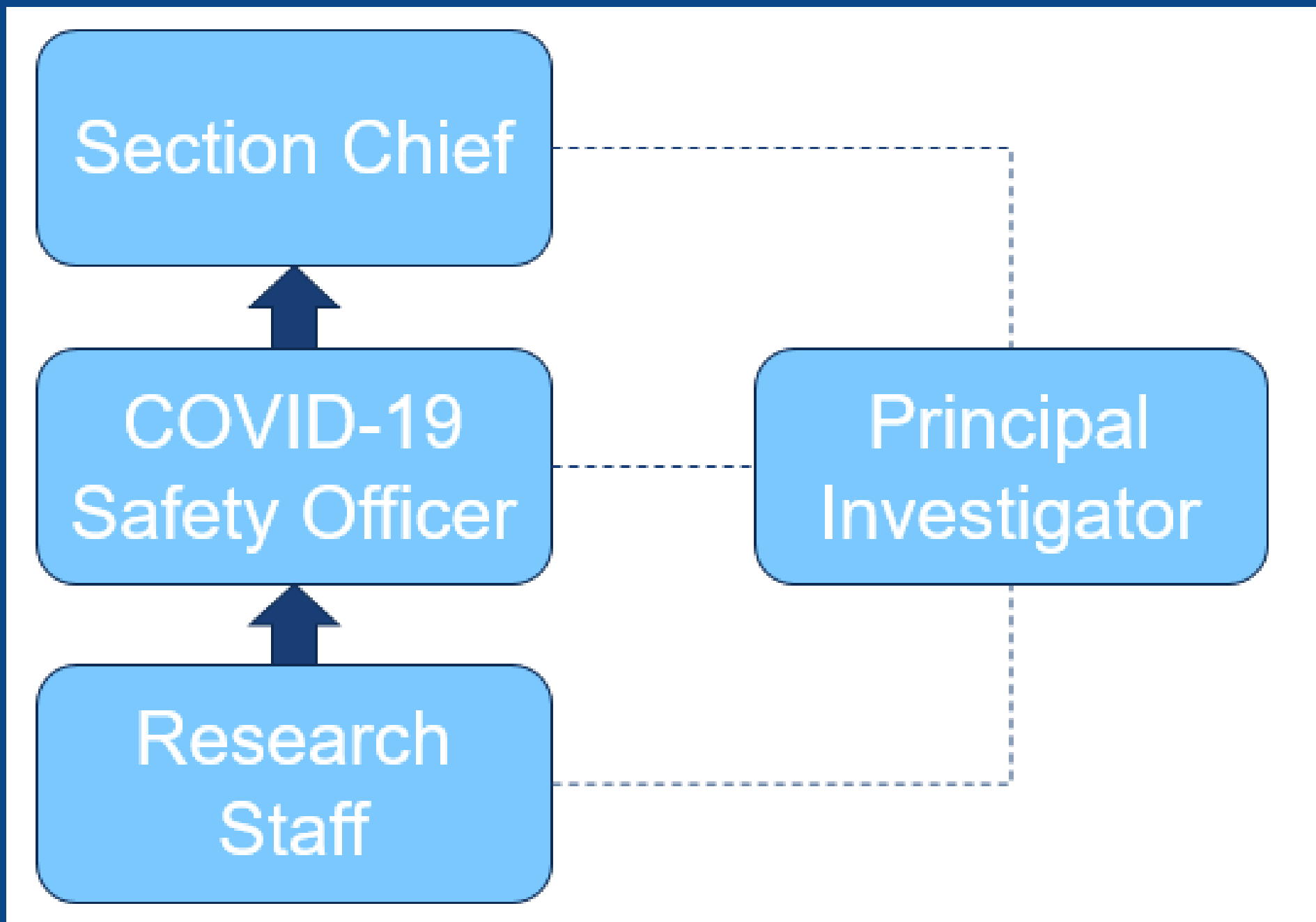
Basic Research Reopening Phased Approach



2. Our phased reopening model for Research enables us to adjust on-site research/population density phase by phase easily with as little disruption as possible. In June 2020, we entered **Status Yellow (Phase I)** and after one month, we ramped up to **Status Blue (Phase II)**. The triggers for our gradual ramp up/down are guided by BIDMC and state and local response to any COVID-19 trends.

Section Chiefs have been identified for larger open lab units on each floor/section. They are responsible for coordinating and creating schedules for shared equipment use and common areas for eating/breaks as well as addressing issues and concerns with COVID-19 prevention processes.

COVID-19 Safety Officers are responsible for reporting any concerns with processes within the lab or shared spaces to Section Chiefs, appropriately coordinating with the PI



4. The Section Chiefs program (~35 individuals) significantly supported and contributed to the Research Operations team's effort to safely reopen basic research labs. The Section Chiefs were our "eyes" on the research floors. They aided in enforcing safety best practices and communicating guidelines to Researchers.

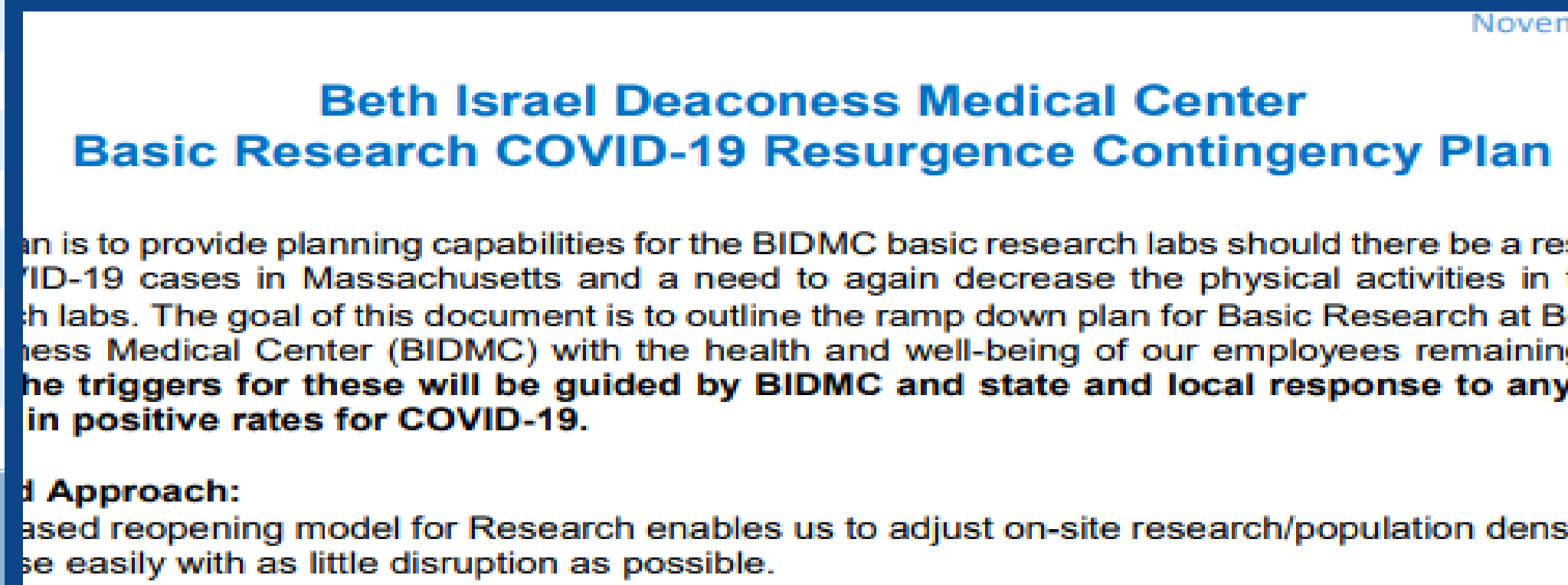
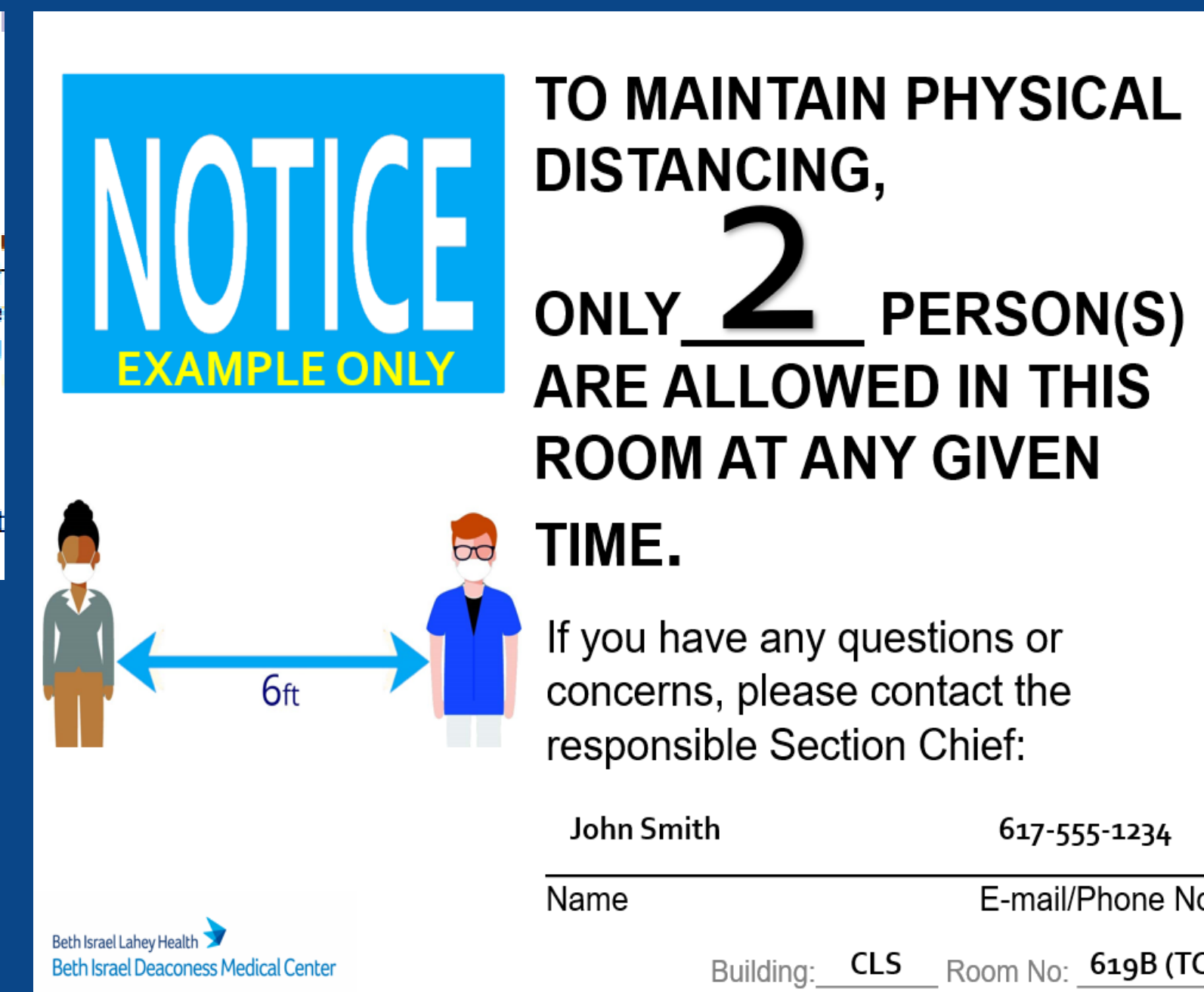
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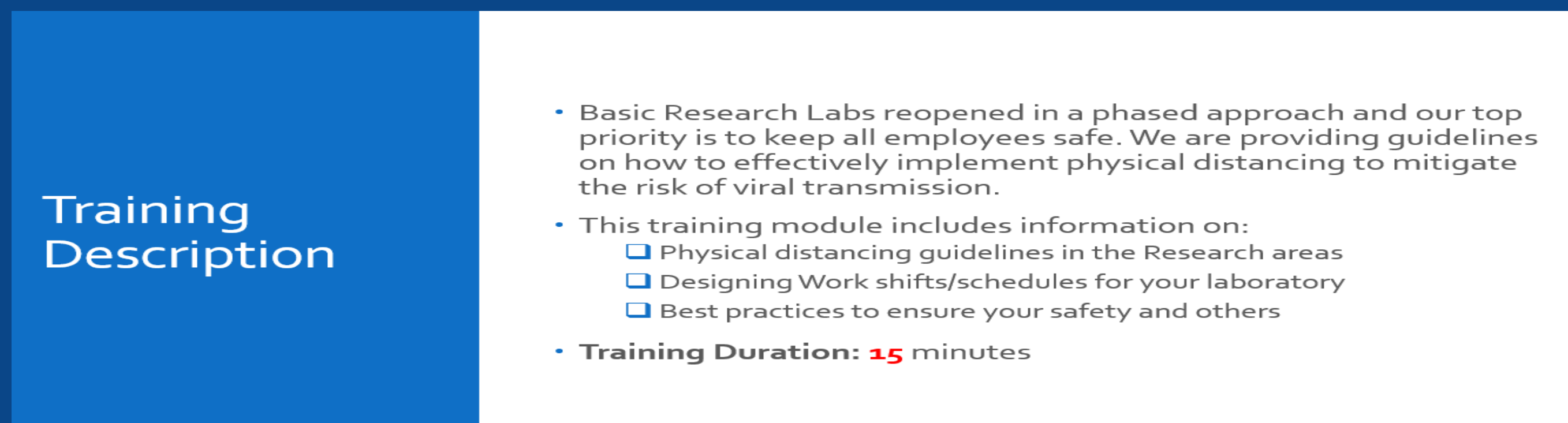
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More Results




5. Throughout the shutdown and reopening period, Research Operations communicated regularly with the Research Community via virtual Research Town Halls and by re-distributing BIDMC-wide e-mails to the Research Community highlighting Research-specific instructions/relevance. Town Halls were recorded and made available on the Portal to ensure everyone had access to the updates. Over the course of this period, we also generated a number of tools and resources for our Researchers.

Lessons Learned

- Researchers want to be heard and are willing to provide feedback
- Efforts need to be coordinated with all key stakeholders in order for implementation of new guidelines to be successful and met with little resistance
- Research now has an emergency management contingency plan and a catalogue of tools available that can be tailored to based on the severity of the situation
- Research Operations opened more direct lines of communication & reach to our Research Community through the implementation of the Section Chiefs program (in addition to our existing Lab Safety Officer Program)

Next Steps

- Continue to monitor/evaluate emergency management contingency plan
- Improve tools and resources already available and connect these to the appropriate contingency levels (See Results #2)
- Re-enforce awareness of the available tools and resources contingency plans
- Better utilize available resources to strengthen communications with Research Community (Portal, use of pre-existing templates, distribution lists)

For more information, contact:

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