

BCPH Mitigation Maintenance Plan for CU Outbreak

Appendix C: Mitigation Maintenance Plan and Strategies to Maintain Safer at Home Level 2

This mitigation maintenance plan creates metric goals for the 18-to-22-year-old population to encourage community engagement in reducing cases; increasing testing particularly for off-campus students; and encouraging compliance with contact tracing. The plan identifies metrics related to the outbreak among individuals between the ages 18 and 22 years; it defines a stepdown process from the current BCPH Public Health Order (PHO) #2020-07 if metrics improve – and more protective measures if metrics worsen.

Many young adults are drawn to social gatherings, a natural part of their social and emotional development. One of the main methods for preventing COVID-19 transmission is physical distancing (“social distancing”), which is counter to the culture of this age demographic. Transmission may occur particularly rapidly within the 18-to-22-year-old population due to combined high asymptomatic rates and lack of social distancing. While many young adults seem to recover quickly from COVID-19, its spread among younger populations is also known to seed spread among medically vulnerable community residents with significant health impacts.¹ Further, the long-term impacts that a COVID-19 infection may have on the 18-to-22-year-old population is still unknown. In addition to social distancing and wearing face coverings, testing, case investigation/contact tracing, isolation, and quarantine for off-campus students (particularly those living in group quarters) are key to controlling the spread of COVID-19.²

This mitigation plan relies on several guiding principles, including:

- Commitment from BCPH, City of Boulder, and CU-Boulder to continue to collaborate.
- A preference for a stepdown approach and gradual removal of restrictions rather than sudden removal.
- Use of more focused and tailored orders and approaches based on emerging data/science and specific conditions/contexts.
- Approaches that proactively engage the community and students in prevention and containment work and give students clear roles, goals, and incentives to achieve the goals linked to increased gathering opportunities.

The mitigation maintenance plan includes two components: 1) guidance for the next PHO, including a proposal for case count, positivity, testing, and contact tracing metrics specific to the 18-to-22-year-old population, with a series of stepdown public health orders concerning gathering limits, regulation of group quarters, and alcohol last-call orders tied to improving metrics; and 2) operationalized plans with collaboration among BCPH, City of Boulder, and CU-Boulder to implement and actions to concurrently support the stepdown of restrictions and continued control of the pandemic, as well as begin to address plans for graduated CU return to athletics and events.

¹ <https://www.cdc.gov/mmwr/volumes/69/wr/mm6939e1.htm>

² <https://jamanetwork.com/journals/jama/fullarticle/2771319>

Stepdown for BCPH Public Health Order #2020-07 and City of Boulder Emergency Order #2020-21

Introduction

State of Colorado Dial

Colorado Department of Public Health and Environment’s [Public Health Order 20-35](#) (the “State Dial”) determines countywide allowances in Colorado for variances, personal gathering sizes, P-12 schools, higher education, places of worship, restaurants, offices, bars, gyms/fitness, group sports, retail, personal services, indoor events, outdoor events, senior facilities, and recreation. These allowances are based on countywide case counts, positivity rates, and hospitalization rates.

BCPH’s mitigation maintenance plan, including the series of stepdown orders and policies, works within the State Dial. Specifically, the mitigation maintenance plan assumes that Boulder County remains within Safer at Home Level 2 throughout the stepdown process.

Boulder County is currently in Safer at Home Level 2; however, Boulder County’s cases per 100,000 metric falls in the Safer at Home Level 3 range at the time of this writing. This countywide metric is largely driven by the population of 18-to-22-year-olds. As of October 2, 2020, the case count per 100,000 for that population was 3110.1. The positivity rate among individuals who are between the ages of 18 and 22 years was 14.3% as of October 2, 2020, which falls within the Safer-at-Home Level 3 High Risk metric range.

Figure 1: Reference – Existing CDPHE Dial levels

	Protect Our Neighbors: CAREFUL	Safer at Home Level 1: CAUTIOUS	Safer at Home Level 2: CONCERN	Safer at Home Level 3: HIGH RISK	Stay at Home: SEVERE
New Cases (excluding cases of residents in congregate facilities)	Must achieve all 8 Protect Our Neighbors metrics and complete the certification process	0-75/100,000 2-week incidence	>75-175/100,000 2-week incidence	>175-350/100,000 2-week incidence	>350+/100,000 2-week incidence
% Positivity		No greater than 5%	No greater than 10%	No greater than 15%	No limit
Hospitalizations		Stable or declining	Stable or declining	Increasing	Increasing

Current Local Orders

Boulder County Public Health Public Health Order #2020-07, in effect through October 8, 2020, at noon, limits all gatherings among individuals in the city of Boulder between the ages of 18 and 22 years to 2 people and issued stay-at-home orders for 38 specific addresses, which are primarily group quarters. In addition, the City of Boulder implemented a last call for alcohol service of 10 p.m.

The proposed order changes below provide the structure for stepping down from the gathering limitations and targeted stay-at-home orders via a series of graduated local public health orders. BCPH has also identified the markers for recommendations from Public Health to the City of Boulder for stepping down from the 10 p.m. last call for alcohol emergency ordinance and recommendations for in-person learning and athletics for the University of Colorado and other institutions of higher education.

Part 1: Orders Limiting Gatherings for Individuals Between Ages of 18-22 Years

The mitigation maintenance plan defines four levels of public health orders concerning gatherings for individuals between the ages of 18 and 22 years; it is based on the cases per 100,000 among individuals aged 18 to 22 years in Boulder County, the 14-day positivity rate among that age range, CU testing goals (particularly testing of off-campus students), and contact tracing compliance (see Figure 2).

The levels, as determined by these metrics, shall define the gathering limits among individuals aged 18 to 22 years within the city of Boulder. BCPH Public Health Order #2020-07 currently falls in Level C. The metrics that trigger changes in restrictions between levels are largely influenced by student behaviors, and thereby create incentives for the 18-to-22-year-old population. The metrics include observed social distancing and wearing of face coverings/masks, number of violations issued, student testing rates (including proportions for students living on-campus and off-campus), positivity rates, cooperation with contact tracing and isolation in the event an individual does test positive for COVID-19.

The goal shall be to move the 18-to-22-year-old population back to the baseline, which aligns with Safer-at-Home Level 2. Movements from the left column to a right column of Figure 2 (below) will look at a 14-day positivity rate and 14-day cases per 100,000. However, in order to avoid future surges, BCPH will also monitor a 5-day positivity rate and 5-day cases-per-100,000 metric. Movements to more restrictive levels (from left columns to right columns) shall be based on the more sensitive five-day rates.

Figure 2: Stepdown Public Health Order Metric Indicators for Each Level, Specific to 18-22 Year Age Group

	Baseline	Level A	Level B	Level C	Level D
Testing Goals	Testing rates consistent with broader population	Consistent testing with significant representation of off-campus students. - compliance with testing requests from CU			Inconsistent testing
New Cases per 100,000 Among Individuals Aged 18 to 22 Years in Boulder County (14-day average)	<250	250-749	750-1499	1500-1999	≥2000
Positivity Rate for Individuals Aged 18 to 22 Years in Boulder County (14-day average)	<5%	<5%	<10%	<15%	≥15%

BCPH may also consider additional metrics in assessing these metrics and determining whether movement between Levels may be appropriate, such as

- K-12 outbreaks
- Outbreaks in other areas of Boulder County
- CU surveillance testing positivity and referral rates
- Level of violations reported
- Compliance with contact tracing and other investigations
- 5-day moving averages on any metrics, as part of an early warning system.

Data will be reviewed and released to the public (and targeted to student communications outlets) at least three times a week. Levels may change not more than once every two weeks.

Figure 3: Stepdown Local Public Health Order Gathering Allowances by Level, Specific to 18-22 Year Age Group³

	Baseline	Level A	Level B	Level C	Level D
Personal Social Gathering Size for Ages 18-22 Years	State Dial Level	6 people	4 people	2 people	None except two people allowed to gather for essential errands for a safety concern
Dining for ages 18 to 22 ⁴	State Dial Levels	6 people	4 people	2 people	No in-person dining
Other regulated gatherings and CU-sponsored events / gatherings ⁵	Requirements in line with the rest of Boulder County (up to Safer at Home Level 2 under PHO 20-35)			2 people	None

When the metrics indicate that local public health orders may proceed to Level B, CU will work with BCPH to develop policies and a plan to support regulated, CU-sponsored gatherings. Regulated gatherings would follow CDPHE guidance for outdoor or indoor events, as appropriate, and could include “socializing circles” outside with clearly marked distances and face covering requirements or CU-sponsored student activities, such as outdoor movies or other events. These plans will be linked to achievement of metric goals, utilize evidence-informed planning to ensure social distancing and other prevention measures, follow existing guidelines where relevant, and begin with pilot activities.

In-person learning at institutions of higher education will not be considered a gathering for the purpose of the public health order and will be addressed separately.

Part 2: Higher Education Athletics

BCPH will work closely with CU to develop policies and a plan to support the return to CU Athletics in a progressive process. CU shall submit plans to BCPH for approval for plans and policies pertaining to

³ Personal social gathering refers to the any public or private gathering as defined in CDPHE’s Amended Public Health Order 20-35. In addition, dining is subject to personal social gathering limits. However, by contrast to Order 20-35, a personal social gathering under local orders does include members living in the same residence.

⁴ Restaurants are as defined in CDPHE Order 20-35.

⁵ Regulated Gatherings are gatherings that are sponsored by a business as defined in Section III of the CDPHE PHO 20-35, for example, yoga classes, shopping, attending concerts, etc.

NCAA Athletics, including practices and games. Such plans may include regular testing for athletes and coaches, education and outreach to athletes and coaches, enforcement and compliance, and gradual reintroduction of fans to athletic events as allowed under current CDPHE orders.

Part 3: Last Call for Service of Alcohol Order

Currently the City of Boulder's last call for alcohol service is 10 p.m. BCPH proposes monitoring both local City of Boulder conditions and state and regional metrics for the metro area counties and will recommend an appropriate last call for alcohol time, based on Safer at Home Levels, current conditions, or a combination.

Part 4: Regulation of Collegiate Group Homes

BCPH PHO #2020-07 ordered the residents of 37 identified addresses in the city of Boulder to stay at home. Five of those properties were identified for multiple or egregious CDPHE Public Health Order violations, particularly large gatherings, though they are not collegiate group homes.

The remaining properties were identified because they are off-campus collegiate group homes, meaning any off-campus residence where more than 4 students of higher education reside in a group living arrangement. Based on epidemiological outbreak data, these collegiate group homes pose a high risk for COVID-19 transmission and outbreaks.

Non-Group Quarters Identified Properties

BCPH will let the stay-at-home order expire on October 8, 2020, for the five non-collegiate group homes identified properties in BCPH PHO #2020-07, as long as they have not had any violations within the past two weeks. To date, none of those properties have had any additional public health order violations.

Group Quarters

All collegiate group homes currently under stay-at-home orders under BCPH PHO #2020-07 shall remain under stay-at-home orders until October 12, 2020, or until they complete the following assessment, whichever is later. Group quarters, which include a variety of congregate housing settings where people live or stay in a group living arrangement, are defined by the U.S. Census and tracked by the City of Boulder. Many group quarters, such as long-term care facilities and residence halls at the University of Colorado, are regulated by state law or other government institutions and must implement COVID-19 policies pursuant to their regulating body. The original PHO identified group quarters (collegiate group homes) that were not otherwise subject to state or local regulations.

The goal of the public health order moving forward is to provide clear guidance and regulations for collegiate group homes, which are group quarters that are not otherwise regulated. This includes the collegiate group homes listed on BCPH PHO #2020-07 and may be extended to additional facilities, as needed and as determined by Boulder County Public Health.

Administration of Requirements

The City of Boulder, BCPH, and CU will collaborate to develop collegiate group homes plans for the off-campus collegiate group homes identified under the stay-at-home order. BCPH will develop a plan template and guidance, as well as assistance in completing the plan. The City of Boulder will assist in logistics and communication with the affected properties to facilitate meetings and coordination. CU will assist with campus communication and student conduct channels, as applicable. This collaborative team will monitor compliance with the following requirements for such collegiate group homes. Failure to follow the requirements for collegiate group homes could result in the issuance of a public health order, referral to the CU Office of Student Conduct (if applicable), or both.

Requirements for Group Quarters

- Submit a collegiate group home plan that includes elements such as household isolation plans, disinfection and infection prevention, and an identified house point of contact. Active infection control measures are found on the Collegiate Group Housing Checklist.
- Weekly testing at CU for group quarter residents comprised of CU students who have not had COVID-19 in the past three months.
- Agreement to cooperate with BCPH and CU (as applicable) contact tracing and containment efforts.
- Limitations on visitors depending on the Levels defined above.
- Weekly check-ins with the City of Boulder to assure compliance with these requirements.

Operationalization of Plans to Support Stepdown of Restrictions and Maintain Improved Conditions

Collaborative Infrastructure

BCPH, City of Boulder, Boulder County, and CU-Boulder will continue to regularly collaborate through the Joint Incident Command Structure (ICS) until success indicators are met and BCPH has the resources and capacity to respond to the current situation. After the ICS deactivation, the agencies will continue to collaborate regularly, shadowing many of the same processes in the current ICS. In preparation for such deactivation and preparation for ongoing collaboration, the Agency Administrators⁶ will focus on:

- Providing infrastructure support to successfully transition away from the ICS to an ongoing collaborative structure, such as:
 - Developing policies and new PHOs, as needed; for instance, in relation to graduated return to operational activities at CU and controlling outbreaks in group quarters.
 - Continuing to provide data sharing pursuant to the data-sharing Memorandum of Understanding (MOU) between CU and BCPH.
 - Creating a common platform to report/present data and communicate to the public.
 - Create a specific dashboard of metrics reflective of student behaviors that is tied to the incentives identified in the local public health order framework above.

⁶ The Agency Administrators group includes local, state, and university officials.

- Coordinating and implementing actions in relation to testing, data reporting and sharing, containment, enforcement, and communications/public messaging/education (see below for specific actions).
- Moving to semi-weekly, then weekly meetings of the key agencies for situational awareness, planning of activities, and identification of needs.
- Assessing additions to local agency representation going forward (e.g. Chamber of Commerce, other non-Boulder County agencies). This will be done with the City of Boulder COVID Response and Recovery Team, whose activities include engagement with nonprofit support agencies for service gaps and overseeing the CARES (Coronavirus Aid, Relief, and Economic Security) Act business grants.
- Addressing emerging needs and support/response opportunities, such as containment measures for public transportation generally and for CU students; collaboration with non-Boulder agencies to minimize student COVID-19 outbreak spread to their communities; regulation of controlled environments and working with local businesses, such as gyms, restaurants, etc.; supporting businesses without compromising safety, such as through continued waiver for grocery store pickup fees.

The following plans support operationalizing the stepdown approach to prevent the transmission of COVID-19 among individuals between ages 18 to 22 years and the community through an integrated approach.

Testing Branch

As noted in the mitigation plan, the CU testing strategies include a host of methods, including wastewater micro-surveillance and RT-PCR (saliva) and diagnostic (PCR and antigen) testing for students, high-risk staff, and faculty. On arrival to campus for the semester, CU on-campus students were either tested or required to provide evidence of a COVID-19 test within five days of arrival to campus. Students, faculty, and staff were required to conduct a routine daily health assessment as part of their symptom tracker system. Prior to the surge, Boulder County did not have any CDPHE-sponsored community COVID-19 testing sites.

Primary Actions

- CU will continue to communicate the importance of testing to the CU community, both on and off campus.
- CU will encourage, build a reward system and goals for, or require students to seek testing at CU Wardenburg Health Center and has increased capacity to accommodate up to 600 tests for off-campus students per day. The CDPHE-sponsored walk-up COVID-19 testing site at Pleasant near the CU campus has closed.
- The community-based drive-up COVID-19 testing site will continue to operate with a contractor and CDPHE financial support. Assessing positivity rates at this test site will help the Data Branch assess community spread.
- BCPH is collaborating with CDPHE to increase testing among long-term care facilities (LTCF) staff and residents.

Secondary Actions

- BCPH will partner with Boulder Community Hospital (BCH) to initiate targeted strike team testing among priority populations residing in settings, such as shelters, encampments, LTCF,

mountain communities, and in county locations where hotspot maps have identified disparities among the Latinx population (identified through GIS mapping).

- The City of Boulder is piloting expanded wastewater testing (“in-system” testing at key points throughout the city, not just at the treatment plant).

Data and Surveillance Branch

Early Warning Metrics

Daily and weekly monitoring of key State Dial metrics, as well as secondary metrics related to community spread (see Appendix B), will indicate whether the 18-to-22-year-old population and Boulder County are moving towards improving or worsening conditions and nearing State Dial triggers. These metrics will guide implementation of stepdown strategies, as well as provide strategies for addressing potentially negative trends. In addition to those metrics, other metrics will help to inform decisions, such as:

- Select State Dial metrics broken out for the 18-to-22-year age group in Boulder County.
- Select State Dial metrics specific to the City of Boulder.
- Saliva-based positivity rates, including all students tested through the saliva test. Currently, students who test negative using CU’s (non-FDA approved) saliva test are not included in the number of students testing, which biases the positivity rate to look higher than it likely is. Tracking the rate that includes these negative tests will likely give us a more accurate rate among students for planning until FDA approval.
- City of Boulder sewage surveillance pilot data.

Primary Actions

- Implement the sharing of data metrics in Appendix B to create a common COVID-19 operating picture with Joint ICS staff at all levels (Area Administrators, Operations Section, Joint Information System).
- BCPH to onboard one new hire and finalize the hiring of one additional data analyst to increase Data Surveillance Team capacity.
- Train BCPH Epidemiology and Surveillance Teams and CU Public Health Teams on the “Dr. Justina” data platform to ensure data consistency during transition from CEDRS (Colorado Electronic Disease Reporting System) to Dr. Justina.
- Finalize data-sharing process and procedures to help inform enforcement and data-driven decisions.
- BCPH to include additional report outs to weekly internal CAN (i.e. conditions, actions, needs) meetings to include data on ECE (early childhood education), K-12, higher education, LTCF, jails, and shelters.

Secondary Actions

- Develop a long-term strategy to continue sharing community metrics once the Joint ICS is demobilized and moves to a recovery phase.
- Implement the Dr. Justina transition and strive to ensure that data metrics are captured consistently to inform data report outs in Appendix B.

- BCPH Surveillance Team to review data quality of Dr. Justina conversion and inform BCPH Epi and CU Public Health Teams with quality improvements. This will include, but not be limited to, ensuring there is complete race and ethnicity data.
- Evaluate the effectiveness of the data-sharing agreement.
- BCPH is developing internal GIS maps to assess the following:
 - Identify community spread by incubation period and age group. This interactive map will assist epidemiologists working with select priority populations (e.g. ECE, LTCF), as well as individuals working with K-12 and higher education populations.
 - Identify hot spots of Latinx-specific cases over time to determine where to target COVID strike team testing and Latinx partnerships.

Containment Branch Strategies

The University of Colorado provided CU students returning to Boulder in August with a COVID-19 kit and face coverings, and the students were required to participate in mandatory COVID-19 risk management education. BCPH and CU collaborated over the summer to create CU Public Health to support the case investigation and contact tracing of CU students. BCPH and CU Public Health created workflows between the CU and BCPH Epidemiology Teams. The CU Public Health Team has supplemented the capacity of the BCPH Epidemiology Team.

Primary Actions

- The BCPH Epidemiology and CU Public Health Teams will identify when to decrease need for Tier 2 support from CDPHE and will develop a plan to leverage human resources across both agencies to optimize case investigation and contact tracing among the increase in community cases of COVID-19.
- The BCPH regional epidemiologist will continue to support the BCPH Epidemiology and CU Public Health Teams with training and onboarding of Dr. Justina, which will go live on October 13, 2020.
- The BCPH regional epidemiologist will further support the systems buildout of for quick referral for cases and contacts.
- The BCPH Epidemiology and CU Public Health Teams will finalize the CU procedures and protocols for classroom exposures, which will include a system for notification back to the BCPH Epidemiology Team.
- The BCPH Epidemiology Team will review the CU Instructor Guide and Academic Instruction Guide for Student Illness.
- The BCPH Medical Officer has reviewed the CU Athletics protocol. CU Athletics has implemented the protocol, which includes a requirement to report all positive COVID-19 cases to the BCPH Epidemiology Team.
- The City of Boulder and BCPH Epi and CU Public Health Teams will collaborate on development of a Group Quarters Plan to support long-term efforts to control COVID-19 for students living off-campus and in dormitory settings.
- The CU Public Health Team will make recommendations for CU-sponsored activities in controlled gathering settings.
- The City of Boulder is working with businesses to develop a winter outdoor seating program.

Secondary Actions

- When case rate return to pre-surge rates, BCPH will begin to reinitiate outbreak investigations.
- The BCPH regional epidemiologist will work with the BCPH Surveillance Team to identify quality improvements for data entry into Dr. Justina.
- Once hired, the BCPH bilingual resource coordinator and outreach specialist will share the resource management system with the CU Public Health Team to align resource efforts for low-income students in need of support for quarantine and isolation.
- The City of Boulder and BCPH Epi and CU Public Health Teams will collaborate on developing a notification system for identified outbreaks in group quarters.
- The City of Boulder is further working on contracting for a food delivery support system.

Enforcement

- The City of Boulder will continue to monitor 911 CAD (computer-aided dispatch) calls for early indications of new areas of concern for enforcement or public health.
- With improved conditions, City of Boulder Police Department (BPD) will resume normal patrolling levels and areas and issue warnings, tickets, or new stay-at-home orders on a case-by-case basis; BPD will continue education-based interventions.
- Applications for hardship exemptions from the stay-at-home portion of BCPH Public Health Order #2020-07 will be discontinued with the lifting of the targeted stay-at-home orders.
- BCPH will support the development and processing of group quarters containment plans to lift stay-at-home restrictions, and track and communicate to BPD and CUPD ongoing restrictions.
- CU engagement of its community safety officers, residence hall service officers, and CU Police Department (CUPD) officers (~40) issuing tickets, providing student education, and monitoring mask and social distancing (SD) compliance; cases referred to CU Student Conduct; deployment of CUPD officers to University Hill for joint response with BPD and to expedite ticket referral to CU Student Conduct.
- CU utilization of prevention through environmental design principles to support compliance (e.g. preventing gatherings by removing basketball hoops, volleyball nets, lights on at Farrand Field, etc.).

Public Messaging and Education

- BCPH and CU will collaborate to communicate to CU students, faculty, and staff about changes in the new public health order. They will develop a plan for continuously informing students on the status of the metrics that trigger the easing of restrictions (including social distancing, wearing of face coverings, violations, testing rates, and positivity rates). Dashboard updates will be synchronized and uniform across sites to ensure consistent communication of current metric values. Communication will emphasize students' ability to influence those metrics and the positive/negative consequences of changes in the metrics in terms of easing or tightening of restrictions, upcoming potential CU events, athletics, and other gatherings. CU will continue to develop and implement its Student Education Campaign and messaging and Campus Education Campaign and messaging.
- BCPH will aim to develop and implement a long-term communications campaign to support city of Boulder residents' acceptance of "new normal," focused on a strengths-based, community-wide engagement approach.
- BCPH Business Liaison Team will continue to answer calls and move from a weekly to a monthly schedule of webinars for business providers. The team will also provide materials and

educational sessions, in collaboration with the City of Boulder and CU, when new guidance is issued or PHOs and local policies related to COVID-19 change.

- City of Boulder will develop a holiday campaign around safe visitation, in partnership with the Boulder Convention and Visitors Bureau.
- CU will continue to develop and implement a Student Education Campaign and messaging and Campus Education Campaign and messaging.
- CU will continue to provide a COVID-19 Canvas Course for Students (required to complete before start of semester); COVID-19 Skillsoft for Faculty, Staff, and Student Employees (required to complete before start of semester/work); content creation for CU 101 and other classes (Required).