

Boulder County Public Health Mitigation Plan

TO: Jill Hunsaker Ryan, MPH, Executive Director, CDPHE
Mara Brosy-Wiwchar, Chief of Staff, CDPHE
FROM: Boulder County Public Health
RE: Boulder County COVID-19 Mitigation Plan
DATE: September 30, 2020

Variance & Mitigation Framework

Boulder County Public Health (BCPH) has a mitigation plan in place to prevent and contain COVID-19 transmission throughout Boulder County. The goal of this mitigation plan is to help suppress COVID-19 and return Boulder County to within the Safer at Home Level 2 metrics over the next two weeks and strive towards the Protect Our Neighbor metrics. The plan uses the principles of epidemiology and emergency management to reduce spread and transmission. The current plan focuses on:

- Operating in a Joint Incident Command System (ICS) with Policy Team representation from BCPH, University of Colorado, City of Boulder (COB), and Boulder County (Sheriff's Office and County Commissioners). Please see the organizational structure in Appendix A.
 - On September 24, 2020, BCPH implemented a targeted public health order to mitigate the spread of COVID-19 among college-aged students.
- Performing case investigation and contact tracing of all positive COVID-19 community members and providing isolation and quarantine letters, resource support, and guidance.
 - BCPH is working with CU Boulder's Public Health Office (CU Public Health) under a Memorandum of Understanding to conduct case investigation and contact tracing. Until mid-September and prior to the ICS structure, CU case investigators met weekly with BCPH epidemiologists for contact tracing and case investigation; they currently meet weekly as a containment branch under the ICS. With ICS structure in place, CU and BCPH branch directors meet as needed. The CU Public Health lead regularly reports out key findings to the BCPH lead epidemiologist, including but not limited to providing details of out-of-state contacts, flying while infectious, and providing notification of potential outbreaks.
- Identifying and partnering with CU Boulder Public Health to conduct case investigation and contact tracing of impacted students and staff, which includes sharing isolation and quarantine letters with Colorado Department of Public Health and Environment (CDPHE)-approved strategies on how to return home safely.
 - A dedicated BCPH lead epidemiologist is charged with focusing on higher education athletics, case and contact management, data sharing, and outbreak investigation and management.

- Continuously responding to and monitoring cases and outbreaks among priority populations.
 - The Long-Term Care Facility Epidemiology Team works with LTCF administrators weekly to check in, address concerns, and provide guidance on testing, quarantine, isolation, and infection control. In partnership with CDPHE, the BCPH LTCF Team recently informed all sites of ongoing community spread and enacted strict control measures to limit visits to those held in outdoor settings.
 - The BCPH Community Outbreak Management Team focuses on shelters, jails, and healthcare exposures.
 - An early childhood education and childcare team interfaces and manages outbreaks, isolation, and quarantine guidance as part of the larger Boulder County Early Childhood Education Group.
 - A K-12 school lead epidemiologist and team manage outbreaks, isolation, and quarantine guidance for both public and private schools.

- Continuously providing education and support to business groups and responding to and monitoring outbreaks among businesses:
 - The BCPH Business Liaison Team conducts weekly calls with business providers, offering COVID-19 education and guidance (i.e. infection control protocols, setting up outdoor dining, etc.).
 - BCPH epidemiologists reach out to every business with an identified COVID-positive individual, identify and manage outbreaks associated with businesses, and make recommendations to the Business Liaison Team.

- Promoting widespread, free community testing:
 - The Joint ICS is working with partners from CDPHE to offer two community-based testing sites (i.e. one walk-up near CU and one drive-thru in the community) to increase the availability of testing for students and community members. Free community testing will be available until at least October 2, 2020.
 - Boulder Community Health, Avista Hospital, UC Long Peaks, and other healthcare systems and clinics conduct testing to members of the community.
 - BCPH is finalizing a contract with one healthcare partner to conduct targeted testing among priority populations in targeted settings until December 31, 2020.

- Continuously communicating with the public:
 - BCPH is conducting outreach to our community members by sectors, including weekly elected official calls, weekly discussions with our K-12 schools, biweekly local healthcare coalition calls, and daily CU coordination calls in the areas of testing, enforcement, containment, and data.
 - Public information officers are participating in local and state Joint Information Systems (JIS); daily coordination calls; weekly online town halls held by CU, BCPH, and COB; ongoing business, community, and neighborhood outreach; distributing press releases; completing media interviews; maintaining up-to-date websites in both English and

Spanish; distributing messages on social media channels; participating in Q&A sessions with the public; responding to emails; maintaining a public health call center; and launching a COVID marketing campaign targeted at college-aged residents.

- Continuously monitoring, updating, and disseminating data to the public and key partners:
 - BCPH and the Joint ICS provides regular data updates to agency leadership, the community, and the media. The ICS updates the COVID data dashboard daily. BCPH is developing a core set of community and CU-specific data indicators to share regularly as part of our Joint ICS structure.
 - The Joint ICS developed an integrated data branch between CU, COB, and BCPH with a data-sharing MOU in place. This team will develop capacity for all data-related questions, answers, and data reports to support each other and improve communication with the public.

- Continuously monitoring adherence to and enforcement of public health orders (PHO):
 - Law enforcement and CU's Student Conduct structures assist in monitoring and enforcement of PHO.
 - Law enforcement patrols and issues of tickets for PHO violations.
 - Agencies refer PHO violations to CU's Student Conduct structure.
 - BCPH may provide limited hardship exemptions for those under stay-at-home orders. BCPH provides referral to support services for housing, income replacement, food, etc. to encourage compliance with the stay-at-home order and reduce hardship impact of the PHO.

Early Warning Indicators

BCPH continuously monitors the three CDPHE Dial indicators. **Currently, Boulder County is at Safer at Home Level 2 – High Risk due to the increasing rate of positive cases.** As seen in Table 1 below, hospitalizations and the 14-day percent positivity of cases remains stable.

Table 1: Boulder County Dial Metrics as of September 29, 2020

Dial Metric	Dial Level	Current Boulder County Rate	Dial Status
New cases per 100,000 residents in the past 2 weeks	Safer Level 1: 0-75 per 100,000 over 2 weeks Safer Level 2: 75-175 per 100,000 over 2 weeks Safer Level 3: 175-350 per 100,000 over 2 weeks Stay at Home: over 350 per 100,000 over 2 weeks	443.2 per 100,000	Stay at Home
Number of new hospitalizations in Boulder County related to COVID-19	Safer Level 1: Increasing, Stable, or Declining Safer Level 2: Increasing, Stable, or Declining Safer Level 3: Increasing, Stable, or Declining Stay at Home: Increasing, Stable, or Declining	11	Stable
14-day percent positivity of cases	Safer Level 1: No greater than 5% over 2 weeks Safer Level 2: No greater than 10% over 2 weeks Safer Level 3: No greater than 15% over 2 weeks Stay at Home: No Limit	6.0%	Safer Level 2

Recent Trends of Case Counts

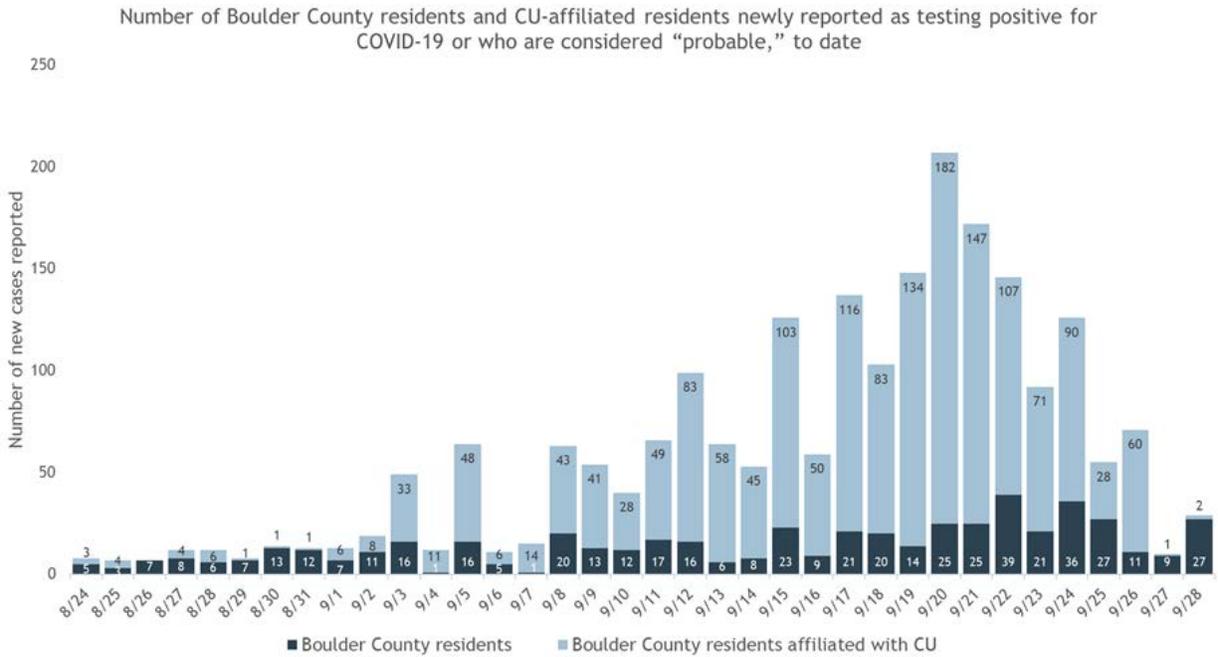
Recent trends have identified the following changes in case counts over the past two weeks:

- Boulder County has the highest new case rate per 100,000 of all Metro Denver counties.
- The city of Boulder has surpassed the city of Longmont in cumulative case rate per 100,000; approximately 86% of Boulder County cases have occurred in the city of Boulder over the past 2 weeks.
- The highest new case rates per 100,000 have been among those aged 18-22 years, although we are starting to observe increasing trends among all other age groups.
- The five-day polymerase chain reaction (PCR) test positivity rate provides a detailed assessment of more immediate trends. The current five-day rate is 5.9%, compared to 4.1% last week. To align with the CDPHE dial, we will also use a 14-day rate.

Identifying Sources of Case Counts

The recent COVID-19 surge of cases is associated with the CU community. As seen in Figure 1, case numbers among CU affiliates peaked on September 20, 2020, and are subsequently coming down. In the past week, CU affiliates have made up over 80% of Boulder County cases each day.

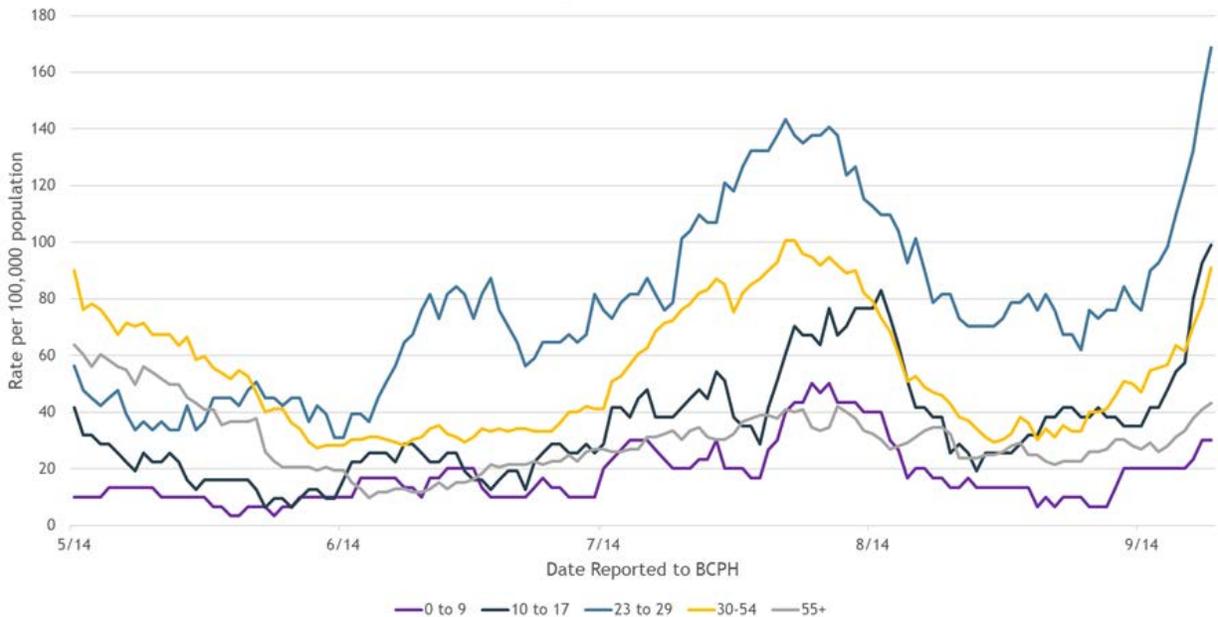
Figure 1: Number of Boulder County Positive or Presumptive Positive COVID-19 Cases by CU Affiliation: 8/24/2020-9/28/2020



Assessing Community Spread

Community transmission to other age groups remains a concern. In the past 2 weeks, case rates among all age groups have increased, with significant increases occurring among residents 23-29 years of age.

Figure 2: Trend in Two-Week Cumulative COVID-19 Incidence in Boulder County by Age Group (excluding people aged 18-22 years)



To assess the full impact of the surge, the Joint ICS will be using a comprehensive group of early warning indicators composed of the CDPHE Dial metrics, CU and City of Boulder enforcement data, and other data specific to testing and student behaviors (e.g. masking and mobility data). A full list of data can be found in Appendix B.

Community Goals

Community goals include working in partnership with CU, Boulder County, and the City of Boulder to:

1. Minimize the potential for exponential spread through the community by identifying and containing the spread of COVID-19 through: aggressive case investigation (i.e. within 24 hours of input), contact tracing, isolation, and quarantine of affected community members; active monitoring; increased testing capacity; increased enforcement of public health orders; and provision of resource management for disproportionately impacted populations through culturally responsive public messaging.
2. Mitigate the impacts of COVID-19 on our healthcare systems by continuing to collaborate with health agencies and hospitals to share current data and ensure awareness of sheltering and care options for priority populations, such as those in LTCF, unhoused individuals, and other impacted people.
3. Promote policies and strategies in LTCFs to prevent cases, outbreaks, and death among LTCF residents and staff (e.g. limiting indoor visitation) and continue calling facilities in outbreak status daily to monitor positive and presumptive positive residents and staff, provide education and guidance to staff and management, and review infection control measures.
4. Enhance response efforts by integrating operations across partner agencies participating in the Joint ICS. Operations has been broken into four branches, which are listed below with descriptions of their assigned tasks:
 - A. *Containment Branch*: Tasked with conducting investigations of cases reported into the Colorado Electronic Disease Reporting System (CEDRS) within 24 hours of reporting, and conducting contact interviews for each contact identified within 48 hours following the case investigation.
 1. Boulder County Public Health (BCPH) has developed a contact tracing and monitoring spreadsheet to help staff assign cases, collect notes, trace contacts to cases, and report interview information. Case investigative notes are then manually uploaded into CEDRS.
 2. Follow-up with every business, LTCF, or organization after a case has been associated with one of their facilities to discuss current protocols in place and work with the facilities to provide guidance through outbreak protocols and provide technical expertise once a facility has met outbreak criteria (i.e. 2 or more cases within a 14-day period and evidence of disease transmission occurring within the facility).
 - B. *Testing Branch*: Tasked with operating the community-wide testing site run by BCPH, working with CDPHE to notify all community members of negative results, and working with community partners to identify other testing strategies.
 - C. *Enforcement Branch*: Tasked with coordinating enforcement activities among the City of Boulder Police Department, Boulder City Attorney's Office, University of Colorado Police Department, and CU Office of Student Conduct. Enforcement activities include tickets for violations; civil

nuisance abatement actions against landlords of problem properties; and student probation, suspensions, or expulsions from the university. In addition, BCPH is continuing to provide outreach and education to businesses in Boulder County to ensure the understanding and compliance of current guidance and orders. This branch also provides daily updates on enforcement activity.

- D. *Data Branch*: Tasked with data review and analysis and providing daily/weekly updates on data metrics from a host of sources (i.e. BCPH, CU, and City of Boulder) to Operation Leads, Area Administrators, and the Joint Information System (JIS).
5. Provide guidance to the community on the latest local and state public health orders using the JIS of the ICS. Boulder County communication efforts will include anti-stigma campaigns and targeted prevention messaging to college-aged students. The JIS provides a means in which the public can provide feedback and ask questions via the Public Information Office, which is staffed Monday-Friday. The JIS also continuously works to support the BCPH-specific and CU-specific call centers to help answer questions and field concerns.
 6. Prevent COVID-19 community transmission to businesses, schools, shelters, and other organizations by continuing public health outreach and guidance. BCPH will continue to support regularly scheduled meetings and data discussions with partners to help guide them in making data-driven decisions.

Disease Trends

Disease trends are monitored both in Boulder County and among the other Metro Denver counties. This monitoring is in recognition that some individuals may reside in surrounding counties yet work in Boulder County. Of note, individuals may also live in Boulder County but work in surrounding counties. The disease trends further assess the impacts on other priority populations who are vulnerable to morbidity and mortality from COVID-19. These populations include LTCF staff and residents and people of color who are disproportionately impacted. All of this information is maintained on a public-facing dashboard, which includes metrics on hospitalization utilization.

These metrics ensure that BCPH is aligned with state and regional metrics and is shared with key partners. Additionally, weekly updates are provided to the Boulder County Board of Health, and Boulder's data dashboard is updated daily.

Monitoring Metro Denver and Boulder County Incidence of New Cases & Enforcement Efforts

Boulder County is experiencing an increase in the incidence of new cases compared to other Denver Metro Area counties. Boulder County has both the highest new case rate per 100,000 and highest raw number of new cases of all Metro Denver counties.

Figure 3: Denver Metro New COVID-19 Cases by County, 7-Day Moving Average: 4/1/2020-9/28/2020

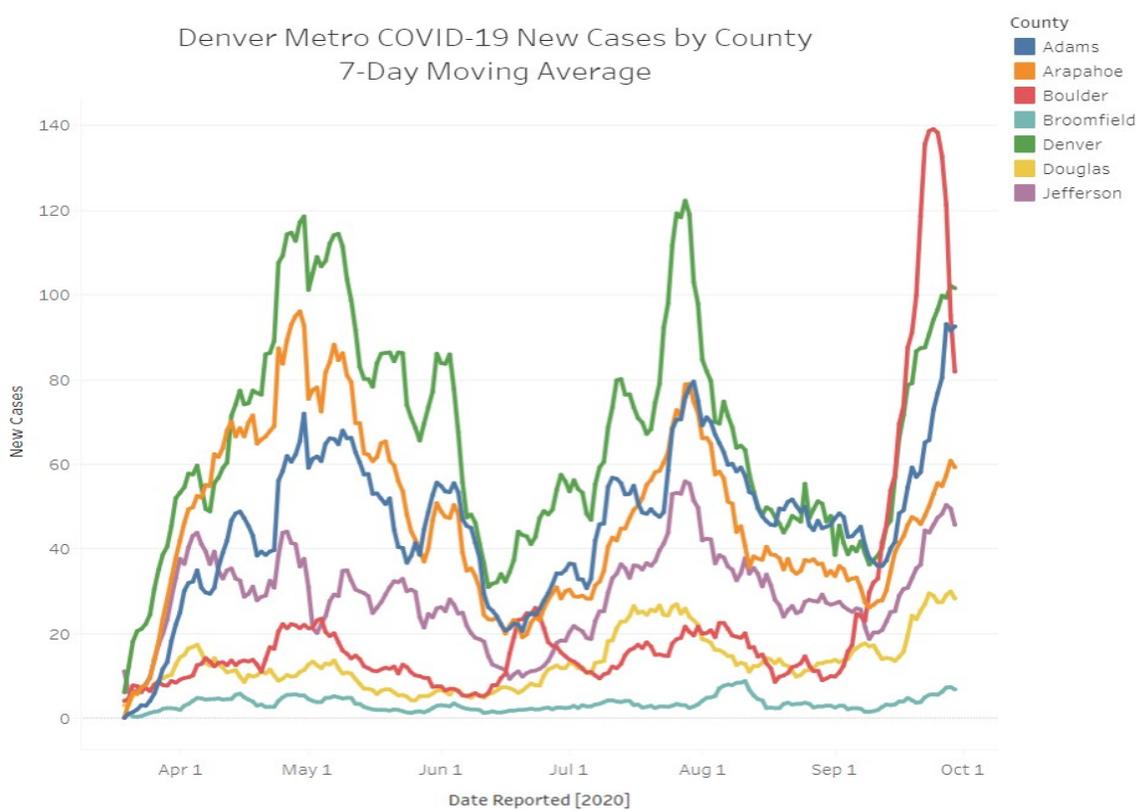
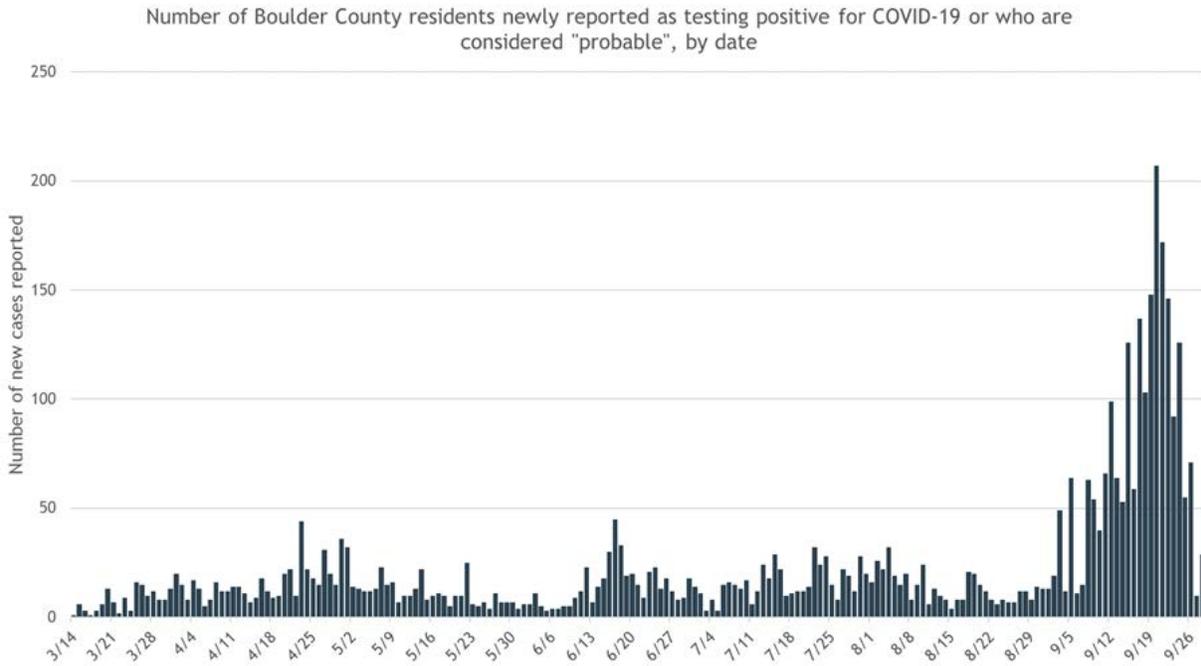


Figure 4: Number of Newly Reported Probable and Confirmed COVID-19 Cases in Boulder County: 3/14/2020-9/28/2020



Long-term care facilities have seen a decrease in the number of confirmed cases. Testing capacity of LTCF shows that compared with 2 weeks ago, 7 more facilities are now routinely bringing that group up to 68% testing.

Figure 5: COVID-19 Deaths Among Boulder County Residents by Association with LTCF, Boulder County, 3/14/2020-9/28/2020 (no deaths in Boulder County since 8/12/2020)

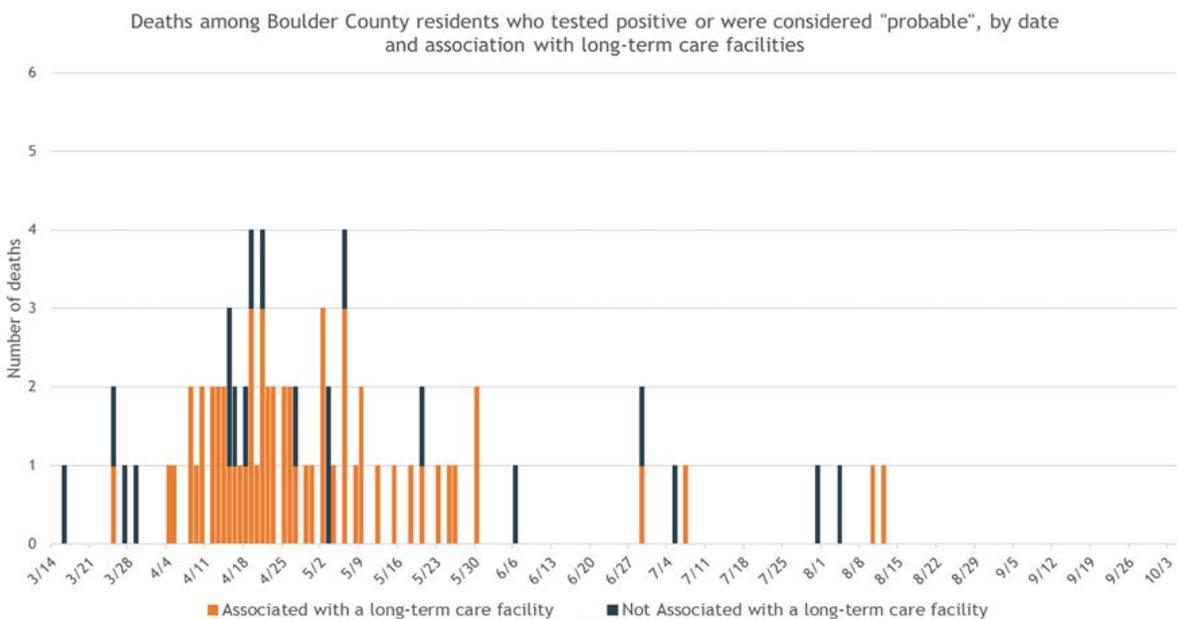
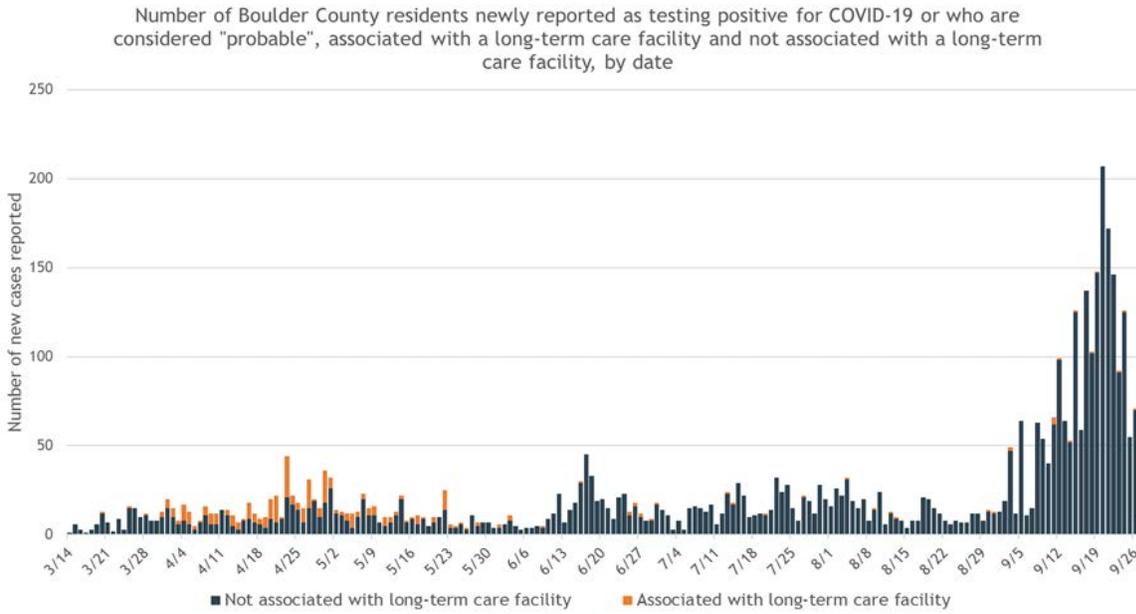
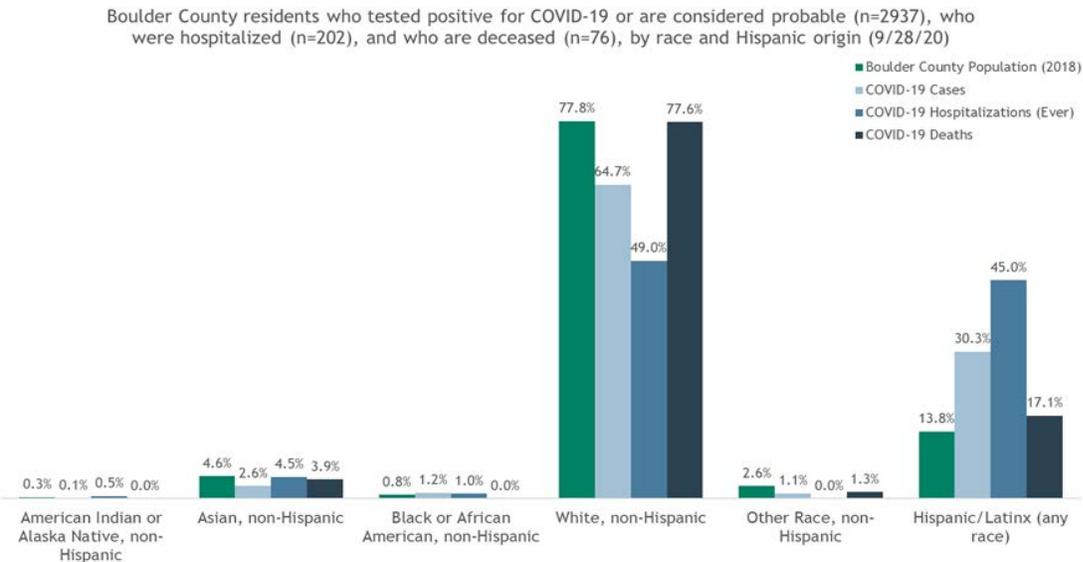


Figure 6: Number of Newly Reported Probable and Confirmed COVID-19 Cases in LTCF in Boulder County: 3/14/2020-9/28/2020



BCPH recognizes that not all populations in the community are impacted by COVID-19 equally. The majority of cases within Boulder County (66.9%) have a known race/ethnicity. Individuals with known race/ethnicity groups are displayed in Figure 7. Large disparities are observed among our Hispanic/Latinx population residing in Boulder County.

Figure 7: Monitoring of COVID-19 Impacts by Race/Ethnicity in Boulder County: 3/14/2020-9/28/2020



Boulder County Public Health utilizes six benchmarks to evaluate hospital utilization. Four of the six benchmarks are within green metrics for capacity. Key hospital data for Boulder County include:

- Adult ventilator availability is 35 for critical vents
- ICU bed availability is 21
- Hospitals report adequate available PPE (i.e. approximately 4-week supply with ability to acquire more).
- Crisis Standards of Care are not in use.

Figure 8: Evaluation of Hospital Utilization and Evaluation of New Patients Hospitalized for COVID-19

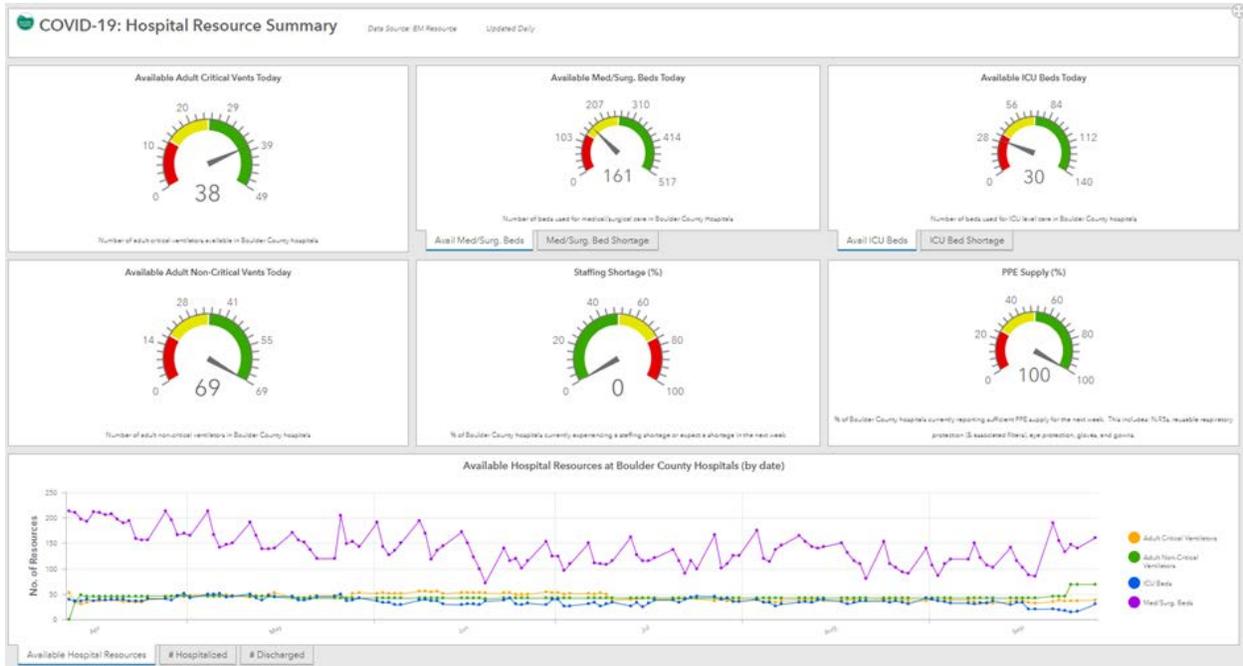
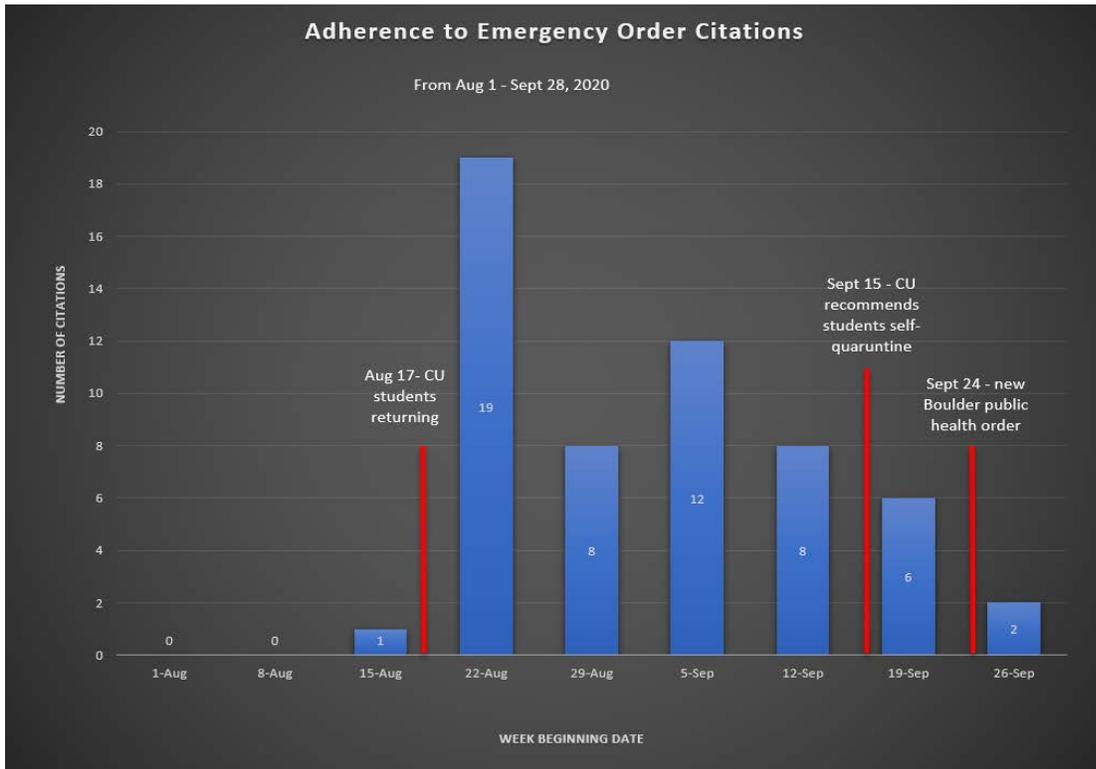


Figure 9: Illustration of Positive Trends in City of Boulder Enforcement Efforts Identify Steady Decline in Number of Citations Issued for Public Health Order Violations Since End of August



Mitigation Steps

Under the Joint ICS system, BCPH is working with CU, Boulder County, and the City of Boulder to mitigate the impacts of this current COVID-19 surge using four branches (i.e. Containment, Testing, Data, and Enforcement) and the Joint Information System. The following mitigation steps are being employed under the ICS framework to meet the community goals described above, with the ultimate goal of suppressing COVID-19 in Boulder County and obtaining Protect Our Neighbor status.

Containment

The BCPH COVID Epidemiology Team is working with the CU Public Health Team under a Memorandum of Agreement to prevent the rapid spread of COVID-19 among CU students and staff, as well as the broader community.

- A staffing plan has been developed based, on the current structure for the BCPH COVID response funded by COVID grants. The BCPH team consists of 40 BCPH staff members who conduct case investigations and contact tracing, outbreak investigation, testing operations, compliance/outreach, and data surveillance. Ten new case investigators were recently hired to support the six epidemiology leads. Each lead epidemiologist supervises one or two bilingual case investigators. The BCPH team is led by an experienced epidemiologist who is charged with deploying surge management strategies (Tier 2) and overseeing the Memorandum of Agreement between BCPH and the CU Boulder Public Health Team.
- The CU Team consists of a ten-person CU-Specific Case Investigation Team and a 70-person Contact Tracing Team. A rapid response for CU classroom and residence hall exposures will be initiated once in-class learning resumes. This response includes:
 - Notifications to every person in the classroom and dorm who was exposed to a COVID-19 positive case.
 - Documenting every person who has been exposed via line lists that can be shared with BCPH.
 - Monitoring the classroom for 28 days or 2 incubation periods to account for secondary disease transmission.
 - Considering mitigation steps, such as moving an in-person classroom to a virtual setting.
 - Working with BCPH to determine outbreak management.
- A BCPH-CU surge plan is in effect to rapidly increase disease investigative support from CDPHE (Tier 2) during this current surge. The surge plan also includes activating a surge contact tracer group at BCPH. Currently, the CU Public Health Office has a team of 10 case investigators that is able to conduct investigations of all CU students housed in dormitory settings.
 - As part of the surge plan, BCPH and CU Public Health will create a plan to address off-campus collegiate group housing, including but not limited to Greek houses, annexes, etc. that includes ongoing education, prevention, testing, etc.
- BCPH is in the process of hiring a Latinx Resource Coordinator and Outreach Specialist who will focus on supporting resource needs among the disparately impacted Latino community. BCPH will continue to build out a system of support with other Boulder County agencies. Outreach

strategies will continue to be modified based on the needs of the Latinx community and will be informed by local cultural brokers.

- Training within Dr. Justina, the CDPHE technological platform for COVID investigation, has begun among both BCPH and CU case investigators and contact tracing staff. Implementation will occur on October 6, 2020. The BCPH regional epidemiologist is focused on supporting this launch.

Data

The BCPH Data Surveillance Team is working collaboratively within the Joint ICS to utilize epidemiologic data to make data-driven decisions and adjust resources.

- The staffing plan for the full-time COVID Response Team includes two members of the Data Surveillance Team that are working closely with staff from CU and the City of Boulder to analyze data. There are plans to expand the team to a total of four members. One individual has been recently hired, and the team is in process of hiring another individual.
- A set of key data metrics was developed by subject matter experts and ICS branch leads to provide daily monitoring and situational awareness among the Operations Section and the Area Administrators. See Appendix B for more details.
- Due to multiple agencies entering case investigations in the CEDRS system, it has been difficult to perform complete analysis pertaining to certain qualitative metrics such as race/ethnicity, type of exposure, and other demographics. The BCPH Epi Team will continue to coordinate with CDPHE and CU Public Health to ensure this data is routinely collected. Dr. Justina, the CDPHE-sponsored technology solution mentioned above, will not only improve CU's ability to communicate end of isolation, it will also improve the ability to perform comprehensive analysis on this qualitative data.
- CU Boulder, BCPH, and the City of Boulder are in a unique position to use data to facilitate more effective coordination of mitigation and containment efforts and in the implementation and enforcement of public health orders with respect to student activities occurring on and off the CU Boulder campus. To facilitate this effort, CU Boulder, BCPH, Boulder County, and the City of Boulder have entered into a data-sharing agreement. The agreement and associated data handling procedures enforce privacy expectations.

Testing

Increasing free testing to the community will help to identify new cases and reduce barriers to accessing testing.

- In response to the increasing number of new COVID-19 cases among CU Boulder students, the Joint ICS has collaborated with CDPHE to offer free testing for anyone who would like to be tested. The current plan is to offer this free testing from September 16 through October 2, 2020, with the possibility of extending, if needed. This testing is vital to assessing community spread. Residents do not have to have symptoms to be tested. Two sites are in operation and may be extended depending on case positivity rates.
 - The walk-up testing site is located at the Pleasant Street Parking Lot, 1205 Pleasant Street (one block west of Broadway near the CU campus) in Boulder and will remain open until at least September 30, 2020.

- The drive-up testing site is located at the Gerald Stazio Softball Fields, 2445 Stazio Drive in Boulder, and will remain open through at least October 2, 2020.
- A cost-sharing contract is currently being implemented with Mako Medical to continue the drive-thru community testing.
- CU will continue to operate testing, including saliva-based PCR, wastewater micro-surveillance data, and diagnostic PCR testing. CU will share data with BCPH to help determine the spread of the virus among the on-campus community.
- CU will continue to expand surveillance and monitoring testing for residential students, faculty, and staff, as well as off-campus students (capacity dependent). CU plans to explore other strategies like wastewater surveillance throughout the city of Boulder.
- BCPH will continue moving forward with contracting out a testing strike team at Boulder Community Hospital that will focus on priority populations (i.e. LTCF, shelters, and Latinx community organizations).

Enforcement

The Enforcement Branch of the Operations Section is composed of law enforcement officials from the City of Boulder and CU who are working in collaboration with BCPH to enforce the recent public health order.

- Boulder County Public Health issued BCPH Public Health Order No. 2020-07 on September 24, 2020, based on evidence of increasing occurrence and transmission of COVID-19 within the city of Boulder. The order prohibits gatherings in the city of Boulder of more than 2 people among all individuals between ages 18 to 22 years. The PHO also requires residents of large group housing facilities and addresses associated with multiple or egregious public health violations to stay at home.
- The Boulder Police Department and CU Police Department use police presence to deter/prevent PHO violations:
 - Increased police presence in hotspot areas of the city of Boulder.
 - Law enforcement patrolling and issuing tickets for PHO violations.
 - Increased security on campus to support the PHO.
- The CU Office of Student Conduct provides an enforcement mechanism:
 - Referral of PHO violations to CU's Office of Student Conduct for adjudication.
- Engage business community in prevention and containment efforts:
 - Engage businesses as allies by providing regular webinars on expectations, responsibilities, and prevention practices.
 - BCPH issues Notices of Violations where there is a risk to the public. Violations could lead to business closure.
- The City of Boulder uses its civil nuisance abatement process to target landlords of problem properties. On June 19, 2020, 13 properties received first notices of nuisance abatement action.
- Minimize exclusions to the PHO:
 - Provide hardship exclusions for those under stay-at-home orders, limited to those who can demonstrate financial hardship, have tested positive for COVID-19 in the past 90

days and properly isolated; as well as to those who have medical and other disabilities in accordance with protections provided by the Americans with Disabilities Act.

- Provide referral to support services for housing, income replacement, food, etc. to encourage compliance with the stay-at-home order and reduce hardship impact of the PHO.
- Call centers are available at both CU and BCPH:
 - The Boulder County Call Center at 720-776-0822 is open Monday–Friday, 9 a.m.–2 p.m.; after hours, the public is encouraged to use an online [Ask a Question form](#).
 - CU has a dedicated hotline to connect members of the CU community with campus resources at 303-492-4636 (2-INFO). The call center is open between 8 a.m. – 5 p.m. MT on weekdays and between 10 a.m. – 2 p.m. on weekends; After hours, students are encouraged to use the [Ask a Question form](#).

Community Information Sharing

The Joint Information System (JIS) coordinates and aligns public health messaging between BCPH, CU Boulder, and the City of Boulder. It meets daily to develop strategies for communications that will support the objectives of the mitigation plan. Briefings are given daily to liaisons at the Division of Homeland Security & Emergency Management (DHSEM) and CDPHE, and messaging information is provided on a constant, ongoing basis.

- JIS strategies include:
 - Team meets daily to ensure coordinated and effective messaging in support of the goals of the mitigation plan.
 - Liaison to DHSEM and CDPHE to ensure messaging alignment between local and state outreach.
 - Outreach through earned media, social media, and community outreach channels with targeted messaging.
 - Weekly town hall meetings conducted by CU Boulder and the City of Boulder to provide updates and respond to questions from community members.
 - Extensive website content provided on BCPH, CU Boulder, and City of Boulder platforms to provide messaging, FAQ, and other information to support community understanding of PHO requirements and rationale.
 - Extensive outreach through online and other channels in both English and Spanish.
 - Close coordination with business community outreach efforts to clear understanding of shared responsibilities for ensuring adherence to PHO requirements.
 - Community engagement efforts with neighborhood associations and others to support on-the-ground messaging that reaches specific neighborhoods and constituencies.
- BCPH will continue to maintain strong community partnerships with the hospital systems, LTCFs, hospital emergency managers, municipalities, colleges/universities, schools, and businesses throughout this response. This will include:
 - Daily briefings with Joint ICS.
 - Weekly COVID update calls/email updates with Boulder County officials.
 - Weekly BCPH-CU containment meetings.

- Weekly BCPH-CU case investigative findings and decision meeting.
- Weekly CU Athletics meetings.
- Weekly COVID-19 updated and planning meetings with Boulder County school districts.
- Biweekly COVID-19 calls with the Boulder County Community Infectious Disease Emergency Response (CIDER) Coalition among area hospitals and clinics.
- Biweekly COVID calls with hospital emergency managers.

Timeline

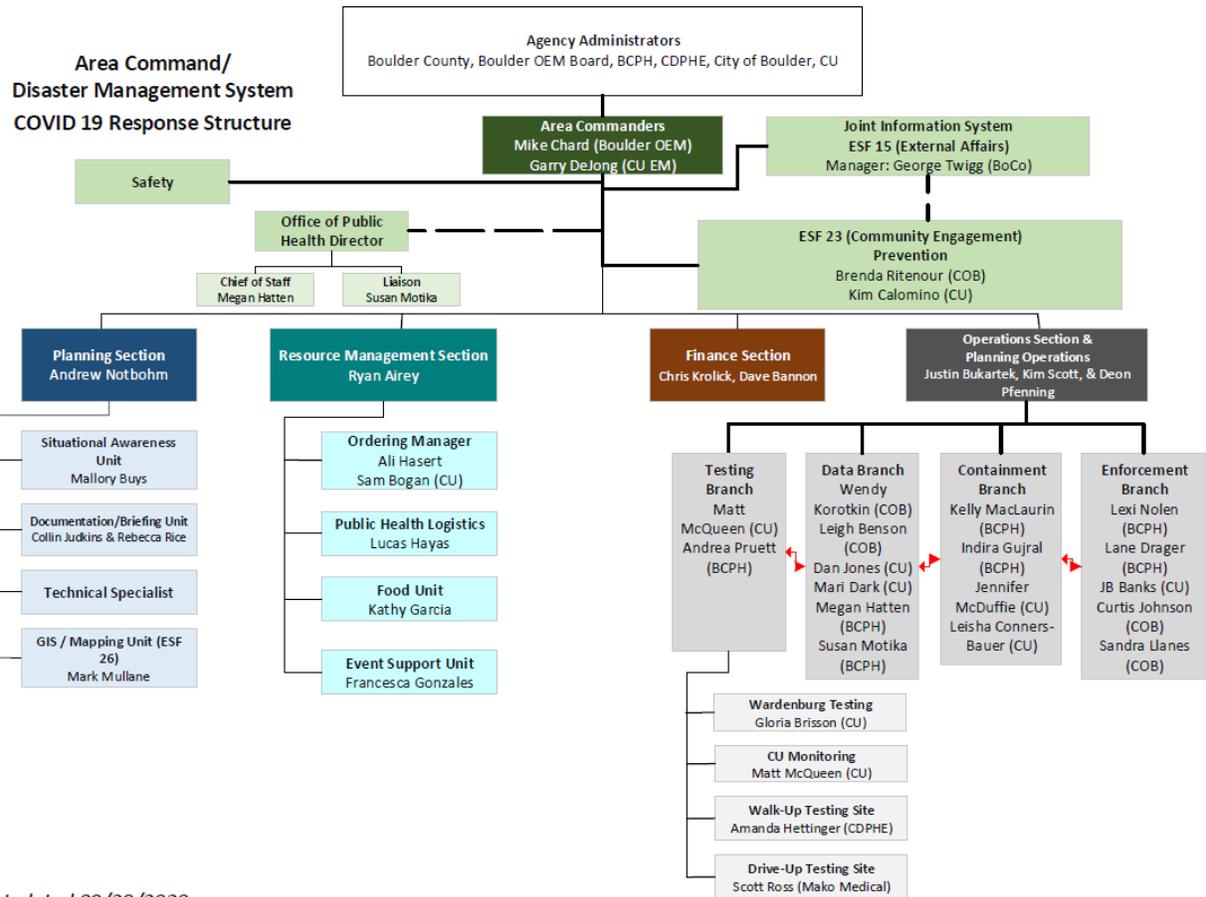
9/15/2020	BCPH issued a strong recommendation that all CU students should self-quarantine. CU Boulder immediately announced the recommendation of 14-day self-quarantine to the CU community, effective through September 29, 2020. https://www.colorado.edu/chancellor/newsletter/chancellor/cu-boulder-students-stay-home-notice-effect-stop-spread-covid-19
9/15/2020	BCPH issues statement to CU Boulder https://assets.bouldercounty.org/wp-content/uploads/2020/09/letter-to-cu-recommending-quarantine.pdf
9/21/2020	BCPH reported relevant metrics to CDPHE.
9/22/2020	Boulder County Public Health set up ICS structure for rapid response.
9/23/2020	CU shifted to remote learning.
9/24/2020	BCPH announced PHO No. 2020-07 prohibiting gatherings among people aged 18-22 years and ordering approximately 36 properties to stay at home for 14 days.
9/28/2020	In response to safety concerns expressed by the community, BCPH issued amended PHO 2020-07-3 to allow people aged 18-22 years to gather in groups of 2.
10/01/2020	BCPH submits mitigation plan to CDPHE.

Over the next two weeks, in addition to the above, BCPH will:

1. Continue to integrate operations in a Joint ICS structure.
2. Continue community testing efforts through the Testing Branch.
3. Ensure compliance with public health orders, City of Boulder Orders, and the CU disciplinary process through the Enforcement Branch.
4. Promote prevention messaging on mask wearing, physical distancing, quarantine, and isolation and how to travel home safely.
5. Continue to monitor data using Appendix B through the Data Branch.
6. The four branches of the ICS structure will develop a detailed contingency plan for how to move forward from public health order implementation and will consider next steps if an extension or expansion of a public health order is indicated.
7. Evaluate whether BCPH PHO 2020-07, which prohibits gatherings of more than 2 people aged 18-22 years and ordering residents of certain properties in Boulder to stay at home, should be extended, modified, or both.

Although BCPH believes we will continue to be successful in reducing cases, we are concurrently developing an appendix to highlight what strategies we will implement to assure we can maintain Safer at Home Level 2, or lower incidence rates. This will be added as Appendix C on Wednesday, October 7.

Appendix A: Joint ICS Organizational Chart; 9/28/2020



Appendix B: Community Mitigation Strategies and Data Indicators for Monitoring Effectiveness; 9/29/2020

Mitigation Strategy	Branch	POC	Indicator	Type of Measure	Frequency	Goal (Make improvements in two weeks)	Current Metric 9-28-20	Current Metric 9-29-20	Current Level Interpretation
Cases									
Prevent spread of COVID in BC	Data	Emily Payne/Megan Noel	New cases per 100,000 residents in the past two weeks (data source: use the data from CDPHE)	1 - Dial Metric	Daily M-F	Safer Level 1: 0-75 per 100,000 over two weeks Safer Level 2: 75-175 per 100,000 over two weeks Safer Level 3: 175-350 per 100,000 over two weeks Stay at Home: over 350 per 100,000 over two weeks	443.2 per 100,000		Safer Level 3, Pushing Stay at Home
Prevent spread of COVID in BC by age group	Data	Emily Payne/Megan Noel	Age specific rate of new cases (standardizing the age groups)	2 - Community Spread	Daily M-F	Prevent spread among other age groups			
Identify percentage of BC cases that are specific to CU	Data	Emily Payne/Megan Noel	Number of cases specific to CU and specific to BC	2 - Community Spread	Daily M-F	Observe a decrease in cases among CU students and BC Community			
Monitor spread among priority populations	Data	Stacy Farman, Sarah Scully, Emily Payne or Megan Noel	ECE number of new cases and outbreaks LTCF number of new cases and outbreaks K-12 staff and student number of new cases and outbreaks Race/Ethnicity case rates (incidence of cases, hospitalizations, deaths)	2 - Community Spread	Weekly Tuesdays	Observe a stable or decreasing number of cases among priority populations			
Monitor spread among businesses in COB	Data, Enforcement	Kaylan Stinson	Number of outbreaks among businesses in COB	2 - Community Spread	Weekly Tuesdays	Observe a stable or decreasing number of outbreaks among businesses			
Monitor the impact on hospitalizations	Data	Emily Payne/Megan Noel	Number of new hospitalizations in BC related to COVID	1-Dial Metric	Daily M-F	Safer Level 1: Increasing, Stable or Declining Safer Level 2: Increasing, Stable or Declining Safer Level 3: Increasing, Stable or Declining Stay at Home: Increasing, Stable or Declining	11 cases		8 days at Stable
Monitor the mortality among BC residents	Data	Emily Payne/Megan Noel	Number of new deaths attributable to COVID	2 - Community Spread	Weekly Tuesdays	Observe a stable or decreasing number of deaths attributable to COVID			
Testing									
Continue surveillance monitoring of cases on CU	Testing	Matt McQueen	Percent positivity surveillance testing	2 - Community Spread	Daily M-F	Observe a stable or decreasing number of positive referrals to Public Health clinic			
Continue monitoring of State Testing Sites to assess community spread	Testing, Data	Emily Payne/Megan Noel	14 day percent positivity of cases (data source: ELR data) - although we would like at the site specific data we may have to just use ELR data for this value	1 - Dial Metric	Daily M-F	Safer Level 1: No greater than 5% over two weeks Safer Level 2: No greater than 10% over two weeks Safer Level 3: No greater than 15% over two weeks Stay at Home: No Limit	8.0% Positivity (14 day)		Safer Level 1
Continue monitoring ELR testing day over the past 5-days to assess trends	Testing	Emily Payne/Megan Noel	5 day percent positivity of cases (data source: ELR)	2 - Community Spread	Weekly Tuesdays	Observe positivity trends heading downward			
Wastewater Micro Surveillance by Residential Community	Data	Dan Jones	Indicators of viral shedding in certain buildings	2 - Community Spread	Weekly Tuesdays	Observe a lower or stable viral shedding of COVID			
Enforcement									
CU Student disciplinary outcomes	Enforcement	JB Banks	Outcomes for student discipline cases	2 - Community Spread	Weekly Tuesdays	Observe a decline in active interim suspensions Observe a decline in overall COVID-19 conduct referrals per day			
Continue monitoring the number of BCFH isolation and quarantine public health orders	Containment	Carol Helwig, Kaylan Stinson	Report out of a PHO for isolation or quarantine (e.g noncompliant individual or sorority)	2 - Community Spread	Report when occurs	Ensure compliance with isolation or quarantine among noncompliant individuals			
Continue monitoring citations through BPD and/or CUPD	Enforcement	Curts "CJ" Johnson, Carey Wenheimer	Number of tickets by week since August 1, 2020	2 - Community Spread	Weekly Tuesdays	Decrease in referrals and less egregious incidents			
Boulder rental licenses	Enforcement	Sandra Llanes	Potential revocation of rental property licenses	2 - Community Spread	Weekly Tuesdays	As needed			
Boulder abatement cases	Enforcement	Sandra Llanes	Problem property court outcomes	2 - Community Spread	Weekly Tuesdays	Share number and severity of cases			
Boulder Business license actions	Enforcement	Sandra Llanes	Problem businesses can have fines and revocation of business license	3 - Community Spread	Weekly Tuesdays	As needed			
Behavioral Shifts									
Compliance with masking on campus	Containment	Jennifer McDuffie	Observe stable or increased compliance with masking in UMC, Rec Center and throughout campus	2 - Community Spread	Weekly, Bi-weekly	Stable compliance with masking in UMC, Rec Center and throughout campus			
Compliance with masking off campus	Data	Megan Noel	Observe stable or increased compliance with masking in select off campus public spaces and businesses in COB	2 - Community Spread	Monthly	Stable or increased compliance with masking in select off campus public spaces and businesses in COB			
Wireless Data	Data	Dan Jones	Review patterns and density of CU student movement using DOMO and CU Wireless	2 - Community Spread	Weekly Tuesdays	Decrease movement while under PHO			