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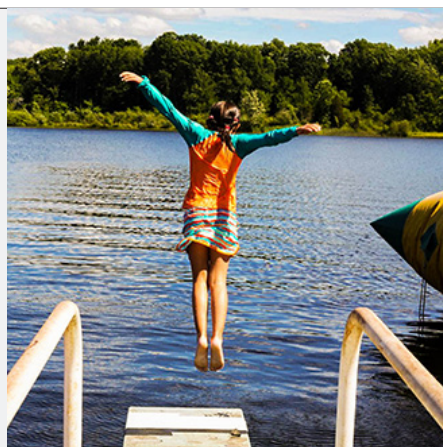
FIELD GUIDE FOR CAMPS ON IMPLEMENTATION OF CDC GUIDANCE

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American Camp Association and YMCA of the USA

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January 21, 2021

EH&E Project #24206



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INTRODUCTION

The objective of the *Field Guide for Camps on Implementation of CDC Guidance* (Field Guide) is to provide educational materials for camp staff to reduce potential exposures to and spread of the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), the virus that causes COVID-19. This information is consistent with the health and safety recommendations and ongoing monitoring efforts stated by the U.S. Centers for Disease Control and Prevention (CDC) in determining whether to open and operate youth programs and camp during the COVID-19 pandemic.¹ The CDC [camp decision tool](#) prioritizes three parts in making the decision to open and operate camp:

- Part 1: Should you consider opening?
- Part 2: Are the recommended health and safety actions in place?
- Part 3: Is ongoing monitoring in place?

Each step has criteria to complete that step and all criteria need to be satisfied before moving to the next step. Completion of the three steps can lead to the decision to open camp with ongoing monitoring programs in place. There is substantial information and resources referenced in the tool on satisfying the criteria to complete the steps. Camp staff are advised to use the tool to decide whether their operations and programs can meet the expectations of the CDC tool.

A prime consideration as the decision tool process is implemented is whether the camp opening will be consistent with state and local regulations and requirements. Camp staff are encouraged to begin these conversations early to establish working relationships and to learn of any special requirements for opening and operating camp. State and local health departments can provide guidance and information on assessing the current level of mitigation needed based on levels of COVID-19 community transmission and the capacities of the local public health and healthcare systems, among other relevant factors.

The recommendations provided in the Field Guide are designed to be implemented for various types of camps (e.g. day, overnight, wilderness/adventure, etc.) and geographic locations nationwide. Further, the recommendations apply to camps in geographical locations meeting the gating criteria for Phase 2 and 3 as noted in the published Federal guidance in the White House/CDC *Guidelines for Opening Up America Again*.²

¹ CDC. *Youth Programs and Camps During the COVID-19 Pandemic*. <https://www.cdc.gov/coronavirus/2019-ncov/community/schools-childcare/Camps-Decision-Tree.pdf>

² White House/CDC. *Guidelines for Opening Up America Again*. <https://www.whitehouse.gov/openingamerica/>

The *Field Guide for Camps on Implementation of CDC Guidance* (Field Guide) is designed to provide camp directors and administrative staff with relevant and practical information during this COVID-19 pandemic regarding:

- Decision making with regard to the safe opening of youth camps,
- Implementing best practices to ensure the ongoing safety of campers, counselors and staff and,
- Recommendations for continued verification of safe operations throughout the camp period.

CDC Suggested Guidance for Youth and Summer Camps provides a summary of key guiding principles related to potential risk of COVID-19 in camp settings.³ According to CDC, the more people a camper or staff member interacts with, and the longer that interaction, the higher the risk of COVID-19 spread. It is important for all Camps to consider these guiding principles as part of their planning and operations. The four relative risk levels provided by CDC include:

- **Lowest Risk:** Small groups of campers stay together all day, each day. Campers remain at least 6 feet apart and do not share objects. Outdoor activities are prioritized. All campers are from the local geographic area (e.g., city, town, county, community).
- **More Risk:** Campers mix between groups but remain at least 6 feet apart and do not share objects. Outdoor activities are prioritized. All campers are from the local geographic area (e.g., community, town, city, or county).
- **Even More Risk:** Campers mix between groups and do not remain spaced apart. All campers are from the local geographic area (e.g., community, town, city, or county).
- **Highest Risk:** Campers mix between groups and do not remain spaced apart. All campers are not from the local geographic area (e.g., community, town, city, or county).

These guiding principles are incorporated into many of the suggestions and recommendations provided throughout the Field Guide. Implementation of the guidance and suggested practices by each camp should be in concert with the relevant and applicable state and local requirements and regulations. As additional information becomes available through governmental agencies, medical authorities, academic institutions, and professional industry associations, the recommendations and suggested practices in the Field Guide will be updated on the website of the American Camp Association (ACA) at <https://www.acacamps.org/>. The presentation on the ACA website is broken into chapters to allow users to be alerted promptly to any updates and to easily download relevant information rather than repeatedly download the entire Field Guide.

³ Suggestions for Youth and Summer Camps <https://www.cdc.gov/coronavirus/2019-ncov/community/schools-childcare/summer-camps.html>

1.0 GUIDANCE ON COMMUNICATION

Camp administration should be in regular contact with campers, parents/legal guardians, staff, and vendors. Many of these communications may be time sensitive and may contain confidential health information. In addition, the administration should seek guidance from and work with local health organizations (e.g., municipal and state health departments) to engage on health and safety plans and response programs to COVID-19, along with communications. The following provides suggested communication guidelines camp administrations can follow prior to, during, and after camp openings.

PREPARATION

- Designate at least one qualified person from the medical or administrative staff who can act as the primary contact for campers, parents/legal guardians, and staff. The designee(s) should be prepared to effectively address any questions and concerns related to the COVID-19 pandemic, and the resources available for additional information. The designee(s) should be familiar with:
 - Medical matters relating to the novel Coronavirus SARS-CoV-2.
 - Administrative, engineering, and personal protective equipment (PPE) controls the camp has implemented in response to the COVID-19 pandemic designed to reduce risk.
 - Current events as they relate to the COVID-19 pandemic.
 - Policies and procedures the camp has implemented related to the COVID-19 pandemic.
 - **Best practice:** Designate a team consisting of both medical and administrative staff responsible for answering questions and concerns from campers, parents/legal guardians, and staff.
- Inform relevant local public health authorities of planned camp operations schedule.
- Prepare and distribute policy guidelines allowing staff to familiarize themselves with the material.
- Prepare and distribute documentation to staff and parents/legal guardians of campers to explain rules and guidelines for campers to follow during their time at camp.
- Consider including [videos](#) about behaviors that prevent spread of COVID-19 such as on camp websites, in emails, and through camp [social media accounts](#). These social media tool kits provide free materials for camps to utilize.
- Prepare relevant posters and signage from the Centers for Disease Control and Prevention ([CDC](#)), World Health Organization (WHO), and/or other accredited health agencies and post in appropriate places where intended audiences can be reached. Examples include:
 - [COVID-19 information](#)
 - [Handwashing](#)
 - [Cough etiquette](#)

- [Symptoms associated with COVID-19](#)
- [Stop the spread of germs](#)
- [Physical distancing](#)
- **Best practice:** Prepare communication platforms, such as [websites, automated text messaging, and telephone hotlines](#), to communicate information to campers, parents/legal guardians, staff, etc.
- Additional print and digital resources are available for free on [CDC's communications resources](#) main page.

CAMPER COMMUNICATION

Prior to Camp

Note: Communication with campers prior to camp may not be applicable to overnight camps where most pre-camp communication is coordinated through parents and legal guardians.

- Prepare and distribute documentation containing rules and guidelines for campers to follow during their time at camp.
- Be familiar with answers to [frequently asked questions](#) and common misconceptions related to the COVID-19 pandemic.
- Identify which staff and campers are at [higher risk](#) for complications related to COVID-19, and encourage and support them in taking additional precautionary measures including consultation with their healthcare provider. The healthcare provider should provide written documentation for requested accommodations for the individual.
- **Best practice:** Provide information on any communication platforms, such as [websites, automated text messaging, and telephone hotlines](#), to distribute information to staff, parents/guardians, and campers.

During Camp

- At the beginning of camp, hold small group trainings and demonstrations on behaviors and precautions campers should abide by to prevent the spread of COVID-19, including:
 - How and when to effectively wash and sanitize hands
 - How to practice physical distancing in various settings (cafeteria, classrooms, cabins, etc.)
 - Which symptoms to look out for and when to report them and to whom
 - When to stay home
 - Coughing etiquette
 - Other camp-specific policies or guidelines
- If possible, limit the amount of available media focused on the COVID-19 pandemic if it may be contributing to anxiety.
- Broadcast regular messages on reducing the spread of COVID-19 on the camp PA system. Example [announcements](#) are available from CDC.

Conversation

- Encourage campers to talk about how they are feeling. Tell campers they can ask you any questions and make yourself available to talk and listen.
- Be calm and reassuring; be careful not only about what you say but how you say it.
- Be a source of comfort.
- Listen for underlying fears or concerns. Ask questions to find out what a concerned camper knows about COVID-19.
- Let campers know that fear is a normal and acceptable reaction.
- Provide only honest and accurate information. Correct any false information they may have heard. Note: Make sure to be considerate with campers when correcting any information.
- If you do not know the answer to a question, say so. Do not speculate. Find answers by visiting the [CDC website](#).
- Make sure campers know how the virus can spread and how to prevent it from spreading.
- Talk about what the camp is doing to protect campers from getting sick.
- Tell campers that even though the COVID-19 pandemic is serious, hospitalizations and death are rare, especially in young healthy individuals.
- Let campers know that teens and children seem to get a milder illness when compared to adults.
- Speak in age-appropriate language:⁴
 - *Early elementary school aged children:* Provide brief, simple information that balances COVID-19 facts with appropriate reassurances that adults are there to help keep them healthy and to take care of them if they do get sick. Give simple examples of the steps they make every day to stop germs and stay healthy, such as washing hands. Use language such as “Adults are working hard to keep you safe.”
 - *Upper elementary and early middle school aged children:* This age group often is more vocal in asking questions about whether they indeed are safe and what will happen if COVID-19 spreads in their area. They may need assistance separating reality from rumor and fantasy. Discuss the efforts national, state, and community leaders are making to prevent germs from spreading and keep people healthy.
 - *Upper middle and high school aged children:* With this age group, issues can be discussed in more depth. Refer them to appropriate sources of COVID-19 facts. Provide honest, accurate, and factual information about the current status of COVID- 19.
- [Reduce stigma](#), especially against individuals of Asian descent and those who have traveled recently.

⁴ <https://www.nasponline.org/resources-and-publications/resources-and-podcasts/school-climate-safety-and-crisis/health-crisis-resources/helping-children-cope-with-changes-resulting-from-covid-19>

- Direct campers with questions you cannot answer and/or fears you cannot assuage to administration or the designated staff member(s) responsible.
- Have follow-up conversations with campers who have asked questions or expressed concerns.
- Staff and campers who are experiencing stress and anxiety should be referred to the Health Center for consultation by a medical professional.

Posters/Signage

- Post relevant posters and signage from the [CDC](#), [WHO](#), and/or other health agencies in appropriate areas to encourage behaviors that mitigate the spread of disease:
 - [COVID-19 information](#)
 - [Handwashing](#)
 - [Cough etiquette](#)
 - [Symptoms associated with COVID-19](#)
 - [Stop the spread of germs](#)
 - [Physical distancing](#)
- Post [signs](#) in highly visible locations (e.g., camp entrances, dining areas, restrooms) that [promote everyday protective measures](#) and describe how to [stop the spread](#) of germs such as by [properly washing hands](#) and [properly wearing a mask](#) or face covering.

In Case of a Confirmed or Suspected Case

- Refer to the camp’s Communicable Disease Plan (CDP) or applicable childcare standards⁵ for full guidance.
- Before any conversation with campers, make sure to consider their age and address fears and concerns appropriately.
- Interview the confirmed or suspected case and begin contact tracing in coordination with appropriate local and state health resources, as warranted.
- Advise those who have had [close contact](#) with a person diagnosed with COVID-19 to separate themselves, [self-monitor for symptoms](#), and follow [CDC guidance](#) if symptoms develop.
- Maintain confidentiality; do not provide the name or any potentially identifying information of the confirmed or suspected case in communications in camp or outside of camp with the exception of the campers’ parent/guardian and health authorities.

⁵ American Academy of Pediatrics, American Public Health Association, National Resource Center for Health and Safety in Child Care and Early Education. 2019. *Caring for Our Children: National Health and Safety Performance Standards; Guidelines for Early Care and Education Programs*, Fourth Edition. Itasca, IL: American Academy of Pediatrics. <http://nrckids.org/files/CFO.C4.pdf-FINAL.pdf>.

PARENTS/LEGAL GUARDIANS COMMUNICATION

Prior to Camp

- Inform parents/legal guardians about the precautions and procedures the camp has implemented/will implement to minimize the risk of COVID-19 exposure.
- **Best practice:** Provide information on any communication platforms, such as [websites](#), [automated text messaging](#), and [telephone hotlines](#), to distribute information to parents/legal guardians.
- Identify which campers are at [higher risk](#) for complications related to COVID-19, and encourage and support them to take additional precautionary measures.
- **Best practice:** Recommend parents/legal guardians of higher-risk campers to consult their child's medical provider to assess their risk and determine if attendance is acceptable.
- Communicate the importance of keeping campers home if they show any symptoms associated with COVID-19. Share the CDC Symptom Screening List: <https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html>
- Inform and seek consent from parents/legal guardians for any health monitoring (e.g., daily temperature readings) that will occur.

During Camp

- Keep parents/legal guardians up to date on COVID-19 as it relates to the camp. Send parents/legal guardians regular newsletters or communications regarding the prevention efforts. If necessary, report the number of suspected and confirmed cases (if any), as well as the camp's responses.
- If the decision to dismiss or end camp early is made, communicate these plans.

In the Event of a Potential Exposure

- Immediately inform parents/legal guardians about any potential contact their children may have had with suspected or confirmed cases.
- Immediately inform parents/legal guardians if their child(ren) are experiencing any symptoms.
- Refer to the camp's Communicable Disease Plan (CDP) or applicable childcare standards for full guidance.
- See the "Sample Communication" document for the following scenarios:
 - Your child has tested positive for symptoms/COVID-19.
 - Your child was identified as having contact with a suspected or confirmed case.
 - There are X number of cases at camp; there is no reason to believe your child has been in contact with these individuals.

STAFF COMMUNICATION

Prior to Camp

- Provide training and educational material, including this guide, to staff. Include information on:
 - The camp administration’s responsibilities as they relate to COVID-19
 - Workplace controls, including the use of PPE
 - Their individual roles and responsibilities as they relate to COVID-19
- Ascertain which staff members are at [higher risk](#) for complications related to COVID-19. Work with camp administration and camp health staff to determine if these staff members should not work as counselors or have prolonged direct contact with campers. Identify alternative job duties for these staff members, if warranted.
- Communicate the importance of vigilantly monitoring their health for symptoms associated with COVID-19 and staying home if they are showing any.
- Maintain flexible leave policies:
 - Do not require healthcare provider’s note for leave from work.
 - Permit employees to take leave to care for a sick family member.
- Communicate strategies for administrative staff to telework from home if possible.

During Camp

- Continue to provide educational material, including this guide, to staff and enforce training requirements. Include information on workplace controls, including the use of PPE.
- Be aware of workers’ concerns about pay, leave, safety, health, and other issues related to COVID-19.
- Make administration available to hear concerns and answer questions related to these issues.

Posters/Signage

- Post relevant posters and signage from the [CDC](#), [WHO](#), and/or other health agencies in appropriate areas to encourage behaviors that mitigate the spread of disease. Examples:
 - [COVID-19 information](#)
 - [Handwashing](#)
 - [Cough etiquette](#)
 - [Symptoms associated with COVID-19](#)
 - [Don’t Spread Germs at Work](#)
 - [Social Distancing](#)
 - [Stay Home If You’re Sick](#)

VENDOR COMMUNICATION

- Inform vendors that access to the camp's facilities will be restricted.
- Request that vendors reduce the frequency of deliveries while simultaneously meeting the demand of ordered goods.
- Request that vendors use the same delivery driver for all deliveries for the duration of camp.
- Notify vendors to suspend deliveries and/or adjust maintenance schedules for services in the event camp is suspended.
- Inform vendors that, during deliveries, they are required to take precautions:
 - Maintain physical distancing between themselves and campers and staff
 - Wear appropriate PPE (a mask or face covering and gloves)
 - Do not make deliveries if they have symptoms associated with COVID-19

LOCAL HEALTH OFFICIALS COMMUNICATION

- Coordinate with local health officials; they should provide strategic assistance in the decision-making response to the COVID-19 pandemic with each camp.
- Work with your local health officials to develop a set of strategies appropriate for the camp.
- Inform local health officials on the camp operations scheduled.
- Alert local health officials on unusually high camper absenteeism rates.
 - **Best practice:** Regularly share camper absenteeism data with local health officials if requested.
- Notify local health officials of suspected and confirmed cases immediately.
- Seek guidance to determine whether to dismiss or end camp early if necessary.

REFERENCES AND RESOURCES

American Red Cross. *Coronavirus: How to Talk to Kids and Keep Them Healthy.*

<https://www.redcross.org/about-us/news-and-events/news/2020/coronavirus-how-to-talk-to-your-kids.html>

KidsHealth. *Coronavirus: How to Talk to Your Child.*

<https://kidshealth.org/en/parents/coronavirus-how-talk-child.html>

U.S. Centers for Disease Control and Prevention. *Interim guidance for homeless service providers to plan and respond to coronavirus disease 2019.*

https://www.cdc.gov/coronavirus/2019-ncov/downloads/COVID19_Homeless-H.pdf

U.S. Centers for Disease Control and Prevention. *Coronavirus Disease 2019 Supplemental Guidance for Childcare.* <https://www.cdc.gov/coronavirus/2019-ncov/community/schools-childcare/guidance-for-childcare.html>

National Association of School Psychologists. *Helping Children Cope With Changes Resulting From COVID-19*. <https://www.nasponline.org/resources-and-publications/resources-and-podcasts/school-climate-safety-and-crisis/health-crisis-resources/helping-children-cope-with-changes-resulting-from-covid-19>

U.S. Centers for Disease Control and Prevention. *Guidance for Administrators of Institutions of Higher Education: Plan, Prepare, and Respond to Coronavirus Disease 2019*. <https://www.cdc.gov/coronavirus/2019-ncov/community/guidance-ihe-response.html>

U.S. Centers for Disease Control and Prevention. *Interim Guidance for Administrators of US K-12 Schools and Child Care Programs: Plan, Prepare, and Respond to Coronavirus Disease 2019*. <https://www.cdc.gov/coronavirus/2019-ncov/community/schools-childcare/guidance-for-schools.html>

U.S. Occupational Safety and Health Administration. *Guidance on Preparing Workplaces for COVID-19*. <https://www.osha.gov/Publications/OSHA3990.pdf>

U.S. Centers for Disease Control and Prevention. *Coronavirus Disease 2019 Talking to Children*. <https://www.cdc.gov/coronavirus/2019-ncov/daily-life-coping/talking-with-children.html>

U.S. Centers for Disease Control and Prevention. *CDC Activities and Initiatives Supporting the COVID-19 Response and the President's Plan for Opening America Up Again*. <https://www.cdc.gov/coronavirus/2019-ncov/downloads/php/CDC-Activities-Initiatives-for-COVID-19-Response.pdf>

U.S. Centers for Disease Control and Prevention. *Suggestions for Youth and Summer Camps*. <https://www.cdc.gov/coronavirus/2019-ncov/community/schools-childcare/summer-camps.html>

U.S. Centers for Disease Control and Prevention. *Suggestions for Youth Programs and Camps: Readiness and Planning Tool*. <https://www.cdc.gov/coronavirus/2019-ncov/downloads/camp-planning-tool.pdf>

2.0 CONTENT AND RESOURCES

FIELD GUIDE CONTENT AND RESOURCES

The Field Guide addresses the current guidance on managing COVID-19 during the 2020 and 2021 summer camp season. It draws upon the available public information from federal agencies such as the U.S. Centers for Disease Control and Prevention (CDC), U.S. Environmental Protection Agency (EPA), and the U.S. Food and Drug Administration (FDA), as well as public information from nongovernmental organizations, such as the American Academy of Pediatrics (AAP) and the Association for Camp Nursing (ACN). In addition, the experience of summer camps in 2009 and 2010 in responding to the pandemic H1N1 virus (H1N1) serves as a guide for managing communicable disease in a camp setting.

MANAGING COVID-19 AND COMMUNICABLE DISEASE IN SUMMER CAMP 2020 AND 2021

There are about 8,400 overnight camps and about 5,600 day camps in the United States, for a total of more than 14,000 camps.⁶ These camps are attended each year by more than 14 million children, adolescents, and adults. Managing communicable disease in camps is a common practice that has been successfully addressed in the past by health professionals, some of whom are physicians and nurses on camp premises. Implementing such good public health practices at camps helps minimize the potential that communicable illness will occur (prevention) and includes strategies to use when an outbreak occurs (response).⁷

MANAGING COMMUNICABLE DISEASE IN CAMP AND THE 2009 H1N1 PANDEMIC EXPERIENCE

In April and May of 2009, outbreaks of influenza due to H1N1 first occurred in North America and rapidly spread throughout the world. School-aged children were disproportionately affected during the 2009 summer camp season, which took place before a vaccine became available in the fall. Nonpharmaceutical interventions (NPIs), including hygienic and physical distancing measures, were the primary tools available for mitigating the impact of the virus.

The CDC issued guidelines for influenza prevention and control in camp settings on June 14, 2009.⁸ These guidelines included four primary strategies:

1. Early identification of ill persons
2. Staying home while ill
3. Cough and hand hygiene etiquette
4. Encouraging the use of hand sanitizers

⁶ American Camp Association. *ACA Facts and Trends*. <https://www.acacamps.org/press-room/aca-facts-trends>

⁷ Association of Camp Nursing. *Communicable Disease Strategies for Camps*. <https://campnurse.org/wp-content/uploads/2019/05/Communicable-Disease-Management-Strategies-for-the-Camp-Setting-2019.pdf>

⁸ CDC. *CDC Guidance for Day and Residential Camp Responses to Influenza during the 2010 Summer Camp Season*. <https://www.cdc.gov/h1n1flu/camp.htm> (Updated on May 17, 2010)

Further, CDC guidelines recommended the use of antiviral medications for treatment of ill persons who were hospitalized, had severe disease, or were at high risk for severe disease. Antiviral prophylaxis was recommended for close contacts of ill persons who were at high risk for complications, were pregnant or were healthcare or emergency workers.

Based upon available information reported by CDC at the time, by late June, more than 30 summer camps in the United States had reported outbreaks of 2009 H1N1 influenza illness.⁹ By mid-July, CDC reported about 80 camps had reported outbreaks of H1N1 influenza.¹⁰

State of Maine 2009 Overnight Camp Experience with H1N1 Pandemic

A study of the H1N1 impact on overnight camps in Maine found approximately half had reported cases of influenza-like illness (ILI) and that approximately 20% had outbreaks, which were defined as at least three confirmed cases of H1N1.¹¹ None of the camps closed in response to the H1N1 pandemic, and the camps did not report significant operational impacts. The NPIs and methods employed by camps included:

- Facilitating pre-camp communications with parents
- Providing health education on H1N1 for campers and staff
- Promoting respiratory etiquette and hand hygiene along with increased availability of hand sanitizers.
- Implementing isolation plans for campers and staff while ill

The authors concluded that following public health guidance and implementing NPIs were effective to contain the outbreaks that occurred.

EXTENDING LESSONS LEARNED FROM THE 2009-2010 H1N1 CAMP EXPERIENCE TO 2020 AND 2021 COVID-19 CAMP PLANNING

The H1N1 camp experience provides rich information for the management of communicable disease in camps for the 2020 and 2021 summer seasons. CDC *Interim Guidance for Schools and Day Camps* provides insight into the developing guidance on the 2020 and 2021 camp seasons. The *Interim* guidance is in accord with the guidelines promoted in the White House/CDC's *Opening America Again*¹² and includes implementation of the following steps:

- A 3-Phase approach with camps open in Phases 2 and 3
- Restricting campers and staff to regions with similar level of community spread and those that are in the same Phase

⁹ CDC. *The 2009 H1N1 Pandemic: Summary Highlights*, April 2009-April 2010, https://www.cdc.gov/h1n1flu/cdcresponse.htm#CDC_Communication_Activities

¹⁰ *CompassPoint*. Association of Camp Nursing, September 2009, Volume 19, Number 3

¹¹ Robinson S, et al. 2012. Pandemic Influenza A in Residential Summer Camps—Maine 2009. *Pediatric Infectious Disease Journal*, 31(6):547-50.

¹² White House/CDC *Opening Up American Again*. <https://www.whitehouse.gov/openingamerica/>

- Safety actions to implement NPIs
 - Promote healthy hygiene practices
 - Intensify cleaning, disinfection and ventilation
 - Ensure physical distancing
 - Limit sharing
 - Train all staff
- Health monitoring and pre-camp screening
 - Check for signs and symptoms
 - Plan for when a staff member, child, or visitor becomes sick
 - Maintain healthy operations to monitor risk-reduction strategies
- Community surveillance and response to COVID-19 positive persons and facility operations

Use of Groups/Cohorts to Support the Infection Prevention and Control Strategy

Following the 2009-2010 H1N1 experience and in concert with the guidance provided by CDC in 2010, in the 2020 *Guidance for Child Care Programs that Remain Open - Social Distancing Strategies*,¹³ and in the recent *Interim* document, as well as the recent guidelines on schools from the American Academy of Pediatrics (AAP),¹⁴ the implementation of steps to establish small group sizes, limit mixing of these groups, and restrict large gatherings is among the key recommendations for the 2020 and 2021 camp seasons. As stated in the WHO/CDC guidance, in Phase 2, groups or cohorts of up to 50 persons (campers and staff) can assemble for discrete activities. Keeping groups and activity cohorts separate by six feet from other groups or activity cohorts serves to prevent these groups from mixing with other groups.

The maximum group size will be different depending on type of camp (day versus overnight), duration of camp session, the ability of the camp to test staff and campers for COVID-19 prior to arrival, and the camp’s ability to isolate camp and staffers from the wider community. It is recommended that camps follow applicable state and local guidelines on group gatherings and consult with their state and local departments of public health when questions arise.

This approach is in concert with a paradigm in public health of establishing and maintaining “concentric circles” for infection prevention and control. In the event of a suspected/confirmed COVID-19 positive person, as the innermost circle, prompt action defines the “inner circle” of “close contacts” by contact tracing for isolation and enhanced health surveillance. Identification of “low-risk” contacts in the activity cohort in the “outer circles” and elsewhere in camp is just

¹³ CDC *Guidance for Child Care Programs that Remain Open - Social Distancing Strategies*. Updated 4/21/20. <https://www.cdc.gov/coronavirus/2019-ncov/community/schools-childcare/guidance-for-childcare.html#SocialDistancing>

¹⁴ American Academy of Pediatrics, *COVID-19 Planning Considerations: Return to In-person Education in Schools*. <https://services.aap.org/en/pages/2019-novel-coronavirus-covid-19-infections/covid-19-planning-considerations-return-to-in-person-education-in-schools/>

as essential. Using the small group and cohort strategy, contact tracing can be undertaken promptly by trained professionals in coordination with local and state health resources, with isolation and surveillance implemented in short order. The combination of NPIs and the group/cohort approach can support the development of effective communicable disease management plans for the 2020 and 2021 summer camp season.

Medical Considerations of the COVID-19 Experience in Children

A May 8, 2020, review of recently published medical and scientific papers concluded that:

“COVID-19 appears to affect children less often, and with less severity, including frequent asymptomatic or subclinical infection. There is evidence of critical illness, but it is rare. The role of children in transmission is unclear, but consistent evidence is demonstrating a lower likelihood of acquiring infection, and lower rates of children bringing infections into households.”

Further, the review found that:

“There is no direct evidence of vertical transmission, and early evidence suggests both infected mothers and infants are no more severely affected than other groups. Early evidence suggests no significant increased risk for children with immunosuppression, but further data is needed.”¹⁵

Considerable attention is being focused by the medical community on the health of children experiencing a condition now termed as *pediatric multi-system inflammatory syndrome*, a rare disease affecting children that is potentially related to COVID-19. Government announcements, media accounts, and the medical literature are being tracked to provide current advice on this development.

REFERENCES AND RESOURCES

Information for the *Field Guide* was compiled from existing sources of information from federal and state agencies as well as nongovernmental organizations and industry associations. The following list is representative of the resources that were available online as of October 15, 2020.

White House

Link: [Guidelines for Opening Up America Again](#)

¹⁵ DTFM COVID-19 Evidence Review, May 8, 2020, <https://dontforgetthebubbles.com/wp-content/uploads/2020/05/COVID-data-8th-May.pdf>

U.S. Centers for Disease Control and Prevention (CDC)

Link: [Coronavirus \(COVID-19\)](#)

Sub-pages include but not limited to the following:

Link: [Suggestions for Youth and Summer Camps](#)

Link: [Suggestions for Youth Programs and Camps: Readiness and Planning Tool](#)

Link: [Interim Guidance for Administrators of US K-12 Schools and Child Care Programs](#)

Link: [Guidance for *Cleaning and Disinfection*](#) and [Reopening Guidance for *Cleaning and Disinfection*](#) Public Spaces, Workplaces, Businesses, Schools, and Homes

Link: [Interim Guidance for Businesses and Employers Responding to Coronavirus Disease 2019 \(COVID-19\), May 2020](#)

Link: [Cleaning and Disinfection for Non-emergency Transport Vehicles](#)

Link: [Symptoms of Coronavirus](#)

Link: [Environmental Health Practitioners - Congregate Facilities and Shelters](#)

Link: [People Who Need to Take Extra Precautions - People at Higher Risk for Severe Illness](#)

Link: [Gatherings and Community Events - Ongoing Mitigation Guidance](#)

Link: [Gatherings and Community Events - Communications Resources](#)

Link: [Parks and Recreational Facilities - Health and Safety Considerations](#)

Link: [Parks and Recreational Facilities - Considerations for Public Pools, Hot Tubs, and Water Playgrounds During COVID-19](#)

Link: [Contact Tracing: Part of a Multipronged Approach to Fight the COVID-19 Pandemic](#)

U.S. Environmental Protection Agency

Link: [Coronavirus \(COVID-19\)](#)

Link: [Information on Maintaining or Restoring Water Quality in Buildings with Low or No Use](#)

Link: [Disinfectant Use and Coronavirus \(COVID-19\)](#)

U.S. Federal Food and Drug Administration

Link: [Food Safety and the Coronavirus Disease 2019 \(COVID-19\)](#)

Link: [Best Practices for Retail Food Stores, Restaurants, and Food Pick-Up/Delivery Services During the COVID-19 Pandemic](#)

Association of Camp Nursing

Link: [Coronavirus COVID-19 Considerations for Camps](#)

American Society of Heating, Refrigerating and Air-Conditioning Engineers

Link: [COVID-19 \(CORONAVIRUS\) PREPAREDNESS RESOURCES](#)

3.0 GUIDANCE ON SCREENING AND INITIAL RESPONSE FOR CAMPERS AND STAFF AT OVERNIGHT OR DAY CAMP

The following outlines three screening phases that can be used by camp healthcare staff to identify campers and staff members that might have a respiratory infection or might require additional consideration before admittance to or continued participation in camp. Although not every camper or staff member who has respiratory infection symptoms will have COVID-19, using a screening process may be helpful in identifying those who may need medical care or who may not be cleared to enter camp. This guidance can be added to a camp's existing health screening process. The three phases of screening include pre-screening, initial screening, and ongoing screening. It is important to be aware that state and local regulations may provide additional requirements on these processes.

PRE-SCREENING

Offering pre-screening before campers and staff head to camp will give insight into each individual's health status prior to arrival.

If a camp decides to require pre-screening of campers (with the assistance of parents/guardians) and staff members, they should self-monitor for 14 days and conduct pre-screening activities such as:

- Taking and recording their own temperature for 14 days before camp (refer to the individual instructions provided with the thermometer).
- Self-screening for the presence of symptoms (fever of 100.4 °F or greater, cough, shortness of breath, diarrhea, fatigue, headache, muscle aches, nausea, loss of taste or smell, sore throat, vomiting, etc.) within the past two weeks.
- Determining if, within the past two weeks, the individual has traveled nationally or internationally.
- Determining if the individual has been in close contact with a person who has been diagnosed with, tested for, or quarantined as a result of COVID-19.

If a camper or staff member is flagged during the pre-screening process, the camp would need to follow their communicable disease plan (CDP) or, for day programs without a CDP, applicable childcare standards¹⁶ to make a decision about admittance. The camp should consider sharing their CDP in advance of camp opening with local health departments.

¹⁶ American Academy of Pediatrics, American Public Health Association, National Resource Center for Health and Safety in Child Care and Early Education. 2019. *Caring for Our Children: National Health and Safety Performance Standards; Guidelines for Early Care and Education Programs*, Fourth Edition. Itasca, IL: American Academy of Pediatrics. http://nrckids.org/files/CFOC4_pdf-FINAL.pdf.

Additional information related to pre-screening and CDP is provided at the Association of Camp Nursing website:

Communicable Disease Management in the Camp Setting [<https://www.campnurse.org/wp-content/uploads/2019/05/Communicable-Disease-Management-Strategies-for-the-Camp-Setting-2019.pdf>]

Example Screening Form for Opening Day (Gaslin, 2020) [<https://campnurse.org/wp-content/uploads/2020/03/Health-Screening-Form-2020.pdf>]

Pre-Camp Health Screening Tool: Available at <https://campnurse.org/>

INITIAL HEALTH SCREENING

The initial health screening should be incorporated into the existing screenings suggested by [ACA Health Standard HW.6](#) upon the arrival of campers and staff at camp. The questions asked will be similar to those considered during the pre-screening process. The Association of Camp Nursing (ACN) provides an example of a health screening form at the link above. As medical information evolves on COVID-19 in children, the content of the screening form may be updated with additional information and questions. The results of this initial health screening will determine if an individual is permitted to enter camp or if they require additional screening and evaluation.

ONGOING SCREENING

Ongoing screening should be conducted by camps on an as-determined basis (e.g., daily, weekly, or more frequently). Consider increased screening frequency during initial days of camp, when there is turnover of camp sessions/staff, when monitoring for potential exposures, or daily for day camps.

SUGGESTED ONGOING SCREENING PROCEDURE

Each camp may decide which activities they will perform for ongoing assessments. These activities may be the same as the initial assessment or camps may develop their own set of standardized questions and procedures that seem appropriate for their population. A sample process is outlined below.

1. Ask the individual if they have any COVID-19 symptoms:
<https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html>.
2. Next, check the temperature of the individual according to camp processes using an appropriate thermometer of choice. Refer to the original instructions provided with the thermometer. Clean the thermometer with an alcohol wipe (or isopropyl alcohol on a cotton swab) between each camper or staff member.

3. If camper or staff is suspected to have COVID-19 based on this assessment, place a face mask on the individual. Isolate individual by separating symptomatic individuals by at least 6 feet. The area for individuals with symptoms should be at least 6 feet away from other areas of the health center or in a separate room. Health staff should wear an N95 respirator (for aerosol generating procedures) or face mask, a face shield or other eye protection, disposable gloves, and a disposable gown (if conducting aerosol generating procedures) while working with individuals who have a suspected case of COVID-19.
4. Notify camp management, parents/guardians, and appropriate healthcare providers in accordance with guidance from your local health officials, following the camp's CDP.
5. Follow the CDP for next steps on management of the individual. For example, refer to the Response Planning and Response Initiation sections of the ACN CDP for case management of suspect or probable case(s).

NOTE: See section 13.0 on the COVID-19 specific testing process.

RESPONSE AND MANAGEMENT OF CASE(S) OR PROBABLE CASE(S)

If a staff member or camper is identified as having a potential or confirmed case of COVID-19, isolate the individual in a location previously identified as part of the camp's communicable disease plan (CDP). Follow protocols outlined in the CDP and consider the following:

- Consider if a camper or staff member warrants further clinical evaluation, and if so, make arrangements to do so, either in-person or via telehealth.
- If camper or staff member does not require immediate clinical evaluation, and if CDP calls for the individual to return home, isolate the individual until appropriate return to home transportation can be arranged.
- If camper or staff member does not require immediate clinical evaluation, and if CDP calls for isolation of individual within the camp facility (e.g., overnight camps):
 - Follow CDC Interim Guidance for Implementing Home Care of People Not Requiring Hospitalization for Coronavirus Disease 2019 (COVID-19),
 - Make arrangements with camp administration and counselors to have the person's belongings moved,
 - Clean the person's sleeping areas according to CDP and procedures outlined in Chapter 6 [*Cleaning and Disinfection*](#) of the Field Guide.
 - Consider testing options and notification of State and local officials.

It is crucial to carry out "contact tracing" immediately to determine the potential or confirmed case's contacts with other campers or staff members over the previous two or more days. Assessing and informing those with potential exposure is a fundamental control strategy for minimizing spread within a group or camp population. CDC defines close contact as interactions

within 6 feet for more than 15 minutes.¹⁷ Contact tracing should be carried out by trained staff (e.g., public health staff, community health workers, trained volunteers) in conjunction with the local health department. However, camp health staff can utilize general principles of contact tracing to begin closely monitoring other potentially exposed individuals. For day and overnight camps, campers and staff within the “household” of the index case should have enhanced surveillance for symptoms and camps should consider mitigation measures including minimizing this group’s exposures to other “households” or groups. This could include separate programming (shadow camp), dining, and wash times. Day camps may consider asking an exposed “household” to remain home until confirmation of diagnosis can be made, and if positive, remain home until the “household” is determined cleared of infectious risk.

The link below provides CDC basic principles of contact tracing to reduce the spread of COVID-19 transmission. The *Field Guide* will be updated as CDC provides any additional detailed guidance for the potential guidance for contact tracing within the camp setting.

CDC. [COVID-19 Contact Tracing Training: Guidance, Resources, and Sample Training Plan](#)

Key CDC suggestions for contact tracing include:

- Always follow established core principles of contact tracing.
- Conduct contact tracing with only trained staff or trained volunteers. Training should be conducted prior to the start of camp.
- Identify contacts quickly and ensure they do not interact with other campers or staff members.
- Communicate with local and state health officials and all camp stakeholders.
- **Best Practice:** Implement data management and technology tools to assist in case investigations, contact tracing, and contact follow-up and monitoring.
- Monitor key components of contact tracing programs and improve performance as needed.

Awareness-level training in contact tracing is available from Johns Hopkins University. Information is available at this link: <https://www.coursera.org/promo/covid-19-contact-tracing>

¹⁷ US Centers for Disease Control and Prevention. *Principles of Contact Tracing*. <https://www.cdc.gov/coronavirus/2019-ncov/php/principles-contact-tracing.html>

3.1 GUIDANCE ON PREVENTING SPREAD

COMMUNICATION FROM ADMINISTRATION

- Post [print material from the CDC](#) (consider [posters tailored to children and teens](#) and [staff](#)) in or near bathrooms to remind individuals when and how to wash hands.
- Screen, distribute, and incorporate [this CDC video resource](#) on proper handwashing into training programs.
- Post [print material from the CDC](#) in critical areas where physical distancing should be encouraged: dining areas, common areas, cabins, etc.

HAND HYGIENE

When to Wash or Disinfect Hands – Campers and General Staff

- Before eating food (e.g., when entering the dining area)
- Upon entering your cabin
- After being in contact with someone who may have been sick
- After touching frequently touched surface (railings, doorknobs, counters, etc.)
- After using the restroom
- After using common items, such as sports equipment, computer keyboards and mice, craft supplies, etc.
- After coughing, sneezing, or blowing your nose

When to Wash Hands – Kitchen and Dining Staff

Existing best practices for food preparation apply. Coronavirus is not foodborne, but food service workers who are infected can transmit the virus to coworkers or diners. Refer to the [Food Service](#) section for more information. Handwashing is equally important whether gloves are used or not and all recommendations apply regardless of glove use.

- Before and after using gloves
- Before, during, and after preparing any food
- After handling raw meat, poultry, seafood, and eggs
- After touching garbage
- After using the restroom
- After wiping counters or cleaning other surfaces with chemicals
- After coughing, sneezing, or blowing your nose
- Before and after breaks

How to Wash Hands

1. **Wet** your hands with clean, running water. Turn off the tap and apply soap.
2. **Lather** your hands by running them together with the soap. Make sure to lather the back of your hands, between your fingers, and under your nails.
3. **Scrub** your hands for at least 20 seconds (about the time it takes to sing the “Happy Birthday” song twice.)
4. **Rinse** your hands well under clean, running water.
5. **Dry** your hands using a clean towel or an air dryer.

You may use paper towels to turn off the faucet and/or open doors of the bathrooms.

How to Use Alcohol-Based Hand Sanitizer

Hand sanitizers should contain greater than 60% ethanol or greater than 70% isopropanol. Hand sanitizers are not a substitute for handwashing for kitchen and dining staff.

1. Apply the product to the palm of one hand.
2. Rub your hands together. Make sure the product contacts the back of your hands, palms, between your fingers, and fingertips.
3. Continue to rub your hands together until your hands are dry (about 20 seconds).

Handwashing Misconceptions

- Water temperature is not important. Clean cold and warm water work equally well.
- Antibacterial soap is not more effective than regular soap.
- Bar soap and liquid soap are equally effective.
- Soap and water are more effective than alcohol-based hand sanitizer if hands are visibly dirty or greasy.
- If water is available but soap and hand sanitizer are not, rubbing your hands together under water and drying them off with a clean towel or letting them air dry can remove some germs. Only use this method as a last resort.

PHYSICAL DISTANCING

Physical distancing is also known as “social distancing.” Physical distancing can allow individuals to safely interact with others. Physical distancing is not a substitute for using cohorts, a method of isolating groups that can be integrated over time if conditions are met. See the [Using Cohorts at Camp](#) section.

For camps, CDC encourages physical distancing through increased spacing, small groups, and limited mixing between groups, and staggered scheduling, arrival, and drop off, if feasible.¹⁸

¹⁸ U.S. Centers for Disease Control and Prevention. *Youth Programs and Camps during the COVID-19 Pandemic*. <https://www.cdc.gov/coronavirus/2019-ncov/community/schools-childcare/Camps-Decision-Tree.pdf>

MASKS

Masks also referred to as face coverings are one of the best NPIs available to reduce the spread of COVID-19, particularly when used universally within a community. In camp settings masks should be worn universally by staff and campers. According to CDC, masks are meant to protect other people in case the wearer is unknowingly infected but does not have symptoms. Their use is most essential in times when physical distancing is difficult.

- **Best practice:** Campers should wear masks universally in all indoor locations other than while eating, sleeping, showering, and brushing teeth. Ensure at least 6 feet of physical distance is maintained between individuals during the limited times when masks are not in use.
- **Best practice:** Staff should wear masks universally at all times indoors, unless alone in a private office/room, eating, sleeping, showering, and brushing teeth. Ensure at least 6 feet of physical distance is maintained between individuals during the limited times when masks are not in use.
- **Best practice:** Masks should be worn by all campers and staff outdoors when at least 6 feet of physical distance cannot be maintained. Masks should be considered and encouraged outdoors for campers and staff at all times when they will be around other people.
- Campers should bring appropriate, reusable, masks for their own personal use to camp.
- Campers should wear one mask and have a second one in a sealed plastic bag handy in case the first becomes wet or otherwise soiled during the day.
- Overnight Campers should own and maintain a minimum of ten masks so that one or two can be worn each day and be washed weekly.
- Masks should be identified by the camper's name or initials inside.
- Masks should not be shared with anyone else unless in a case of need; it must be unused and unsoiled.
- Campers will be responsible for maintaining and washing their own masks. Cleaning instructions depend on the cloth used to make the mask. In general, masks can be washed regularly along with general laundry using water and a mild detergent, dried completely in a hot dryer, and stored in a clean container or bag.
- While wearing masks, campers and staff should avoid touching their face and the mask as much as possible.
- Masks should only be put on, taken off, and handled with clean hands.
- Good practice: Camps should develop other guidelines for acceptable masks according to camp policies and/or dress code requirements.

- Good practice: For fabric masks, choose those with two to three layers of permeable fabric. CDC provides detailed guidance on use of masks.¹⁹
- Ensure that masks completely cover the nose and mouth of all campers and staff and that masks fit snugly and don't have gaps.
- Do not allow the use of face coverings or masks that have exhalation valves or vents that allow virus particles to escape.
- Individuals not able to wear masks during exercising may benefit from trying alternative styles including specialized athletic masks designed specifically for athletes.

According to CDC wearing masks may not be possible in every situation or for some people. In some situations, wearing a mask may exacerbate a physical or mental health condition, lead to a medical emergency, or introduce significant safety concerns. Adaptations and alternatives should be considered whenever possible to increase the feasibility of wearing a mask or to reduce the risk of COVID-19 spreading if it is not possible to wear one. Camp staff should work with any member of their community on appropriate adaptations and alternatives.

REFERENCES AND RESOURCES

U.S. Centers for Disease Control and Prevention. *When and How to Wash Your Hands*.
<https://www.cdc.gov/handwashing/when-how-handwashing.html>

U.S. Centers for Disease Control and Prevention. *Hand Hygiene*.
<https://www.cdc.gov/coronavirus/2019-ncov/hcp/hand-hygiene.html>

U.S. Centers for Disease Control and Prevention. *Handwashing: A Healthy Habit in the Kitchen*.
<https://www.cdc.gov/handwashing/handwashing-kitchen.html>

U.S. Centers for Disease Control and Prevention. *Life is Better with Clean Hands Campaign*.
https://www.cdc.gov/handwashing/campaign.html#anchor_1569614257

U.S. Centers for Disease Control and Prevention. *Protect Yourself*.
<https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/prevention.html>

U.S. Centers for Disease Control and Prevention. *Social Distancing*.
<https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/social-distancing.html>

¹⁹ <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/cloth-face-cover-guidance.html>

4.0 GUIDANCE ON FACILITIES MANAGEMENT OF VENTILATION AND PLUMBING SYSTEMS

The following guidance is provided for use by camp facilities management and operators in preparation for occupying their buildings or sites during the ongoing COVID-19 pandemic. Although many camps are based on the premise of personal enrichment for campers through immersion and enjoyment of the outdoors, special steps must be taken at this time to ensure that it is done thoughtfully and safely.

The guidance presented here goes beyond simple preparations of a cabin or recreational hall for occupancy and is based upon guidance issued by the American Society of Heating, Ventilating, and Air Conditioning Engineers (ASHRAE) and the U.S. Centers for Disease Control and Prevention (CDC). It includes information on operating building systems and steps that can be taken to check and confirm effective operation of camp facilities. The recommendations provided below are based on ASHRAE's "Post-Epidemic Conditions" advisory guidance²⁰ and the CDC guidance^{21,22} for reopening buildings after prolonged shutdown or reduced operation.

Although much of the camp experience is based on housing that utilize basic ventilation and plumbing schemes, the manner in which the buildings are opened, prepared, and accepted for occupancy is critical in providing a safe experience for the campers, counselors, and other staff. Because many of the facilities rely on natural ventilation to meet the needs of its occupants, the need for ensuring maximum effectiveness is more challenging than ever. This is especially true in light of the need to minimize the possibility for airborne infection to occur and spread in the camp environment. Maintenance of a safe camp environment will require adherence to basic principles of air movement and ventilation, a commitment to maintenance, and sometimes, creativity. Also, as camps continue to expand their offerings, there are other facilities at camps that may utilize more advance mechanical systems to provide both localized (room level) and building-wide ventilation and thermal comfort and they are addressed here as well.

The following guidance is broken into a timeline that addresses when each activity should be undertaken in order to have a successful camp opening and camp session. Of course, it cannot be emphasized enough that every camp is different, and this is a guide, not a rigid playbook. Also, no matter how successful an opening may be, it is the ongoing commitment to maintenance and ongoing verification of performance goals that will determine the overall success of the program.

²⁰ American Society of Heating, Ventilating, and Air Conditioning Engineers. *ASHRAE Epidemic Task Force, Building Readiness, Updated May 5, 2020.* <https://www.ashrae.org/file%20library/technical%20resources/covid-19/ashrae-building-readiness.pdf>

²¹ U.S. Centers for Disease Control and Prevention. *Guidance for Reopening Buildings After Prolonged Shutdown or Reduced Operation.* <https://www.cdc.gov/coronavirus/2019-ncov/php/building-water-system.html>

²² U.S. Centers for Disease Control and Prevention. *Interim Guidance for Businesses and Employers Responding to Coronavirus Disease 2019 (COVID-19), May 2020.* <https://www.cdc.gov/coronavirus/2019-ncov/community/guidance-business-response.html>

GENERAL RECOMMENDATIONS

- Assemble a **Building Readiness Team** that includes key individuals and companies who play a role in the setup and operation of all the camp building systems. The types of service providers that may be required include, but are not limited to, the following:
 - **Camp Owner and/or Operator** to specify the goals and objectives to be supported by the physical environment and to provide guidance as to how the buildings are typically operated.
 - **Maintenance Manager and Support Staff** to review current system condition and operation and to ensure it is ready for opening.
 - **Mechanical Contractor** may be used to supplement the in-house staff to implement repairs to the building mechanical systems that may be identified through the implementation of this guidance.
 - **Building Controls Contractor** to provide specialized support with modification or repair to the mechanical systems controls.

One Month Before Opening

- Perform an inventory of mechanical systems in all camp buildings (supply fans, exhaust fans, ceiling fans, etc.) and verify their operational status.
- Ensure windows and doors are operational and insect screens and animal guards are in place.
- Perform an inventory of heating, ventilating, and cooling (HVAC) systems and document the types and MERV (minimum efficiency reporting value) rating of particulate air filters installed in the systems. This inventory in combination with HVAC performance data can be used for assessing the potential of upgrading the systems to higher efficiency filtration systems, if desired.
- Verify sensor calibration for demand-based ventilation instrumentation, airflow measurement instrumentation, and temperature control instrumentation.
- If the on-site facility manager does not have the appropriate skill set, engage a mechanical service company to inspect and assess the operational capabilities of all mechanical systems including supply and exhaust fans, refrigeration equipment, water heaters, boilers, pumps etc.

Two Weeks Before Opening

- Check controls and operation of hot water boilers, steam generators, and heat exchangers to ensure that set points are consistent with those required during normal operation. Confer with the local authorities about requirements for start-up of domestic water systems.
- Check the fuel source for boilers and hot water generators to make sure it is on and available. Confirm that the flues and make-up air paths are open prior to engaging these devices.
- Review programming of central HVAC systems to provide flushing two hours before and two hours after occupancies. This includes operating the exhaust fans as well as opening the outside air dampers.

- Inspect HVAC system components to verify proper function. Inspection should include the following elements:
 - Fan belt(s) are appropriately tensioned to ensure full airflow is provided to space(s).
 - Outdoor air and other damper linkages are fully connected and operational.
 - Heating and cooling coil valves and valve actuators are connected and operational.
- Confirm occupancy schedules for HVAC systems and review timer set points and programmed operating schedules in the building automation system (BAS). Modify the occupancy schedule as needed to fit the current occupancy schedules for the building.
- If HVAC system control setbacks were previously implemented as part of a building shutdown protocol, check to ensure that these setbacks were returned to normal.
- After confirming timers are functional and BAS occupancy schedules are set right and overrides have been put back to normal, operate the HVAC systems in Occupied mode for at least 24 hours. During this period, trend temperature control and ventilation parameters in those areas serviced by central HVAC systems. If trending through the BAS is not possible, work with the ventilation contractor to install monitoring equipment or measure to verify proper temperature and ventilation control. These measurements should confirm that space temperature and relative humidity levels are being controlled to the acceptable setpoints.

One Week Before Opening

- Check domestic hot water heaters for proper operation and setpoint. Confirm that the water heater is set to at least 120°F. For domestic hot water systems equipped with mixing valves, higher primary water temperatures (>130°F) can further reduce the risk of *Legionella* growth; however, mixing valves must be tested to prevent scalding temperatures.
- Check all drain pans in air handling units and floor drains. Fill with water to ensure that drain traps are wet and do not allow for the passage of sewer gas.
- For facilities with hot tubs and spas, confirm that the chemical treatment has been maintained during the shutdown to avoid conditions that could lead to an outbreak of Legionnaires' disease.²³

Day Before Opening

- In buildings with operable windows, if the outside air temperature and humidity are moderate, (temperature range between 65°F and 78°F and relative humidity between 20% and 75%), open all windows for four hours minimum. Utilize internal fans, i.e., ceiling-mounted fans or strategically (and safely to avoid tripping hazards) place floor fans to promote air circulation. Operate all exhaust fans during this pre-occupancy period as well.

²³ U.S. Centers for Disease Control and Prevention. *Extended Hot Tub/Spa Closures*.
<https://www.cdc.gov/healthywater/swimming/aquatics-professionals/extended-hot-tub-closures.html>

- Prior to re-occupying a building with an HVAC system such as the administrative building or Health Center, perform a “flush out” by opening outside air intake dampers to the maximum allowable position and operate in this manner for at least four hours before reoccupation. Note that the maximum allowable outdoor air damper position will depend on outdoor air temperature and humidity conditions. When operating in the flush out mode, acceptable indoor temperature and humidity conditions should be maintained. Upon completion of the flush out, damper positions can be adjusted back to achieve normal design outdoor air levels.
- Consider installing portable high efficiency particulate air (HEPA) filter air cleaners in administrative offices, the health center, and indoor spaces that are provided with mechanical ventilation. These air cleaners should be operated continuously (24/7 operation).
- Implement a flushing plan to flush hot and cold water systems through all points of use (e.g., showers, sink faucets). The purpose of building flushing is to replace all water inside building piping with fresh water.

Day of Opening

- In buildings with operable windows, if the outside air temperature and humidity are moderate, (temperature range between 65°F and 78°F and relative humidity between 20% and 75%), open all windows for three hours minimum before the reoccupation.
- Utilize internal fans, i.e., ceiling mounted fans or strategically (and safely to avoid tripping hazards) place supplementary floor fans to promote air circulation. Operate all exhaust fans during this reoccupancy period as well.

During Ongoing Camp Operations

- Keep HVAC systems, internal fans, and operable windows functioning and operational to maintain good air circulation within the camp buildings throughout the season.
- Try to maximize general ventilation by utilizing window and door openings. If windows must remain shut due to weather, insects, or safety conditions, maintain continuous operation of exhaust fans. Consider use of supplementary floor fans, if overall ventilation and thermal comfort must be improved, especially if there is limited window and door opening opportunities.
- Once HVAC systems are placed in normal operation, consider implementing an outdoor air ventilation flushing mode two hours before scheduled occupancy and again two hours after occupancy. This includes operating the exhaust fans as well as opening the outside air dampers. Ideally, this flushing mode can be implemented through timers or the BAS.
- During occupied periods, optimize outdoor air ventilation by operating HVAC systems at increased outdoor air rates (i.e., increase the percentage of outdoor air). The percentage of outdoor air delivered will be limited to cooling capacity of the HVAC systems and its ability to provide an appropriate discharge air temperature while also controlling for humidity.

- During unoccupied mode (i.e., when it is expected that the occupants will not be present for at least four consecutive hours), the HVAC systems should continue to operate continuously and at minimum outside air mode.

HEATING, VENTILATING, AND AIR CONDITIONING SYSTEMS – GENERAL GUIDANCE

- Inspect HVAC system components to verify proper function. Inspection should include the following elements:
 - Fan belt(s) are appropriately tensioned to ensure full airflow is provided to space(s).
 - Outdoor air and other damper linkages are fully connected and operational.
 - Heating and cooling coil valves and valve actuators are connected and operational.
- When servicing air handling equipment such as changing filters or accessing interior areas, consider workers' use of personal protective equipment (PPE). This would typically involve use of safety glasses or face shields and gloves.
- It is not necessary to clean ductwork for COVID-19 control, however, if internal duct cleaning is being considered for other reasons, you should consult additional industry guidance before implementing.

HVAC SYSTEM FILTRATION

- For HVAC filtration, consider increasing the level of filtration in the air handling systems to a MERV-13 or greater. An assessment of the current filtration coupled with air handling unit performance information can be used to determine whether the existing fan systems can overcome the additional pressure drop of the new filters while still maintaining appropriate air flow.
- Inspect HVAC system air filters and replace with new filters if deemed necessary. Inspect air filter installation and ensure filters are properly fitted and have little to no bypass around filter banks.
- If the use of MERV-13 or greater filtration is not possible, portable HEPA units can be used in high-traffic areas to provide continuous recirculation. These units can also be utilized in higher occupancy indoor spaces such as dining areas and the health clinic, as warranted.

HEATING AND COOLING SYSTEMS

- For facilities with cooling towers, confirm that the chemical treatment has been provided and maintained to avoid conditions that could lead to an outbreak of Legionnaires' disease.
- Check controls of water chillers and cooling towers to ensure that setpoints are consistent with those required during normal operation.

- Check the status of chilled water systems and cooling towers to ensure they are operated at appropriate water levels and are provided sufficient make-up water. Check pump operation and that water is flowing.
- For HVAC systems with direct expansion cooling coils, check the refrigerant pressures to make sure the system is adequately charged.
- Check controls and operation of hot water boilers, steam generators, and heat exchangers to ensure that setpoints are consistent with those required during normal operation and in accord with local health department requirements. Ensure proper carbon monoxide detectors are functioning in areas where combustion appliances/equipment are located and in accord with local municipal requirements.
- Check the fuel source for boilers and hot water generators to make sure it is on and available. Confirm that the flues and make-up air paths are open prior to engaging these devices.

4.1 GUIDANCE ON RESIDENTIAL CAMPS

Cabins provide living and sleeping spaces for campers and staff. Since sleeping density tends to be high in some camp settings (i.e., bunk beds), it is important to implement controls associated with sleeping arrangements that may help reduce the risk of transmission of COVID-19.

HOUSING

Policy

- Keep the same staff members assigned to a cabin throughout the program; do not rotate staff between cabins.
- Maintain the roster of cabin-members throughout the program; do not rotate campers between cabins. See the [Using Cohorts at Camp](#) section for guidance on organizing campers and staff members.
- Limit cabin access to only individuals who reside in that cabin; avoid having visitors and parents entering the cabin at drop off and pickup periods in the residential spaces.
- All cabin residents should use hand sanitizer containing at least 60% alcohol or wash their hands with soap and water, for at least 20 seconds, upon entry to their cabin.
- Avoid sharing common items (cups, bedding, etc.) as well as the sharing of individuals' items with cabin mates.
- Cabins should be cleaned routinely. Refer to the [Cleaning and Disinfection](#) section of this guide.
- Personal belongings should be limited to essential items plus a limited number of non-essential items.
- Campers should keep personal belongings organized and separate from other campers' belongings.
- **Best practice:** campers should be provided a personal storage space (i.e., cubby, footlocker, etc.) for their personal belongings.

Configuration

- Station dispensers of alcohol-based hand sanitizer containing at least 60% alcohol at the entrance or have campers wash their hands with soap and water immediately upon entry.
- Post relevant posters and signage from the Centers for Disease Control and Prevention ([CDC](#)), World Health Organization ([WHO](#)), and/or other health agencies in cabins in trafficked areas to encourage behaviors which mitigate the spread of disease:
 - [COVID-19 information](#)
 - [Handwashing](#)
 - [Cough etiquette](#)
 - [Symptoms associated with COVID-19](#)
 - [Stop the spread of germs](#)
 - [Physical distancing](#)

BATHROOM

- Avoid sharing common bathroom supplies (towels, soap, toothpaste, etc.). Instruct campers to bring their own bathroom supplies and a container for toiletries to be stored in for the duration of camp (for example, a bathroom tote or a 1-quart clear plastic bag labeled with their name).
- Campers should keep personal items in their bag or tote and store their bag or tote in a designated area.
- Keep soap, toilet paper, and paper towels in the bathroom stocked at all times.
- Create a staggered bathing schedule and limit the number of people using the facilities at one time.
- Place a trash can (with a foot-actuated lid or no lid) near the exit of the restrooms to make it easier to discard items.
- Post the [Handwashing](#) sign from the CDC in the bathroom to remind campers and staff when and how to properly wash hands.

SLEEPING

- If possible, create at least six feet of space between beds. If utilizing head-to-toe orientation (see below) four feet of space between beds is acceptable.
- If possible, minimize the number of people sleeping in a space by converting common spaces to sleeping areas.
- Position sleepers head-to-toe or toe-to-toe to maximize distance between heads/faces:
 - For bunk beds, position the head of the camper in the top bunk opposite the position of the camper in the bottom bunk.
 - For side-by-side beds, position the head of the camper in one bed opposite the position of the camper in the adjacent bunk.
 - For end-to-end beds, position the toes of each camper close to the other camper's toes.
- **Best practice:** Create physical barriers between sleepers, especially if a distance of six feet cannot be created, using curtains, sheets, barriers, etc.
- Use bedding (e.g., sheets, pillows, blankets, sleeping bags) that can be washed and dried in a mechanical air dryer. Keep each camper's bedding separate.
- Place a label with each camper's name on their bed.
- Bedding that touches a child's skin should be cleaned weekly or before use by another child. See the [Laundry](#) instructions within the [Cleaning and Disinfection](#) section.
- Best practice: Store extra bedding in individually-labeled bins, cubbies, or bags.

VENTILATION

- Increase ventilation:
 - Naturally by keeping windows open if weather permits, or
 - Mechanically, by running heating, ventilating, and air-conditioning (HVAC) systems, cabin and bathroom exhaust fans, and pedestal fans, etc.
 - During occupied periods for sleeping areas with mechanical ventilation, optimize outdoor air ventilation by operating HVAC systems at increased outdoor air rates (i.e., increase the percentage of outdoor air). The percentage of outdoor air delivered will be limited to cooling capacity of the HVAC system and its ability to provide an appropriate discharge air temperature while also controlling for humidity. Consider the use of portable HEPA air cleaners in the Health Center or residential bunks with persons in isolation.

REFERENCES AND RESOURCES

U.S. Centers for Disease Control and Prevention. *Open Child Care Programs*.
<https://www.cdc.gov/coronavirus/2019-ncov/community/schools-childcare/guidance-for-childcare.html>

U.S. Centers for Disease Control and Prevention. *H1N1 Flu*.
<https://www.cdc.gov/h1n1flu/camp.htm>

NYC Health. *COVID-19: Guidance for Congregate Settings*.
<https://www1.nyc.gov/assets/doh/downloads/pdf/imm/guidance-for-congregate-settings-covid19.pdf>

Multnomah County. *COVID-19 Guidance for Shelter Settings*. <https://multco.us/novel-coronavirus-covid-19/covid-19-guidance-shelter-settings>

American Society of Heating, Ventilating, and Air Conditioning Engineers. ASHRAE Epidemic Task Force, Building Readiness, Updated May 5, 2020.
<https://www.ashrae.org/file%20library/technical%20resources/covid-19/ashrae-building-readiness.pdf>

4.2 GUIDANCE ON AQUATIC FACILITIES OPERATIONS

The novel coronavirus SARS-CoV2 is not waterborne. There is no current evidence that COVID-19 can be spread to people through the water in a pool, hot tubs, spas, or water play areas. Proper operation and maintenance of pools and related facilities will likely inactivate the virus in the water. The Centers for Disease Control and Prevention (CDC) states “there is no evidence showing anyone has gotten COVID-19 through drinking water, recreational water, or wastewater. The risk of COVID-19 transmission through water is expected to be low.” However, it is important to follow safe physical distancing and proper hygiene practices at lake and pond recreational areas.

All aquatic recreational areas should consider the following:

- Prepare and place relevant posters and signage incorporating guidance from the CDC, World Health Organization (WHO), and/or other accredited health-based organizations, in appropriate places where intended audiences can be reached. Examples include:
 - [COVID-19 information](#)
 - [Handwashing](#)
 - [Cough etiquette](#)
 - [Symptoms associated with COVID-19](#)
 - [Practices to stop the spread of the virus](#)
 - [Physical distancing](#)
- Ensure campers and staff practice proper hand hygiene prior to entering and leaving the facilities or waterfront:
 - Instruct campers to wash hands with soap and water for 20 seconds before and after activities, or
 - Provide alcohol-based hand sanitizer containing at least 60% alcohol before and after activities.
- Maintain adequate staff to ensure camper safety. Efforts to maintain physical distancing should not impact existing camp safety protocols (e.g., first aid, CPR, one-on-one interaction.)
 - **Good Practice:** Participate in activities by small groups. Provide physical cues spaced 6 feet apart for campers in locker rooms and change areas and while waiting to enter waterfront area or pool facilities.
 - **Best Practice:** In addition to following physical distancing of groups and activity, incorporate guidance found in the [Activities](#) and [Using Cohorts at Camp](#) sections of this guide.

- Maintain routine cleaning and disinfecting of frequently touched surfaces daily throughout facilities (e.g., lifeguard stands, railings, etc.) with U.S. Environmental Protection Agency (EPA) List N disinfectants.²⁴ Cleaning and disinfecting procedures should follow those outlined in the [Cleaning and Disinfection](#) section of this guide.
- Clean and disinfect all shared items and equipment (e.g., kickboards, life-saving devices, pool noodles, etc.). Refer to the [Cleaning and Disinfection](#) section of this guide for instructions on cleaning and disinfecting porous and non-porous objects. In addition, be sure to follow applicable manufacturer recommendations.
 - Good practice: If feasible, shared equipment should be limited to items that can be effectively cleaned.
 - Better practice: Limit the amount of shared supplies and equipment for aquatic activities and life-saving measures by providing each participant their own (e.g., kick boards, foam tubes) for the duration of camp, if feasible.
- Follow state and local guidelines for aquatic facilities operation. Consult health swimming guidelines for your state.²⁵

POOLS

As noted by the CDC, proper operation, maintenance, and disinfection of swimming pools will likely inactivate the virus that causes COVID-19. Swimming pools and play areas should be properly cleaned and disinfected, following the procedures outlined in the [Cleaning and Disinfection](#) section of this guide, in addition to the following practices:

- Maintain proper disinfectant levels (1–10 parts per million [ppm] free chlorine or 3–8 ppm bromine) and pH (7.2–8).
- Treat pool with biocidal shock treatment on a daily to weekly basis.
- Follow local regulations pertaining to operation and maintenance of pools.
- Refer to CDC [Model Aquatic Health Code](#) for more recommendations to prevent illness and injuries at public pools.

LAKES AND PONDS

There is no current evidence that COVID-19 can be spread to people through the water in a pool or waterfront. For natural waterfronts, it is best to follow proper physical distancing and good hygiene practices as outlined above and in the [Activities](#) and [Cleaning and Disinfection](#) sections of this guide.

- **Best practice:** Keep up with CDC, WHO, and health-based organizations information regarding COVID-19 in relation to waterfront activities and requirements.

²⁴ U.S. Environmental Protection Agency. *List N: Disinfectants for Use Against SARS-CoV-2*. <https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2>

²⁵ U.S. Centers for Disease Control and Prevention. *State-based Healthy Swimming Information*. <https://www.cdc.gov/healthywater/swimming/states.html>

CHANGING AREAS AND SHOWERS

Many aquatic facilities require showering prior to entering the pool or waterfront. In addition to proper cleaning and disinfecting of shower facilities, it is important to note that during prolonged shutdown or following a significant decrease in use, stagnant water can lead to conditions that increase the risk for *Legionella growth*. To minimize the risk following a prolonged shut-down:

- Follow proper physical distancing and good hygiene practices as outlined above and in the [Activities](#) and [Cleaning and Disinfection](#) sections of this guide.
- Implement a flushing plan to flush hot and cold water systems through all points of use (e.g., showers, sink faucets). The purpose of building flushing is to replace all water inside building piping with fresh water. Regular flushing should be considered during initial phases of lower occupancy.

PERSONAL FLOTATION DEVICES

- If personal flotation devices including life jackets will be shared among campers or stored in a common location, follow the practices below for proper cleaning after each use.
 - Good practice: Limit the amount of shared supplies and equipment per activity. Hand wash life jackets in hot soapy water. Allow to air dry and spray lifejackets with alcohol-based disinfectant spray.
 - Better practice: Hand wash life jackets in hot soapy water. Use a dryer to ensure complete drying with a temperature setpoint not to exceed 140 °F. Spray lifejackets with alcohol-based disinfectant spray before use.
 - **Best practice:** Designate certain equipment (e.g., lifejackets) to individuals for the duration of camp, to decrease the quantity of shared items.
 - **Best practice:** Personal flotation devices should be cleaned and disinfected after each use, following the guidance in the [Cleaning and Disinfection](#) and [Activities](#) sections of this guide. Do not use bleach products on ropes or lifejackets.
- Safety protocols should follow standard operating procedures with the adjustments outlined in the [Safety](#) section of this guide.

SWIMMING

- Campers should follow physical distancing per groups/cohorts and perform proper hand hygiene prior to entry and when leaving pools or other outdoor aquatic facilities (e.g., lakes, ponds).
- During swimming activities, the following practices are recommended:
 - **Best practice:** For free swim, continue safe swim practices, such as the swimming buddy system where each camper is assigned a “buddy” to stay with at all times. Try to ensure that assigned buddies are in the same cohort. Swimmers must participate in swim drills to maintain safety.

- **Best practice:** For laps, maintain 8-foot lane width in swimming pools and maintain spacing between individuals swimming by creating a rotation.
- **Best practice:** For counselors, maintain the same instructors with each group of campers each day. Refer to the guidelines in the [Using Cohorts at Camp](#) section of this guide.
- Safety protocols should follow standard operating procedures with the adjustments outlined in the [Safety](#) section of this guide.

REFERENCES AND RESOURCES

ASHRAE. *Epidemic Task Force: Building Readiness*. American Society of Heating, Refrigeration, and Air-Conditioning Engineers. <https://www.ashrae.org/file%20library/technical%20resources/covid-19/ashrae-building-readiness.pdf>. Updated May 5, 2020.

U.S. Centers for Disease Control and Prevention. *Considerations for Aquatic Venues*. <https://www.cdc.gov/coronavirus/2019-ncov/community/parks-rec/aquatic-venues.html>

The Swim Guide. *COVID-19 and Recreational Water Quality*. <https://www.theswimguide.org/2020/03/30/covid-19-and-recreational-water-quality/>

U.S. Centers for Disease Control and Prevention. *Healthy Swimming, Aquatic Professionals*. <https://www.cdc.gov/healthywater/swimming/aquatics-professionals/index.html>

U.S. Centers for Disease Control and Prevention. *Healthy Swimming, Operating Public Pools*. <https://www.cdc.gov/healthywater/swimming/aquatics-professionals/operating-public-swimming-pools.html>

5.0 GUIDANCE ON FOOD SERVICE

ADMINISTRATION

Policy

- Instruct employees to report any COVID-19 symptoms²⁶ to their supervisors.
- If employees report respiratory illness symptoms, instruct them to stay home.
- If an employee reports symptoms during work, send them home immediately. Clean and disinfect their workstation (which may include the entire kitchen) and consider employees within their vicinity potentially exposed. Implement next steps from the camp's communicable disease plan (CDP).
- If an employee is confirmed to have COVID-19, inform employees of their potential exposure, while maintaining confidentiality. Implement next steps from the camp's CDP.
- Actively encourage sick employees to stay home.

Planning and Preparation

- Maintain an inventory of qualified and licensed staff to fill critical food service positions.
- Stock disposable gloves, masks, and cleaning supplies. Enact a plan for the distribution and resupply of these items.
- Provide staff with access to soap and clean running water, disposable gloves, and masks. If soap and water are not available to wash hands, use an alcohol-based hand sanitizer.
- Train staff on proper hand washing and control procedures implemented by the camp.
- Provide custodial staff with U.S. Environmental Protection Agency (EPA) approved disinfectants.

Operations and Configuration

- Screen food service employees and assess their symptoms prior to starting work each day. See the [Screening](#) section.
- Expand the dining space or increase the number of dining spaces to allow diners to maintain physical distance. Encourage physical distance and increased spacing.
- If possible, offer multiple meal times in an expanded window in order to decrease the number of diners in the dining area at a time. Clean and disinfect the dining area between meal times.
- Prioritize, encourage, and make available outdoor seating areas.
- In general, aim to decrease the occupancy density by as much as half. For example, if a table typically seats eight, use only four seats at that table. Set a reasonable occupancy limit.
- Assign seats to diners for two weeks at a time so they occupy the same seat at each meal.
Best practice: Assign seats to diners for the duration of camp.

²⁶ U.S. Centers for Disease Control and Prevention. *Coronavirus 2019 Symptoms*. <https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html>

- **Best practice:** Avoid buffet style, salad bars, self-service, table, counter food service, and other configurations that require diners to use shared utensils. Prioritize use of “grab-n-go” services (i.e., boxed meals), in which meals are packaged or assembled on a tray for diners to retrieve.
- During family service, encourage counselor and or staff (with clean/sanitized hands) to serve everyone from the table’s serving dishes.
- Offer the option to dine in or outside the dining area by allowing campers to eat in other spaces.
- Encourage diners to maintain physical distancing between themselves and others while in line for their meals. **Best practice:** Place decals on floors six feet apart to denote where to stand while in line.
- Make stations available for diners to wash their hands with soap and water prior to eating. Station dispensers of alcohol-based hand sanitizer containing at least 60% alcohol at the entrance of the dining facility.
- Leave garbage can lids open in both the kitchen and dining area unless they are equipped with foot-actuated lids. Note that some states may require closed refuse containers in the kitchen.
- **Best practice:** An individual’s personal water bottle should not be refilled in the kitchen area. Diners should use camp-supplied glasses/cups for beverages and receive a new glass/cup for water if a refill is desired.
- **Best practice:** Post signs reminding diners of the guidelines such as washing hands, maintaining physical distance, using assigned seats, etc. Provide these resources in additional languages and in illustrations as needed.
- **Best practice:** Remove decorative objects, flyers, and materials from tables and counters to allow for effective cleaning and sanitation.
- **Best practice:** Discontinue use of condiment dispensers. Offer condiment packets or small containers alongside the prepared meal.
- **Best practice:** Discontinue the use of beverage dispensers (e.g., fountain drink dispensers, common milk pitcher, etc.). Arrange bottles of beverage choices along a table or counter for diners to retrieve.

FOOD SERVICE WORKERS

Prior to Work (all suggested best practices)

- Shower or bathe before work.
- Trim and file fingernails. Remove nail polish or false nails.
- Wear clean clothes or clean work uniform.
- Wear appropriate and clean footwear.

General

- Do not work if you are sick or showing flu-like symptoms.
- Wear disposable gloves and avoid direct barehand contact with food.
- Do not wear watches, bracelets, or rings.
- Wear a mask or cloth face covering.
- **Best practice:** Wear disposable gowns and/or an apron.
- Maintain a physical distance and increased spacing from other food preparation workers whenever possible.
- Wash hands with soap and water for at least 20 seconds before and after work and breaks; after using the bathroom, blowing your nose, coughing, sneezing, or touching frequently touched surfaces; and before preparing food.
- **Best practice:** Food preparation staff use a fingernail brush during handwashing.
- Cover your cough or sneeze with a tissue, throw it away, and wash your hands immediately.
- Avoid touching your eyes, nose and mouth.

Food Preparation

- Existing best practices for food preparation and storage apply. Coronavirus is not foodborne, but food service workers who are infected can transmit the virus to coworkers or diners.
- Follow the four key steps to food safety: [Clean, Separate, Cook, and Chill](#).
- **Best practice:** Even while wearing gloves, use clean utensils, such as tongs, spoons, etc., instead of gloved hands to prepare food as much as possible.

Cleaning and Disinfection for Food Contact Surfaces

- Use soap or detergent and water to wash food contact surfaces (i.e., dishware, utensils, trays, food preparation surfaces, beverage equipment) then rinse after use. **Best practice:** Disinfect food contact surfaces before food preparation. Ensure any disinfectants used appear on [EPA's Registered Antimicrobial Products for Use Against Novel Coronavirus SARS-CoV-2](#) and are safe for food contact surfaces. Follow manufacturer instructions.
- Let dishware and equipment air-dry; do not dry with towels.
- Ensure that dishwasher machines are operating within the manufacturer's specifications and that appropriate water temperatures, detergents, and sanitizers are being used.

Cleaning and Disinfection for Non-Food Contact Surfaces

- Clean and disinfect frequently touched non-food contact surfaces in the kitchen and dining area at least daily. **Best practice:** Clean and disinfect the dining area before and after each use.
- Clean and disinfect non-food contact surfaces in the kitchen and dining area's commonly touched surfaces (e.g., counters, tables, chairs, coffee pot handles) daily. **Best practice:** Clean and disinfect commonly touched surfaces before and after each use.

- If hard non-porous surfaces are visibly dirty, clean them with detergent or soap and water before disinfecting.
- Disinfect hard non-porous surfaces using:
 - [EPA’s Registered Antimicrobial Products for Use Against Novel Coronavirus SARS-CoV-2](#).
 - Diluted household bleach products. Add 5 tablespoons (1/3 cup) of bleach to a gallon of water or 4 teaspoons of bleach to a quart of water. Do not use in conjunction with ammonia-based solutions. Mix a new bleach-based solution each day, when the liquid has debris in it, and when the solutions parts per million fall below state guidelines.
 - Alcohol-based solutions containing at least 70% alcohol.
- If still in use, clean and disinfect condiment dispensers as frequently as practicable.
- If soft or porous surfaces (e.g., fabric seats, upholstery) are visibly dirty, clean them using appropriate cleaners.
- Disinfect soft or porous surfaces using [EPA’s Registered Antimicrobial Products for Use Against Novel Coronavirus SARS-CoV-2](#).
- If frequently touched electronic surfaces (e.g., equipment controls, lights) are visibly dirty, clean them using products appropriate for use on electronics.
- Disinfect electronic surfaces according to the manufacturer’s recommendations. If none exist, use alcohol-based solutions containing at least 70% alcohol.
- Remove and dispose of gloves, masks, and gowns/aprons (if applicable) immediately after cleaning and disinfecting or when visibly soiled.
- Immediately after cleaning and disinfecting (and before taking breaks), wash hands using soap and water for at least 20 seconds. If a handwashing station is not available, disinfect hands using alcohol-based hand sanitizer.
- If disposable gowns are not worn, immediately launder clothes (or uniform) worn using the warmest appropriate water and dry completely. Wash hands immediately after handling dirty laundry.
- For more information, follow [CDC guidance on cleaning and disinfecting](#).

DINERS

- Do not attend meals if you are sick or experiencing flu-like symptoms. Inform a counselor immediately and go to the camp health center.
- Wash hands with soap and water for 20 seconds or use alcohol-based hand sanitizer containing at least 60% alcohol upon entry to the dining area.
- Avoid touching frequently touched surfaces such as handles, doorknobs, tables, and counters as much as possible.
- When retrieving food, avoid touching items and putting them back.
- Maintain physical distance and increased spacing between yourself and others whenever possible.

- Sit with or near the same individuals each meal and/or in the same seat if possible.
- If the option is available, eat outside or in areas with less people.
- When in line, maintain physical distance and increase spacing between yourself and others.
- Cover your cough or sneeze with good cough and sneeze etiquette. If a tissue or napkin is used, throw it away, and wash your hands immediately.
- Avoid touching your eyes, nose, and mouth.
- **Best practice:** Use utensils rather than hands to eat as much as possible.

REFERENCES AND RESOURCES

The Food Industry. *COVID-19 Cleaning and Disinfection for Human-touch Surfaces*.
<https://www.fmi.org/docs/default-source/food-safety/covid-19-cleaning-and-disinfection-for-human-touch-surfaces.pdf>

U.S. Centers for Disease Control and Prevention. *Food Safety and Coronavirus Disease 2019*.
<https://www.cdc.gov/foodsafety/newsletter/food-safety-and-Coronavirus.html>

U.S. Centers for Disease Control and Prevention. *Coronavirus Disease 2019 Cleaning and Disinfection for Community Facilities* <https://www.cdc.gov/coronavirus/2019-ncov/community/organizations/cleaning-disinfection.html>

5.1 GUIDANCE ON CANTEEN OR CAMP STORE

The following provides guidance and procedures to reduce COVID-19 exposure risk while operating or shopping in the canteen or camp store.

ADMINISTRATION

Policy

- Instruct employees to report any COVID-19 symptoms²⁷ to their supervisors.
- If employees report respiratory illness symptoms, instruct them to stay home or in overnight camps to report to the health center and comply with isolation guidance.
- If an employee reports symptoms during work, send them home immediately or to the health center. Clean and disinfect their workstation. Inform the health center and follow the camp's communicable disease plan (CDP).
- Allow camper access to the canteen on a schedule consistent with camper groups or activity cohorts determined by the [Using Cohorts at Camp](#) section so that only campers of the same pre-defined group shop together.

Planning and Preparation

- Maintain a roster of qualified and trained staff to fill canteen positions.
- Stock disposable gloves, masks, and cleaning supplies. Enact a plan for the distribution and resupply of these items.
- Provide staff with access to soap and clean running water or alcohol-based hand sanitizer, disposable gloves, and masks.
- Train staff on proper hand washing and control procedures implemented by the camp.
- Provide custodial staff with U.S. Environmental Protection Agency (EPA) approved disinfectants.²⁸

Operations and Configuration

- Screen employees and assess their symptoms prior to starting work each day. See the [Screening](#) section.
- Where feasible, create partitions between shoppers and cashiers on checkout counters with a pass-through opening at the bottom of the barrier for passage of cash, charge/debit cards, products, etc. Devise alternative payment methods to avoid exchange of cash and coins (i.e., implement debit accounts to be settled at the end of specified time periods).
- If possible, arrange items for sale in an outdoor area (such as a picnic area or gazebo).

²⁷ U.S. Centers for Disease Control and Prevention. *Coronavirus Disease 2019 Symptoms*. <https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html>

²⁸ U. S. Environmental Protection Agency. *List N: Disinfectants for Use Against SARS-CoV-2*. <https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2>

- If necessary, use every other check-out lane to allow for physical distance between cashiers.
- Determine an occupancy limit which will allow for all shoppers to maintain physical distance of about six feet from one another. Post signage communicating this limit to shoppers and have a means of controlling appropriate shopper density.
- **Best practice:** Post signs reminding shoppers to maintain six feet of physical distance. Provide these resources in additional languages and in illustrations as needed.
- **Best practice:** Place decals on floors six feet apart to indicate where to stand while in checkout lines.
- **Best practice:** Place arrow decals on the floor to direct foot traffic through the canteen in a unidirectional manner.
- **Best practice:** Remove seating in and near the canteen unless seating area can provide adequate space for individuals to maintain physical distance.
- Do not serve prepared foods at the canteen; all food for sale should be prepackaged.
- Station dispensers of alcohol-based hand sanitizer containing at least 60% alcohol at the canteen entrance for shoppers to use upon entry and exit.
- Place garbage cans near the canteen exit and leave lids open unless they are equipped with foot-actuated lids.
- **Best practice:** Remove decorative objects, flyers, and materials from tables and counters to allow for effective cleaning and sanitation.
- **Best practice:** Perform as much stocking activities as possible during off-peak or after hours to reduce contact with customers.
- **Best practice:** Provide remote shopping alternatives for campers to purchase souvenirs and merchandise before/after their camp session, including click-and-collect, mail delivery, and shop-by-phone to limit the number of customers in the canteen. Set up designated pick-up areas.

Payment

- Move the electronic payment terminal/credit card reader farther away from the cashier to increase the distance between the customer and the cashier, if possible.
- Encourage customers to use touchless payment options, when available. Minimize handling cash, credit cards, and mobile devices, where possible.
- When exchanging paper and coin money:
 - Ask customers to place cash on the counter rather than directly into your hand.
 - Place money directly on the counter when providing change back to customers.
 - Wipe counter with a sanitizing wipe between each camper group at checkout.
- Alternatively, consider allowing campers to pre-pay into an account to which they can charge purchases during their camp session. Employees can use a written or online ledger to track credits/debits to each camper's account.

CANTEEN AND STORE STAFF

Prior to Work (all suggested best practices)

- Shower or bathe before work.
- Wear clean clothes or clean work uniform.

General

- Do not work if you are sick or showing flu-like symptoms.
- Wear disposable gloves and avoid direct barehand contact with cash, cards, and products. Avoid touching your face after handling cash, debit/credit cards, etc.
- Wear a mask when customers are present.
- Maintain a physical distance of at least six feet from other canteen workers whenever possible.
- Wash hands with soap and water for at least 20 seconds before and after work and breaks, after using the bathroom, blowing your nose, coughing, sneezing, or touching frequently touched surfaces.
- Cover your cough or sneeze with a tissue, throw it away, and wash your hands immediately.
- Avoid touching your eyes, nose, and mouth.

Cleaning and Disinfection

- Refer to the [Cleaning and Disinfection](#) section of the Field Guide.

CAMPER AND STAFF CUSTOMERS

- Do not visit the canteen if you are sick or experiencing flu-like symptoms. Inform a counselor immediately and go to the camp health center.
- Use alcohol-based hand sanitizer containing at least 60% alcohol upon entry to the canteen.
- Avoid touching frequently touched surfaces such as handles, doorknobs, tables, and counters as much as possible.
- Avoid touching your eyes, nose, and mouth.
- Do not touch products and put them back on shelves.
- Maintain physical distance of at least six feet between yourself and other shoppers whenever possible.
- When in the checkout line, maintain physical distance of at least six feet between yourself and others.
- Cover your cough or sneeze with a tissue, throw it away, and wash your hands immediately.
- Use touchless payment options, whenever possible. Minimize handling cash, credit cards, and mobile devices, where possible.
- When exchanging paper and coin money, place cash on the counter rather than directly into the cashier's hand. Do not touch your face afterwards.

REFERENCE AND RESOURCES

The Food Industry Association. *COVID-19 Cleaning and Disinfection for Human-Touch Surfaces*. <https://www.fmi.org/docs/default-source/food-safety/covid-19-cleaning-and-disinfection-for-human-touch-surfaces.pdf>

U.S. Centers for Disease Control and Prevention. *Cleaning and Disinfection for Community Facilities*. <https://www.cdc.gov/coronavirus/2019-ncov/community/organizations/cleaning-disinfection.html>

U.S. Centers for Disease Control and Prevention. *Grocery & Food Retail Workers*. <https://www.cdc.gov/coronavirus/2019-ncov/community/organizations/grocery-food-retail-workers.html>

ServSafe. *Food Safety Training and Resources*. <https://www.servsafe.com/Landing-Pages/Free-Courses>

6.0 GUIDANCE ON CLEANING AND DISINFECTION

To minimize transfer of coronavirus at camp, cleaning methods can be employed to reduce risk to campers and camp staff. Cleaning methods should follow the Centers for Disease Control and Prevention (CDC) guidance, such as Interim Guidance for Administrators of U.S. K-12 Schools and Child Care Programs²⁹ and CDC Guidance for Child Care Programs that Remain Open.³⁰ Cleaning products should not be used near children, and staff should ensure that there is adequate ventilation when using cleaning products to prevent children or themselves from inhaling potentially harmful fumes that may be associated with some cleaning products.

Recommended methods for typical cleaning procedures include two-stage cleaning and disinfecting.³¹ “Cleaning” entails washing with a detergent and water to remove soil, organic matter, and some microorganisms from a surface. Following a detergent and water wash, “disinfecting” entails use of a U.S. Environmental Protection Agency (EPA)-approved disinfectant that must be applied in accordance with product manufacturer guidelines. Refer to the EPA List of Disinfectants for Use Against SARS-CoV2: <https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2>. A dilute bleach solution can be substituted for EPA-approved disinfectants. Avoid use of disinfectants on objects that may go in the mouth, such as toys for young children. See “[Cleaning Solution Selection and Preparation](#)” below for more detail on cleaning products.

INCREASED FREQUENCY OF CLEANING³²

Communal Spaces

- Good practice: Cleaning and disinfecting communal spaces at least daily.
- **Best practice:** Cleaning and disinfecting of communal spaces between groups. Disinfection after cleaning may not be feasible if scheduling of group activities does not allow for disinfectant to remain on treated surfaces for sufficient time to fully disinfect.

Shared Items

- Good practice: Cleaning and disinfecting of shared items between uses.

²⁹ <https://www.cdc.gov/coronavirus/2019-ncov/community/schools-childcare/guidance-for-schools.html>

³⁰ <https://www.cdc.gov/coronavirus/2019-ncov/community/reopen-guidance.html>.

³¹ [Cleaning and Disinfection](#) for Community Facilities: Interim Recommendations for U.S. Community Facilities with Suspected/Confirmed Coronavirus Disease 2019 (COVID-19). <https://www.cdc.gov/coronavirus/2019-ncov/community/disinfecting-building-facility.html>

³² Cleaning recommendations should follow at a minimum Appendix K of American Academy of Pediatrics, American Public Health Association, National Resource Center for Health and Safety in Child Care and Early Education. 2019. *Caring for Our Children (CFOC): National Health and Safety Performance Standards; Guidelines for Early Care and Education Programs*, Fourth Edition. Itasca, IL: American Academy of Pediatrics.

- **Best practice:** Assigning items where possible to reduce the quantity of items shared. Also, cleaning and disinfecting of shared items between uses.

Frequently Touched Surfaces

- Good practice: Cleaning and disinfecting frequently touched surfaces and common spaces at least daily.
- **Best practice:** Cleaning and disinfecting frequently touched surfaces and common spaces multiple times daily.

Examples of frequently touched surfaces include tables, drinking fountains, door handles, hand railings, light switches, countertops, cabinet handles, desks, phones, keyboards, toilets, faucets, and sinks. Any other surfaces frequently touched by campers or staff should be cleaned and disinfected at least daily or, preferably, several times per day.

Cleaning of outdoor structures made of plastic or metal can be carried out according to typical camp cleaning practices. More frequent cleaning of high touch outdoor surfaces, such as grab bars or railings, is recommended. Outdoor wooden surfaces, such as play structures or benches, can be cleaned according to standard camp practices and more frequently if needed to remove obvious soiling.

Changing Areas/Locker Rooms

- Good practice: As with other frequently touched surfaces, changing areas or locker rooms are cleaned and disinfected daily.
- Better practice: High touch surfaces within changing areas or locker rooms are cleaned more than once per day.
- **Best practice:** High touch surfaces in changing areas and locker rooms are cleaned between users.

Toilets, Showers, Restrooms

- Good practice: As with other frequently touched surfaces, toilets, showers, and restrooms are cleaned and disinfected daily.
- Better practice: High touch surfaces including toilets, showers, and restrooms are cleaned and disinfected more than once per day.
- **Best practice:** High touch surfaces including toilets, showers, and restrooms are cleaned and disinfected between users.

PERSONAL PROTECTIVE EQUIPMENT (PPE) FOR CLEANING STAFF

Always refer to the Safety Data Sheet (SDS) of the product or products being used to obtain PPE requirements.

- Good practice: Eye protection and gloves must be worn when preparing cleaning solutions, including dilute bleach solutions.
- Better practice: Eye protection, disposable gloves, and gowns/aprons are worn for all tasks in the cleaning process, including handling trash.
- When finished, all cleaning staff must remove gowns/aprons first, being careful not to contaminate the surrounding area. Next gloves are to be removed by grasping from the inside and peeling inside out. Hands must be thoroughly washed for at least 20 seconds using soap and water. If soap and water are not available and hands are not visibly dirty, an alcohol-based hand sanitizer that contains 60%-95% alcohol may be used. However, if hands are visibly dirty, always wash hands with soap and water.

CLEANING METHODS

Cleaning Solution Selection and Preparation

For cleaning, general purpose residential cleaners that are ready to use or diluted with water per product instructions are sufficient and should be used according to manufacturer’s instructions. For disinfection, products that are specific to coronavirus, that have an “emerging viral pathogen” claim, and that require less than one minute of contact time are preferred. Make sure products have not passed their expiration date. If disinfecting products are not available, a dilute bleach solution can be used, comprising four teaspoons of bleach to a quart of water.³³

Many disinfecting products can be skin and respiratory irritants. Green Seal, a non-profit certification organization, recommends selecting products with the following active ingredients:

- Hydrogen peroxide
- Citric acid
- Lactic acid
- Ethyl alcohol (also called ethanol)
- Isopropyl alcohol (70%)
- Hypochlorous acid

NOTE: Many of the products on the EPA list contain either quaternary ammonium or sodium hypochlorite (also known as bleach). Cleaning products containing these two ingredients should not be used together or even in series, meaning one after the other. Disinfectant products should be kept out of reach of children and used according to the guidelines provided by the manufacturer.

³³See Appendix J, Selecting an Appropriate Sanitizer or Disinfectant in AAP, 2019, *Caring for Our Children (CFOC): National Health and Safety Performance Standards; Guidelines for Early Care and Education Programs*, Fourth Edition. Itasca, IL: American Academy of Pediatrics.

Prepare Detergent Spray Solution

1. Any staff member preparing spray bottles with detergent must wear eye protection/goggles and gloves.
2. Using the manufacturer's instructions, fill spray bottle with the appropriate amount of detergent solution and water, if the manufacturer recommends dilution. A funnel (not to be used for consumables) can be used to reduce spills and splashing.
3. Replace the spray cap and label the detergent bottle with the contents using a permanent marker.
4. The detergent manufacturer's instructions must be provided to all staff carrying out cleaning activities, and applicable Safety Data Sheets must be kept on file.

Prepare Disinfectant Spray Solution

1. Any staff member preparing spray bottles with disinfectant must wear eye protection/goggles and gloves and follow manufacturer's instructions.
2. Using the manufacturer's instructions, fill spray bottle with the appropriate amount of disinfectant solution and water, if the manufacturer recommends dilution. A funnel (not to be used for consumables) can be used to reduce spills and splashing.
3. A dilute bleach (sodium hypochlorite) solution can be used by adding 4 teaspoons of bleach per quart of water.
4. Replace the spray cap and label the disinfectant bottle with the contents using a permanent marker.
5. The disinfectant manufacturer's instructions must be provided to all staff carrying out cleaning activities, and applicable Safety Data Sheets must be kept on file.

Typical Cleaning for Non-Porous Surfaces

1. Cleaning staff should wear eye protection and disposable gloves.
2. Using a detergent cleaning solution, spray 6 to 8 inches from the non-porous surface and wipe with clean paper towels (or according to manufacturer's instructions) to remove visible contamination, if present.
3. Make sure the surface is dry before applying disinfectant.
4. Review the instructions provided by the disinfectant manufacturer to note the concentration, application method, and necessary contact time. This will vary by product and type of cleaning activity.
5. Allow the disinfectant to remain on the surface for the instructed time and wipe with paper towels.
6. After a cleaning task is complete, remove the gown followed by the gloves and dispose, as discussed in the [PPE for Cleaning Staff](#) section above. Carefully wash hands for at least 20 seconds with soap and water as described in the PPE section. Hand sanitizer may be used if water is not available and no visible dirt is observed on hands.
7. Reusable aprons or work clothing may be used, if laundered or washed after use.

Typical Cleaning for Porous Surfaces

CDC recommends removing or limiting use of soft and porous materials, such as area rugs and couches, as they are more difficult to clean and disinfect.

At this time few products for use on porous surfaces are EPA approved. Products identified contain the active ingredients quaternary ammonium and hydrogen peroxide, both of which should be used carefully by trained staff. In addition, some products' manufacturer's instructions note that they are not approved for use in California.

1. Eye protection and gloves should be worn during cleaning activities.
2. First remove visible contamination, if present, and clean with appropriate cleaners indicated for use on porous surfaces.
3. Launder items, if applicable, in accordance with the manufacturer's instructions using the warmest appropriate water setting for the items and then dry items completely. See [Laundry](#) section below.
4. Otherwise, use disinfectant products suitable for porous surfaces. NOTE: If some porous surfaces are not suitable for cleaning with disinfectants, then clean them as much as possible and attach a sign to them saying they are not to be used or touched for three days.

WHAT TO DO IF THERE IS A CONFIRMED OR PROBABLE CASE OF COVID-19

If more than 7 days have passed since the person who is sick visited or used the facility, additional cleaning and disinfection is not necessary. Continue routine cleaning and disinfection. If less than 7 days, close off areas that were used by the person who is sick and carry out the following:

- Open outside doors and windows to increase air circulation in the areas, if possible.
- Wait up to 24 hours or as long as practical before you clean or disinfect the space to allow respiratory droplets to settle before cleaning and disinfecting. Outdoor venues and equipment could be cleaned without delay.
- Clean and disinfect all areas used by the person who is sick. Run ventilation system during cleaning.
- Use dedicated cleaning and disinfecting materials to disinfect a potential source area (e.g., an infected camper's cabin or bunk area). The cleaning equipment should not be used to clean other areas until they are thoroughly cleaned and disinfected.
- Enhanced cleaning is recommended if it is determined that a person with COVID-19 was present in a building (e.g., dining hall, gym, bunk, etc.) or at camp activity areas for at least 15 minutes.

For a suspected or confirmed COVID-19 case, the following enhanced cleaning protocol should be followed:

- First clean visibly dirty surfaces then perform disinfection. For specific cleaning instructions see sections above: [Typical Cleaning for Non-Porous Surfaces](#) and [Typical Cleaning for Porous Surfaces](#). NOTE: Products that are specific to coronavirus, have an “emerging viral pathogen” claim, and require less than 1 minute of contact time are preferred. Make sure products have not passed their expiration date.
- Use disposable wipes/paper towels to clean surfaces if possible, rather than reusable cloth wipes, as the latter can re-contaminate surfaces. All cleaning and disinfecting materials (e.g., paper towels, cloth wipers, sponges, mop heads, etc.) should be disposed in sealed bags or containers after use.
- In each area, pay particular attention to high touch areas, including, but not limited to, handrails, door handles, cabinet and drawer handles, shared sports equipment or craft tools.
- Clean and disinfect an area extending 12 feet in all directions around the camper’s sleeping quarters, focusing on all horizontal surfaces and high touch objects. Clean and disinfect areas identified as locations visited by the individual who is sick or that the individual used or occupied, including the entire bathroom and any common or activities areas. These include high touch objects in common areas including handrails, exterior door entry handles, cabinet handles, and restroom door handles, as well as crafting tools or sports equipment.
- Use dedicated cleaning and disinfecting materials to disinfect a potential source area. These materials should not be used to clean other areas until they are thoroughly cleaned and disinfected.
- Clean a potential source area by progressing from the entrance to the most distant point to avoid re-contaminating surfaces that have been disinfected (i.e., clean your way out).
- Clean soft and porous surfaces such as carpeted floor, rugs, and drapes also using the procedure noted above for [porous surfaces](#). NOTE: If some porous surfaces are not suitable for cleaning with disinfectants, then clean them as much as possible and attach a sign to them saying they are not to be used or touched for three days.

Personal Protective Equipment (PPE)

- Cleaning staff should wear eye protection, disposable gloves, masks, and gowns/aprons for all tasks in the enhanced cleaning process, including handling trash.
- Gloves and gowns/aprons should be compatible with the disinfectant products being used.
- Masks should be disposable.
- Additional PPE might be required based on the cleaning/disinfectant products being used and whether there is a risk of splash, for example a face shield.
- Gloves and gowns/aprons should be removed carefully to avoid contamination of the wearer and the surrounding area. Be sure to clean hands after removing gloves.

- Gloves should be removed after cleaning a room or area occupied by ill persons. Clean hands immediately after gloves are removed.
- Cleaning staff should immediately report breaches in PPE (e.g., tear in gloves) or any potential exposures to their supervisor.
- Cleaning staff and others should clean hands often, including immediately after removing gloves and after contact with an ill person, by washing hands with soap and water for 20 seconds. If soap and water are not available and hands are not visibly dirty, an alcohol-based hand sanitizer that contains at least 60% alcohol may be used. However, if hands are visibly dirty, always wash hands with soap and water.

MISCELLANEOUS CLEANING

Dining Hall/Cafeteria

See guidance for [non-porous surfaces](#) above and in the [Food Service](#) section.

Cleaning of Keyboards, Laptops and Electronic Equipment

- Follow manufacturer guidelines for cleaning electronic equipment.
- Use of covers that can be cleaned and disinfected are recommended.
- Alcohol based wipes or sprays containing at least 70% alcohol can be used to disinfect electronics, including touch screens.

Shared Equipment

- Ensure adequate supplies to minimize sharing of high touch materials to the extent possible (art supplies, equipment, etc. assigned to a single camper) or limit use of supplies and equipment by one group of campers at a time and clean and disinfect between use.
- Good: Shared equipment should be cleaned and disinfected at least daily.
- Better: Shared equipment should be cleaned and disinfected multiple times per day.
- Best: Shared equipment should be cleaned and disinfected between uses.

Playground Equipment

- Good: Playground equipment should be cleaned and disinfected at least daily.
- Better: Playground equipment should be cleaned and disinfected multiple times per day.
- Best: Playground equipment should be cleaned and disinfected between uses.

LAUNDRY

- As with other cleaning activities, gloves and gowns/aprons are recommended when doing laundry. Masks are also recommended.
- Staff should avoid shaking laundry items to minimize potential spreading of virus-laden particles into the air.

- Use of a disinfectant appropriate for porous material is recommended. Follow manufacturer's instructions. Example: Lysol Laundry Sanitizer (see manufacturer's instructions for inactivating viruses, including a 15-minute presoak).
- Wash items as appropriate in accordance with the manufacturer's instructions, opting for the warmest appropriate water setting for the items and dry items completely.
- Clean and disinfect hampers or other carts for transporting laundry according to guidance above for hard or soft surfaces.
- Masks used by staff and/or campers should be laundered regularly. Used masks should be collected in a sealable container (like a trash bag) until laundered.

In general, staff should avoid handling campers' belongings. If handling of campers' belongings is needed, gloves should be worn; disposable gloves are recommended, if available. If gloves are unavailable, staff should perform hand hygiene immediately before and after handling campers' belongings.

TESTING

- Good practice (minimum): Use of EPA approved cleaning and disinfecting products; CDC recommended cleaning protocols; and maintenance of cleaning and supply records to ensure proper cleaning activities have been carried out.
- Better practice: Use of portable ATP surface swab test method to audit cleaning.
- Better practice: Use of environmental surface swab test for laboratory analysis of presence of coronavirus.

Surface swab sampling should only be used with a sampling plan designed to ensure that data collected are sufficient to draw the conclusions needed on the effectiveness of the cleaning.

REFERENCES AND RESOURCES

American Academy of Pediatrics, American Public Health Association, National Resource Center for Health and Safety in Child Care and Early Education. 2019. *Caring for Our Children: National Health and Safety Performance Standards; Guidelines for Early Care and Education Programs*, Fourth Edition. Itasca, IL: American Academy of Pediatrics.

<http://nrckids.org/files/CFO4 pdf- FINAL.pdf>.

UCSF Institute for Health & Aging, UC Berkeley Center for Environmental Research and Children's Health, Informed Green Solutions, and California Department of Pesticide Regulation. 2013. *Green Cleaning, Sanitizing, and Disinfecting: A Toolkit for Early Care and Education*, San Francisco, CA: University of California, San Francisco School of Nursing.

https://cerch.berkeley.edu/sites/default/files/green_cleaning_toolkit.pdf

7.0 GUIDANCE ON ACTIVITIES

The following provides guidance and procedures to reduce COVID-19 exposure risk to campers and staff while participating in typical camp activities. The activities covered here are not an exhaustive list. To reduce COVID-19 risk to campers and staff during camp activities not covered here, it may be possible to apply minimal changes to existing guidance. Camp activities, whether indoor or outdoor, should be limited to those in which physical distancing of groups and activity cohorts and proper hygiene can be practiced. Refer to the table at the end of this document for a [summary of recommended practices by activity](#).

ADMINISTRATIVE

General Guidance

- Campers and staff should [wear masks](#) during all indoor activities especially when maintaining physical distancing is not feasible due to area limitations.
- Holding activities outdoors as much as possible is recommended.
- When selecting sports and physical activities, camper groups and activity cohorts should be determined as described in the [Using Cohorts at Camp](#) section. Cohort groups should maintain physical distancing at activities.
 - **Best practice:** For all activities, groups should remain small and maintain safe ratios outlined in the [Safety](#) section of this guide.
- Ensure campers and staff practice proper hand hygiene:
 - Instruct campers to wash hands with soap and water for 20 seconds before and after activities, or
 - Provide alcohol-based hand sanitizer containing at least 60% alcohol before and after activities.
- All shared items and equipment (e.g., bows and arrows, tennis rackets, oars, art supplies) should be properly cleaned and disinfected between use. Refer to the [Cleaning and Disinfection](#) section of this guide for instructions on cleaning and disinfecting porous and non-porous objects.
 - Good practice: If feasible, shared equipment should be limited to items that can be effectively cleaned (e.g., sports equipment with hard, non-porous handles are preferred to those with soft, porous handles).
 - Better practice: Limit the amount of shared supplies and equipment for activity by providing each participant their own (e.g., life jackets, art supplies) for the duration of camp, if feasible.
- Consider scheduling and planning activities to allow for maintenance of staff and camper groupings whenever possible. Refer to guidance in the [Using Cohorts at Camp](#) section of the *Field Guide*.

- Campers should use disposable cups for water fountains, jugs, and bubblers; staff should disinfect the spigot between group use. Encourage the use of individual refillable water bottles.

Posters/Signage

- Display relevant posters and signage from the Centers for Disease Control and Prevention (CDC), World Health Organization (WHO), and/or other health-based organizations in appropriate activity areas to encourage behaviors that mitigate the spread of disease:
 - [COVID-19 information](#)
 - [Handwashing](#)
 - [Cough etiquette](#)
 - [Symptoms associated with COVID-19](#)
 - [Stop the spread of germs](#)
 - [Physical distancing](#)

SAFETY

General Safety

- Maintain adequate staff to ensure camper safety. Efforts to maintain physical distancing should not impact existing camp safety protocols (e.g., first aid, cardiopulmonary resuscitation [CPR], one-on-one interaction between staff and campers, swimming “buddy systems,” etc.).
- Prepare for absence of crucial staff by developing a roster of qualified individuals who can fill in if staff members are sick or have to return home for personal reasons.
- If emergency care is needed and physical distancing cannot be maintained, then follow normal camp procedures and consider guidance for first responders and victims from CDC, National Safety Council, and American Red Cross.^{34,35}

First Aid and CPR

- If first aid and/or CPR is required during an activity, it is best to follow normal camp protocol that considers current guidance from the following sources as well as state and local authorities including the fire and/or emergency services departments.
 - CDC, [Recommendations for EMS Clinicians and Medical First Responders](#)
 - American Red Cross, [Coronavirus \(COVID-19\): Prevention & Safety Information for Students](#)
 - American Heart Association, [Coronavirus \(COVID-19\) Resources for CPR Training & Resuscitation](#) and [Interim Guidance for Healthcare Providers during COVID-19 Outbreak](#).

³⁴ National Safety Council. <https://www.nsc.org/work-safety/safety-topics/coronavirus/interim-cpr-guidelines>

³⁵ American Heart Association. <https://cpr.heart.org/en/resources/coronavirus-covid19-resources-for-cpr-training>

- All staff should be trained on the camp operations and safety plan. Proper signage should be placed by all automated external defibrillators (AEDs), first aid kits, and lifeguarding stations.

OUTDOOR ACTIVITIES

Refer to the [General Guidance](#) within the [Administrative](#) section above when selecting and planning activities.

Sports and Range Activities

- Limit shared high-touch equipment and designate equipment to campers or groups, if feasible, for the duration of camp.
- All outdoor equipment and facilities should be routinely cleaned in accordance to guidelines outlined in the [Cleaning and Disinfection](#) section of this guide.
 - Good practice: All shared equipment (e.g., bows and arrows, tennis rackets) should be cleaned immediately after each use or session. Cleaning and disinfection at the end of each day should also be conducted on all sports and range equipment.
 - Better practice: Provide campers with dedicated equipment for the camp session, if feasible. All equipment (e.g., bows and arrows, tennis rackets) should be cleaned and disinfected immediately after each use. Cleaning and disinfection at the end of each day should also be conducted on all sports and range equipment.
- Safety protocols should follow standard operating procedures with the adjustments outlined in the [Safety](#) section of this guide.

Aquatics and Small Crafts

The novel coronavirus SARS-CoV2 is not waterborne. There is no current evidence that COVID-19 can be spread to people through the water in a pool or water play areas. Proper operation and maintenance (including disinfection with chlorine or bromine) of these facilities will likely inactivate the virus in the water.

Pool Operation

- Proper operation, maintenance, and disinfection of swimming pools will likely inactivate the virus that causes COVID-19. Keep swimming facilities properly cleaned and disinfected, following the procedures outlined in the [Facilities Management](#) section of this guide as well as the following:
 - Maintain proper disinfectant levels (1–10 parts per million free chlorine or 3–8 ppm bromine) and pH (7.2–8) or applicable standards based on local and state health guidelines.
 - Refer to CDC’s [Model Aquatic Health Code](#) for more recommendations to prevent illness and injuries at public pools. CDC has also released guidance for [Considerations for Public Pools, Hot Tubs, and Water Playgrounds During COVID-19](#).
 - Follow local regulations pertaining to operation and maintenance of pools.

Swimming

- Campers should follow physical distancing per groups/cohorts and perform proper hand hygiene prior to entry and when leaving pools or other outdoor aquatic facilities (e.g., lakes, ponds).
- During swimming activities, the following practices are recommended:
 - **Best practice:** For free swim, continue safe swim practices, such as the swimming buddy system where each camper is assigned a “buddy” to stay with at all times. Try to ensure that assigned buddies are in the same cohort. Swimmers must participate in swim drills to maintain safety.
 - **Best practice:** For laps, maintain 8-foot lane width in swimming pools and maintain spacing between individuals swimming by creating a rotation.
 - **Best practice:** For counselors, maintain the same instructors with each group of campers each day. Refer to the guidelines in the [Using Cohorts at Camp](#) section of this guide.
- Safety protocols should follow standard operating procedures with the adjustments outlined in the [Safety](#) section of this guide.

Small Craft Activities

- Campers and instructors should follow physical distancing and proper hand hygiene practices prior to/following any small craft activity (e.g., individual kayaks, paddle boards, etc.).
- Consider keeping activities together to include the same group of campers each day and consider keeping the same instructors per group. Follow the recommendations in the [Using Cohorts at Camp](#) section of this guide.
- All shared and used equipment (e.g., oars, lifejackets, boats) should be cleaned and disinfected between each use. Make sure to follow manufacturer guidelines and/or industry recommendations for the cleaning products and equipment.³⁶
 - Good practice: Limit the amount of shared supplies and equipment per activity. Hand wash life jackets in hot soapy water. Allow to air dry and spray lifejackets with alcohol-based disinfectant spray.
 - Better practice: Hand wash life jackets in hot soapy water. Use a dryer to ensure complete drying with a temperature setpoint not to exceed 140 °F. Spray lifejackets with alcohol-based disinfectant spray before use.
 - **Best practice:** Designate certain equipment (e.g., lifejackets) to individuals for the duration of camp, to decrease the quantity of shared items.
 - **Best practice:** Commonly-touched surfaces of boats should be cleaned and disinfected after each use, following the guidance in the [Cleaning and Disinfection](#) section of this guide. Do not use bleach products on ropes or lifejackets.
- Safety protocols should follow standard operating procedures with the adjustments outlined in the [Safety](#) section of this guide.

³⁶ Life Jacket Association. [COVID-19 Virus: Cleaning & Storing your Life Jackets](#)

Equestrian Activities

- Campers and staff participating in equestrian activities should follow physical distancing and good hand hygiene practices (e.g., washing hands pre/post activity).
- Consider keeping activities together to include the same group of campers each day and consider keeping the same instructors per group.
- Tack (saddles, reins, etc.) are made from hide/leather and can be properly cleaned between riders using mild soap and water. Helmets can be cleaned and disinfected using the appropriate cleaning products for nonporous and porous surfaces. All other shared and used equipment should be cleaned and disinfected between each use; refer to the [Cleaning and Disinfection](#) section of this guide.
 - Good practice: All shared equipment (e.g., tack, helmets) should be cleaned immediately after each use or session. Cleaning and disinfection at the end of each day should also be conducted on all tack and helmets.
 - Better practice: Each rider has their own riding gloves and helmet.
 - **Best practice:** Groups should remain small and maintain safe ratios outlined in the [Safety](#) section of this guide.

Wilderness Activities

- Wilderness activities with anticipated contact with persons outside camp should be postponed or canceled. Group travel by camper groups should be undertaken only to access recreational areas off-camp for day trips (e.g., canoe trips, mountain biking, etc.)
 - Good practice: Consider activities that are accessible by foot, biking, or other alternatives to vehicle travel. Ensure masks are available during travel by car, van, or bus.
- Campers and instructors should practice physical distancing or wear masks, if feasible and safe, during wilderness activities.
- Ensure campers and staff practice hand hygiene prior to/following any wilderness activities. If clean, running water is not available, ensure hand sanitizer is available for use.
- Consider keeping groups small and include the same campers and instructors each day.
- All shared and used equipment (e.g., maps, binoculars, hiking poles, etc.) should be cleaned and disinfected in accordance with proper cleaning procedures; refer to manufacturer guidelines and the [Cleaning and Disinfection](#) section of this guide.
 - Good practice: Limit the quantity of shared supplies and equipment per activity.
- Consider designating certain equipment to individuals for the duration of camp, to decrease number of shared items.
- Overnight stays and camping in tents must be able to maintain proper physical distancing practices, where practical; please refer to the [Residential](#) section of this guide for further guidance.
- Safety protocols should follow standard operating procedures with the adjustments outlined in the [Safety](#) section of this guide.

INDOOR ACTIVITIES

Refer to the [General Guidance](#) within the [Administrative](#) section above when selecting and planning activities.

General Guidance for Indoor Activities

- Good practice: Ensure enough space to accommodate staff and campers while practicing safe physical distancing.
- Good practice: Staff members and campers should [wear masks](#) during all activities indoors especially when physical distancing is not maintained.
- Good practice: Ensure that there is proper ventilation within the space by maximizing fresh air intake or natural ventilation via screened windows and doors.

Performing Arts

- Campers and instructors should follow recommended physical distancing and good hand hygiene practices prior to/following performing arts activities.
- Better practice: Consider planning performing arts activities to include the same group of campers each day and consider keeping the same instructors per group.
 - Follow the guidelines in the [Using Cohorts at Camp](#) section of this guide.
- **Best practice:** Require performing arts activities to be limited to the same groups and instructors for a given group.
- All shared and used equipment (e.g., props) should be cleaned and disinfected between each use and the performing arts area should be cleaned and disinfected after use; refer to [Cleaning and Disinfection](#) section of this guide.
 - Good Practice: Limit the amount of shared supplies and equipment per activity.
 - **Best practice:** Consider designating certain equipment to individuals for the duration of camp to decrease the amount of shared items.
- Safety protocols should follow standard operating procedures with the adjustments outlined in the [Safety](#) section of this guide.

Creative Arts and STEM

- All indoor creative arts and STEM activities should be conducted following physical distancing guidelines for camper groups and proper hygiene guidance. Consider moving activities outdoors.
 - Good practice: Seating should incorporate increased spacing and physical distancing should be encouraged.
 - **Best practice:** Limit the number of individuals to the craft/STEM area, incorporate increased spacing and physical distancing, and require staff to wear masks.
- Consider keeping activities together to include the same group of campers each day and consider keeping the same instructors per group.

- All shared and used equipment (e.g., tools, scissors, paint brushes) should be cleaned and disinfected between each use, refer to [Cleaning and Disinfection](#) section of this guide.
 - Good practice: Limit the amount of shared supplies and equipment per activity. Ensure there are enough supplies to minimize sharing during each activity.
 - **Best practice:** Designate certain equipment to individuals for the duration of camp, to decrease the number of shared items.
- Safety protocols should follow standard operating procedures with the adjustments outlined in the [Safety](#) section of this guide.

TRAVEL OFF-SITE – STAFF DAYS OFF; FIELD TRIPS

A goal of pandemic response is to reduce interpersonal contacts to limit potential exposure to coronavirus. In the camp setting, this means limiting the amount of off-site exposure of staff and campers in the community (e.g., staff days off, etc.). Staff and campers should be encouraged to remain on the premises for the duration of the camp session. When staff or campers leave the camp, screening and temperature checks should be conducted prior to entry as outlined in the [Screening](#) section of this guide.

It is recommended that all organized field trips, such as intercamp competition, group travel, and trips to major cities, be canceled. For any travel confirmed as essential, refer to the [Transportation](#) section of this guide for further details. It is also recommended that camps be in contact with local and state health officials on policies and directives related to travel.

REFERENCES AND RESOURCES

American Industrial Hygiene Association. *Reopening: Guidance for General Office Settings*. https://aiha-assets.sfo2.digitaloceanspaces.com/AIHA/resources/Guidance-Documents/Reopening-Guidance-for-General-Office-Settings_GuidanceDocument.pdf

National Safety Council. *First Aid Technical Bulletins*. <https://www.nsc.org/work-safety/safety-topics/coronavirus/interim-cpr-guidelines>

American Heart Association. *Interim Guidance for Life Support for COVID-19*. <https://www.ahajournals.org/doi/pdf/10.1161/CIRCULATIONAHA.120.047463>

National Collegiate Athletic Association. *COVID-19 Advisory Panel Exercise Recommendations*. <http://www.ncaa.org/sport-science-institute/covid-19-advisory-panel-exercise-recommendations>

American Red Cross. *Coronavirus (COVID-19): Prevention & Safety Information for Students*. <https://www.redcross.org/take-a-class/in-the-news/coronavirus-prevention-information-for-students>

“GOOD, BETTER, AND BEST” PRACTICES FOR ACTIVITY TYPES

Activity Type	“Good, Better, and Best” Practices
Sports & Range Activities	<ul style="list-style-type: none"> ● Good practice: All shared equipment (e.g., bows and arrows, tennis rackets) should be cleaned immediately after each use or session. Cleaning and disinfection at the end of each day should also be conducted on all sports and range equipment. ● Better practice: Provide campers with dedicated equipment for the camp session, if feasible. All equipment (e.g., bows and arrows, tennis rackets) should be cleaned and disinfected immediately after each use. Cleaning and disinfection at the end of each day should also be conducted on all sports and range equipment.
Swimming	<ul style="list-style-type: none"> ● Best practice: For free swim, continue safe swim practices, such as the swimming buddy system where each camper is assigned a “buddy” to stay with at all times.
	<ul style="list-style-type: none"> ● Best practice: For athletics, maintain 8-foot lane width in swimming pools and maintain spacing between individuals swimming by creating a rotation.
	<ul style="list-style-type: none"> ● Best practice: For counselors, maintain the same instructors with each group of campers each day. Refer to the guidelines in the Using Cohorts at Camp section of this guide.
Small Craft Activities	<ul style="list-style-type: none"> ● Good practice: Limit the amount of shared supplies and equipment per activity. Hand wash life jackets in hot soapy water. Allow to air dry and spray lifejackets with alcohol-based disinfectant spray. ● Better practice: Hand wash life jackets in hot soapy water. Use a dryer to ensure complete drying with a temperature setpoint not to exceed 140 °F. Spray lifejackets with alcohol-based disinfectant spray before use. ● Best practice: Designate certain equipment (e.g., lifejackets) to individuals for the duration of camp, to decrease the quantity of shared items.
	<ul style="list-style-type: none"> ● Best practice: Commonly-touched surfaces of boats should be cleaned and disinfected after each use, following manufacturer instructions and the guidance in the Cleaning and Disinfection section of this guide. Do not use bleach products on ropes or lifejackets.
Equestrian Activities	<ul style="list-style-type: none"> ● Good practice: All shared equipment (e.g., tack, helmets) should be cleaned immediately after each use or session. Cleaning and disinfection at the end of each day should also be conducted on all tack and helmets. ● Better practice: Each rider has their own riding gloves and helmet. ● Best practice: Groups should remain small and maintain safe ratios outlined in the Safety section of this guide.
Wilderness Activities	<ul style="list-style-type: none"> ● Good practice: Consider activities that are accessible by foot, biking, or other alternatives to vehicle travel. Ensure masks are available for all during travel by car, van, or bus.
	<ul style="list-style-type: none"> ● Good practice: Limit the quantity of shared supplies and equipment per activity.
Performing Arts	<ul style="list-style-type: none"> ● Better practice: Consider planning performing arts activities to include the same group of campers each day and consider keeping the same instructors per group. Follow the guidelines in the Using Cohorts at Camp section of this guide. ● Best practice: Require performing arts activities to be limited to the same groups and instructors for a given group.
	<ul style="list-style-type: none"> ● Good Practice: Limit the amount of shared supplies and equipment per activity. ● Best practice: Consider designating certain equipment to individuals for the duration of camp to decrease the amount of shared items.
Creative Arts & STEM	<ul style="list-style-type: none"> ● Good practice: Seating should incorporate increased spacing and physical distancing should be encouraged. ● Best practice: Limit the number of individuals to the craft/STEM area, incorporate increased spacing and physical distancing, and require staff to wear masks.
	<ul style="list-style-type: none"> ● Good Practice: Limit the amount of shared supplies and equipment per activity. ● Ensure there are enough supplies to minimize sharing during each activity. ● Best practice: Designate certain equipment to individuals for the duration of camp, to decrease the number of shared items.

8.1 GUIDANCE ON USING COHORTS AT CAMP TO REDUCE DISEASE TRANSMISSION RISK

The following outlines how to use grouping of staff and campers to reduce spread of infections and to allow for more rapid identification of suspected or confirmed cases of COVID-19. Consistent with experience from 2009-2010 H1N1 and in concert with guidance provided by Centers for Disease Control and Prevention (CDC) in 2010,³⁷ on April 16, 2020,³⁸ and on May 14, 2020,³⁹ and the American Academy of Pediatrics (AAP),⁴⁰ policies to maintain small group sizes, limit mixing of groups, and restrict large gatherings at camps are recommended. Limiting mixing of groups can be combined with a public health approach of establishing and maintaining “concentric group circles” for infection prevention and control. Infection spread can be slowed and more easily contained in smaller groups; when larger groups are required, it is beneficial if they consistently are comprised of the same constituent smaller groups, thereby limiting the number of potential contacts for each camper. In the event of an outbreak, being able to promptly define the “inner circle” of close contacts is paramount for enhanced health surveillance and isolation. By using the small groups and cohort strategy, isolation and surveillance of close contacts can be implemented in short order.

In the camp setting, camp directors could consider identifying the smallest practicable group of campers and treat this group as a “household.” This “household” could be an age group, a pre-assigned program group in day or overnight settings, or a sleeping group/bunk in overnight settings and should, to the extent possible, remain consistent over the camp program. “Households” may join together with other “households” for larger group activities; however, camp directors should realize that larger gatherings, especially inside buildings, increase the potential of communicable disease spread. Mitigation for these and any gathering could include splitting into smaller groups (by “household”), outdoor programming, dining and programmatic changes to minimize mixing, maintain physical distancing between “households”, and provide facial coverings (when age and developmentally appropriate) when distancing cannot be accomplished. Holding activities outdoors as much as possible is recommended.

There is insufficient evidence to suggest a maximum group size that best balances the need to minimize risk of disease transmission with camp operational capacity. Additionally, the maximum group size will be different depending on type of camp (day versus overnight),

³⁷ U.S. Centers for Disease Control and Prevention. *H1N1*. <https://www.cdc.gov/h1n1flu/camp.htm>

³⁸ White House/U.S. Centers for Disease Control and Prevention. *Guidelines for Opening Up America Again*. <https://www.whitehouse.gov/openingamerica/>

³⁹ U.S. Center for Disease Control and Prevention. *Youth Programs and Camps During the COVID-19 Pandemic*. <https://www.cdc.gov/coronavirus/2019-ncov/community/schools-childcare/Camps-Decision-Tree.pdf>

⁴⁰ American Academy of Pediatrics, *COVID-19 Planning Considerations: Return to In-person Education in Schools*, <https://services.aap.org/en/pages/2019-novel-coronavirus-covid-19-infections/covid-19-planning-considerations-return-to-in-person-education-in-schools/>

duration of camp session, the ability of the camp to test staff and campers for COVID-19 prior to arrival, and the camp's ability to isolate camp and staffers from the wider community. It is recommended that camps follow applicable state and local guidelines on mass gatherings and consult with their state and local departments of public health when questions arise. As mentioned above, creating consistent larger gatherings made up of consistent "households" is the best possible method to limit spread of disease and should be considered regardless of the actual group size number.

Overnight camps could additionally consider functioning as a contained circle or "bubble" within the larger local community and essentially "shelter in place" for the duration of the camp program. This approach would assist in containing communicable disease within camp boundaries. Overnight camps are encouraged to consider the concentric circles philosophy of "households", and larger groups made up of "households" to prevent and slow disease spread and allow for target surveillance and isolation should cases occur.

A goal of pandemic response is to reduce interpersonal contacts to limit potential exposure to Coronavirus, which can be accomplished using the following recommended approaches for managing camp groups and group interactions.

Good Practice:

- Organize camp into the smallest practical group sizes and to the extent possible keep groups consistent throughout the camp program.
- To the extent possible, maintain consistent counselor assignments for groups aka as "households" and activities.
- To the extent possible, minimize mixing between groups.
- If groups must mix, consider other mitigation methods such as outdoor activities, increased ventilation in buildings, physical distancing between groups, or the use of facial coverings if age and developmentally appropriate. Note that group size must still comply with state and/or local requirements. Proper staff to camper ratios and minimum staffing requirements must be maintained.
- Limit parents, guardians, and other non-essential visitors into camp as much as possible. This should also include limiting any nonessential volunteers and activities involving external groups or organizations as much as possible – especially with individuals not from the local geographic area (e.g., community, town, city, or county).

Better Practice:

- Organize camp into the smallest practical group sizes and to the extent possible keep groups consistent throughout the camp program.
- Organize campers and counselors into groups aka "households" that live and eat together.

- If “households” mix for programs or activities, consider other mitigation measures such as physical distancing or use of masks if appropriate and practical for the activity.
- To the extent possible, have larger gatherings be constructed of the same groups of smaller “households.” Note that group sizes must still comply with state and/or local requirements for proper staff to camper ratios and minimum staffing requirements.
- Consider assemblies such as in the dining hall and gyms in consistent larger assemblies of “households” with appropriate physical distancing.
- Consider grouping support staff by A and B shift groups to minimize interactions among kitchen and cleaning staff whenever possible. Any switching of staff should be carried out after cleaning.
- Restrict parents, guardians, and other non-essential visitors into camp as much as possible.
- For overnight camps, consider limiting or delineating acceptable off-camp activities for counselors and staff days off. Make all staff of day and overnight camps aware of the best practices they can independently follow to mitigate spread⁴¹ during time they spend off camp property.

Best Practice:

- Organize camp into the smallest practical group sizes and to the extent possible keep groups consistent throughout the camp program.
- Organize campers and counselors into “households” that live, eat, wash, and do most group activities together or within subgroups.
- If “households” mix for programs or activities, consider other mitigation measures such as physical distancing or masks if appropriate and practical for the activity.
- Consistently construct larger gatherings of the same smaller groups or “households.” Note that group sizes must still comply with state and/or local requirements for proper staff to camper ratios and minimum staffing requirements.
- Larger gatherings, especially inside buildings, increase the potential of communicable disease spread. Mitigation for these and any mass gathering could include splitting large assemblies into smaller groups (by “household”), outdoor programming, dining and programmatic changes to minimize mixing, physical distancing between “households” and facial coverings (as age and developmentally appropriate) when distancing cannot be accomplished.
- Staggered dining times is recommended depending on the size of the dining facility and its ability to allow physical distancing between “households.” Consider dining outside in “households” if possible and weather permits.

⁴¹ U.S. Centers for Disease Control and Prevention. *How to Protect Yourself & Others*. <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/prevention.html>

- Mixing between “households” should be particularly discouraged in the initial days of camp programs. Depending on the length of a given camp and/or the availability of testing, increasing interactions between “households” can be considered, particularly for overnight camps of more than two weeks.
- Consider arranging support staff by A and B shifts to minimize interactions among kitchen and cleaning staff whenever possible. Any switching of staff should be carried out after cleaning.
- Restrict parents, guardians and non-essential visitors from entering camp.
- For overnight camps, consider that counselors and staff do not leave camp on days or nights off. Make all staff of day and overnight camps aware of the best practices they can independently follow to mitigate spread⁴² during time they spend off camp property.

⁴² U.S. Centers for Disease Control and Prevention. *How to Protect Yourself & Others*.
<https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/prevention.html>

8.2 GUIDANCE ON CAMPERS AND STAFF WITH PREEXISTING MEDICAL CONDITIONS

According to the White House and Centers for Disease Control and Prevention (CDC) guidelines,^{43,44} COVID-19 is a new disease and there is limited information regarding risk factors for severe disease. Anyone can experience mild to severe symptoms. In the CDC [camp decision making tool](#), an important criterion in deciding whether to open camp is stated as follows: “Are you ready to protect children and employees at [higher risk](#) for severe illness?” Camp directors and administrators are advised to implement pre-screening of campers and staff for medical clearance to attend camp by their primary care providers *before* presenting to camp. Primary care providers are best positioned to make a professional judgement based upon an individual’s health status and their suitability for the camp environment at this time. This information provides camp directors with information on what precautions are required or may be appropriate to protect those at higher risk for severe illness.

PEOPLE AT HIGH RISK OF SEVERE ILLNESS FROM COVID-19

Currently, information indicates that older adults and people of any age who have serious underlying medical conditions might be at higher risk for severe illness from COVID-19. Those at high risk for severe illness from COVID-19 are people aged 65 years and older and people who live in a nursing home or long-term care facility.

Those at high risk include people of all ages with [underlying medical conditions, particularly if not well controlled](#), including:

- People with chronic lung disease or moderate to severe asthma
- People who have serious heart conditions
- People who are immunocompromised
 - Many conditions can cause a person to be immunocompromised, including cancer treatment, smoking, bone marrow or organ transplantation, immune deficiencies, poorly controlled HIV or AIDS, and prolonged use of corticosteroids and other immune weakening medications
- People with severe obesity (body mass index [BMI] of 40 or higher)
- People with diabetes
- People with chronic kidney disease undergoing dialysis
- People with liver disease

⁴³ White House/CDC. *Guidelines for Opening Up America Again*. <https://www.whitehouse.gov/openingamerica/>

⁴⁴ CDC. *People Who Are at Higher Risk for Severe Illness*. <https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/people-at-higher-risk.html>

RECENT INFORMATION ON MULTISYSTEM INFLAMMATORY SYNDROME FOR PEDIATRIC PATIENTS

Medical professionals including the CDC are closely monitoring a pediatric condition now termed as *Pediatric Multi-system Inflammatory Syndrome (MIS-C)*, a rare disease affecting children that is potentially related to COVID-19.

On Thursday, May 14, 2020, CDC released an advisory entitled, [Multisystem Inflammatory Syndrome in Children \(MIS-C\) Associated with Coronavirus Disease 2019 \(COVID-19\)](#) to the medical community.

As is the nature of any new disease, public health and medical communities are closely tracking and monitoring for MIS-C and its outcomes. We will monitor announcements from these communities alongside governmental agencies and the medical literature to track current advice on this development. The *Field Guide* will be updated as this information becomes available.

9.1 GUIDANCE ON TRANSPORTATION TO OR FROM CAMP

This section is relevant to both day camps as well as overnight camps whether campers will be dropped off directly at camp or at central meeting locations and transported collectively to camp.

ADMINISTRATION

Drop Off

- Create a drop off schedule in which groups of campers are to be dropped off at camp during staggered timeframes.
- The specific length and number of timeframes and numbers of drop offs per timeframe will vary based on the number of campers and configuration of the drop off area, etc.; aim to reduce density and physical interaction of individuals at any given time in the drop off area.
- Send communications to parents/guardians that assign each camper their drop off time window. Explain the purpose of the window and encourage them to:
 - Minimize the time they take saying goodbye to allow for the continual flow of traffic
 - Say goodbye close to or inside their vehicles
 - Maintain physical distance with other parents/guardians and campers
 - Wear a mask when exiting the vehicle
- For day camps: Communicate to parents/guardians the benefits of designating one parent/guardian to drop off campers every day. Individuals who are at [higher-risk for severe illness](#) per CDC guidance should not drop off or pickup campers.
- Best practice: Prepare relevant posters and signage from the Centers for Disease Control and Prevention ([CDC](#)), World Health Organization ([WHO](#)), and/or other health agencies and post them at the drop off location. Refer to the [Communication](#) section of this guide. Examples include:
 - [COVID-19 information](#)
 - [Handwashing](#)
 - [Cough etiquette](#)
 - [Symptoms associated with COVID-19](#)
 - [Stop the spread of germs](#)
 - [Physical distancing](#)

Camper and Staff Intake

- Allow for campers and staff to wash hands with soap and water for 20 seconds or use alcohol-based hand sanitizer containing at least 60% alcohol upon entry to the drop off area.
- If campers are being dropped off at central meeting locations and transported to camp, perform initial health screening of campers at the drop off location, before they board buses or vans, if possible. Otherwise, perform the initial health screening upon arrival to camp. See the [Screening](#) section.

- If campers are being dropped off directly at camp, perform initial health screening of campers upon arrival. See the [Screening](#) section.
- **Best practice:** Greet campers and perform initial health screenings outside as they arrive.
- Upon arrival to camp, distribute disinfecting wipes to campers and direct them to disinfect their baggage or provide trained staff to do so, giving special attention to the handles and other non-porous portions. See the [Cleaning and Disinfection](#) section of this guide for disinfectant specifications.

Camper and Staff Pick Up

- Create a pickup schedule in which groups of campers and staff are to be picked up from camp during staggered timeframes.
- The specific length and number of timeframes and numbers of pickups per timeframe will vary based on the number of campers and configuration of the pickup area, etc.; aim to reduce density and physical interaction of individuals at any given time in the drop off area.
- Send communications to parents/guardians that assign each camper their pick up time window. Explain the purpose of the window and encourage them to:
 - Minimize the time they take to pick up campers to allow for the continual flow of traffic.
 - Stay close to or inside their vehicles, if possible.
 - Maintain physical distance with other parents/guardians and campers.
 - Wear a mask when exiting the vehicle.
- **Best practice:** Create a system in which campers are escorted to their parent's/guardian's vehicle.
- For day camps: Communicate to parents/guardians the benefits of designating one parent/guardian to pick up campers every day. Individuals who are at [higher-risk for severe illness](#) per CDC guidance should not drop off or pickup campers.

Buses and Vans

If campers are being dropped off at central meeting locations and transported collectively to camp, follow these guidelines.

- Use buses and vans that have cargo storage separate from the passenger cabins, if possible.
- Identify a camp staff member to receive luggage from passengers, place it in the storage area, then later unload all luggage. The staff member should wear a mask and gloves during this process.
- See [Travel by Bus or Van](#) section.

CAMPERS AND STAFF

- Be ready early to ensure you meet your scheduled drop off time.
- When being dropped off, don't take too long to say goodbye. Other campers will be waiting to be dropped off.

- Say goodbye close to or inside the vehicle.
- Maintain physical distance with other parents/guardians and campers.
- Upon arrival to camp, disinfect your baggage using wipes or wait until a staff member does so, giving special attention to the handles and other non-porous portions.

PARENTS/GUARDIANS

- Abide by the drop off and pick up schedule by dropping off and picking up campers during their assigned drop off timeframe. If a scheduling conflict makes this difficult, reach out to camp administration to find a more convenient time.
- Minimize the amount of time used for saying goodbye to campers to allow for the continual flow of traffic.
- Say goodbye close to or inside your vehicle.
- Maintain physical distance with other parents/guardians and campers.
- Wear a mask when exiting the vehicle.
- Designate one parent/guardian to pick up and drop off campers every day. Individuals who are at [higher-risk for severe illness](#) per CDC guidance should not drop off or pickup campers.
- Allow for campers to wash hands with soap and water for 20 seconds or use alcohol-based hand sanitizer containing at least 60% alcohol upon return home.
- Generally, teach and practice good respiratory hygiene/cough etiquette within the household.

VEHICLE OPERATORS

See guidance in the [Travel by Bus or Van](#) section.

REFERENCES AND RESOURCES

U.S. Centers for Disease Control and Prevention. *Guidance for Childcare.*

<https://www.cdc.gov/coronavirus/2019-ncov/community/schools-childcare/guidance-for-childcare.html#pickup>

9.2 GUIDANCE ON TRAVEL BY BUS OR VAN

The following provides suggested general guidance and procedures while travelling by bus, van, or other communal vehicles. Recommendations are made for camp administration, vehicle driver/operators, passengers (e.g., campers and camp staff), and custodial staff.

Note: Vehicular means of transportation are recommended only when necessary. If the destination can reasonably be reached by other means (walking, jogging, bicycling, hiking, etc.), it may be beneficial to plan travel to the destination using those alternatives.

ADMINISTRATION

- Maintain a roster of qualified, trained, and licensed staff to fill critical transportation positions.
- Stock disposable gloves, face masks, and cleaning supplies. Enact a plan for the distribution, disposal, cleaning (when appropriate), and resupply of these items.
- Instruct transportation staff to report respiratory illness symptoms to their supervisors or camp administration.
- **Best practice:** All transportation employees are screened at the beginning of their shifts for signs of illness.
- Actively encourage sick employees to stay home and implement flexible sick leave.
- Provide staff and campers with access to soap and clean running water or alcohol-based hand sanitizer, and face masks. Train staff and campers on proper hand washing and sanitizing procedures.
- **Best practice:** Vehicle operators should wear N95 respirators while carrying passengers. Employees must be medically cleared, fit-tested and trained to wear N95 respirators on an annual basis.
- Provide custodial staff with [EPA-approved disinfectants](#) for vehicle cleaning.
- If possible, use larger vehicles or a greater number of vehicles in order to allow passengers to maintain greater physical distance.
- Reduce the number of available seats in order to increase physical distance between passengers. Mark restricted seats using signage, decals, colored string, tape, etc. (e.g., seat children one child per row, skip rows)
- **Best practice:** Leave several front rows of seating unavailable to maintain physical distance for the driver/operator.
- If the same vehicle will be used multiple times, assign seats to campers so they occupy the same space each time. Clean and disinfect the vehicle between use.
- If possible, seek vehicles with clear, impermeable barriers between operators and rest of the cabin. Options include plexiglass, or flexible plastic sheeting. This equipment must be used only according to manufacturer and vehicle safety guidelines.

CAMPERS AND STAFF AS PASSENGERS

- Do not board if you are sick or experiencing any flu-like symptoms.
- Wash or sanitize hands before boarding bus, van, or vehicle.
- Practice good hygiene: cough or sneeze into your elbow and avoid touching your mouth, nose, and eyes.
- If possible, maintain physical distance by maximizing distance between yourself and other passengers.
- Wear a mask while riding in the vehicle.
- If re-boarding the vehicle, sit in the same seat, or your assigned seat, each time.
- When exiting, remove all belongings and discard all waste.

VEHICLE OPERATORS

- Do not operate if you are sick or experiencing flu-like symptoms.
- At a minimum, wear a mask. Ensure face mask does not impact vision or the ability to operate the vehicle safely.
- Wear appropriate gloves. Ensure gloves do not impact the ability to operate the vehicle safely.
- **Best practice:** Wear an N95 respirator. Employees must be medically cleared, fit-tested and trained to wear N95 respirator annually. Ensure respirator does not impact vision or the ability to operate the vehicle safely.
- Maintain physical distance by limiting interactions with passengers.
- When possible and safe to do so, operators should open windows prior to campers boarding. If not possible nor comfortable to open windows, set ventilation system to high. Do not recirculate conditioned air. Ensure that internal cabin air filters are in-place and changed regularly.
- Open vehicle windows several inches (if can be done so safely) during all periods of vehicle occupancy.
- Wash hands using soap and water for at least 20 seconds or disinfect hands using alcohol-based hand sanitizer before and after work shifts and breaks, and after touching frequently touched surfaces.

CLEANING AND DISINFECTION PERSONNEL

- Do not work if you are sick or experiencing flu-like symptoms.
- Wear disposable gloves and a mask.
- **Best practice:** Disposable gowns are worn during cleaning and disinfection.
- Clean and disinfect vehicles daily. **Best practice:** Clean and disinfect the vehicle before and after each use during the day.

- Always clean and disinfect the vehicle’s commonly touched surfaces between user groups or route runs.
- If hard non-porous surfaces (e.g., hard seats, handles, doors, windows, etc.) are visibly dirty, clean them with a detergent or with soap and water before disinfecting.
- Disinfect hard non-porous surfaces using the following:
 - [EPA Registered Antimicrobial Products for Use Against Novel Coronavirus SARS-CoV-2](#).
 - Diluted household bleach products. Add 5 tablespoons (1/3 cup) of bleach to a gallon of water or 4 teaspoons of bleach to a quart of water. Do not use in conjunction with ammonia-based solutions.
 - Alcohol-based solutions containing at least 70% alcohol.
- If soft or porous surfaces (e.g., fabric seats, upholstery, carpets) are visibly dirty, clean them using appropriate cleaners and then disinfect soft or porous surfaces using [EPA Registered Antimicrobial Products for Use Against Novel Coronavirus SARS-CoV-2](#).
- If frequently touched electronic surfaces (e.g., cabin controls, touch screens, lights) are visibly dirty, clean them using products appropriate for use on electronics.
- Disinfect electronic surfaces according to the manufacturer’s recommendations. If none exist, use alcohol-based solutions containing at least 70% alcohol.
- Remove and dispose of gloves, masks, and gowns (if applicable) immediately upon exiting the vehicle.
- Immediately after cleaning and disinfection (and before taking breaks), wash hands using soap and water for at least 20 seconds or disinfect hands using alcohol-based hand sanitizer.
- If disposable gowns are not worn, immediately launder cloths (or uniform) worn using the warmest appropriate water and dry completely. Wash hands immediately after handling dirty laundry. See the [Cleaning and Disinfection](#) section for more details on laundry practices.
- For more information, follow [CDC guidance on cleaning and disinfecting](#).

REFERENCES AND RESOURCES

U.S. Centers for Disease Control and Prevention. *Bus Transit Operators*.

<https://www.cdc.gov/coronavirus/2019-ncov/community/organizations/bus-transit-operator.html>

U.S. Centers for Disease Control and Prevention. *Disinfecting Transport Vehicles*.

<https://www.cdc.gov/coronavirus/2019-ncov/community/organizations/disinfecting-transport-vehicles.html>

10.0 GUIDANCE ON PERSONAL PROTECTIVE EQUIPMENT (PPE) PLAN FOR CAMP STAFF

This section shares guidance related to personal protective equipment (PPE) for camp staff.

TERMINOLOGY AND DEFINITIONS

Eye Protection: goggles, safety glasses, and reusable, or disposable face shields that fully cover the front and sides of the ocular region of the face to protect part of a wearer's face from contact with a substance.

Mask: a device worn over a wearer's mouth and nose that creates a physical barrier between the mouth and nose of the wearer and potential contaminants in the immediate environment. Note that in general a mask does not provide substantial filtering efficiency or protection to the wearer during inhalation but rather helps arrest droplet dispersion from the wearer when coughing, sneezing, talking, and breathing. Masks are not considered PPE for protection from coronavirus. Examples: Cloth masks, surgical masks, gaiter, etc. Masks should not be placed on anyone who has trouble breathing, or is unconscious, incapacitated, or otherwise unable to remove the mask without assistance.

N95 Respirator: a disposable respirator, which when properly fitted, worn and maintained, can provide a wearer with a filtering efficiency, during inhalation, of at least 95% of particulate matter (including virus-containing droplets from coughing, sneezing, talking, and breathing) in the surrounding environment. Dust masks, cloth masks, and surgical masks do not meet this definition.

Personal Protective Equipment (PPE): specific equipment worn to minimize exposure to hazards that may cause illness or injury. PPE relevant to camps during the COVID-19 pandemic include eye protection, N95 respirators, disposable gloves, and disposable gowns.

Respirator: a device worn over a wearer's mouth and nose, which when properly fitted, protects from inhalation of specific hazards (gases, vapors, and particulate matter). Example: N95 Respirators. Note: all respirators are not designed to filter all hazards. Understanding the particular hazards the respirator is designed to protect against is the responsibility of those that provide the respirators to wearers, as well as the wearer themselves.

ADMINISTRATIVE

Policy

- Keep necessary PPE near workstations in the camp where they will be used.
- Respirators (e.g., N95 Respirators) require annual [medical clearance](#), training, and [fit testing](#) per the U.S. Occupational Safety and Health Administration (OSHA).
- Face masks should be readily provided by the camp and worn by counselors and staff whenever interacting with others outside their groups at a **distance closer than six feet**. Refer to the [Using Cohorts at Camp](#) section of the Field Guide.
- **Best practice:** Store larger inventory of PPE in a locked area that is dry and free from environmental temperature extremes. Restrict access for distribution to a limited number of specified, responsible individuals that understand the appropriate use of N95 respirators.
- If the state in which the camp operates has OSHA-approved state workplace safety and health programs, known as [State Plans](#), seek guidance from and connect with these resources to develop PPE plans and protocols that are appropriate for the camp workplace.

Training

- Ensure that all staff (counselors, health staff, kitchen/dining staff, etc.) have been trained to correctly don, doff, maintain, and dispose of PPE and face masks relevant to their respective level of protection.
- Train staff on hand hygiene after removing gloves. See [Handwashing](#) within the [Preventing Spread](#) section.
- **Best practice:** Provide both initial and refresher training on the different types of PPE that are needed for specific tasks and the reasons they are necessary; this will lead to more effective use and conservation of PPE.

Supply

- Shortages of all PPE are anticipated during the COVID-19 pandemic. Refer to the Centers for Disease Control and Prevention (CDC) Guidance on how to optimize the supply of PPE, including:
 - [N95 Respirators](#)
 - [Face masks](#)
 - [Eye protection](#)
 - [Disposable gowns](#)
 - [Disposable gloves](#)
- N95 respirator alternatives: Some studies have determined the filter efficiency of substitutes such as imported KN-95 respirators are not always comparable to the approved N95. This [blog post](#) can help guide individuals toward not selecting counterfeit products. Only in the absence of supply of N95 respirators should alternatives be considered. In some cases, using N95 and/or KN-95 respirator alternatives that approach 95% efficiency may be considered. If

an insufficient supply of N95 respirators are found to exist, seek professional guidance as to appropriate alternatives.

- Utilize the [CDC PPE Burn Calculator](#) to determine how much PPE the camp will require.
- Reusing disposable PPE, including N95 respirators, gowns, and gloves, is not recommended.
- Masks fashioned out of reusable material (e.g., cloth, scarves, bandanas, etc.) should be **laundered regularly**. See the [Laundry](#) section within the [Cleaning and Disinfection](#) section.
- **Best practice:** Monitor and record the inventory of PPE and anticipate the need to restock. Do not share face masks. Launder reusable face masks after use.

CAMP STAFF

When to Wear What

PPE needs for staff will vary based on their job tasks, their ability to maintain appropriate physical distancing, and their potential for contact with confirmed or suspected COVID-19 cases. It is important that specific use scenarios are considered as part of the camp reopening plan to ensure an adequate supply of PPE is available. Please refer to specific sections for detailed guidance on PPE.

- N95 Respirators and eye protection or face shields should be worn when staff anticipate contact with or close proximity to confirmed or suspected COVID-19 cases or when cleaning and disinfecting areas known or suspected to have been in contact with confirmed or suspected COVID-19 cases.
- Face masks, while not technically PPE, should be worn by:
 - Counselors whenever interacting with others closer than six feet for extended periods, i.e., greater than 15 minutes, as well as other times to the extent possible.
 - Kitchen staff should always wear face masks. Refer to the [Food Service](#) section.
 - Custodial staff should always wear face masks when cleaning and disinfecting. Refer to the [Cleaning and Disinfection](#) section.
 - Staff should wear masks when interacting with outside vendors or outside community members when physical distancing can't be maintained.
- Disposable gloves should be worn by:
 - Counselors when anticipating contact with confirmed or suspected COVID-19 cases or when handling belongings known to have been in contact with confirmed or suspected cases.
 - **Best Practice:** Counselors should wear gloves when handling any incoming belongings or equipment prior to disinfection.
 - Kitchen staff should follow existing best practices for food preparation and storage. Coronavirus is not foodborne, but food service workers who are infected can transmit the virus to coworkers or diners. Refer to the [Food Service](#) section.
 - Custodial staff should always wear disposable gloves when cleaning and disinfecting. Refer to the [Cleaning and Disinfection](#) section.

How to Use PPE

Procedures on donning (putting on) and doffing (taking off) PPE may vary depending on what pieces of equipment are to be used, in which settings, and for what purpose. Detailed training should be provided to staff in the use of respirators, face masks, gloves, eye protection, and disposable gowns. Below is a general procedure which may, or may not, be applicable in all scenarios.

Instructions for Donning:

1. Gather the PPE to don and ensure each piece is the correct size.
2. Perform hand hygiene; wash hands using soap and water for at least 20 seconds or disinfect hands using alcohol-based hand sanitizer.
3. Don disposable gown (if applicable) and tie all the ties.
4. Don respirator or face mask (if applicable).
 - a. Respirator: The top strap should be placed on the crown of the head and the bottom strap should be placed at the base of the neck. If the respirator has a nosepiece, fit it to the nose with both hands. Perform a user seal check.
 - b. Face mask: Items vary; tie or place straps according to the manufacturer instructions.
5. Put on face shield or goggles.
6. Perform proper hand hygiene again.
7. Don gloves.
 - a. **Best practice:**
 - 1) Check for punctures or tears before using
 - 2) Do not re-wear same gloves after you take them off
 - 3) Immediately replace damaged gloves

Instructions for Doffing:

1. Remove gown by untying ties, holding it by the shoulders and pulling it down and away from the body and disposing it in a garbage can.
2. Remove gloves and ensure that doing so does not cause contamination of hands by using a safe removal technique (e.g. glove-in-glove, or bird beak).
 - a. **Best Practice:** Place [signage of proper glove removal procedures](#) where applicable.
3. Perform hand hygiene.
4. Remove face shield or goggles by grasping the strap and pulling it up and away from the head. Do not touch the front of the face shield or goggles.
5. Remove respirator or face mask and dispose (if disposable) or launder while avoiding touching the front of it.
 - a. Respirator: Remove the bottom strap by grasping only the strap and bringing it over the head. Remove the top strap by grasping only the top strap and bringing it over the head and pulling the respirator away from the face without touching the front.

- b. Face mask: Items vary; untie or unstrap it according to manufacturer instructions and by pulling the mask away from the face without touching the front.
6. Perform hand hygiene.
7. **Best Practice:** Provide and properly label designated, cleaning areas, disposal areas, and bins for all used PPE.

REFERENCES AND RESOURCES

U.S. Centers for Disease Control and Prevention. *Caring for Someone Sick at Home or Other Non-Healthcare Settings*. <https://www.cdc.gov/coronavirus/2019-ncov/if-you-are-sick/care-for-someone.html>

U.S. Occupational Safety and Health Association. *Personal Protective Equipment*. <https://www.osha.gov/SLTC/personalprotectiveequipment/>

U.S. Centers for Disease Control and Prevention. *Using Personal Protective Equipment (PPE)*. <https://www.cdc.gov/coronavirus/2019-ncov/hcp/using-ppe.html>

U.S. Centers for Disease Control and Prevention. *How to Remove Gloves*. <https://www.cdc.gov/vhf/ebola/pdf/poster-how-to-remove-gloves.pdf>

11.0 SUGGESTED CAMP SUPPLIES AND MATERIALS FOR 2020 CAMP SEASON

Environmental Health & Engineering, Inc. (EH&E) started reviewing information for the development of the *Field Guide* and quickly identified a potential limiting factor that we recommend taking action on soon to ensure that it is not an issue. The potential limiting factor is key supplies that member camps may not currently have onsite. Here is an initial list of some important items that are currently in short supply that we think your member camps will need to prepare and to open this summer. If camps start strategically placing orders soon, camps should be able to ensure adequate supplies at the start and throughout the season. These items include:

- **Hand soap**—Anticipate an order of approximately 50% more than a typical camp season. Example: If you typically buy 1 gallon, then order 1.5 gallons.
- **EPA approved cleaners**—<https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2-covid-19>. EH&E recommends working with existing camp suppliers and cleaning contractors/staff to identify and order cleaners. We anticipate that it will be necessary to order multiple brands and product lines. We are available to assist in a review of product information. Order approximately 100% more than a typical camp season. Example: If you typically buy 10 gallons, then order 20 gallons.
- **Hand sanitizer supplies and stations**—Anticipate to order 0.5 fl. oz. per camper and staff member per day. Example: 100 people at a camp will need approximately 50 fl. oz. per day. Hand sanitizer should contain at least 60 percent alcohol.
- **Surface cleaning and disinfectant wipes**—Order approximately 100% more than a typical camp season. Example: If you typically buy 10 containers, then order 20 containers.
- **Paper towels**—Anticipate an order of approximately 50% more than a typical camp season. Example: If you typically buy 100 rolls, then order 150 rolls.
- **Cleaning spray bottles**—May be needed to dilute, mix, and apply U.S. Environmental Protection Agency (EPA) approved cleaner. Order 1-3 bottles per building.
- **No-touch/foot pedal trash cans**— Order at least 1 per building and 1 per restroom.

Camp Medical Staff Personal Protective Equipment (PPE) Supplies. EH&E is not anticipating that camps will need a large supply stock of these items but enough for onsite Medical Staff to use if needed to attend to a Covid-19 symptomatic individual. The items listed below should be considered a “starter pack” available for when camp opens. The items are scaled based on the number of medical staff members per camp so larger camps with more medical staff members will order more supplies. Example: a camp with 5 medical staff members would multiply the recommended supply numbers below by 5. Initial onsite supply stock recommendations per each medical staff member include:

- N95 respirators—5 per medical staff member
- Disposable surgical masks—50 per medical staff member
- Nitrile exam gloves—200 per medical staff member
- Disposable safety gowns—50 per medical staff member
- Face shields—2 per medical staff member
- Covered medical waste disposal bin—1 per office or exam room
- Adequate thermometers—2 per medical staff member

Each camp should ensure that all medical staff supplies meet the clinical requirements of their employees. If camps have difficulty obtaining any of the recommended gear, EH&E is available to help determine alternate PPE recommendations.

12.0 TECHNOLOGY AND CONTROLS

This section provides a summary of the literature on effectiveness of selected non-pharmaceutical interventions (NPIs) for control of transmission of the novel coronavirus SARS-CoV-2. The summary is intended to support Camp personnel who are responsible for managing the COVID-19 programs in day, overnight, and family camp settings. NPIs should be layered upon one another and used at the same time with several layers of safeguards working together to reduce potential transmission. No one NPI is sufficient.

The NPIs addressed in this summary are relevant and applicable to multiple camp settings and should be considered each as part of a multilayer control strategy. These NPIs are also described in COVID-19 guidance from cognizant authorities including the Centers for Disease Control and Prevention (CDC), Association of Heating, Refrigerating, and Air-Conditioning Engineers, Inc. (ASHRAE), or American Industrial Hygiene Association (AIHA).⁴⁵

This summary begins with background information that is intended to orient camp management and staff to the pathways of SARS-CoV-2 transmission recognized at this time and the conceptual model for a *hierarchy of controls* that is generally accepted and commonly used in environmental and occupational health management. Next, summarized in Table 12.1, is a description of the expected effectiveness of the NPIs by drawing upon the relevant scientific literature and the professional judgement of EH&E scientists and engineers. The summary information is intentionally brief to enhance its utility for Camp personnel and to facilitate updates as information and knowledge about transmission of the virus continues to grow.

ROUTES OF TRANSMISSION

SARS-CoV-2 is the coronavirus that causes COVID-19 disease. SARS-CoV-2 is transmitted from person-to-person when respiratory droplets that contain the virus are expelled by a contagious person while breathing, vocalizing, coughing, or sneezing and subsequently taken up through the mouth, nose, or eyes of a previously non-infected person. Three possible pathways of transmission are recognized.

Close contact transmission refers to exchange of respiratory droplets, whether large or small, when people are very near to each other. Close contact is commonly defined as within 6 feet. Strong evidence exists for transmission when people are in close contact.

Fomite transmission refers to transfer of the coronavirus from an infected person to a surface and subsequently to a previously uninfected person. Transmission by this route is thought to occur less often than by close contact, and few cases of fomite transmission have been reported.⁴⁶

⁴⁵ [CDC Considerations for Institutions of Higher Education](#); [ASHRAE Position Document on Infectious Aerosols](#); [ASHRAE Emerging Issue Brief on Pandemic COVID-19 and Airborne Transmission](#); [AIHA Reopening: Guidance for Institutions of Higher Education](#).

⁴⁶ <https://www.cdc.gov/media/releases/2020/s0522-cdc-updates-covid-transmission.html>

Long range transmission refers to exchange of small, microscopic respiratory droplets that can occur when people are more than 6 feet apart from each other. Some reports of spread between people in crowded, indoor settings are consistent with long range transmission, but could also be explained by undocumented close contact. Long range transmission is thought to occur less often than by close contact.

HIERARCHY OF CONTROLS

Transmission of SARS-CoV-2 and health impacts of COVID-19 can be mitigated by proper use of NPIs. The classic hierarchy of controls for management of environmental and occupational health illustrated in Figure 12.1 provides a framework for NPIs. Five layers of control comprise the hierarchy: 1) elimination, 2) substitution, 3) engineering, 4) administrative, and 5) personal protective equipment. The labels to the right of the pyramid provide examples of NPIs for SARS-CoV-2 by layer in the hierarchy.

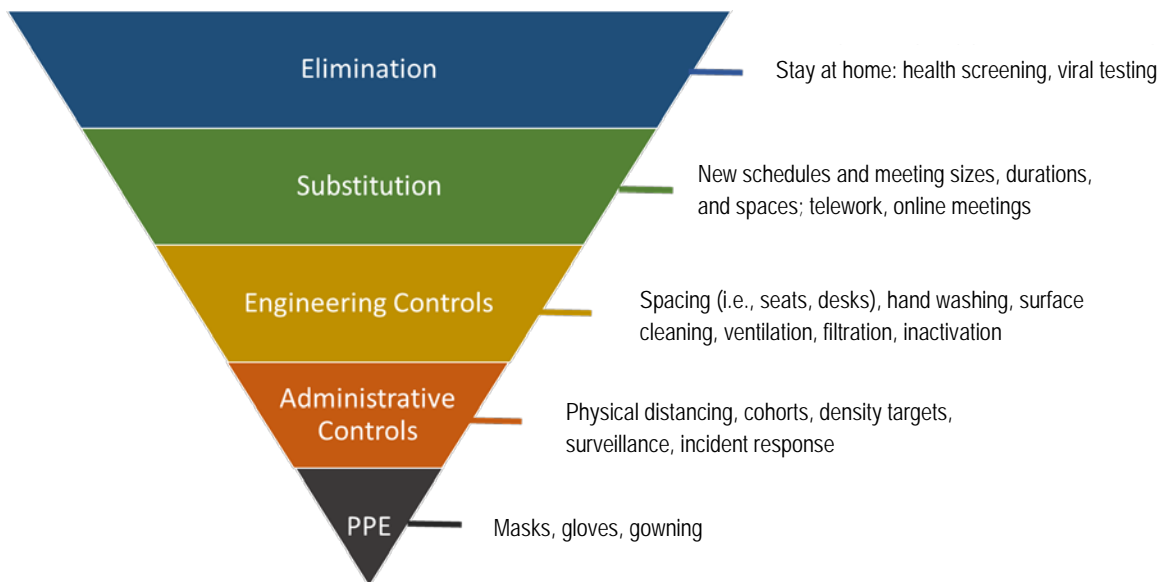


Figure 12.1 Classic Hierarchy of Controls for Environmental and Occupational Health with Examples of its Application to Control of the Novel Coronavirus SARS-CoV-2

Selected NPIs for control of coronavirus transmission applicable to a variety of camp settings including day, overnight, and family camp and their potential effectiveness are presented in Table 12.1, including: testing for the virus, screening for COVID-19 symptoms, use of face masks, cleaning and disinfection, ventilation, air filtration, air cleaning, and safety culture as well as other controls. Potential effectiveness reflects the relative magnitude of expected reduction on transmission rate or reproduction rate of SARS-CoV-2, if implemented widely and appropriately. In addition, the quality factor reflects the quantity and quality of relevant and applicable information and data available for each NPI. The potential effectiveness of each NPI has been developed by drawing upon the relevant scientific literature and the professional judgement of EH&E scientists and engineers. NPIs should be layered upon one another and used at the same time with several layers of safeguards working together to reduce potential transmission.

Table 12.1 Selected Non-Pharmaceutical Interventions for Control of Coronavirus Transmission and Their Potential Effectiveness Applicable to Day, Overnight, and Family Camp Settings			
Control Measure	Description	Potential Effectiveness ^a	Quality Factor ^b
Viral Testing and Symptom Screening			
Surveillance viral testing (molecular), 1-2 times per week	Once or twice-weekly surveillance of SARS-CoV-2 RNA for campers and camp staff can identify many cases while infectious. A turnaround time for test results of 1 day or less will allow cases to be isolated quickly and contacts to be minimized. Identification of close contacts and quarantining within 48 hours will reduce chance of transmission further. Modeling studies indicate that together these controls have the potential to reduce transmission by 50 – 80%. Surveillance with a test that can detect very low levels of the virus will likely identify non-infectious carriers of the virus as well, which could strain resources for contact tracing and quarantine.	High ^c	High
Prescreening and pre-camp behaviors	During the two weeks prior to reporting to camp all campers and staff should take steps to keep themselves and others around them healthy. Prescreening testing carried out within 7 days (or preferably 72 hours) prior to arrival at camp.	High ^c	Medium
Daily survey of COVID-like symptoms	Daily surveys of symptoms and temperature taking can identify people for follow-up who may be carrying SARS-CoV-2, but surveys will not control transmission before symptom onset or by cases that never exhibit symptoms. Approximately 40% of cases are thought to never develop symptoms.	Medium	High
Face Coverings			
Mask	Universal mask use, especially indoors, is reported to reduce risk of transmission by up to 80%.	High	High
Eye protection	Safety glasses and goggles can block exposure to airborne SARS-CoV-2 and prevent the wearer from transferring SARS-CoV-2 to their eyes by touch.	Medium ^d	Medium
Face shields	Face shields can block ballistic transport of larger airborne respiratory droplets, but the open sides and bottom allow exit and entry of particles of the size reported to contain SARS-CoV-2.	Medium ^d	Low
Administrative Controls			
Outdoor activities	Provides greater space for physical distancing and substantially dilutes respiratory emissions; sunlight is reported to inactivate SARS-CoV-2.	High	High
Safety Culture	The ideas and beliefs that all members of the camp community (parents, staff, and campers) share about safety and health. Includes plans to build basic attitudes and habits of good behavior and a culture of compliance so that safety is a valued and key part of the camp operation.	High	High
Physical distance	Every three feet of physical distance is reported to lower the probability of transmission by one-half in the absence of other controls.	High	Medium
Decrease density	Fewer people per space than normal can reduce the probability that an infectious case is present in the space.	Medium	High
Cohorts	Restricting inter-person interactions to small groups can mitigate transmission by limiting the number of close contacts and facilitating contact tracing but this control alone will not directly impact risk of transmission among members of a cohort. In camp settings, cohorting may reduce the number of individuals that need to isolate/quarantine following close contact with an infected person.	High	Medium
Decrease loud vocalization indoors (i.e. singing)	Fewer loud vocalizations can reduce production of respiratory droplets and may lower emissions of SARS-CoV-2 from an infected person if present. Emissions of respiratory droplets during loud vocalizations are reported to be 3-fold greater than during normal speech and breathing.	Medium	Low
Avoid the 3 Cs	Modify start, stop, and transition times; food service schedules and modes of delivery; and other activities to avoid: 1) closed-off spaces with little ventilation, 2) crowded spaces with many people, and 3) close conversations.	Medium	Medium

Table 12.1 Continued			
Control Measure	Description	Potential Effectiveness ^a	Quality Factor ^b
Engineering Controls			
Ventilation	Delivery of outdoor air into occupied spaces per building code or better can lower room-average concentrations of respirable-size airborne particles and SARS-CoV-2, if present, and may reduce the risk of long-range transmission. Effectiveness likely constrained by HVAC system, operable windows and both hot/humid and cold outdoor air. Naturally ventilated and open-air camp buildings with multiple operable and screened doors and windows may provide adequate ventilation.	Medium	High
Cleaning and Disinfecting	According to CDC, droplets can land on surfaces and objects and be transferred by touch. A person may get COVID-19 by touching the surface or object that has the virus on it and then touching their own mouth, nose, or eyes. Spread from touching surfaces is not thought to be the main way the virus spreads. According to CDC, cleaning and disinfection is an important control for reducing the risk of exposure to COVID-19. The virus that causes COVID-19 can be killed with certain products, and EPA has compiled a list of disinfectant products that can be used against SARS-CoV-2.	Medium	High
Central filtration	Recirculation of indoor air through a mechanical ventilation system equipped with a high efficiency filter (e.g., MERV 13) can lower room-average concentrations of respirable-size airborne particles and SARS-CoV-2, if present, and may reduce risk of long-range transmission. Effectiveness likely constrained by HVAC system.	Medium	High
Portable air cleaners (HEPA)	Recirculation of indoor air through an in-room high efficiency filter (e.g., HEPA) can lower room-average concentrations of respirable-size airborne particles and SARS-CoV-2, if present, and may reduce risk of long-range transmission. Use may be impacted by noise levels and space availability. This NPI may be particularly useful in closed and poorly ventilated spaces.	Medium	High
Upper-room ultraviolet germicidal irradiation	Irradiation of indoor air with high-energy ultraviolet light can inactivate airborne SARS-CoV-2, if present, and may reduce risk of long-range transmission. Effectiveness may be limited in spaces with high ceilings.	Medium	High
Barriers or sneeze guards	A plexiglass or similar physical barrier between people may reduce exchange of respiratory droplets by capture or dilution.	Medium	Low
Directional airflow	Manage supply and exhaust air to minimize circulation of indoor air between zones; may control airborne transport of respiratory emissions and SARS-CoV-2 if present.	Low	Low
<p>Notes</p> <p>^a Reflects relative magnitude of expected effect on transmission rate or reproduction rate of SARS-CoV-2 transmission if implemented widely and appropriately.</p> <p>^b Reflects quantity and quality of relevant and applicable information and data.</p> <p>^c See Section 13.0 of the Field Guide for details on application in both day and overnight camp settings.</p> <p>^d Typically most applicable to staff and medical teams involved with close contact care as part of an overall personal protective equipment plan.</p>			

NPI EFFECTIVENESS IN CAMPS

Research on the effectiveness of NPIs on the prevention and mitigation of SARS-CoV-2 transmission among children and adolescents in camp settings was conducted during the 2020 summer camp season at four Maine overnight camps that had implemented a multilayered prevention and mitigation strategy (Blaisdell 2020). The four camps were reported to have

implemented several NPIs, including prearrival quarantine, pre- and post-arrival testing and symptom screening, cohorting, use of masks, physical distancing, enhanced hygiene measures, cleaning and disinfecting, and maximal outdoor programming.

Discussion from the research team stated that “Diligent use of multiple NPIs was successful in preventing and mitigating SARS-CoV-2 transmission in four Maine overnight camps. Although no single intervention can prevent SARS-CoV-2 transmission, a multilayered use of NPIs allowed camps to prevent transmission and quickly identify campers or staff members with SARS-CoV-2 infection to successfully mitigate spread.” In addition, the research team stated that the camps did not rely on testing as a sole NPI and that they incorporated a series of control strategies. The NPIs and control strategies listed in the research publication are similar to those outlined in Table 12.1 and provided throughout the Field Guide.

TRACKING INDICATORS

Camps should be prepared to make operational shifts based on a variety of community and on-camp conditions and performance indicators throughout the COVID-19 pandemic. These indicators will help Camps evaluate factors related to disease transmission in their region and at their Camp as well as the effectiveness of their COVID-19 NPIs. The example criteria suggested here are based upon review of research findings presented in the scientific literature, both preprints and peer-reviewed studies. NPIs should be layered upon one another and used at the same time with several layers of safeguards working together to reduce potential transmission. No one NPI is sufficient.

The Field Guide offers suggested metrics that may be tracked for determining ongoing risk and to facilitate decision making. The following Table 12.2 provides suggested metrics and example thresholds for overnight camp programs and Table 12.3 provides example metrics for day camp programs. These thresholds will differ between Camps based on factors such as size of the Camp, health services support, and specializations. Note that orders or requirements from state or local health authorities regarding models or criteria for operation would take precedence.

While these recommendations may help guide Camps in decision making, they have important limitations and may need to be adjusted based on changes in pandemic dynamics, additional infectious disease, or other local, regional or national factors. It is also important to note that every Camp is different. Camps should determine if and how to implement these metrics while adjusting them to meet their unique needs and circumstances and those of the local jurisdiction. Implementation should also be informed by what is feasible, practical and acceptable, which will be different for each Camp.

Table 12.2 Example Risk Metrics for Overnight Camp – Operational Decision Making During the COVID-19 Pandemic¹

Metric	Continue Operations	Improve Operations	Consider Shutdown of Operations
Local Indicators ²			
Daily new cases	Decreasing or <10 new cases/100,000 people	10-25 new cases/100,000 people	>25 new cases/100,000 people
Percent positive tests	<5%	<5% and increasing trend	>5%
7-day moving average of new cases	Decline or remain steady	Increasing trend for 2 weeks	Increasing trend for more than 2 weeks
3-day moving average of new hospital admissions	Decline or remain steady	Increasing trend for 2 weeks	Increasing trend for more than 2 weeks
State/local requirements	No state/local order	State/local order to modify operations	State/local order to stop operations
Camp Indicators for Camp with Diagnostic Testing			
Number of new cases within 48 hours (must notify and work with local health officials) ³	0-2 positive cases identified with likely cohort/group ties. Close contacts quarantined.	≤3 cases in a single cohort/group. Cohort is tested and quarantined.	>3 cases in three or more different cohorts/groups. Consider shutdown for at least 14 days. Additional testing of all campers and staff.
Cases epidemiologically linked to at least one other case, weekly	>80% High confidence in containment	≤80%–50% Moderate confidence in containment	<50% Low confidence in containment
Percent positive tests	<5%	<5% and increasing trend	>5%
Diagnostic test turnaround time	≤1 day	2 days	>2 days
Time from diagnostic test specimen collection to isolation/quarantine	>80% within 48 hours	70%–80% within 48 hours	<70% within 48 hours
Camp Indicators for Camp with No Internal Diagnostic Testing but with Reported Testing Results			
Number of new cases within 48 hours (Camp notified by local health officials or by staff or parents/guardians) ³	0-2 positive cases reported to Camp with likely cohort/group ties. Close contacts quarantined.	≤3 cases in a single cohort/group reported to Camp. Cohort is tested and quarantined.	>3 cases reported to Camp in three or more different cohorts/groups. Consider shutdown for at least 14 days.
Cases epidemiologically linked to at least one other case, weekly	>80% High confidence in containment	≤80%–50% Moderate confidence in containment	<50% Low confidence in containment
Camp Indicators, Other Non-Pharmaceutical Interventions			
Mask compliance	Almost Always	Sometimes	Infrequent/Never
Physical distancing compliance	Almost Always	Sometimes	Infrequent/Never
Daily symptom screening compliance	Almost Always	Sometimes	Infrequent/Never
Cohort Maintenance	Almost Always	Sometimes	Infrequent/Never
Outdoor Activities and Programming	Almost Always	Sometimes	Infrequent/Never
Hygiene stockpile (soap, hand sanitizer, and cleaning/disinfection products)	>4-week supply	2–4-week supply	<2-week supply
Critical health center PPE	>4-week supply	2–4-week supply	<2-week supply
Availability of isolation spaces	>75%	75%–50%	<50%
Critical staff levels (may include health services, counselors, dining and janitorial)	Normal	Moderate (Some absenteeism)	Low (Significant absenteeism)

Table 12.2 Continued

< less than
> greater than
≤ less than or equal to
PPE personal protective equipment

- ¹ Factors that may be tracked and considered in decision making for Camp operation status. Values may vary depending on camp size, type, and specialization. NPIs should be layered upon one another and used at the same time with several layers of safeguards working together to reduce potential transmission. No one NPI is sufficient.
- ² Local indicators are related to SARS-CoV-2 transmission within the surrounding community to determine the possible risk of introduction and transmission of SARS-CoV-2 within the camp. These example metrics may need to be adjusted based on individual camp characteristics. For example, an overnight camp with a tight “bubble” may not need to weigh the health status of the surrounding community as heavily as an overnight camp with a high number of staff members that commute into and out of camp on a daily basis.
- ³ Camps with large populations and corresponding support services and facilities may be able to manage a larger number of cases.

Table 12.3 Example Risk Metrics for Day Camp – Operational Decision Making During the COVID-19 Pandemic¹

Metric	Continue Operations	Improve Operations	Consider Shutdown of Operations
Local Indicators ²			
Daily new cases	Decreasing or <10 new cases/100,000 people	10-25 new cases/100,000 people	>25 new cases/100,000 people
Percent positive tests	<5%	<5% and increasing trend	>5%
7-day moving average of new cases	Decline or remain steady	Increasing trend for 2 weeks	Increasing trend for more than 2 weeks
3-day moving average of new hospital admissions	Decline or remain steady	Increasing trend for 2 weeks	Increasing trend for more than 2 weeks
State/local requirements	No state/local order	State/local order to modify operations	State/local order to stop operations
Camp Indicators for Camp with Diagnostic Testing			
Number of new cases within 48 hours (must notify and work with local health officials)	0-2 positive cases identified with likely cohort/group ties. Close contacts quarantined.	≤3 cases in a single cohort/group. Cohort is tested and quarantined.	>3 cases in three or more different cohorts/groups. Consider shutdown for at least 14 days. Additional testing of all campers and staff.
Cases epidemiologically linked to at least one other case, weekly	>80% High confidence in containment	≤80%–50% Moderate confidence in containment	<50% Low confidence in containment
Percent positive tests	<5%	<5% and increasing trend	>5%
Diagnostic test turnaround time	≤1 day	2 days	>2 days
Time from diagnostic test specimen collection to isolation/quarantine	>80% within 48 hours	70%–80% within 48 hours	<70% within 48 hours
Camp Indicators for Camp with No Internal Diagnostic Testing but with Reported Testing Results			
Number of new cases within 48 hours (Camp notified by local health officials or by staff or parents/guardians)	0-2 positive cases reported to Camp with likely cohort/group ties. Close contacts quarantined.	≤3 cases in a single cohort/group reported to Camp. Cohort is tested and quarantined.	>3 cases reported to Camp in three or more different cohorts/groups. Consider shutdown for at least 14 days.
Cases epidemiologically linked to at least one other case, weekly	>80% High confidence in containment	≤80%–50% Moderate confidence in containment	<50% Low confidence in containment
Camp Indicators, Other Non-Pharmaceutical Interventions			
Mask compliance	Almost Always	Sometimes	Infrequent/Never
Physical distancing compliance	Almost Always	Sometimes	Infrequent/Never
Daily symptom screening compliance	Almost Always	Sometimes	Infrequent/Never
Cohort Maintenance	Almost Always	Sometimes	Infrequent/Never
Pick-up and Drop-off protocol compliance	Almost Always	Sometimes	Infrequent/Never
Timely Pick-up of Symptomatic Campers	Almost Always	Sometimes	Infrequent/Never
Outdoor Activities and Programing	Almost Always	Sometimes	Infrequent/Never
Availability of temporary and dedicated isolation spaces	Yes – dedicated room, tent, or building	Limited availability of dedicated space	No availability of dedicated space
Hygiene stockpile (soap, hand sanitizer, and cleaning/disinfection products)	>4-week supply	2–4-week supply	<2-week supply

Table 12.3 Continued

Camp Indicators, Other Non-Pharmaceutical Interventions (continued)			
Critical health center PPE	>4-week supply	2-4-week supply	<2-week supply
Critical staff levels (may include health services, counselor, dining and janitorial)	Normal	Moderate (Some absenteeism)	Low (Significant absenteeism)

< less than
 > greater than
 ≤ less than or equal to
 PPE personal protective equipment

¹ Factors that may be tracked and considered in decision making for Camp operation status. Values may vary depending on camp size, type, and specialization. NPIs should be layered upon one another and used at the same time with several layers of safeguards working together to reduce potential transmission. No one NPI is sufficient.
² Local indicators are related to SARS-CoV-2 transmission within the surrounding community to determine the possible risk of introduction and transmission of SARS-CoV-2 within the camp.

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- Symptom screening (Burke et al., 2020; Menni et al., 2020; Richardson et al., 2020)
- Face masks (Chu et al., 2020; Hendrix et al., 2020; Leung et al., 2020; National Academies of Sciences, 2020; Prather et al., 2020; Wang et al., 2020)
- Eye protection (Chu et al., 2020)
- Face shields (Chu et al., 2020)
- Ventilation (Correia et al., 2020; Evans, 2020; Manassypov, 2020; Pantelic and Tham, 2013)
- Central filtration (Brown et al., 2014; Manassypov, 2020)
- Upper room UVGI (Nardell et al., 2008; Nardell and Nathavitharana, 2020; Walker and Ko, 2007)
- Meet outdoors (Nishiura et al., 2020; Qian et al., 2020)
- Physical distance (Chu et al., 2020; Courtemanche et al., 2020; Kucharski et al., 2020; MacIntyre, 2020)
- Cohorts (Benzell et al., 2020; Block et al., 2020; Leng et al., 2020; Marcus et al., 2020; Miller et al., 2020)
- Vocalization (Ai and Melikov, 2018; Asadi et al., 2020; Milton et al., 2013)
- Avoid 3 Cs. (Bromage, 2020; Fineberg, 2020; Leclerc et al., 2020)
- Overnight Camps (Blaisdell, 2020).
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13.0 GUIDANCE ON MEDICAL TESTING FOR DIAGNOSIS AND SCREENING

The following section shares background information and guidance for implementing COVID-19 testing programs at Camps. Given the high proportion of individuals, particularly children, that are either pre- or asymptomatic for SARS-CoV-2 infection, screening campers and staff for symptoms may not be sufficient to reduce the likelihood of infections in a camp setting.¹ If a testing program is implemented, Camps will need to determine the locations for testing or develop testing relationships and will need to create protocols for how and when testing programs will be employed for incoming campers and staff. In addition, having access to testing for symptomatic individuals can help to identify cases and contain outbreaks.

Availability of tests, testing programs, and technologies have been changing rapidly throughout the course of the pandemic.

FUNDAMENTALS OF TESTING OPTIONS

Background

There are several medical tests to determine if a camper or staff member is currently infected with the SARS-CoV-2 virus (diagnostic tests) and at this time only one to identify past infection. To determine if an individual is infected with the SARS-CoV-2 virus, typically “molecular” testing will be completed on viral ribonucleic acid (RNA) collected from a nasal or throat swab or saliva collected in a sampling tube.² These tests typically return results in 1 to 5 days. In addition, there are other diagnostic tests that use “antigens,” which are immune markers associated with the virus to aid in assessing current infection. These can be done more rapidly, typically resulting in 10 to 15 minutes. Both types of tests are known as diagnostic tests. To test for past infection, an antibody test on blood collected from a finger stick or venous blood draw is used.³

Testing to determine the presence of SARS-CoV-2 entails measurement of RNA or other unique markers of the virus. These samples can be collected using several methods:

- A nasopharyngeal sample entails inserting a swab deep into the nasal cavity.
- Mid-turbinate swab is inserted into the nostril and is spun while in contact with the nasal wall.⁴
- For oropharyngeal samples, a swab is used to sample material at the back of the throat.

¹ Gostic K, et al. 2020. Estimated effectiveness of symptom and risk screening to prevent the spread of COVID-19. *eLife*, 9:e55570. <https://doi.org/10.7554/eLife.55570>.

² U.S. Centers for Disease Control and Prevention. *Coronavirus Disease 2019, Test for Current Infection*. <https://www.cdc.gov/coronavirus/2019-ncov/testing/diagnostic-testing.html>

³ U.S. Centers for Disease Control and Prevention. *Coronavirus Disease 2019, Test for Past Infection*. <https://www.cdc.gov/coronavirus/2019-ncov/testing/serology-overview.html>

⁴ Rush Medical Center. *Swab Differences for POC and Standard COVID Testing*. <https://www.rush.edu/sites/default/files/coronavirus-swab-differences.pdf>

- Anterior nares swabs entail swabbing the inside of each nostril.
- Saliva samples are also used and entail spitting into a vial.⁵

Material collected on the swabs or in saliva sampling tubes is then extracted, and a molecular test, typically reverse transcriptase polymerase chain reaction (RT-PCR), is conducted in a laboratory. The test determines if a person is currently infected with the virus that causes COVID-19. In addition, antigen tests can also be used to determine current infection, but these tend to be less sensitive than RT-PCR tests so can require additional confirmation testing.

Table 13.1 lists the factors related to the use of molecular, antigen, and antibody tests for use in health screening of campers and staff for infection with SARS-CoV-2. While antibody testing is included in the table, it is not a test that can be used to identify potential infection and cannot be used to ascertain that a person cannot become re-infected.

The number and type of available tests and criteria for their use are continuing to evolve due to the rapid reviews being conducted by the U.S. Food and Drug Administration (FDA) under their Emergency Use Authorization (EUA) program and developments in testing technology. A limitation of the rapid approval process for the tests (as of January 2021) is that it allowed many varieties of the same test into the marketplace and does not necessarily require rigorous review of real-world performance.⁶ At all times, only tests with FDA EUA approvals and well-documented performance should be used if a testing program is planned for camps.⁷

⁵ U.S. Food and Drug Administration. *Coronavirus (COVID-19) Update: FDA Authorized First Diagnostic Test Using At-home Collection of Saliva Specimens*. <https://www.fda.gov/news-events/press-announcements/coronavirus-covid-19-update-fda-authorizes-first-diagnostic-test-using-home-collection-saliva>

⁶ U.S. Food and Drug Administration. *Emergency Use Authorizations*. <https://www.fda.gov/medical-devices/emergency-situations-medical-devices/emergency-use-authorizations>

⁷ U.S. Centers for Disease Control and Prevention. *Coronavirus Disease 2019, Viral Testing Data in the US*. <https://www.cdc.gov/coronavirus/2019-ncov/cases-updates/testing-in-us.html>

Table 13.1 Adapted from U.S. Food and Drug Administration Coronavirus Testing Basics Fact Sheet			
	Molecular Test	Antigen Test	Antibody Test
Synonyms	PCR, RT-PCR diagnostic test, viral test, NAAT, LAMP	Rapid diagnostic test	Serological test, blood test, serology test
Sample collection	<ul style="list-style-type: none"> Nasal or throat swab Saliva 	Nasal or throat swab	Finger stick or blood draw
Time for results	Same day (some locations) or up to a week	One hour or less	Same day (many locations) or 1-3 days
Follow-up testing	Not usually	Without symptoms: <ul style="list-style-type: none"> Positive requires PCR Negative – none With symptoms: <ul style="list-style-type: none"> Positive – varies by state may require PCR Negative – requires PCR 	<ul style="list-style-type: none"> Most states require positive antibody tests be followed up with PCR to rule out current infection. Sometimes a second antibody test is needed for accurate results.
Test results	<ul style="list-style-type: none"> Active coronavirus infection. Past infection as much as 3 months ago. 	Active coronavirus infection.	Infected by SARS-CoV-2 in the past.
Test does NOT do	Show past SARS-CoV-2 infection.	Detect low viral loads which may occur during early stages of infection.	<ul style="list-style-type: none"> Diagnose active SARS-CoV-2 infection Cannot confirm that you did or did not have SARS-CoV-2
Note	Tests can remain positive weeks after infection due to continued shedding of viral RNA.	<ul style="list-style-type: none"> Tests approved by FDA generally are for use on symptomatic people, who likely have high viral loads. Use on asymptomatic people as a screening tool is essentially “off-label” application of the test. 	Does not diagnose infection.
Examples of tests	<ul style="list-style-type: none"> Lab Corp Quest Diagnostics Abbott IDNow Broad Institute 	<ul style="list-style-type: none"> Quidel Sofia 2 BD Veritor 	<ul style="list-style-type: none"> Thermo Fisher OmniPATH COVID-19 Total Antibody ELISA Test
FDA U.S. Food and Drug Administration PCR polymerase chain reaction RT-PCR reverse transcription polymerase chain reaction NAAT nucleic acid amplification test LAMP loop mediated isothermal amplification Source: Adapted from U.S. Food and Drug Administration			

IMPLEMENTATION OF TESTING STRATEGIES AT CAMPS

Camps should determine the process by which they will screen campers and staff and the protocols for management of campers and staff who screen positive. It is important to screen everyone in camps determined to be in close proximity with the camp community including kitchen staff, grounds crews, and office staff.

Diagnostic testing (molecular and rapid antigen) is most valuable to camp scenarios as this type of testing indicates current infection. Four testing scenarios are relevant to camp programs. They include:

- Prescreening testing carried out within 7 days (or preferably 72 hours or less) prior to arrival at camp.
- On-site screening conducted upon arrival to residential camps or prior to day camp sessions.
- Diagnostic testing carried out in response to potential cases and close contacts.
- Surveillance testing carried out at regular intervals during the camp season.⁸

Considerations

Key factors to consider in developing a testing program are:

- Background infection rate in the nearby community as well as in the home communities of campers and staff.
- Status of community spread in the areas from which campers and staff are drawn. Examples of factors to evaluate:
 - Case rate per 100,000 people over previous 7-days (increasing trend for more than one to two weeks)
 - Percent positivity of testing
 - Daily incidence of cases
- The time from sample collection to results should be as short as possible, preferably within 24 hours; however, this may be difficult to obtain during periods of high laboratory demand. The amount of time between sample collection and reporting of results ranges from 15 minutes to several days.
- Sensitivity and specificity of the test being used. The minimum recommended sensitivity of a test is dependent upon the frequency of administration of the test. A less sensitive test that can provide results within an hour or as much as 24 hours would be preferable if the test will be administered frequently, such as multiple times per week. Most tests are highly specific to SARS-CoV-2 because they test for multiple genes or regions of genes to ensure results pertain only to SARS-CoV-2.
- The frequency of testing for campers and staff should be related to their relative risk of infection. For example, campers at overnight programs using cohorts could be tested less often than staff commuting in and out of camp on a daily basis.
- Plans and resources to implement, support, and monitor additional NPIs to control the spread of COVID-19.

The potential for false positive results among low risk, asymptomatic individuals is recognized by clinicians and organizations that perform large amounts of regular testing for entire populations or communities, like camps, work forces, and schools. To address this limitation, a

⁸ Note the use of “surveillance” to reference to ongoing regular screening of campers differs from the [CDC definition](#), which generally applies to community-wide testing programs to determine disease prevalence in a community.

growing number of organizations employ a strategy known as serial or orthogonal testing.^{9,10} Here, an initial positive result is followed by at least one more test. This approach is effective because the probability of two consecutive false positives is very low. Repeat testing for positive cases is particularly effective for populations like camps, which are at lower risk of infection and are asymptomatic.

Note that any procedure for identifying false positives must be carried out in accordance with local and/or state guidance.

Prescreening Testing

Testing prior to travel to camp is considered “prescreening” testing. If prescreening testing is conducted, results should be reported to the camp Health Center or administration before the first day of camp to allow for confirmation of test type and negative result. Tests must be scheduled with sufficient turnaround time to allow for results to be assessed prior to travel (note that some test results can be delayed by several days).

Numerous camp, school, and university examples from Summer and Fall 2020 indicate that pre-screening using RT-PCR tests while still in the home location prior to arrival at camp is an important way to reduce potential cases from entering the camp. Pre-camp testing of all campers and staff is strongly recommended for overnight camps.

When available and results can be obtained quickly (i.e., less than 72 hours), RT-PCR tests are considered the most sensitive for identifying cases early in infection, so are generally used in most screening programs.

- Good practice: Campers and staff are tested at home within 7 days of travel to residential camp. Low-risk behaviors are advised after testing and prior to camp.
- Better practice: Campers and staff are tested within 72 hours of arrival at camp, where available. Low-risk behaviors are advised after testing and prior to camp.
- **Best practice:** Campers and staff are tested within 24 hours of arrival at camp, where available. Low-risk behaviors are advised after testing and prior to camp.

Note: Some states may require a 14-day post travel quarantine period based on several factors including the community status of the area that the camper is traveling from.

On-site Screening

Testing taking place upon arrival at camp is on-site screening. On-site screening is recommended for overnight camps if resources allow. Camps may be able to obtain testing supplies and

⁹ Daniel Griffin, MD. Interview on [This Week in Virology, August 30, 2020, Episode #658, Minutes 12:45 – 17:00.](#)

¹⁰ [Briefing by NFL Chief Medical Officer Allen Sills, MD, August 24, 2020.](#)

laboratory relationships that make on-site RT-PCR and/or rapid antigen testing feasible. If camps develop these capacities, the following best practices may be achieved:

- **Best practice:** For overnight camps lasting more than three days, campers and staff could undergo RT-PCR testing on site after approximately three to five days with results obtained within 24 to 48 hours to allow for identification of potential travel-related exposures.
- **Best practice:** For overnight camps lasting more than three days, campers and staff could undergo rapid screen testing, such as antigen tests, on-site or using mail-in samples after approximately three days with results obtained within 48 to 72 hours to allow for evaluation of campers and staff with symptoms that could be consistent with COVID-19.
- **Best practice:** Staff at overnight programs who leave camp for weekend trips or other off-facility activities should be tested after three to five days upon arriving back at camp.
- Camp programs that choose to conduct testing after arrival alone (e.g., no pre-testing) should use all recommended NPIs and quarantine campers and staff (ideally in small groups or “cohorts”) until test results are obtained.
- If a camper or staff member reports any symptoms consistent with COVID-19 upon arrival, they should remain in an isolation location until testing can be conducted and confirmed.
- All campers and staff must wear masks while waiting to be tested and keep physically distanced from all individuals, except for healthcare staff wearing PPE.

Mitigation Testing

Mitigation testing is conducted on an as-needed basis to contain spread related to a potential case by testing anyone who is either symptomatic or is asymptomatic but had close contact with a confirmed or suspected case. Testing can be conducted at an individual’s healthcare provider (relevant for day camps) or on site at the camp facility.

For a symptomatic camper or staff member, laboratory-based RT-PCR test should be done. The COVID-19 positive individual must remain in isolation until ten days have passed since symptoms first appeared; the individual has not had a fever for at least 24 hours without fever-reducing medication; and symptoms have improved. For an asymptomatic case, the camper can leave isolation after 10 days without symptoms.

Those identified as close contacts of a camper or staff person should be tested and must immediately go into quarantine for 10 days. In some states, a close contact can be tested on day 5 and released from quarantine as early as day 8 after exposure. Close contact is defined as being within 6 feet of a COVID-19 case for 10 to 15 minutes, including up to two days prior to the person developing symptoms per CDC or state guidance.

- **Better practice:** Be prepared to conduct mitigation testing when individuals display symptoms or are in contact with a confirmed or suspected case.

- **Best practice:** Camps can be prepared to provide mitigation testing by maintaining on-site swab kits and making arrangements with a local laboratory to carry out same-day RT-PCR analysis. Being prepared to provide testing on-site also signals that the Camp will respond quickly to potential cases.

Surveillance Testing

Surveillance testing is carried out on a semi-regular basis during the camp session on populations without symptoms, not just within the first few weeks of arrival of each camp session. This type of testing can be used to assess effectiveness of controls and quickly identify cases to contain potential spread. Recommendations regarding testing schemes are not available from regulatory agencies at this time.

Recent research indicates that the effectiveness of viral testing for control of SARS-CoV-2 transmission is primarily influenced by the frequency that tests are administered and turnaround time for results.

Regular surveillance testing may have value if used to test staff who are present for multiple sessions or campers with programs lasting over two weeks. Surveillance testing a subset or all of the community on a less frequent basis may provide some indication of prevalence in the community but is unlikely to identify or contain outbreaks. Camps should continue to monitor SARS-CoV-2 testing options and new lower cost methods as they evolve and are approved for use by the FDA.

SELECTION OF TESTING PRODUCTS

The testing landscape is changing daily. In general and where possible, EH&E recommends RT-PCR testing for staff and campers in advance of arrival at camp, followed by RT-PCR, other molecular testing, or antigen testing upon arrival or within several days of arriving at camp. When possible, it is also recommended that camps have a supply of rapid tests available for campers or staff who develop symptoms or are in contact with a confirmed or suspected case. A low-cost example is the Abbott BinaxNow test, which has been made widely available to K-12 schools.

Tests that have been approved via EUA are [listed on the FDA's website](#). The current approval process relies on company-provided, non-peer reviewed studies, making interpretation of performance difficult. EH&E recommends selecting a test that has already been widely used until more thorough evaluation of newer options is complete.

TESTING IN DAY CAMP SETTINGS

- Testing in a day camp setting can be difficult and costly. Like day schools or workplaces, all attendees commute and return home each day, making testing representative only of the current status at the time the test is carried out. Modeling studies in 2020 indicated that to

control outbreaks, twice weekly testing would be needed. However, during Fall 2020, many colleges and universities implemented weekly testing, which was shown to be effective on many campuses.

- **Best practice:** On-site screening for day camps can be considered if resources allow. Given potential future availability of rapid screen testing, testing at least weekly and up to several times per week would be an effective way to contain outbreaks in a day camp setting. Once such testing devices are readily available, they could be added to a day camp program of NPIs.
- **Good practice:** Day camps can be prepared to provide mitigation testing by maintaining on-site swab kits, such as the Abbott BinaxNow and making arrangements with a local laboratory to carryout same-day RT-PCR analysis for symptomatic campers or staff. On-site testing capability may reduce delay that could arise from relying on parents to identify testing through their family healthcare practice or other testing centers.

LESSONS LEARNED FROM 2020 SUMMER CAMP SEASON

A [CDC report](#) released in September 2020 shares insight into four overnight camps in Maine that were successful in reducing the spread of COVID-19 during their summer 2020 programs. The key testing-related strategies implemented by all four camps are outlined below.

- Five to seven days before arriving at camp, almost all campers and staff were tested near their home locations for the virus using a RT-PCR test.
- Campers and staff were screened by Health Center team members at least daily, through temperature-taking and questions related to symptoms.
- Approximately every 4 to 9 days, RT-PCR testing was conducted on nearly all campers and staff.
- Individuals with symptoms or a positive test result were placed in isolation, and their cohort was quarantined.

Of the 1,022 attendees, four individuals tested positive before traveling to camp. Those campers stayed home for the isolation period. While at camp, two staff members and one camper tested positive (all were asymptomatic). After retesting, none of the 30 members of the single infected camper's cohort tested positive. This successful example emphasizes the significance of medical testing when used in a multilayered approach with additional controls such as masks, hand hygiene, and physical distancing.

TESTING IN CAMP 2021

Many advances in testing are expected over the coming months (Winter 2021). Several technologies are in development to increase the availability, reduce cost, and/or shorten

turnaround times for SARS-CoV-2 testing. The ideal test for widescale screening would have the following characteristics:

- Highly sensitive
- Only indicates active infection
- Does not require a testing instrument
- Easy and not painful to collect (e.g., nares swab or saliva)
- Provides results in less than an hour
- Widely available
- Inexpensive

A rapid screen RT-PCR test by Visby Medical, Inc. (San Jose, CA) was approved by FDA and meets many of these conditions.¹¹ This highly sensitive portable, low cost test could be deployed readily at day and overnight camps with CLIA certification or exemption during Summer 2021.

Saliva-based rapid antigen tests are being developed by several companies. These lower sensitivity testing methods could be used at high frequency (e.g., daily) to assess staff and campers. While lower sensitivity, repeated use may identify cases earlier than laboratory-based RT-PCR testing (given the long turnaround times) and allow for more rapid control of outbreaks. The Abbott BinaxNOW is an example of such a test recently approved for symptomatic cases and administered by a CLIA-certified or exempt provider.¹² In addition, the [Ellume](#) COVID-19 home test was approved in Fall 2020, and it is an at-home rapid antigen test.

Pooled testing of RT-PCR samples has been approved by FDA, and several commercial testing providers have begun using this method. Extensive pooled testing programs for elementary schools are underway. Most use a self-collected swab sample that is pooled on-site for example in a classroom, then it is transported to a laboratory for RT-PCR testing. Further development of pooled testing methods will reduce costs for screening programs using RT-PCR.

In some camp settings, wastewater testing can be a cost-effective strategy for monitoring in a residential camp setting. Despite being primarily a respiratory illness, SARS-CoV-2 has been shown to be shed by the fecal route by both symptomatic and asymptomatic infected individuals and transported through wastewater. SARS-CoV-2 has been detected in the sewage of municipal and communal living spaces before cases within the served population were otherwise apparent, potentially providing an early means of detection and control. Some evidence suggests SARS-CoV-2 can be detected by this method up to a week earlier than by population testing alone. Wastewater testing for SARS-CoV-2 can be implemented as part of a suite of testing and has not been shown to be effective in replacing health-based screening tests. Subsequent to SARS-CoV-2 detection in wastewater, the served population should undergo individual swab or saliva testing to identify and isolate active cases. Wastewater testing for SARS-CoV-2 may be an effective

¹¹ <https://www.fda.gov/media/142228/download>

¹² <https://www.fda.gov/media/141567/download>

complement to a comprehensive testing program, which may allow for reduced frequency of surveillance testing.

SUMMARY

Testing and surveillance for COVID-19 is a complex and changing landscape with a myriad of protocols currently in use and under evaluation. We recommend camps seek counsel from knowledgeable health care and public health providers as they consider and develop their Summer 2021 testing plans.

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<https://www.cdc.gov/coronavirus/2019-ncov/hcp/testing-overview.html>

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<https://www.fda.gov/medical-devices/emergency-situations-medical-devices/faqs-testing-sars-cov-2>

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<https://www.rush.edu/sites/default/files/coronavirus-swab-differences.pdf>

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<https://www.fda.gov/medical-devices/emergency-situations-medical-devices/emergency-use-authorizations>

World Health Organization. *Advice on the use of point-of-care immunodiagnostic tests for COVID-19 - Scientific Brief*, 8 April 2020.

<https://www.who.int/news-room/commentaries/detail/advice-on-the-use-of-point-of-care-immunodiagnostic-tests-for-covid-19>

SECTION 13.0 APPENDIX – BACKGROUND ON TESTING METHODS FOR SARS-COV-2

Molecular Testing

Molecular testing to determine the presence of SARS-CoV-2 entails measurement of RNA or other unique markers of the virus. These samples are typically collected using a swab sample from the upper respiratory system, usually from the back of the nasal passage or the back of the throat. For a nasopharyngeal sample, a swab must be inserted deep into the nasal cavity. A mid-turbinate swab is inserted into the nostril and is spun while in contact with the nasal wall.¹³ For oropharyngeal samples, a swab is used to sample material at the back of the throat. Anterior nares swabs entail swabbing the inside of each nostril. Saliva samples are also used for some tests, but nasal swabs are most commonly used. The U.S. Centers for Disease Control and Prevention (CDC) and state public health agencies generally require RT-PCR based testing, including as confirmation following antigen, antibody, or other screening methods. Revised infectious disease guidance¹⁴ defines laboratory confirmation by antigen test as “presumptive” not confirmed, and states are reporting those separately often as “probable” until confirmed by RT-PCR. Given these federal and state requirements, EH&E recommends choosing tests analyzed by RT-PCR over other molecular options, when feasible.

Challenges related to this type of sample collection and testing include:

- Test result represents exposures from 3-5 days prior to testing day.
- False negative results reported due to improperly collected sample material or post-testing exposure.
- Shortages of sampling supplies and personal protective equipment (PPE) for healthcare workers who collect the samples.
- Patient discomfort with collection of samples, typically worse with nasopharyngeal swabs.
- Turnaround time for the sample results is usually 2-5 days or longer depending on laboratory used.
- Cost for sample analysis alone is typically in the \$35 to \$100 range as of January 2021.
- Often screening for those without symptoms or potential exposures is not covered by health insurance and will not be ordered by health care providers.

At the time of development of this *Field Guide*, all approved viral RNA tests must be conducted under the supervision of a qualified healthcare professional. Some nasal swabs can be self-collected, but analysis must be conducted by a certified laboratory.

¹³ Rush Medical Center. *Swab Differences for POC and Standard COVID Testing*. <https://www.rush.edu/sites/default/files/coronavirus-swab-differences.pdf>

¹⁴ Council of State and Territorial Epidemiologists. 2020. Update to the standardized surveillance case definition and national notification for 2019 novel coronavirus disease (COVID-19), [Interim-20-ID-02](#).

Several researchers have developed tests using saliva samples instead of upper respiratory swabs.¹⁵ These tests are easier to conduct, more comfortable for patients, and may provide greater detection sensitivity, although some children may have difficulty with the collection method. Saliva-based tests may be a preferable indicator for infection with less variability in results and could enable sample collection for SARS-CoV-2 by non-professionals or by a health professional via a video telehealth visit to ensure proper sample collection. This would eliminate the risk of person-to-person exposure and minimize costs associated with sample collection by a healthcare professional.

Several barriers exist to the use of viral RNA testing as a routine screening tool. Some of these include the limited availability of the RNA/PCR test kits, reagents used for laboratory analysis, and the number of RT-PCR laboratory platforms available. Rapid-screen RT-PCR tests are also in development, and one received an EUA approval in September 2020.

Rapid Antigen Testing

Some rapid diagnostic tests for the presence of antigens associated with SARS-CoV-2 are available for use in health care, and increasingly other settings. Antigens are viral proteins that are expressed while a virus is rapidly replicating, which is generally the case in earlier stages of infection. These tests use nasal or throat swabs and results are available within 30 minutes. Some of these devices are widely used for screening and are commonly used for other diagnoses, including influenza (e.g., the Quidel Sofia 2 Antigen test). Antigen tests tend to have lower sensitivity, meaning they are less able to detect cases with low viral loads or may not be able to detect cases until later in their infectious course. Some testing programs using these devices use repeated or frequent rapid screening supplemented by RT-PCR for symptomatic cases that report negative antigen tests and for confirming positive antigen tests. Developments in these methods should be monitored and testing strategies adjusted based on approval and availability of these tests. Considerations for testing using antigen tests are provided by the CDC.¹⁶

Other rapid screening tests, employing various antigens or enzymes related to SARS-CoV-2, are under development. These tests have potential broad appeal for surveillance monitoring, if they perform well in the real-world. In addition, most rapid screen antigen tests have been approved for use on symptomatic individuals and their sensitivity is known to be lower than for RT-PCR.

Antibody Testing

Serology, or antibody testing, for SARS-CoV-2 is conducted by collecting a blood sample from a small finger prick to see if a person's immune system demonstrates a response to the virus. Typically, the body's immune system develops antibodies when they are exposed to a pathogen

¹⁵ U.S. Food and Drug Administration. *Coronavirus (COVID-19) Update: FDA Authorized First Diagnostic Test Using At-home Collection of Saliva Specimens*. <https://www.fda.gov/news-events/press-announcements/coronavirus-covid-19-update-fda-authorizes-first-diagnostic-test-using-home-collection-saliva>

¹⁶ U.S. Centers for Disease Control and Prevention. *Interim Guidance for Rapid Antigen Testing for SARS-CoV-2*. September 4, 2020. <https://www.cdc.gov/coronavirus/2019-ncov/lab/resources/antigen-tests-guidelines.html>

(such as a virus) to destroy or neutralize it. The immune system will then recognize this pathogen if it is encountered in the future and mobilize a response, generally providing some level of immunity against the virus. A positive antibody test indicates that an individual was exposed to SARS-CoV-2 at some point in the past, and their immune system was able to launch an antibody-forming immune response. A positive antibody test does not signify that an individual is not currently infected with the virus. Most public health agencies require follow-up RT-PCR testing if an antibody test is positive.

Currently, it is unknown whether a positive antibody test can affirm that a person has immunity and will be protected from infection or reinfection with COVID-19. Other unknowns include how long antibodies to SARS-CoV-2 stay in the body; what level of detected antibody determines immunity; and how long immunity might last. The antibody test alone is not useful as a screening tool to determine potentially infective people, or those that have long-term immunity. The application of antibody testing in camp settings is not recommended. Antibody testing can be effective in certain clinical settings and in wide-scale population studies, but not for screening to identify potentially infectious cases.¹⁷

¹⁷ GeurtsvanKessel CH, et al. 2020. An evaluation of COVID-19 serological assays informs future diagnostics and exposure assessment. *Nature Communications*, 11(3436). <https://www.nature.com/articles/s41467-020-17317-y>.

14.0 VACCINES

This section provides background information on the COVID-19 vaccines currently available in the U.S. and potential impacts on camp operations. As vaccines become available and vaccinations increase, they will provide an additional layer of risk mitigation for both individuals and the camp community. However, until vaccination rates reach effective community/herd immunity levels, the best protection from COVID-19 will be a combination of COVID-19 vaccinations along with the other non-pharmaceutical interventions (NPIs) presented in the Field Guide.

VACCINE INFORMATION

Background

Vaccinations allow individuals to have protective immunity without the serious side effects of contracting the disease itself. Additionally, when communities are protected at sufficient levels against diseases, they are afforded the ability to gather safely. The COVID-19 vaccine is recommended because, for some individuals, becoming infected with COVID-19 can have serious, life-threatening complications (especially those with specific infirmities or co-morbidities who are at high risk). Even those who are not at a high risk of developing complications could spread the disease to friends, family, and others if infected with the virus.

Status of Vaccines (as of January 12, 2021)

As of January 12, 2021, there are currently two vaccines for COVID-19 available through emergency use authorization (EUA) in the U.S., produced by Pfizer and Moderna. The vaccines are being distributed and allocated with prioritization for health care providers, emergency responders, and those at greater risk of severe illness from COVID-19. The general population (ages 16+) is expected to start receiving vaccines in April 2021, based upon the current projections of vaccine manufacturing and distribution conditions, and is subject to change.

The Pfizer vaccine requires two injections 21 days apart. The Moderna vaccine requires two injections 28 days apart. The COVID-19 vaccine should not be taken within 14 days of receiving other types of vaccinations.

The Pfizer vaccine is approved for individuals over 16 years old, and the Moderna vaccine is approved for those 18 and older. These ranges were determined because the vaccines were tested in those age groups. Those who are pregnant, breastfeeding or have underlying health conditions (including allergies) are advised to consult with their healthcare provider before getting the vaccine.

Both of the currently available vaccines were shown to be safe and effective, regardless of gender, race, and ethnicity. The clinical trials reflected a diverse group of individuals. The

vaccine has also been shown to be safe and effective in people who have already had infection with COVID-19; it is recommended to get the vaccine to prevent reinfection.

There are vaccines from other companies still undergoing clinical trials that may only require one injection (e.g., Johnson & Johnson vaccine produced in partnership with Beth Israel Deaconess Medical Center).

Pediatric Availability

Pfizer and Moderna have initiated trials with children as young as age 12, but tests have not yet included younger children.¹⁸ These trials will need to be followed up by U.S. Food and Drug Administration (FDA) review before distribution.

The guidance provided by the Centers for Disease Control and Prevention (CDC) Advisory Committee on Immunization Practices (ACIP) recommends placing individuals ages 16 and over in Phase 2 (unless they have been placed in an earlier phase due to occupation or health conditions), so even though the Pfizer vaccine is approved for teens aged 16 and 17, they will not be able to immediately receive the vaccine.¹⁹ The order of prioritization is determined by individual states.

VACCINE SAFETY

Vaccine Development

The vaccines were developed on a prompt schedule because of the pressing need to end the pandemic; however, the FDA required safety standards were not sidelined. Tremendous resources were devoted to the effort so that research and development processes could be conducted through parallel processes in order to speed up the effort.

How the Vaccine Works

Individuals cannot get COVID-19 from the vaccine. There is no live or weakened virus in the vaccine. These two vaccines use a technology called mRNA (messenger ribonucleic acid) to deliver genetic instructions to cells to temporarily make a certain protein that looks like the COVID-19 virus to the immune system. This mRNA never enters the nucleus of the cells where DNA is, and it cannot change or interact with DNA. The presence of this protein will prompt the immune system to mount a natural defense against future exposure to the COVID-19 virus. This process is illustrated in Figure 14.1.

¹⁸ Connecticut Children's. *When Will the COVID-19 Vaccine Be Available for Kids, and Will It Be Safe for Your Family?* <https://www.connecticutchildrens.org/coronavirus/when-will-the-covid-19-vaccine-be-available-for-kids-and-will-it-be-safe-for-your-family/>

¹⁹ Dooling K, Marin M, Wallace M, et al. 2021. *The Advisory Committee on Immunization Practices' Updated Interim Recommendation for Allocation of COVID-19 Vaccine — United States, December 2020*. CDC Morbidity and Mortality Weekly Report. <https://www.cdc.gov/mmwr/volumes/69/wr/mm695152e2.htm>

How the RNA vaccine would work

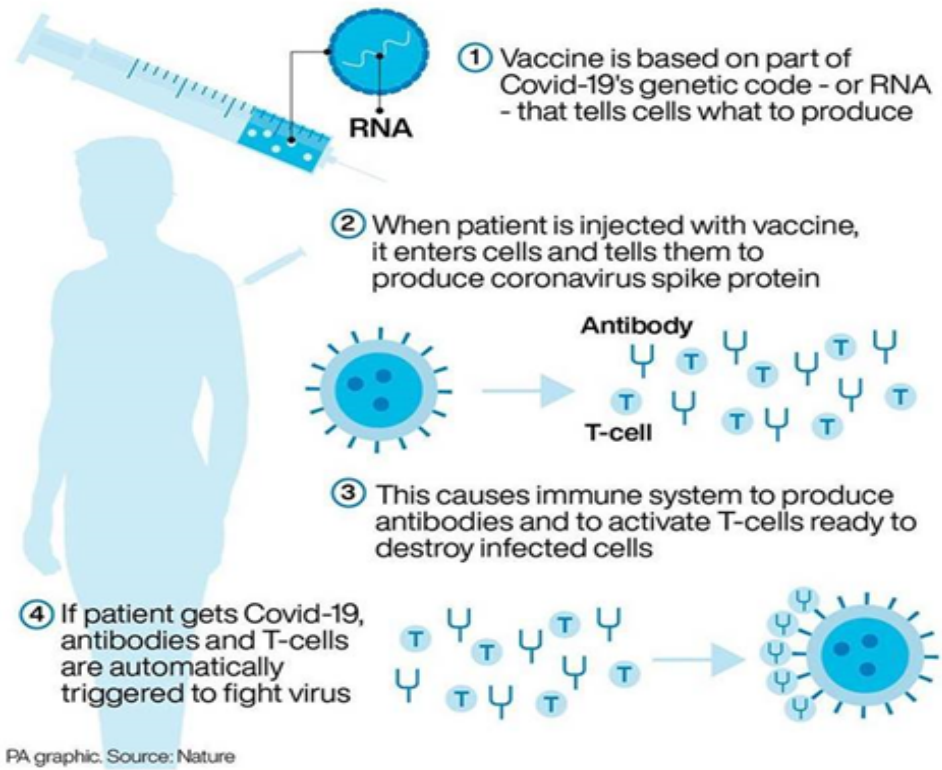


Figure 14.1 How the RNA Vaccine Would Work (PA Graphic. Source: Nature)

Vaccine Safety Monitoring

The CDC has expanded efforts to monitor possible side effects of the vaccine that were not presented during clinical trials.²⁰ Experts quickly investigate any potential safety concerns to determine if changes are needed to vaccine recommendations. The FDA also closely monitors and studies any potential side effects that are either rare or may more acutely impact individuals who have a higher risk of side effects than those in the clinical trial (e.g., older individuals and those with chronic medical conditions).²¹ This information is used to adjust recommendations and, if necessary, to balance the benefits of the vaccine with its risk.

VACCINATED CAMPERS AND STAFF

Vaccination

Right after vaccination, individuals can expect some soreness in the arm and some people may experience a low-grade fever, fatigue, body aches, chills, and headache. These are normal symptoms that show the body is building immunity and that the vaccine is working as intended.

²⁰ CDC. *Ensuring the Safety of Vaccines*. <https://www.cdc.gov/coronavirus/2019-ncov/vaccines/safety.html>

²¹ FDA. *Ensuring the Safety of Vaccines in the United States*.

<https://www.fda.gov/files/vaccines,%20blood%20&%20biologics/published/Ensuring-the-Safety-of-Vaccines-in-the-United-States.pdf>

Individuals who are vaccinated will receive a certificate of vaccination. Vaccinated individuals will not test positive on tests for current viral infection. However, they may receive a positive result from an antibody test at some point after the vaccination, which shows that the vaccine is working (i.e., the body will produce the antibodies needed to fight infection after receiving the vaccination).

Post-Vaccination Behavior

It is recommended that individuals still use NPIs after receiving the vaccine, including but not limited to maintaining 6 feet of physical distance, wearing a face covering, and washing hands frequently. This will offer the best protection from getting or spreading the disease. It takes about 2 weeks for the body to develop a defense to the virus after getting the vaccine, so vaccinated individuals would still be vulnerable to infection during that time.

It is currently unknown if those who are vaccinated can spread the virus. It will take many months for enough people to be protected (herd immunity) by vaccination before other NPIs can begin to be discontinued.

Camp Immunization Policies and Camper and Staff Intake Records

Camps should review their immunization policies and consider the policy statement and recommendations of the American Academy of Pediatrics (AAP) as published in the journal *Pediatrics* in July 2019.²² This policy statement has been reviewed and is supported by the American Camp Association and Association of Camp Nursing.

Camps should provide space to indicate vaccine status on camp intake and personnel forms, according to the camp's existing process for other vaccinations. This information will help health center staff to determine if symptoms identified during health screenings could be related to vaccination (if symptoms appear shortly after vaccination) or other illnesses (if symptoms appear after the individual has been vaccinated for about 2 weeks).

At this time, it is not recommended to exclude campers or staff who have not received the vaccination as there are limitations related to access the vaccine and age restrictions for vaccination.

At Camp

Camps should continue to implement NPIs for all campers and staff (including those vaccinated), such as maintaining 6 feet of physical distance, wearing face coverings, and washing hands frequently. Camps should communicate this expectation of behaviors for those vaccinated in pre-camp materials (including expected behaviors in the days leading up to camp).

²² AAP. *Improving Health and Safety at Camp*. <https://pediatrics.aappublications.org/content/144/1/e20191355>

If the camp has implemented a testing program, those who are vaccinated should still be included in their testing group. Vaccination currently protects the individual from the disease; however, we currently do not know if those vaccinated can still spread the illness to others. Therefore testing for active illness can continue to be a helpful activity to support health of the community.

REFERENCES AND RESOURCES

CDC. *Frequently Asked Questions about Vaccination*. <https://www.cdc.gov/coronavirus/2019-ncov/vaccines/faq.html>

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APPENDIX A – REFERENCES AND RESOURCES

REFERENCES AND RESOURCES

Information for the *Field Guide* was compiled from existing sources of information from federal and state agencies as well as nongovernmental organizations and industry associations. The list below is representative of the resources that were available online as of May 13, 2020. Additional resources are listed from CDC and AAP that were posted in June 2020.

White House

Link: [Guidelines for Opening Up America Again](#)

U.S. Centers for Disease Control and Prevention (CDC)

Link: [Coronavirus \(COVID-19\)](#)

Link: [Suggestions for Youth and Summer Camps](#)

Sub-pages include but not limited to the following:

Link: [Youth Programs and Camps During the COVID-19 Pandemic.](#)

Link: [CDC Activities and Initiatives Supporting the COVID-19 Response and the President’s Plan for Opening America Up Again](#)

Link: [Suggestions for Youth and Summer Camps](#)

Link: [Suggestions for Youth Programs and Camps: Readiness and Planning Tool](#)

Link: [Interim Guidance for Administrators of US K-12 Schools and Child Care Programs](#)

Link: [Guidance for Cleaning and Disinfection](#) and [Reopening Guidance for Cleaning and Disinfection Public Spaces, Workplaces, Businesses, Schools, and Homes](#)

Link: [Interim Guidance for Businesses and Employers Responding to Coronavirus Disease 2019 \(COVID-19\), May 2020](#)

Link: [Cleaning and Disinfection for Non-emergency Transport Vehicles](#)

Link: [Symptoms of Coronavirus](#)

Link: [Environmental Health Practitioners - Congregate Facilities and Shelters](#)

Link: [People Who Need to Take Extra Precautions - People at Higher Risk for Severe Illness](#)

Link: [Gatherings and Community Events - Ongoing Mitigation Guidance](#)

Link: [Gatherings and Community Events - Communications Resources](#)

Link: [Parks and Recreational Facilities - Health and Safety Considerations](#)

Link: [Parks and Recreational Facilities - Considerations for Public Pools, Hot Tubs, and Water Playgrounds During COVID-19](#)

Link: [Contact Tracing: Part of a Multipronged Approach to Fight the COVID-19 Pandemic](#)

Link: [COVID-19 Contact Tracing Training: Guidance, Resources, and Sample Training Plan](#)

Link: [Guidance for Child Care Programs that Remain Open](#)

Link: [Interim Guidance for Administrators of US K-12 Schools and Child Care Programs](#)

Link: [Talking with children about Coronavirus Disease 2019](#)

Link: [Interim Guidance for Implementing Home Care of People Not Requiring Hospitalization for Coronavirus Disease 2019 \(COVID-19\)](#)

Link: [When and How to Wash Your Hands.](#)

Link: [Hand Hygiene.](#)

Link: [Handwashing: A Healthy Habit in the Kitchen.](#)

Link: [Life is Better with Clean Hands Campaign.](#)

Link: [Protect Yourself.](#)

Link: [Social Distancing.](#)

Link: [Guidance for Reopening Buildings After Prolonged Shutdown or Reduced Operation](#)

Link: [Interim Guidance for Businesses and Employers Responding to Coronavirus Disease 2019 \(COVID-19\)](#)

Link: [Extended Hot Tub/Spa Closures](#)

Link: [Considerations for Aquatic Venues](#)

Link: [Healthy Swimming, Aquatic Professionals](#)

Link: [Healthy Swimming, Operating Public Pools](#)

Link: [Food Safety and Coronavirus Disease 2019 \(COVID-19\)](#)

Link: [Cleaning and Disinfection for Community Facilities](#)

Link: [Cleaning and Disinfection Your Facility](#)

Link: [Grocery & Food Retail Workers](#)

Link: [Multisystem Inflammatory Syndrome in Children \(MIS-C\) Associated with Coronavirus Disease 2019 \(COVID-19\)](#)

Link: [Bus Transit Operators](#)

Link: [Disinfecting Transport Vehicles](#)

Link: [Using Personal Protective Equipment \(PPE\).](#)

Link: [How to Remove Gloves](#)

U.S. Occupational Safety and Health Association

Link: [Personal Protective Equipment](#)

U.S. Environmental Protection Agency

Link: [Coronavirus \(COVID-19\)](#)

Link: [Information on Maintaining or Restoring Water Quality in Buildings with Low or No Use](#)

Link: [Disinfectant Use and Coronavirus \(COVID-19\)](#)

Link: [List N: Disinfectants for Use Against SARS-CoV-2](#)

U.S. Federal Food and Drug Administration

Link: [Food Safety and the Coronavirus Disease 2019 \(COVID-19\)](#)

Link: [Best Practices for Retail Food Stores, Restaurants, and Food Pick-Up/Delivery Services During the COVID-19 Pandemic](#)

Association of Camp Nursing

Link: [Coronavirus COVID-19 Considerations for Camps](#)

Link: [Communicable Disease Management in the Camp Setting](#)

Link: [Example Screening Form for Opening Day](#)

American Red Cross

Link: [Coronavirus: How to Talk to Kids and Keep Them Healthy](#)

Link: [Coronavirus \(COVID-19\): Prevention & Safety Information for Students.](#)

American Society of Heating, Refrigerating and Air-Conditioning Engineers

Link: [COVID-19 \(Coronavirus\) Preparedness Resources](#)

American Society of Heating, Ventilating, and Air Conditioning Engineers

Link: [ASHRAE Epidemic Task Force, Building Readiness](#)

The Swim Guide

Link: [COVID-19 and Recreational Water Quality.](#)

ServSafe

Link: [Food Safety Training and Resources.](#)

American Industrial Hygiene Association

Link: [Guidance for General Office Settings.](#)

National Safety Council

Link: [First Aid Technical Bulletins](#)

American Heart Association

Link: [Interim Guidance for Life Support for COVID-19.](#)

National Collegiate Athletic Association

Link: [COVID-19 Advisory Panel Exercise Recommendations.](#)

American Academy of Pediatrics

Link: [COVID-19 Planning Considerations: Return to In-person Education in Schools,](#)

Link: [Guidance for Families and Pediatricians on Camp Attendance During the COVID-19 Pandemic](#)

APPENDIX B – SAMPLE LETTER TO PARENTS AND GUARDIANS

[Date]

Dear [Camp Name] Parent/Guardian,

I hope this letter finds you and your family safe and healthy. In the interest of open communications with parents/guardians, I am writing to you to inform you that a [camper staff member, etc.] recently tested positive for COVID-19. Please understand that for privacy reasons, we are unable to share the individual's name or any identifying information.

Under the guidance of our medical response team, the individual has been isolated and sent home to recover and/or seek appropriate medical attention. In the leadup to the positive test results, the individual was participating in normal camp activities. As such, they may have come in contact with other campers and staff.

Our first priority has been protecting our campers and staff; therefore, we have taken several actions to assess and reduce potential spread. We initiated contact tracing by a team of trained professionals to identify individuals who may have been exposed to the positive individual. Those individuals have been notified, and they are being isolated and/or monitored for symptoms. We have performed targeted cleaning and disinfecting of areas in which the positive individual has recently been in additional to our already-enhanced cleaning procedures. Physical distancing measures, the wearing of masks where appropriate, hand hygiene, coughing/sneezing etiquette, and other protective measures already in place will remain and will be strictly enforced for our campers' and staff's protection.

In light of these events and in the continued interest of communication and transparency, I will keep you informed of this situation if there are any updates.

Please do not hesitate to contact [contact name and information] if you have any questions or concerns.

Stay healthy,

[Name]

[Position]

[Camp Name]

An additional Example letter has been developed and provided by CDC.²³

²³ <https://www.cdc.gov/coronavirus/2019-ncov/downloads/community/Summer-Camp-Letter-To-Parents.docx>

APPENDIX C – SURFACE CLEANING AND DISINFECTION CHECKLIST

The following outlines surfaces that should be cleaned and disinfected at least daily and preferably between uses/groups or after learning of a positive COVID-19 case. Refer to the [EPA List of Disinfectants for Use Against SARS-CoV2](#).

Frequently Touched Indoor Surfaces in Common Spaces

Common spaces include but are not limited to changing areas/locker rooms, gyms, classrooms, dining hall/cafeteria, and restrooms.

Dining

- Tabletops
- Cafeteria/food trays
- Ice dispensers and buttons
- Refrigerator handles
- Vending machines
- Floors
- Freezer door handles
- Chairs/Benches

General and Cabins

- Door handles/doorknobs
- Handrails
- Light switches
- Countertops
- Cabinet handles
- Drawer handles
- Stair and hall rails
- Any other surfaces frequently touched by campers or staff

Bathrooms / Locker Rooms

- Locker room counters
- Changing room benches and chairs
- Restroom counters
- Sinks
- Faucets

- Faucet handles
- Restroom soap dispensers
- Toilets/urinals
- Toilet seats
- Toilet/urinal handles
- Restroom paper towel handles
- Restroom surfaces
- Restroom door handle
- Showers
- Shower handles

Recreation

- Shared sports equipment
- Shared craft tools and art supplies

Classrooms

- Desks
- Shared electronic equipment
 - Keyboards
 - Computer mouse
 - Touchscreen items
 - Laptops
 - Phones

Frequently Touched Outdoor Surfaces

- Grab bars
- Railings
- Play structures
- Picnic tables and benches
- Play equipment such as basketballs

CLEANING RELATED TO A SUSPECTED/PROBABLE CASE OF COVID-19

If it has been less than 7 days since the person who is sick visited or used the facility, conduct cleaning and disinfection of the following. Wait up to 24 hours or as long as practical before you clean or disinfect the space to allow respiratory droplets to settle. Outdoor venues and equipment could be cleaned without delay.

- Frequently touched surfaces (above list) within all areas/buildings, including outdoor surfaces used by sick camper or in which camper was present for at least 15 minutes.
- Camper's cabin
 - Clean and disinfect area extending 12 feet in all directions around camper's sleeping quarters
 - All horizontal surfaces
 - High touch objects in common areas
 - Handrails
 - Exterior door entry handles
 - Cabinet handles
 - Restroom door handles
 - Entire bathroom
 - Soft and porous surfaces (*Note: If some porous surfaces are not suitable for cleaning with disinfectants, then clean them as much as possible and attach a sign to them saying they are not to be used or touched for three days*)
 - Carpeted floor
 - Rugs
 - Drapes
 - Bunk area

APPENDIX D – SAMPLE RESTROOM / LOCKER ROOM CLEANING AND DISINFECTION CHECKLIST

The following outlines restroom/locker room surfaces that should be cleaned and disinfected at least daily and preferably between uses/groups or after learning of a positive COVID-19 case. Refer to the [EPA List of Disinfectants for Use Against SARS-CoV2](#).

General Restroom

- Sinks
- Faucets
- Faucet handles
- Floors
- Floor drains
- Light switches
- Mirrors
- Paper towel dispensers
- Wall/stall partitions
- Waste baskets
- Soap dispensers
- Paper towel handles
- Restroom door handles
- Restroom countertops
- Sanitary product dispenser knobs
- Baby changing stations

Toilet Stalls

- Toilet stall doors
- Toilet stall locks
- Toilet stall handles

- Toilet paper roll holders and surrounding surfaces
- Toilet seat cover dispensers
- Toilets/urinals
 - Toilet/urinal handles
 - Interior surfaces
 - Exterior surfaces
 - Toilet seats
- Lid/door of in-stall waste receptacle

Showers

- Shower stall doors
- Shower stall locks
- Shower stall handles
- Shower handles/knobs
- Soap dispensers

Locker Rooms

- Locker room counters
- Changing room benches and chairs
- Locker room door handles
- Changing room door handles
- Locker handles