# OUTBREAK CONSIDERATIONS FOR LONG-TERM CARE COMMUNITIES

**ASPR**

ADMINISTRATION FOR STRATEGIC PREPAREDNESS AND RESPONSE

**TRACIE**
HEALTHCARE EMERGENCY PREPAREDNESS
INFORMATION GATEWAY

## OUTBREAK CONSIDERATIONS FOR LONG-TERM CARE COMMUNITIES

Long-term care (LTC) communities (including nursing homes, skilled nursing facilities, memory care, group homes, and assisted living facilities) present unique health care concerns during infectious disease outbreaks and pandemics. Congregate living situations provide the opportunity for rapid disease spread and LTC residents tend to have characteristics that put them at increased risk of severe illness or death due to infection, including older age and presence of comorbid conditions. Increased risk of exposure to and transmission of infectious diseases is also a concern for LTC staff, who may have close physical contact with residents, often work extended shifts or in more than one location, and may require additional training in infection prevention practices. This compilation of considerations for LTC communities is based on lessons learned during the COVID-19 pandemic and infectious disease outbreaks and includes links to resources that can inform planning and response efforts.

This resource was created in 2020 to assist LTC communities in managing the early months of the COVID-19 pandemic. ASPR TRACIE revised the document in 2023 to be relevant to other infectious disease outbreaks. LTC communities may find these considerations useful when managing seasonal and other infectious disease outbreaks within the facility and while preparing for the potential introduction of an infectious disease circulating in the surrounding community. This version includes a new section with links to resources on lessons learned from the COVID-19 pandemic.

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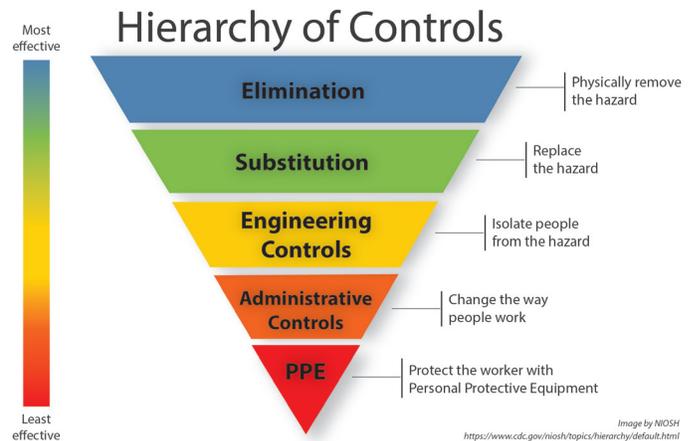
# EMERGENCY PLANNING CONSIDERATIONS

All LTC communities should periodically assess and adjust their emergency plans based on the growing knowledge of the characteristics of pathogens of concern, their effects on human health, and the experiences of facilities that have effectively prevented or controlled outbreaks. This requires ensuring that plans and structures are in place to effectively respond to outbreaks, including the ability to contribute to the overall community response by maintaining operations throughout the incident. The following considerations can help you bolster your LTC community's plans and preparedness and are accompanied by a link to related resources:

» Review your community's emergency operations plan, hazard vulnerability assessment, continuity of operations plan, and/or business continuity plan to identify any courses of action that require implementation or revision.

» Ensure plans have been updated based on lessons learned during previous infectious disease outbreaks; incorporate corrective actions identified in after-action reports/improvement plans.

» Ensure your employees and volunteers (if applicable) are trained in your community's emergency operations plan, specifically, but not limited to, the concept and structure of incident command. Keep a record of employee training.

» Ensure your plans include succession planning and a clear chain of command with defined roles and responsibilities should leadership be exposed or become ill. LTC communities should aim to train at least three levels deep to provide relief should those with primary or secondary responsibility for each management position be unable to work.

» Maintain awareness of potential outbreaks of concern through updates from local and state authorities, health care coalitions (HCC), the Centers for Disease Control and Prevention (CDC), the Centers for Medicare & Medicaid Services (CMS), the World Health Organization (WHO), professional organizations like the Association for Professionals in Infection Control and Epidemiology, and other reputable sources. Sign up for federal, state, and local health alert messages if you are not already subscribed.

» Assess your LTC community's current infection prevention practices, policies, and education, and seek resources to address areas of concern.

» Coordinate your planning with your local HCC and/or public health agency.

» Identify potential resource needs and develop coordination strategies to address them.

» Know what factors trigger your local and state conventional, contingency, and crisis standards of care plans, including resident care strategies during a health care surge.

» Develop plans for personal protective equipment (PPE) that include usage, procurement, and storage strategies.

» Establish a framework for ensuring quality in the context of scarce resources, including review of staffing and care processes and extended and reuse of PPE.

» Establish a process to ensure community accessibility to the local LTC ombudsman during an infectious disease outbreak or other emergency/disaster.

» Identify backup systems for critical utility and information technology systems used by your community, including electronic health records and web-based recordkeeping systems. Test and scan backups periodically for use and to monitor cyber health.

» Conduct workshop discussions/tabletop exercises to review the plans and processes for managing residents who display the signs and symptoms of an infectious disease during a known outbreak and revise as required.

» Consider other hazards in your surrounding community (e.g., hurricanes, wildfires) and assess how their occurrence concurrently with a disease outbreak might affect your plans.

**Related Resources for Emergency Planning »**

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# INFECTION PREVENTION CONSIDERATIONS

The health and safety of staff and residents – and the continued operations of a LTC facility – are dependent on effective infection prevention efforts. The National Institute for Occupational Safety and Health (NIOSH) encourages workplaces to follow the hierarchy of controls framework to protect workers from exposure during infectious disease outbreaks. When implementing these measures, LTC managers can engage experts in geriatric medicine and gerontology to tailor measures to patient populations and balance the risk versus benefit of physical distancing as it relates to social isolation and its impact on morbidity and mortality. Measures can be developed for residents with cognitive impairment and dementia while balancing person-centered care and all LTC residents' rights with interventions taken to reduce transmission of disease.



Hierarchy of Controls

Most effective — Least effective

- Elimination — Physically remove the hazard
- Substitution — Replace the hazard
- Engineering Controls — Isolate people from the hazard
- Administrative Controls — Change the way people work
- PPE — Protect the worker with Personal Protective Equipment

*Image by NIOSH*
*https://www.cdc.gov/niosh/topics/hierarchy/default.html*

The two most effective controls – elimination and substitution – are limited in an LTC environment. However, vaccination may have a role in elimination depending on the infectious agent and availability of vaccine. The exclusion of outside vendors and visitors can eliminate the risk of them bringing a pathogen into the community and enforcement of proper hand hygiene can eliminate the presence of pathogens on hands. A combination of engineering controls, administrative controls, and PPE may substantially decrease exposure risks and help minimize disease transmission in LTC communities.

## Engineering Controls

» Evaluate heating, ventilation, and air-conditioning (HVAC) systems to determine if options exist to isolate specific areas of the building. Seek expert HVAC advice on the consequences of adding walls to an area.

» Understand where and how air flows in the building and how it can be channeled to reduce infection risk (e.g., appropriate placement and use of exhaust fans).

» Increase fresh air intake when possible and reduce recirculated air.

» Increase the filter efficiency level when possible to enhance filtration of recirculated air.

» Minimize use of box fans in enclosed spaces. Eliminate box fans in isolation areas.

» Ensure items in resident rooms do not block vents or otherwise obstruct air flow.

» Use bathroom vents in private rooms but evaluate and maintain to ensure there is no fire risk from constant operation.

» Keep doors closed, when feasible.

» Consult with HVAC expert to determine whether the facility (or areas of the facility) meets airborne infection risk mitigation standards for buildings.

» Conduct maintenance to ensure the HVAC system is operating efficiently.

» Consider formal assessment by an engineer to ensure the HVAC system is performing as designed and that modifications have the anticipated results on airflow.

## Administrative Controls

» Identify ways to encourage and enforce physical distancing during a facility outbreak or when local levels of transmission are high and there is a risk of introduction of disease into the LTC community:

- Serve meals in resident rooms rather than in common areas.

- Provide single use servings of condiments (e.g., salt and pepper shakers) to avoid communal containers.

- Reduce or discontinue group activities for residents.

- Plan social activities that do not require the use of common areas.

- Explore and implement remote communication strategies to maintain connections between residents and their families if in-person visitation is restricted. This may include assessing the ability of residents to use different types of technology and devices on their own or with assistance, providing access to devices, and upgrading facility-wide wireless networks or other technology.

- Develop a safe method to continue aquatic services in communities with shared spa or pool areas. If bathing/shower areas are shared, they may require additional planning.

- Provide a safe, clean space for staff to take breaks (and remove respiratory protection to eat and drink).

- Stagger meals and other breaks for staff to enable physical distancing in break rooms.

- Limit the number of staff who enter resident rooms while ensuring that staff enter as often as needed for the physical and emotional wellbeing of residents.

- Establish infection prevention strategies for staff who go from room to room, such as PPE protocols and hand hygiene mandates.

- Allow telework and plan for virtual meetings and operations as feasible for administrative staff. This includes determination of the best remote technologies to meet the facility's needs and cybersecurity considerations.

» Align facility access policies to current local, state, or federal guidance and disease transmission dynamics in your surrounding community to limit the introduction of infectious diseases in your facility.

- Maintain signage at your facility entrances on visitor procedures and restrictions. Include instructions on visitor conduct while on the premises.

- Establish an enhanced screening process for staff and visitors when appropriate.

- Train staff on protocols for limiting facility access points and managing movement of providers, suppliers, surveyors, and vendors (e.g., specialty providers, dialysis, laboratory services, and beauticians). Include information on screening procedures, triage protocols, and source control measures.

- Ensure access to palliative care, social work, or behavioral health providers to enable discussions on goals of care and end of life and ensure these goals are discussed and documented with each resident and family.

- Establish facility access protocols to allow for visitation by loved ones to prevent a decline in wellbeing due to prolonged separation.

- Ensure access for LTC ombudsman representatives for both investigations and advocacy.

» Review and update infectious disease-related workforce policies.

- Implement policies and procedures to screen and monitor all staff for potential illness during facility or surrounding community outbreaks.

- Establish policies to increase protection for staff with known risk factors.

- Review workforce exposure policy and update as needed.

- Establish policy and expectations for sick leave, testing, and pay while contagious or quarantined.

- Update return to work policy as needed to reflect current local, state, and federal guidance.

- Identify staff and visiting providers who work in other facilities in addition to yours. Have staff who work in multiple communities notify you when they have been to other LTC communities during an outbreak.

- Remind staff that their behaviors outside work can put residents at risk as infected staff have been the source of past outbreaks in LTC communities.

- Maintain an up-to-date policy for staff who travel domestically or internationally. This policy should account for self-quarantine requirements imposed by your state or locality associated with travel in specified jurisdictions.

- Explore or implement mandatory vaccination of staff for seasonal influenza and other potential outbreak threats. This policy should explicitly state which

personnel are covered, what the consequences are for non-compliance, and what waivers or exemptions are in place for individuals for whom vaccination is not indicated.

» Review environmental services practices in your community.

- Follow manufacturer instructions for proper use of an Environmental Protection Agency-registered disinfectant. Ensure all staff understand and comply with contact times.

- Make disinfectants and hand hygiene materials readily available at all entrances, workstations, break areas, and other locations as appropriate. Consider the use of foaming hand sanitizers if unable to place liquid or gel solutions due to resident safety concerns.

- Place visible signs and reminders specific to hand, surface, and respiratory hygiene.

- During outbreaks, clean resident rooms, common areas for residents and staff, and offices more

frequently. Pay particular attention to high touch surfaces.

- Encourage staff to declutter work areas to facilitate cleaning and disinfection.

- Clean bathrooms frequently. Perform a thorough cleaning at least daily and wipe down after each use.

- Sanitize food preparation area after each meal period and at the end of each day.

- During outbreaks, advise administrative staff not to use other people's desks, phones, or other high touch items. If sharing phones or keyboards, advise staff to disinfect them after each use.

- Use vacuum cleaners that are equipped with high-efficiency particulate air (HEPA) filters. Vacuum carpets when the room or hallway is empty of other people; doors to adjacent rooms should be kept closed and the operator should be wearing gloves and respiratory and eye protection during outbreaks.

## Personal Protective Equipment

» Establish and enforce policies on source control.

» Post signage/checklists in areas where PPE will be donned/doffed.

» Assess the current respiratory protection program and determine the need for updates, including policies around the use of PPE and expectations for staff according to CFR 1910.134.

» Ensure the respiratory protection program includes the following required elements:

- A written program

- Staff medical evaluation

- Staff training

- Fit testing

- Record keeping

» Train all staff in appropriate selection and use of all PPE. Training should include information on PPE

selection and proper donning and doffing techniques and an assessment of competency.

» Arrange for N95 respirator fit testing.[1] Ensure that staff who need to wear N95s due to their responsibilities caring for residents are competent in performing a seal check and physically able to endure wearing a respirator.

» Establish par levels for the PPE supply in working areas.

» Establish rules on the supply of PPE in working areas to ensure it is being kept clean and in optimal condition.

» Develop a system for ensuring staff are complying with PPE protocols.

» Ensure staff have tools required for safely donning and doffing PPE in the areas where this will be performed (e.g., chairs, waste containers, trash bags, hand hygiene materials).

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[1] This document refers to N95 respirators throughout for simplicity. These considerations also apply to other types of NIOSH-approved particulate respirators that may be used in some LTC communities.

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- Ensure staff, residents, and visitors follow proper PPE disposal practices.

- Implement conservation strategies to optimize your supply of PPE as required.

# OPERATIONAL CONSIDERATIONS

LTC communities should review the day-to-day staffing, supply chain, and structures that support the delivery of quality care to residents and determine what modifications may be needed to enable safe continued operations during or in preparation for an outbreak. This involves ongoing internal and external communications and information sharing, staff education, supply chain monitoring, adjusting infectious disease testing protocols as needed, coordinating treatment and transfer decisions with staff and external partners, and meeting the behavioral health needs of staff and residents.

## Communication and Education

- Maintain updated workforce/volunteer contact information.

- Verify emergency point of contact information for all residents.

- Verify emergency contact information for HCC, local or state public health, emergency management, local hospitals, emergency medical services (EMS), transport providers, survey and certification agencies, LTC ombudsman, local and state elder affairs representatives, and any other key partners.

- Develop communications strategy with other LTC communities in the region to inform each other when there is a community outbreak.

- Review procedures for contacting other organizations (e.g., other LTC communities, hospitals, medical transport providers, public health), including on evenings and weekends.

- Know local, state, and federal notification and data reporting requirements associated with confirmed or suspected cases among residents and staff.

- Keep staff informed through regular communication briefings. Recognize that these briefings may need to be increased in frequency if information and knowledge is rapidly changing.

- Conduct just-in-time training to update staff on new information related to specific outbreaks.

- Develop and distribute information to staff about mitigation efforts in place and actions to be taken if a resident or staff member becomes symptomatic or tests positive. Ensure all staff understand your community's "identify, isolate, and inform" protocol.

- Follow local, state, and federal guidance on infection prevention. Be aware that guidance changes as additional knowledge is gained about novel pathogens. Ensure the facility medical director (where applicable) and other leaders have local and/or health care system subject matter expert contacts in infectious disease/infection prevention as well as geriatric and LTC medicine and gerontology to help with facility-specific questions.

- Ensure all staff are trained in infection prevention policies and procedures, including information about standard and transmission-based precautions, proper hand hygiene, and respiratory etiquette. Ensure facility leaders model expected practices.

- Develop and distribute "frequently asked questions" information to residents and their families. Ensure information about visitation and remote communications is included. Provide regular updates to reassure residents and their loved ones that your community is serious about care and safety.

## Staffing

» Provide guidance to staff on personal and family emergency planning.

» Review policies for use of personal time, sick time, and overtime hours. Develop contingency strategies and communicate current and updated policies with all staff. This should include policies on leave cancelation, mandatory overtime, and other involuntary work schedule considerations in the event of an outbreak causing a health care surge or staffing deficits.

» Review and maintain your process for tracking staff absence; update as needed.

» Review contingency staffing plans and update as needed.

» Determine how you will address workforce shortages. Consider adaptations to current staffing levels/schedules, contracting options, availability of volunteers, and staffing partnerships with other LTC or health care facilities.

  • Review the requirements in the CMS Final Rule on Emergency Preparedness and its updates that cover emergency staffing strategies (e.g., the use of volunteers and the process and role for integration

of state and federally designated healthcare professionals) to address surge needs during an emergency.

  • Understand state requirements for staffing and determine alternatives if they would be needed (e.g., using a paramedic in place of registered nurse, staff in other roles who could assist).

  • Understand any state-based waiver of interstate licensure or other requirements that may facilitate staffing.

» Know how to access expertise to bolster staff knowledge and skills. Some communities have partnered with other institutions or are in jurisdictions with strike teams that can provide staff training, PPE fit testing, infection prevention training, and clinical advice to prevent or control infectious disease outbreaks.

  • Consider partnerships with academic institutions that may have staff with clinical, infection prevention, public health, and other expertise and may be able to offer training or consultation to your team.

**Related Resources for Staffing »**

## Consumables/Supply Chain

» Identify supplies (e.g., nutrition, linens, pharmaceuticals) essential to the facility's operations, have backup vendor arrangements, and consider stockpiling to minimize disruptions to supply chain.

» Ensure availability of hand hygiene materials.

» Connect with vendors and suppliers to discuss their projected ability to meet your supply needs. Estimate potential supply needs during an outbreak and how your consumables usage would be affected if many residents were ill.

» Identify any local sources of materials and make resource needs known to the HCC and local public health department early.

» Estimate days on hand supply of PPE for your staff.

» Develop a plan for distributing PPE items and controlling your inventory.

» Learn about private and public sources for PPE, including N95 respirators, in your area and understand the circumstances under which public sources may be accessed by LTC.

» Consider retail sources for procedure masks, gloves, and barrier gowns if unable to obtain through usual vendors.

» Identify environmentally controlled storage areas for stockpiling consumables.

» Develop a plan to stockpile PPE and rotate it into use to avoid its expiration.

**Related Resources for Consumables/Supply Chain »**

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**Outbreak Considerations for Long-Term Care Communities**

## Laboratory/Testing

» Adjust protocols for testing based on local, state, and national testing guidance.

» Review arrangements with laboratories to conduct testing of suspected cases and understand testing options in the area, including turnaround time.

» Emphasize onsite specimen collection and point-of-care testing to minimize transport of residents to offsite facilities.

» Follow and revise established testing plan for staff to align with disease transmission dynamics in your community and regulatory requirements.

» Provide or use resources for staff training on the specimen collection processes.

» Learn about private and public distribution programs for test kits.

**Related Resources for Laboratory/Testing »**

## Treatment/Transport/Discharge

» Determine a process for identifying signs and symptoms of illness in residents.

» Ensure that policies on transfer to medical care are reviewed with the medical director and/or the resident's primary care physician (where applicable) and emphasize in-place/facility-based care to minimize transfers and exposure risk.

» Consider alternatives to aerosol-generating procedures such as using metered dose inhalers instead of nebulizers if the threat is a respiratory pathogen. If an alternative is not an option, determine a safe way to perform the therapy without putting other residents at risk.

» Cohort residents who are infected or recovering from infection separate from non-infected residents.

» Establish separate locations to quarantine residents who have had exposure but are not sick and to isolate residents suspected of infection while waiting for

laboratory confirmation. This may be confinement to a single room with a closed door and signage listing required precautions.

» Review transport and care coordination protocols for acutely ill patients with suspected or confirmed disease with your HCC, local hospitals, and transport partners.

» Collaborate with EMS partners to develop a plan that includes entry to the community and expected conduct (e.g., screening, suggested PPE, hand hygiene requirements). Consider assigning a facility escort and omitting screening for EMS staff during emergencies if the EMS personnel are screened by their employer.

» Coordinate with providers to identify services that may be delivered via telemedicine rather than transporting residents to an offsite facility.

» Determine any policies needed to screen or quarantine residents returning from a hospital admission.

**Related Resources for Treatment/Transport/Discharge »**

## Behavioral Health and Workplace Safety

» Maintain visibility of leadership by being present throughout the community, listening to and addressing the concerns of staff, and providing support and gratitude.

» Support the mental well-being of your residents and staff.

» Train staff to understand and address common emotional reactions to social distancing, isolation, and quarantine. This can include training in trauma-informed care practices such as psychological first aid and skills for psychological recovery.

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» Train staff to understand the impact of cognitive impairment and dementia on the emotional and behavioral response residents may have to attempts to create social distancing, isolation, and quarantine.

» Develop virtual activities and social opportunities for residents and transition group activities for residents to virtual settings.

» Ensure IT department can provide ongoing assistance to residents to facilitate their social connectivity when functioning in a virtual environment.

» Make your staff aware of self-care and stress management actions, support family members of staff and residents, and provide options for 24/7 resources for acute issues and needs.

» Develop a workplace culture of safety in which staff look out for each other and:

  • Encourage staff to mentor and coach each other on following correct procedures and to correct those who are not.

• Encourage staff to accept constructive correction as it may prevent them from becoming ill or spreading infection to others.

• Empower key staff members as "champions" to advocate for safe practices.

• Consider education on Crew Resource Management or Team STEPPS to enhance team practices and safety.

• Establish quality improvement metrics and a program for evaluation and correction related to hand hygiene and compliance with guidelines for PPE use.

» Have behavioral health support teams available and on standby for residents and staff.

» Communicate frequently with staff to keep them apprised of situational information and facility changes.

**Related Resources for Behavioral Health and Workplace Safety »**

# LESSONS LEARNED FROM COVID-19

The COVID-19 pandemic has had a significant effect on LTC communities and their residents and staff. According to data reported through the National Healthcare Safety Network, as of September 3, 2023, more than 167,000 LTC residents died due to COVID-19; confirmed cases were reported in more than 1.7 million residents and nearly 1.7 million staff.[2] The following resources document some of the lessons learned from the pandemic, including strategies employed to protect LTC residents and staff and gaps that remain to be addressed.

• Anderson, L., Tripp, L., Perz, J., et al.: Protecting Nursing Home Residents from COVID-19: Federal Strike Team Findings and Lessons Learned

• ASPR TRACIE: COVID-19: Concerns and Opportunities for Healthcare Leadership

• Bakerjian, D.: Coronavirus Disease 2019 (COVID-19) and Safety of Older Adults Residing in Nursing Homes

• Bigelow, B., Tang, O., Toci, G., et al.: Transmission of SARS-CoV-2 Involving Residents Receiving Dialysis in a Nursing Homes – Maryland, April 2020

• Center for Medicare Advocacy: Geography is Not Destiny: Protecting Nursing Home Residents from the Next Pandemic

• CMS: Toolkit on State Actions to Mitigate COVID-19 Prevalence in Nursing Homes

• Coronavirus Commission for Safety and Quality in Nursing Homes: Commission Final Report

• Dora, A., Winnett, A., Jatt, L., et al.: Universal and Serial Laboratory Testing for SARS-CoV-2 at a Long-Term Care Skilled Nursing Facility for Veterans – Los Angeles, California, 2020

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[2] Centers for Medicare and Medicaid Services. (2023). *COVID-19 Nursing Home Data*. *U.S. Department of Health and Human Services.*

**Outbreak Considerations for Long-Term Care Communities**

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- Government Accountability Office: COVID-19 in Nursing Homes: Experts Identified Actions Aimed at Improving Infection Prevention and Control

- Hatfield, K., Reddy, S., Forsberg, K., et al.: Facility-Wide Testing for SARS-CoV-2 in Nursing Homes – Seven U.S. Jurisdictions, March-June 2020

- HHS Office of Inspector General: More Than a Thousand Nursing Homes Reached Infection Rates of 75 Percent or More in the First Year of the COVID-19 Pandemic; Better Protections are Needed for Future Emergencies

- Kim, G., Wang, M., Pan, H., et al.: A Health System Response to COVID-19 in Long-Term Care and Post-Acute Care: A Three-Phase Approach

- Kim, J., Coffey, K., Morgan, D., and Roghmann, M.: Lessons Learned – Outbreaks of COVID-19 in Nursing Homes

- Lavoie-Tremblay, M., Cyr, G., Aube, T., and Lavigne, G.: Lessons from Long-Term Care Facilities without COVID-19 Outbreaks

- Leading Edge: Pandemic Playbook

- Martinez-Paya, M., Carrillo, I., and Guilabert, M.: Lessons Learned from the COVID-19 Pandemic in Nursing Homes: A Systematic Review

- The National Academies of Sciences, Engineering, and Medicine: How Nursing Homes are Handling COVID-19: Best Practices from Maryland and Massachusetts

- Sanchez, G., Biedron, C., Fink, L., et al.: Initial & Repeated Point Prevalence Surveys to Inform SARS-CoV-2 Infection Prevention in 26 Skilled Nursing Facilities – Detroit, MI, March-May 2020

- Wasserman M. and Konetzka, R.T.: Beyond Compliance: A More Integrated Public Health Approach to Outbreaks in Nursing Homes and Other Disasters

- Wong, E., Barbre, K., Wiegand, R., et al.: Effectiveness of Up-to-Date COVID-19 Vaccination in Preventing SAR-CoV-2 Infection Among Nursing Home Residents – United States, November 20, 2022-January 8, 2023

# RESOURCES BY SECTION

## Related Resources for Emergency Planning

- American Health Care Association (AHCA): How You Can Help Prevent the Spread of Coronavirus (COVID-19) in Long Term Care Facilities

- AHCA  and National Center for Assisted Living (NCAL): Sample Policy for Emergent Infectious Diseases for Skilled Nursing Care Centers

- ASPR: COVID-19 Healthcare Planning Checklist

- ASPR TRACIE: Emergency Operations Plans/Emergency Management Program Topic Collection

- ASPR TRACIE: Healthcare System Considerations for Secondary Disasters during COVID-19

- ASPR TRACIE: Incident Management Topic Collection

- ASPR TRACIE: Long-term Care Facilities Topic Collection

- ASPR TRACIE: Long Term Care Requirements – CMS Emergency Preparedness Final Rule

- California Association of Health Facilities: Pandemic Influenza Workbook for Long Term Care Providers

- California Department of Public Health (CDPH) and the California Association of Health Facilities (CAHF): NHICS: Nursing Home Incident Command System

- CDC: Interim Guidance for Influenza Outbreak Management in Long-Term Care and Post-Acute Care Facilities
- CDC: Long-Term, Home Health, and Hospice Care Planning Guide for Public Health Emergencies
- CMS: Emergency Planning Checklist: Recommended Tool for Persons in Long-Term Care Facilities and Their Family Members, Friends, Personal Caregivers, Guardians, and Long-Term Care Ombudsmen
- Craig DeAtley: Effective Leadership During Crisis
- Health Services Advisory Group: Skilled Nursing Facility (SNF) Emerging Infectious Diseases (EIDs) EPP Readiness Checklist
- New Jersey Hospital Association: Planning Today for a Pandemic Tomorrow: A Tool for Nursing Facilities
- North Carolina Area Health Education Centers Program: COVID-19 Preparedness Checklist: Planning Considerations for Acute Care and Long-Term Care Populations

## Related Resources for Infection Prevention

- 3M: Center for Respiratory Protection
- Agency for Healthcare Research and Quality (AHRQ): A Unit Guide to Infection Prevention for Long-Term Care Staff
- AHRQ: Auditing Strategies to Improve Infection Prevention Processes in Nursing Homes
- AHRQ: Best Practices Guide for COVID-19 Infection Control and Prevention in Nursing Homes
- AHRQ: Incorporating Infection Prevention and Control Into an Emergency Preparedness Plan
- AHRQ: Respirator Fit Testing – What It is, Why You Need It, and What You Can Expect
- AHCA and NCAL: Communal Dining Guidance
- AHCA and NCAL: #GetVaccinated Toolkit
- American Association of Directors of Nursing Services: Common Carriers of Infection
- American Society for Health Care Engineering: COVID-19 Recovery
- ASHRAE: ASHRAE Standard 241, Control of Infectious Aerosols
- ASPR TRACIE: Healthcare Facility Hygiene Protocols
- CDC: Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings
- CDC: Infection Control Assessment and Response (ICAR) Tool for General Infection Prevention and Control (IPC) Across Settings
- CDC: Infection Control in Health Care Facilities
- CDC: Infection Prevention Tools
- CDC: Menu of State Long-Term Care Facility Influenza Vaccination Laws
- CDC: Post-acute and Long-term Care Facility Toolkit: Influenza Vaccination among Health Care Personnel
- CDC: Project Firstline
- CMS: LTC Facility Self-Assessment Tool
- Environmental Protection Agency: Selected EPA-Registered Disinfectants
- Hennepin County Public Health: Long-Term Care Infection Prevention and Control Toolkit
- Los Angeles County Department of Public Health: Skilled Nursing Facilities – Education and Guidance for Improving Infection Prevention

- Nebraska Medicine: Infection Control Assessment and Promotion Program
- Nebraska Medicine: LTC Respiratory Protection Plan Template
- National Emerging Special Pathogens Training and Education Center (NETEC): Infection Prevention and Control in the Long-Term Care Setting: Cleaning and Disinfection
- NETEC: Long-Term Care Special Pathogens Infection Prevention and Control Workbook
- NETEC: Long-Term Care: Personal Protective Equipment (PPE) Education
- NETEC: The Chain of Infection and How to Use It to Prevent the Spread of Infection in LTC
- New York City Department of Health and Mental Hygiene: A Handbook for Infection Control in Nursing Homes
- Occupational Safety and Health Administration (OSHA): 1910.134 – Respiratory Protection
- OSHA: Fit Testing Procedures
- OSHA: Respirator Medical Evaluation Questionnaire
- San Francisco Department of Public Health: Interim Guidance: Prevention and Management of COVID-19 in Long-Term Care Facilities
- Smith, P, Bennett, G., Bradley, S., et al.: SHEA/APIC Guideline: Infection Prevention and Control in the Long-Term Care Facility
- University of Florida: Long-Term Care and Skilled Nursing Facility Infection Prevention and Control Manual

## Related Resources for Communication and Education

- AHCA and NCAL: Infection Preventionist Specialized Training
- ASPR TRACIE: Information Sharing Topic Collection
- ASPR TRACIE: Risk Communications/Emergency Public Information and Warning Topic Collection
- Association for Professionals in Infection Control and Epidemiology: Long-Term Care Infection Preventionist Essentials
- CDC: Nursing Home Infection Preventionist Training Course
- Gaur, S., Pandya, N., Dumyati, G., et al.: A Structured Tool for Communication and Care Planning in the Era of the COVID-19 Pandemic
- Statewide Program for Infection Control and Epidemiology: Infection Prevention Education for All Nursing Home Staff
- The Joint Commission: Applying High Reliability Principles to Infection Prevention and Control in Long Term Care

## Related Resources for Staffing

- Archbald-Pannone, L., Harris, D., Albero, K., et al.: COVID-19 Collaborative Model for an Academic Hospital and Long-Term Care Facilities
- ASPR TRACIE: Emergency Preparedness Requirements for Medicare and Medicaid Participating Providers and Suppliers (CMS EP Rule) Resource Page
- ASPR TRACIE: Healthcare Facility Onboarding Checklist
- California Association of Health Facilities: Surge Strategies for SNFs (Space/Staff/Stuff)
- COVID-19 Healthcare Resilience Task Force: COVID-19 Workforce Virtual Toolkit
- National Academies of Sciences, Engineering, and Medicine: Rapid Expert Consultation on Staffing Considerations for Crisis Standards of Care for the COVID-19 Pandemic (July 28, 2020)

- Office of the Assistant Secretary for Planning and Evaluation: Nursing Home Staffing and the COVID-19 Pandemic

## Related Resources for Consumables/Supply Chain

- American Journal of Infection Control: Disinfection of Reusable Elastomeric Respirators by Health Care Workers: A Feasibility Study and Development of Standard Operating Procedures
- ASPR TRACIE: COVID-19 Supply Chain Resources
- California Association of Health Facilities: Surge Strategies for SNFs (Space/Staff/Stuff)
- CDC: Conserving Supplies of Personal Protective Equipment in Healthcare Facilities during Shortages
- CDC: Personal Protective Equipment Use Tracking Tools

## Related Resources for Laboratory/Testing

- CDC: Information for Clinicians on Rapid Diagnostic Testing for Influenza
- CDC: Testing and Management Considerations for Nursing Home Residents with Acute Respiratory Illness Symptoms When SARS-CoV-2 and Influenza Viruses are Co-Circulating
- High, K., Bradley, S., Gravenstein, S., et al.: Clinical Practice Guideline for the Evaluation of Fever and Infection in Older Adult Residents of Long-Term Care Facilities: 2008 Update by the Infectious Diseases Society of America
- Stone, N., Ashraf, M., Calder, J., et al.: Surveillance Definitions of Infections in Long-Term Care Facilities: Revisiting the McGeer Criteria

## Related Resources for Treatment/Transport/Discharge

- Age-Friendly Health Systems: Age-Friendly Health Systems Design to Address COVID-19
- Birdsall, J., Lind, L., and Lane, J.: How to Provide Telehealth in Nursing Homes
- Centers for Disease Control and Prevention: Inter-Facility Infection Control Transfer Form for States Establishing HAI Prevention Collaboratives
- Peter Lamy Center on Drug Therapy and Aging: Optimizing Medication Management during the COVID-19 Pandemic: Implementation Guide for Post-Acute and Long-Term Care

## Related Resources for Behavioral Health and Workplace Safety

- AHCA, NCAL, and National Hospice and Palliative Care Organization: Guidance on the Role of Hospice Services in LTC Facilities During COVID-19 Pandemic
- AHRQ: Best Practices for Promoting Mental Health and Emotional Well-Being Among Nursing Home Staff
- AHRQ: TeamSTEPPS
- American Hospital Association: AHA Team Training Research and Evidence Base
- ASPR TRACIE: COVID-19 Behavioral Health Resources
- ASPR TRACIE: Disaster Behavioral Health Self Care for Healthcare Workers Modules
- ASPR TRACIE: Mini Modules to Relieve Stress for Health Care Workers
- Center for the Study of Traumatic Stress: Caring for Patients' Mental Well-Being During Coronavirus and Other Emerging Infectious Diseases: A Guide for Clinicians

**Outbreak Considerations for Long-Term Care Communities**

T R A C I E

- Center for the Study of Traumatic Stress: [Sustaining the Well-Being of Healthcare Personnel During Coronavirus and Other Infectious Disease Outbreaks](#)
- COVID-19 Healthcare Resilience Task Force: [Managing the Effects of Social Distancing in Older Adults During COVID-19](#)
- OSHA: [Protecting Workers During a Pandemic](#)
- Substance Abuse and Mental Health Services Administration: [Disaster Distress Helpline](#)

## Additional Resources

- ASPR TRACIE: [COVID-19 Resources Page](#)
- ASPR TRACIE: [Influenza Epidemic/Pandemic Topic Collection](#)
- CDC: [General Information about Norovirus](#)
- CDC: [Prevention Strategies for Seasonal Influenza in Healthcare Settings: Guidelines and Recommendations](#)
- Colorado Department of Public Health & Environment: [RSV Outbreak Guidelines: Prevention and Control in Long-Tm Care Facilities](#)
- Minnesota Department of Health: [Long-Term Care (LTC) Emergency Preparedness](#)
- NETEC: [Long-Term Care Facilities](#)
- NETEC: [Request the Long-Term Care Special Pathogens Infection Prevention and Control Workbook](#)
- Oregon Health Authority: [Long-Term Care Facility HAI Toolkit](#)
- Pennsylvania Department of Health: [Influenza Outbreaks in Long-term Care Facilities: Toolkit for Facilities](#)
- Washington State Department of Health: [Long-term Care](#)
- WHO: [Preventing and Managing COVID-19 Across Long-Term Care Services](#)
- Wisconsin Department of Health Services: [Preventing and Controlling Respiratory Illness Outbreaks in Long-Term Care Facilities](#)

# ACKNOWLEDGMENTS