**Topic Area: OUTBREAK OR PANDEMIC RESPONSE**

*Visit the* [*HQIN Resource Center*](https://hqin.org/resource/action-plan-templates/) *to access additional action plan templates on topics including infection control, vaccination and hand hygiene.*

**Conduct Root Cause Analyses for Each Identified Gap or Opportunity:**

* Determine contributing factors, events, system issues and processes involved
* Utilize RCA tools as appropriate (e.g., 5 Whys, Fishbone, Cause & Effect Diagram)
* Conduct a Plan-Do-Study-Act (PDSA) to test intervention, review results and adjust actions needed

**Identify Infection Prevention and Control Gaps & Areas of Opportunity:**

* [CDC’s Infection Control Assessment and Response (ICAR) Tool for General Infection Prevention and Control (IPC) Across Settings](https://www.cdc.gov/hai/prevent/infection-control-assessment-tools.html)
* Review previous survey findings, federal and state regulations and CDC updates for long-term care facilities
* Check [CMS Quality Safety & Oversight memos](https://www.cms.gov/Medicare/Provider-Enrollment-and-Certification/SurveyCertificationGenInfo/Policy-and-Memos-to-States-and-Regions)

The sample RCA, actions, interventions, best practices and metrics illustrated here to address identified infection prevention areas of opportunity are solely intended as example guidance. Your team should perform an infection prevention gap analysis/risk assessment and build a customized action plan to best meet the needs of your specific organization and community.

**1**

|  |
| --- |
| **Area of Opportunity:** |
| **EXAMPLE:** Failure to limit transmission of infectious disease within the facility during an outbreak |
| **Root Cause Analysis** **(specify each root cause and address each within the action plan) -*See examples below-*** |
| 1. Non-compliance with Infection prevention practices (wearing PPE, hand hygiene, etc.) among staff |
| 1. Signage communicating expectations for visitors (PPE, physical distancing, etc.) is present but not placed in conspicuous locations and the type is small |
| 1. Communication about outbreak (and outbreak procedures) to staff is inconsistent |
| 1. New and part-time staff are not familiar with the infectious disease element of the Emergency Preparedness Plan |
| 1. Visitor compliance with facility precautions is not being addressed |
| **S.M.A.R.T. Goal: (Specific, Measurable, Achievable, Relevant, Time-based)** |
| **EXAMPLE:** Demonstrate 100% compliance with infection prevention practices to mitigate transmission during an outbreak by [SPECIFIC DATE] |

**2**

| **Project Start/ Completion Date** | **Specific Actions & Interventions** | **Person/Team Responsible**  *\*Include QAPI Committee* | **Ongoing Monitoring & Surveillance** | **Resources & Additional Comments** |
| --- | --- | --- | --- | --- |
|  | * **Form a team** that includes (at a minimum) facility leadership, medical director and infection preventionist to review the emergency preparedness plan and identify items to put into action * Ensure the plan addresses ALL infectious diseases, including emerging infectious diseases * Use current information from nationally recognized organizations (CMS, CDC, etc.) to guide approach to a specific disease (COVID-19, influenza, norovirus, Ebola, etc.) * Partner with local health department and emergency coalitions as applicable. * **Identify staff to be responsible for monitoring guidance** and determine means and timing of regular team updates * **Update policies and procedures** based on current guidance   **3** | Administrator, Director of Nursing, Medical Director, Infection Preventionist, Environmental Services, Maintenance | Update the plan annually and when changes occur in the facility’s organizational or physical structure | * [Outbreak Considerations for Long-Term Care Communities| HHS](https://files.asprtracie.hhs.gov/documents/aspr-tracie-covid-19-long-term-care-considerations-toolkit-final.pdf) − Considerations for managing seasonal and other infectious disease outbreaks within while preparing for the potential introduction of an infectious disease circulating in the surrounding community * [Incorporating Infection Prevention and Control into an Emergency Preparedness Plan | AHRQ](https://www.ahrq.gov/sites/default/files/wysiwyg/nursing-home/materials/emergency-preparedness-plans.pdf) − Resource to identify gaps in the infection prevention/infectious disease section of the emergency preparedness plan * [Checklist of Best Practices to Keep Infectious Diseases from Spreading in Nursing Homes | HQIN](https://hqin.org/wp-content/uploads/2023/05/Checklist-of-Best-Practices-to-Keep-IDs-from-NHs.pdf) − Supplements healthcare agency (CMS, CDC, etc.) guidelines to keep nursing home residents, staff and visitors safe * [CDC Respiratory Virus Updates | CDC](https://www.cdc.gov/respiratory-viruses/whats-new/index.html) − Weekly updates on respiratory illness * [Reporting and Surveillance for Norovirus: NoroSTAT | CDC](https://www.cdc.gov/norovirus/reporting/norostat/index.html) − A surveillance reporting platform for norovirus * [Waterborne Disease & Outbreak Surveillance Reporting | CDC](https://www.cdc.gov/healthywater/surveillance/index.html) − Outbreak surveillance provides important information on how germs, chemicals or toxins spread, and which types of water are linked to people getting sick * [QSO-21-15-ALL | CMS](https://www.cms.gov/files/document/qso-21-15-all.pdf) – Memo explaining that emerging infectious disease planning should encompass how facilities will plan, coordinate and respond to a localized and widespread outbreak or pandemic |
|  | * **Provide education** to all staff related to the emergency preparedness segments on: * Infectious diseases * Hand hygiene * Personal protective equipment (PPE) use, cleaning, storage, etc. (as applicable) * **Document (at a minimum) education** upon hire and education/training annually * Share training links with staff (consider assigning segments) and use huddles or other opportunities to review and provide feedback * Post the infographics in areas where staff gather and ask individuals to follow up with questions * Print/laminate and distribute the best practice pocket cards as a valuable resource for all staff   **4** | Administrator, Director of Nursing, Medical Director, Infection Preventionist | Education is provided at time of onboarding, annually and when necessary related to changes in policies or procedures (i.e., new equipment is introduced) or lack of compliance with practices is observed | * [SHEA/CDC Outbreak Response Training Program (ORTP) | SHEA](https://learningce.shea-online.org/content/sheacdc-outbreak-response-training-program-ortp) − Free training (requires users to create a free account) on outbreak response, including webinars, audiocasts and guidance * [Clinical Staff Information | Nursing Homes and Assisted Living (LTC) | CDC](https://www.cdc.gov/longtermcare/staff/index.html) − Guidelines and resources for common pathogens * [Pause for Prevention Module 8 - Emergency Preparedness | HQIN](https://hqin.org/wp-content/uploads/2023/07/PauseforPrevention_mod8-Emergency-Preparedness_508.pdf) – This brief interactive module introduces emergency preparedness concepts as they relate to infectious diseases * [Pandemic, Outbreak or Endemic? How Do We Protect Ourselves? | HQIN](https://hqin.org/resource/pandemic-outbreak-or-endemic-how-do-we-protect-ourselves/) – Single-page flyer that defines pandemics, outbreaks and endemic situations and strategies for prevention * [General Emergency Preparedness | CDC TRAIN](https://www.train.org/cdctrain/course/1021386/compilation) – This blended learning series consists of four parts * [Targeted COVID-19 Training for](https://qsep.cms.gov/welcome.aspx) Nursing Homes | CMS – This training requires logging in to the Quality, Safety & Education Portal (QSEP) * [Best Practices Pocket Cards | HQIN](https://hqin.org/resource/infection-prevention-pocket-cards/) – Download, print and laminate for individual use or place on a ring for central access; the cards feature various infection prevention topics (PPE, hand hygiene, cleaning and disinfection, etc.) * [PPE-Sequence| CDC](https://www.cdc.gov/hai/pdfs/ppe/PPE-Sequence.pdf) – This three-page flyer demonstrates proper donning and doffing * [Use Personal Protective Equipment Properly | HQIN](https://hqin.org/wp-content/uploads/2020/05/Simple-Strategies-Personal-Protective-Equipment_508.pdf) – Single-page flyer on PPE donning and doffing with considerations for reducing germ transmission * [Masking Matters | HQIN](https://hqin.org/wp-content/uploads/2023/02/Masking-Matters_rev06.23.23.pdf) – Single-page flyer explaining when to wear a mask versus a respirator that includes QR code links to additional resources * [Simple Strategies to Prevent C diff | HQIN](https://hqin.org/wp-content/uploads/2021/05/DOTD-3_Environmental-Cleaning_04072020_508.pdf) – Single-page flyer outlining the impact of environmental cleaning in the presence of *Clostridioides difficile* |
|  | * **Address communication** related to: * Residents and/or participants * Staff * Visitors * Caregivers * Communicate outbreak and/or infection status of individuals to other providers (ED, dialysis, transport, etc.) * Ensure documentation on transfer form includes infection status * **Display instructional signage** throughout the facility, including visitor education with signs and symptoms of the infectious disease, infection control precautions, applicable facility practices, etc. | Administrator, Director of Nursing, Medical Director, Infection Preventionist | Communication should be ongoing and tailored to the specific outbreak | * [Vaccine Letter to Residents and Family Members/Responsible Party | HQIN](https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fhqin.org%2Fwp-content%2Fuploads%2F2023%2F06%2FVaccine-Letter-to-Residents_rev05.23.docx&wdOrigin=BROWSELINK) * [Sample Facility Outbreak Memo | HQIN](https://hqin.org/resource/outbreak-pandemic-planning-and-educational-resources/) – Memo template to craft a facility-specific response to an outbreak or pandemic that impacts facility operation * [Bulletin Board Bundle: Vaccines are Safe and They Work! | HQIN](https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fhqin.org%2Fwp-content%2Fuploads%2F2022%2F10%2FBulletin-Board-Bundle-Vaccines-are-Safe-and-They-Work.pptx&wdOrigin=BROWSELINK) – Ready-to-post messages promoting vaccines that can be displayed on bulletin boards, etc.   ***Infection Prevention Posters:***   * [Clean Hands Save Lives | HQIN](https://hqin.org/wp-content/uploads/2020/05/NRSH_008_handwashing_poster_FINAL_03052020_508.pdf) * [Don’t Touch the T-Zone Poster | HQIN](https://hqin.org/wp-content/uploads/2020/05/Simple-Strategies-Dont-Touch-Your-Face-Poster_04062020_508.pdf) * [I Wear a Mask… Poster | HQIN](https://hqin.org/wp-content/uploads/2022/07/I-Wear-a-Mask-508.pdf) * [Keep Us Safe Poster Series | HQIN](https://hqin.org/wp-content/uploads/2022/10/Keep-Us-Safe-Poster-Series-04.24.23.pdf) – Variety of posters to promote infection prevention practices among staff, residents and participants, etc. |
| **5** | * **Address staffing** by planning prior to need * Use evidence-based strategies to develop an approach to staffing | Administrator, Director of Nursing | Mitigation strategies for staffing are in place and modified as need arises | * [Strategies to Mitigate Healthcare Personnel Staffing Shortages | CDC](https://www.cdc.gov/coronavirus/2019-ncov/hcp/mitigating-staff-shortages.html) |
|  | * **Plan for cohorting** by referencing recognized agency guidance (CMS, CDC) | Administrator, Director of Nursing, Medical Director, Infection Preventionist | Cohorting plan is reviewed and modified as need arises | * [Cohorting Plan Guidelines | HQIN](https://hqin.org/resource/cohorting-plan-guidelines/) – Resource outlining the rationale, responsibilities and fundamentals of cohorting infectious individuals * [Interim Infection Prevention and Control Recommendations for Healthcare Personnel During the COVID-19) Pandemic | CDC –](https://www.cdc.gov/coronavirus/2019-ncov/hcp/infection-control-recommendations.html) See patient (resident) placement for guidance R/T cohorting *(To meet CMS expectations, facility practices should be consistent with CDC guidelines)* |
|  | * **Address vaccination and immunization of staff and residents** (as applicable) * **Ensure a stand-alone plan** for vaccines/ immunizations includes: * Education specific to vaccine type and documentation of education * Planning for a clinic, including but not limited to:   + Vaccine storage   + Handling and administration   + Documentation   **6** | Administrator, Director of Nursing, Medical Director, Infection Preventionist | Vaccination/immunization plan is implemented as applicable, and documentation of progress is maintained using designated tracking tools | * [Your Health Can't Wait, Vaccinate! Resources | HQIN](https://hqin.org/resource/your-health-cant-wait-vaccinate-resources/) – Variety of resource to promote vaccines * [Vaccine Encouragement Email Signatures | HQIN](https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fhqin.org%2Fwp-content%2Fuploads%2F2023%2F06%2FVaccine-Encouragement-Signature-and-Instructions-1.docx&wdOrigin=BROWSELINK) – Customizable statements to add to emails, newsletters and mailers   ***Spreadsheets for Tracking Resident and Staff Vaccines:***   * [Resident Influenza, Pneumococcal, TB Vaccination Log | HQIN](Resident%20Influenza,%20Pneumococcal,%20TB%20Vaccination%20Log) * [COVID-19 Vaccination Tracking Tool | HQIN](https://hqin.org/resource/tracking-tools/) |
|  | * **Address testing** (as applicable) * Use nationally recognized agency guidance (i.e., CMS, CDC) to determine testing necessity, frequency, etc.   **7** | Administrator, Director of Nursing, Medical Director, Infection Preventionist | Testing is implemented as applicable, and documentation of testing is maintained using designated tracking tools | * [QSO-20-38-NH REVISED 09/23/22 | CMS](https://www.cms.gov/files/document/qso-20-38-nh-revised.pdf) – Updated memo on testing * [Testing, Reporting & Lab Information | CDC](https://www.cdc.gov/flu/avianflu/testing-reporting-lab.htm) – Guidance on appropriate flu testing and specimen collection |
|  | * **Address visitation** * Use guidance from nationally recognized agencies (i.e., CMS, CDC) to address visitation recommendations/ requirements * Inform residents of their rights to determine a personal visitation plan * Add contact information to signage for questions, improved visibility * Add messaging in additional languages * Communicate safe visitation policies and procedures with residents and families via council meetings, letters and emails * Train staff on the safe visitation plan and infection prevention and control (HH, PPE required, screening) | Administrator, Director of Nursing, Medical Director, Infection Preventionist | Visitation plan is implemented as applicable, and compliance with infection prevention practices is documented using designated tracking tool | * [Visitation Plan Guidelines | HQIN](https://hqin.org/resource/visitation-plan-guidelines/) – Template for creating a facility-specific visitation plan * [QSO-20-39 NH REVISED 05/08/2023 | CMS](https://www.cms.gov/files/document/qso-20-39-nh-revised.pdf) – Updated memo on visitation * [Visitation Guidance Poster | HQIN](https://hqin.org/wp-content/uploads/2023/10/Visitation-Guidance-Poster_Updated-10.2023.pdf) |
|  | * **Screen** (as applicable) all who enter the facility for signs and symptoms of infectious disease (**NOTE:** Emergency personnel is exempt from screening) * Implement screening and/or self-screening of staff and establish criteria for reporting to Employee Health and avoiding facility when sick. * Ensure ALL entry points are monitored on all shifts to prevent unchecked entry * Ensure adequate supply of PPE and HH station at entrance * Audit compliance with screening (and determine baseline) * If applicable, develop a visitor testing plan to include testing process, tracking results and supply management | Administrator, Director of Nursing, Medical Director, Infection Preventionist, Employee Health | Create shift log (tracking tool) reviewed by administration daily; weekly review by IP with report to administrator | * [Generic Tracking Tool | HQIN](https://hqin.org/resource/hqin-generic-tracking-tool/) – Customizable spreadsheet that can be adapted to track screening and other infection prevention practices |
|  | * **Disinfect** all high-touch and frequently touched surfaces and educate all staff on procedures. * Increase frequency of cleaning during outbreaks * Ensure appropriate routine cleaning and storage of all shared equipment (vital sign machine, weight machine, etc.   **8** | Administrator, Infection Preventionist, Environmental Services Staff  *\*All staff are responsible to identify needs to maintain cleanliness in the environment* | Environmental cleaning and cleaning of shared equipment are routinely audited using designated tracking tools | **Ensure policies and procedures are evidence-based (e.g., CDC, EPA, APIC guidelines)**   * [Environmental Infection Control Guidelines | CDC](https://www.cdc.gov/infectioncontrol/guidelines/environmental/index.html) – Recommendations for cleaning in the healthcare environment * [List N Disinfectants for Coronavirus (COVID-19) | EPA](https://www.epa.gov/coronavirus/list-n-advanced-search-page-disinfectants-coronavirus-covid-19) –List of disinfectants proven to make the organism related to COVID-19 nonviable * [Coronavirus (COVID-19)](https://www.epa.gov/coronavirus) | EPA – Information specific to combatting COVID-19 in the healthcare environment * [Options for Evaluating Environmental Cleaning | CDC](https://www.cdc.gov/HAI/toolkits/Evaluating-Environmental-Cleaning.html) – Provides links to environmental cleaning toolkit (bottom of page) * [COVID-19 Testing Reporting Audit Tracking Tool | HQIN](https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fhqin.org%2Fwp-content%2Fuploads%2F2023%2F04%2FHQIN-COVID-19-Testing-Reporting-Audit-Tracking-Tool.xlsx&wdOrigin=BROWSELINK) * [Simple Strategies - Environmental Cleaning and Infection Prevention | HQIN](https://hqin.org/resource/simple-strategies-environmental-cleaning-and-infection-prevention/) – One-page flyer with QR codes that can be placed in areas where staff gather |
|  | * **Address supply chain limitations** * Routinely audit PPE supplies | Administrator, Director of Nursing, Supply Chain Personnel | Supply chain standing is communicated regularly (i.e., daily during outbreak) | * [Personal Protective Equipment Use Tracking Tools | NIOSH | CDC](https://www.cdc.gov/niosh/topics/pandemic/ppe.html)– Includes burn rate calculator and tracker app |
| **9** | * Routinely audit hand hygiene practices * Routinely audit PPE use * Use tracking tools * Use CDC PPE burn rate calculator * Establish par levels of PPE * Implement routine auditing of PPE supplies |  | Infection prevention practices are routinely audited using designated tracking tools and auditing frequency is increased during an outbreak | * [Hand Hygiene Competency Tracking Tool | HQIN](https://hqin.org/resource/hand-hygiene-competency-tracking-tool/) − Surveillance spreadsheet for tracking hand hygiene compliance * [Personal Protective Equipment Competency Validation Tool | SPICE](https://spice.unc.edu/wp-content/uploads/2017/03/PPE-Competency-SPICE.pdf) – Donning and doffing competency checklist * [PPE Competency Tracking Tool | HQIN](https://hqin.org/resource/personal-protective-equipment-competency-tracking-tool/) – Spreadsheet for tracking PPE compliance |
|  | * **Address compliance by reporting data** to appropriate agencies (i.e., local health department, CMS, NHSN, etc.) as required | Administrator, Director of Nursing, Infection Prevention | Data compliance is maintained as required by CMS, CDC guidelines using designated tracking tools | * [State and Territorial Health Departments | CDC](https://www.cdc.gov/publichealthgateway/healthdirectories/healthdepartments.html) – List of health departments * [Skilled Nursing Facility (SNF) Quality Reporting Program (QRP) | CMS](https://www.cms.gov/medicare/quality/snf-quality-reporting-program/spotlights-announcements) – Overview of CMS reporting * [Long-term Care Facilities (LTCF) Component | NHSN | CDC](https://www.cdc.gov/nhsn/LTC/index.html) – Platform to track infections and prevention process measures |
|  | * **Address reporting of audit results and compliance** at monthly/quarterly QAPI meeting | Infection Preventionist, QAPI Team | Maintain as standing QAPI committee agenda item while restrictions continue | * [QAPI At a Glance: A Step by Step Guide to Implementing Quality Assurance and Performance Improvement (QAPI) in Your Nursing Home](https://www.cms.gov/medicare/provider-enrollment-and-certification/qapi/downloads/qapiataglance.pdf) | CMS |

**8**

**10**

This material was prepared by Health Quality Innovators (HQI), a Quality Innovation Network-Quality Improvement Organization (QIN-QIO) under contract with the Centers for Medicare & Medicaid Services (CMS), an agency of the U.S. Department of Health and Human Services (HHS). Views expressed in this material do not necessarily reflect the official views or policy of CMS or HHS, and any reference to a specific product or entity herein does not constitute endorsement of that product or entity by CMS or HHS. 12SOW/HQI/QIN-QIO-0658-10/19/23