



The John A. Hartford Foundation
Dedicated to Improving the Care of Older Adults

IHI COVID-19 Nursing Home Driver Diagram & Change Package



IHI COVID-19 Nursing Home Driver Diagram

Aim

Reduce COVID-19 related mortality in nursing homes

Primary Drivers

Establish and maintain effective leadership and management

Prevent new infections in residents

Provide effective care and support for residents and staff while attending to resident preference

Ensure safe operations

Secondary Drivers

Clear strategy, organizational structure
Transparent, frequent, compassionate communication to four constituencies (staff, residents, family/care partners, communities)
Team-based, rapid learning implementation strategy
Real time, reliable data systems for care, prevention, and operations
Quality Assurance Process Improvement
Safe and just culture to foster transparency among staff: ask "*why? and how?*" not "*who?*"

Appropriate precautions to eliminate ongoing spread within facility
Reduced opportunity for introduction of new infections from outside
Proper and appropriate environmental cleaning

Mild and moderate cases of COVID among residents effectively managed
Person-centered culture is attentive, respectful, and responsive to resident & family preferences
Effective and timely triage to palliative or hospital care for severe cases not recovering
Reliable non-COVID medical care for residents
Effective COVID care for infected & uninfected staff
Resident goals established, accessible, and regularly updated
Timely, appropriate identification of and escalation in response to change in residents' status
Depression screening
Safe care transitions

Cohort-based care services (manage and service by unit, floor or other groupings)
General operational staff (food, laundry, security, etc.) engaged in COVID-prevention strategies
Physical living and working space designed to maximize safety and minimize harm for residents and staff

IHI COVID-19 Nursing Home Change Package: Change Ideas and Resources

Establish and Maintain Effective Leadership and Management

Secondary Drivers (S_)	Change Ideas	Resources
S1:Clear strategy, organizational structure	<ol style="list-style-type: none"> 1. Look for support to learn and act quickly. Professional organizations, CDC, state level support, ombudsman, peers within the profession 2. Consider use of multi-disciplinary tactical teams to study and propose responses to certain COVID-19 challenges 3. Plan for absence and illness of staff: <ul style="list-style-type: none"> • demonstrate benefits to co-workers and residents of staff providing early notice of expected absence • Provide up to date information to staff and residents about how they are being protected from COVID-19 in the facility • provide information about emergency childcare resources available in the community 4. Understand current state of PPE availability in the facility, how limited supply will be utilized with the resident cohorts 	<p>Change Idea 4: PPE Burn Rate Calculator- https://www.cdc.gov/coronavirus/2019-ncov/hcp/ppe-strategy/burn-calculator.html</p>
S2:Transparent, frequent, compassionate communication to four constituencies (staff, residents, family/care partners, communities)	<ol style="list-style-type: none"> 1. Leadership on site for visibility, messaging to create confidence 2. Schedule and templates for regular outgoing communication (regular updates on staffing, PPE, resident health) 3. Direct liaison with family/care partners 4. Community/family hotline; FAQs; prioritization for incoming communication 5. Community review panel with legal 6. Community webinars 7. Keep up-to-date with external communication (e.g. from CMS, CDC, surrounding community) 	



IHI COVID-19 Nursing Home Change Package: Change Ideas and Resources

Establish and maintain effective leadership and management (cont'd)		
Secondary Drivers (S_)	Change Ideas	Resources
S3: Team-based, rapid learning implementation strategy	<ol style="list-style-type: none"> 1. Multidisciplinary teams organized by location 2. Learning mechanism for staff 3. Text groups by level/profession (leadership/managers, nursing, doctors, housekeeping, security) 4. Daily virtual/onsite huddles at different levels 5. Training and other videos; text messages 	
S4: Real time, reliable data systems for care, prevention, and operations	<ol style="list-style-type: none"> 1. Creation & management of dashboard per workstream with key information & measures, e.g. infected staff/resident residents, daily operations, staffing; communications (Internal and external) 	
S5: Quality Assurance Process Improvement (QAPI)	<ol style="list-style-type: none"> 1. Use data to identify opportunities for improvement and set priorities for action 2. Build on residents' own goals for health, quality of life, and daily activities 3. Bring meaningful resident and family voices into setting goals; evaluatr progress 4. Incorporate caregivers broadly in a shared QAPI mission 5. Develop Performance Improvement Project (PIP) teams with specific "charters" 6. Perform Root Cause Analysis to get to the heart of the reason for a problem 7. Undertake systemic change to eliminate problems at the source 8. Develop a feedback and monitoring system to sustain continuous improvement (Source: CMS QAPI at a Glance) 	<p>QAPI At a Glance for Nursing Homes (CMS): https://www.cms.gov/Medicare/Provider-Enrollment-and-Certification/QAPI/Downloads/QAPIAtaGlance.pdf</p>
S6: Safe and just culture to foster transparency among staff: ask " <i>why and how?</i> " not " <i>who?</i> "	<ol style="list-style-type: none"> 1. Leaders and staff are open about analyzing problems 2. When processes don't happen as expected, ask "Why?" five times to identify a singular, clear, testable idea. Engage staff to suggest and test ideas for improvement 	<p>Nursing World Position Statement on Just Culture https://www.nursingworld.org/~4afe07/globalassets/practiceandpolicy/health-and-safety/just_culture.pdf Five Whys: http://www.ihl.org/resources/Pages/Tools/5-Whys-Finding-the-Root-Cause.aspx</p>



IHI COVID-19 Nursing Home Change Package: Change Ideas and Resources

Prevent new infections in residents		
Secondary Drivers (S_)	Change Ideas	Resources
S7: Appropriate precautions to eliminate ongoing spread within facility	<ol style="list-style-type: none"> 1. Hand sanitizers (sufficient numbers, locations, type, refilling process) 2. Optimized mask utilization 3. Increase ventilation; open windows in all shared spaces 4. PPE at care areas 5. Training in PPE for each staff section, e.g. to assess residents for symptoms; thermometer, oximeter use 6. Monitoring physical distancing, mask wearing, hand hygiene 7. Real time training and reminders, e.g. videos 8. Employ customized activities to help residents living in dementia unit to social distance where possible (i.e. a resident who was a journalist is given a reporter's notebook to write in) 9. Using polypharmacy reduction methods to reduce interactions between residents and staff 10. Changing visitation protocols 11. Consult state re-opening protocols 	<p>Change ideas 1-6: Leading Age Infection Control Tool Supplement https://leadingage.org/sites/default/files/Infection%20Control%20survey%20tool%20supplement%20REVISED%2005.14.pdf</p> <p>Change Idea 7: CDC PPE Guidelines- https://www.cdc.gov/coronavirus/2019-ncov/hcp/using-ppe.html</p> <p>Change Idea 9: Optimizing Medication Management- Implementation Guide https://www.pharmacy.umaryland.edu/centers/lamy/optimizing-medication-management-during-covid19-pandemic/</p>



IHI COVID-19 Nursing Home Change Package: Change Ideas and Resources

Prevent new infections in residents (cont'd)		
Secondary Drivers (S_)	Change Ideas	Resources
S8: Reduced opportunity for introduction of new infections from outside	<ol style="list-style-type: none"> 1. Permanent housing of some staff on or near site 2. Screening/temperature of staff daily on arrival; mid-day assessment 3. PUI testing - or routine testing if affordable/available 4. Cohorting of staff and residents <ul style="list-style-type: none"> • Stop rotating staff – maintain floor/group-based staff/resident/doctor cohorts • Staggered meal times for staff cohorts with distancing • Transport groups according to cohort 5. Education/training of staff 6. Residents in rooms wherever possible, mask wearing if out 7. Better social distancing, appropriate environmental cleaning where not possible (e.g. dementia unit) 8. Paid leave/compensation for sick staff 9. Clear message from management about the importance of staying home if sick 10. PPE for residents when they go on external doctor visits 11. Protocols for staff returning from vacation 	Change Idea 3: CDC Guidance around testing- https://www.cdc.gov/coronavirus/2019-ncov/hcp/nursing-homes-testing.html
S9: Proper and appropriate environmental cleaning	<ol style="list-style-type: none"> 1. Sanitize building using appropriate disinfectants 2. Touch points sanitized twice daily or removed, e.g. fingerprint device at exit (or enforced sanitizer use afterward) 3. Use of performance improvement process device to ensure cleaning is being done adequately (e.g. ATP or fluorescent light testing) 	Change Idea 1: EPA List N- Disinfectants for use Against SARS-CoV-2 https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2-covid-19



IHI COVID-19 Nursing Home Change Package: Change Ideas and Resources

Provide effective care and support for residents and staff while attending to resident preference		
Secondary Drivers (S_)	Change Ideas	Resources
S10: Mild and moderate cases of COVID among residents are effectively managed	<ol style="list-style-type: none"> 1. Contracted docs (duration, compensation, responsibilities, liability, call schedule, etc.); 25 residents each 2. Virtual room visits for collaboration & learning 3. Shared guidelines 4. Early warning of decline (scoring by carers) 5. Single clinical care record for each patient with test results 6. Equipment for “home-based” monitoring/care of moderately ill patients – e.g. oxygen, pulse oximeter 7. Baseline review all patients; daily COVID screen 8. Effective training and preparation of staff 	<p>https://www.hccinstitute.org/app/uploads/2020/03/COVID-19-Webinar-03262020_HCCI.pdf</p> <p>Change Idea 4: INTERACT Tool https://pathway-interact.com/about-interact/what-is-interact/</p>
S11: Person-centered culture is attentive, respectful, and responsive to resident & family preferences	<ol style="list-style-type: none"> 1. Keep record of resident preferences and make them easily accessible to staff 2. Have proactive care planning conversation with residents and their family/care partners 3. Ask residents and families regularly for feedback on their experience 4. Include residents and families in meetings and on committees 5. Steward end-of-life care information and respect resident wishes for end-of-life care 	<p>My Story Program: https://www.aacounty.org/services-and-programs/my-story</p> <p>NCAPPS Health Care Person Centered Profile: https://ncapps.acl.gov/covid-19-resources.htm</p> <p>Change Idea 2: https://respectingchoices.org/covid-19-resources/</p>
S12: Effective and timely triage to palliative or hospital care for severe cases not recovering	<ol style="list-style-type: none"> 1. Common understanding of criteria for 'avoidable' transfers [based on individual resident needs] 2. Sufficient professional nurses & unit managers, with backup 3. Every resident has health care directive regarding care wishes (aggressive vs palliative care) 4. Triage and palliative care SOPs 5. Linkage with area hospitals for referrals 6. Specialist panel for advice 	<p>Change Idea 3: The Conversation Project- https://theconversationproject.org/wp-content/uploads/2020/04/tcpcovid19guide.pdf</p>



IHI COVID-19 Nursing Home Change Package: Change Ideas and Resources

Provide effective care and support for residents and staff while addressing resident preference (cont'd)		
Secondary Drivers (S_)	Change Ideas	Resources
S13: Reliable non-COVID medical and social care for residents	<ol style="list-style-type: none"> 1. Single care record assembled – from electronic ADT system, clinical notes folder, pharmacy, carer notes 2. Chronic medication known and dispensed 3. Adapting activities to encourage mobility 	Change Idea 3: Use of Eversound system to facilitate chair fitness classes and walking groups (as seen in the Cedarhurst senior living home)- https://eversoundhq.com/
S14: Effective COVID care & support for infected and uninfected staff	<ol style="list-style-type: none"> 1. Daily contact with positive staff to review COVID & health symptoms and refer to doctors or clinics 2. Quarantine facilities for infected staff; set up the unit; food etc. 3. Mental Health, e.g. counseling, mindfulness, yoga, etc. 	Change Idea 3: Skills for Psychological Recovery: https://www.ptsd.va.gov/professional/treat/type/SPR/SPR_Manual.pdf
S15: Resident goals established, accessible, and regularly updated	<ol style="list-style-type: none"> 1. Standardize collection information about goals of care; develop clear, individualized, person-centered care plan 2. Make goals of care easily accessible for staff and empower staff to meet resident preferences 3. Establish a standard time frame for revisiting goals of care with residents and family/care partners; develop a process for the routine review of residents' goals of care 	Change Idea 1 & 2: My Story Program: https://www.aacounty.org/services-and-programs/my-story/ ; NCAPPS Health Care Person Centered Profil: https://ncapps.acl.gov/covid-19-resources.htm
S16: Timely, appropriate identification of and escalation in response to change in resident's status	<ol style="list-style-type: none"> 1. Utilize tools for staff escalation/response to concerns 2. Institute nursing staff use of 24-hour report on resident status 	<p>Change idea 1: Article on Early Warning Systems used in Hospitals that could be applicable to NH: http://www.ihl.org/resources/Pages/Publications/EarlyWarningSystemsNextLevelofRapidResponse.aspx</p> <p>Change Idea 2: Fisch, J., McNamara, S. E., Lansing, B. J., & Mody, L. (2014). The 24-hour report as an effective monitoring and communication tool in infection prevention and control in nursing homes. American Journal of Infection Control, 42(10),1112-1114.</p>



IHI COVID-19 Nursing Home Change Package: Change Ideas and Resources

Provide effective care and support for residents and staff while addressing resident preference (cont'd)

Secondary Drivers (S_)	Change Ideas	Resources
S17: Depression screening	<ol style="list-style-type: none"> 1. Screen for depression using the Cornell Scale for Depression in Dementia 2. Screen for depression using the Patient Health Questionnaire (PHQ-9) 	<p>Change Idea 1: Cornell Depression Scale: https://cgatoolkit.ca/Uploads/ContentDocuments/cornell_scale_depression.pdf</p> <p>Change Idea 2: Patient Health Questionnaire: https://www.phqscreeners.com/</p>
S18: Safe care transitions	<ol style="list-style-type: none"> 1. Ensure appropriate transfers, including avoiding unnecessary hospital transfers (especially as related to reducing opportunities for new infections, see S8) 2. Ensure staff and CNAs have training to know when to keep residents in the nursing home when appropriate (see S3) 	<ol style="list-style-type: none"> 1. Project RED: https://www.bu.edu/fammed/projectred/toolkit.html 2. OPTIMISITC: https://www.optimistic-care.org/ 3. INTERACT: https://pathway-interact.com/about-interact/what-is-interact/ 4. Safe Transitional Care Model (TCM): https://atlanticquality.org/download/transitional_model_model.pdf 5. The Care Transitions Program: https://caretransitions.org/



IHI COVID-19 Nursing Home Change Package: Change Ideas and Resources

Ensure safe operations		
Secondary Drivers (S_)	Change Ideas	Resources
S19: Cohort-based care services (manage and service by unit, floor, or other groupings)	<ol style="list-style-type: none"> 1. Cohorting: choose self-contained building/areas for staff and residents 2. Rearrange staffing, meals, transport, etc. 	Change Idea 1: AHCA/NCAL Cohorting Residents to Prevent the Spread of COVID-19: https://www.ahcancal.org/facility_operations/disaster_planning/Documents/Cohorting.pdf
S20: General operational staff (food, laundry, security, etc.) engaged in COVID-prevention strategies	<ol style="list-style-type: none"> 1. New PPE SOPs for each staff section 2. Backup to ensure availability of basic services 3. Store/sanitize deliveries 	
S21: Physical living and working space designed to maximize safety and minimize harm for residents and staff	<ol style="list-style-type: none"> 1. Have appropriate equipment (PPE, germicidal wipes, etc.) available at the point of care 2. Ensure ventilation systems operate properly 	

