

Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.



### **JAMDA**

journal homepage: www.jamda.com



### Special Article

## Homes: Lessons From the Pandemic



Swati Gaur MD, MBA, CMD a, Rajeev Kumar MD, CMD b,c, Suzanne M. Gillespie MD, RD, CMD d,e, Robin L.P. Jump MD, PhD f,g,\*

- <sup>a</sup> New Horizons Nursing Facilities, Gainesville, GA, USA
- <sup>b</sup> Symbria, Warrenville, IL, USA
- c Humana I-SNP, Chicago, IL, USA
- d Geriatrics, Extended Care & Rehabilitation, VA Finger Lakes Healthcare System, Bath, NY, USA
- <sup>e</sup> Division of Geriatrics & Aging, Department of Medicine, University of Rochester Medical Center, Rochester, NY, USA
- <sup>f</sup>Geriatric Research Education and Clinical Center (GRECC), Veterans Affairs Northeast Ohio Healthcare System, Cleveland, OH, USA
- g Division of Infectious Diseases and HIV Medicine, Department of Medicine and the Department of Population and Quantitative Health Sciences, Case Western Reserve University School of Medicine, Cleveland, OH, USA

#### ABSTRACT

Keywords: Patient safety culture COVID-19 skilled nursing facility quality improvement state surveyors

Decades of concerns about the quality of care provided by nursing homes have led state and federal agencies to create layers of regulations and penalties. As such, regulatory efforts to improve nursing home care have largely focused on the identification of deficiencies and assignment of sanctions. The current regulatory strategy often places nursing home teams and government agencies at odds, hindering their ability to build a culture of safety in nursing homes that is foundational to health care quality. Imbuing safety culture into nursing homes will require nursing homes and regulatory agencies to acknowledge the high-risk nature of post-acute and long-term care settings, embrace just culture, and engage nursing home staff and stakeholders in actions that are supported by evidence-based best practices. The response to the COVID-19 pandemic prompted some of these actions, leading to changes in nursing survey and certification processes as well as deployment of strike teams to support nursing homes in crisis. These actions, coupled with investments in public health that include funds earmarked for nursing homes, could become the initial phases of an intentional renovation of the existing regulatory oversight from one that is largely punitive to one that is rooted in safety culture and proactively designed to achieve meaningful and sustained improvements in the quality of care and life for nursing home

Published by Elsevier Inc. on behalf of AMDA – The Society for Post-Acute and Long-Term Care Medicine.

Nursing homes have evolved from residences for the aged and infirm to dynamic health care settings that serve a diverse population with an array of medical complexity and a broad spectrum of functional disabilities. During this evolution, concerns about the quality of care prompted many regulatory changes. In 1986, the Institute of

E-mail address: robin.jump@va.gov (R.L.P. Jump).

Medicine reported widespread abuse, neglect, and inadequacies in care within nursing homes. This inspired the Nursing Home Reform Act, passed as part of the Omnibus Budget Reconciliation Act (OBRA), which set minimum standards for the rights and care of nursing home residents in the United States. OBRA stipulated that in order to receive reimbursement from the Centers for Medicare & Medicaid Services (CMS), nursing homes must undergo annual certification of compliance with federal regulations, manifested as timed inspections or surveys. The Nursing Home Reform Act also emphasized the need for continuous, rather than cyclical, compliance. More recently, reports of hazards such as preventable hospitalizations, falls, health care-associated infections and inappropriate antipsychotic prescribing have prompted additional regulatory requirements focused on the identification of deficiencies and assignment of consequences for noncompliance. Many stakeholders, including AMDA-The Society for

R.L.P.J. reports support for this work in part through the Cleveland Geriatric Research Education and Clinical Center (GRECC) at the VA Northeast Ohio Healthcare System. The contents of this work are those of the authors and do not represent the views of the US Department of Veterans Affairs or the United States Government. S.G., R.K., R.L.P.J., and S.M.G. are members of AMDA-The Society for Post-Acute and Long-Term Care Medicine. The contents of this work are their own. The authors declare no conflicts of interest.

Address correspondence to Robin L.P. Jump, MD, PhD, GRECC 1110(W), VA Northeast Ohio Healthcare System, 10701 E Blvd, Cleveland, OH 44106, USA.

Post-Acute and Long-Term Care Medicine, have also worked to improve the quality of care in nursing homes.

Despite the many layers of regulations and stakeholder efforts, we have not consistently achieved high-quality care in nursing homes. In 2019, surveyors identified deficiencies in more than 90% of nursing homes; 23% of those were for actual harm or immediate jeopardy to residents. The COVID-19 pandemic brought to light that many nursing homes were poorly prepared and dramatically underresourced to provide safe and quality care to their residents during times of crisis.

The fallout from the COVID-19 pandemic's effects on nursing homes has renewed discussions about a redesign of the system of nursing home care and its oversight. Some have suggested that the current nursing home regulatory process has not inspired sustainable improvements because of a "carrot and stick" approach rather than a positive behavioral approach.<sup>2</sup> To address this, Nazir et al<sup>3</sup> proposed changes to the regulatory system that account for superior performance and use behavioral economics to promote positive change. In contrast. Dark et al<sup>4</sup> observed that the impact of the pandemic and structural trends in nursing home ownership and management make continuing robust survey processes and regulatory sanctions critical to ensuring accountability necessary to protect vulnerable residents. Other groups emphasized that alignment of person-centered community values should be central to efforts to ensure high quality of care in nursing homes.<sup>5</sup> The common goal of these discussions has been optimization of care in nursing homes, which requires balancing efforts to support quality improvement with accountability for substandard performance.

To further quality improvement, many health care systems have integrated the concept of *safety culture* into their overall organizational culture (Table 1). Safety culture represents an organizational commitment to safety at all levels (frontline to leadership) by minimizing adverse events even when carrying out complex and hazardous work. Discussed below, safety culture seeks to create a blame-free environment that in turn encourages health care workers to recognize and report errors or near misses that could result in patient harm. By doing so, policies and procedures can be changed to prevent similar events from occurring in the future, thus improving overall patient safety.

These aspects of safety culture alone, however, are not sufficient to address poor performance and negligence. This gap gave rise to the idea of *just culture*, an aspect of safety culture, that we address more thoroughly below (Table 2). In brief, just culture focuses on identifying and addressing behaviors that create the potential for adverse events and calls for appropriate accountability. Just culture supports disciplinary actions against individuals or organizations who engage in reckless behavior or willfully violate best practices and standards of care. Just culture avoids punishing individuals for adverse events over which they have no control. In this article, we use the principles of safety culture and just culture to reenvision the organizational culture of nursing homes and their relationship with the regulatory agencies that oversee them, with the goal of improving the quality of care and life for nursing home residents.

### **Safety Culture in Nursing Homes**

In 1999, the Institute of Medicine published their seminal report "To Err Is Human: Building a Safer Health System" that established a clear connection between the organizational culture and patient safety. The report emphasized the need for an organizational culture that uses errors (and near misses) to improve and integrate safety into systems and processes. Safety culture has become an accepted part of health care, complete with accepted nomenclature, domains, processes, and outcome assessments. Organizations with a robust safety

## **Table 1** Principles of Safety Culture

- Acknowledgment of the high-risk nature of an organization's activities and the determination to achieve consistently safe operations
- A blame-free environment where individuals are able to report errors or near misses without fear of reprimand or punishment
- Encouragement of collaboration across ranks and disciplines to seek solutions to patient safety problems
- Organizational commitment of resources to address safety concerns

Adapted from "Culture of Safety."6

culture acknowledge the high-risk nature of their organization's activities, use their resources to collaborate across ranks and disciplines to solve problems, and seek to optimize patient outcomes.<sup>6</sup> A systematic review of safety culture in hospitals observed that team perception of safety culture can improve care processes, reduce patient harm, and even decrease staff turnover.<sup>11</sup>

Although limited, previous work indicates that incorporating safety culture into nursing homes improves resident outcomes. Bonner et al<sup>12</sup> evaluated the resident safety culture among certified nursing assistants (CNAs) and demonstrated a positive association between resident safety culture and increased reporting of falls. Restraint use was also lower in facilities with an ingrained safety culture among the CNAs. 12 A strong culture of safety was also associated with decreases in several negative outcomes specific to residents including falls, urinary tract infections in long-stay residents, and ulcers in short-stay residents.<sup>13</sup> Similarly, Guo et al<sup>14</sup> found a positive association between safety culture domains such as teamwork and successful discharges from long-term care into the community. Safety culture also appears to benefit the nursing home as an organization, with perceived patient safety culture in nursing homes associated with reduced deficiency citations, fewer substantiated complaints, lower amounts of fines paid by nursing home to the CMS for quality and safety issues, and increased odds of being designated as 4- or 5-star facilities. 15

Despite their successful integration into the organization culture of hospitals and their positive influence on the care of residents, the principles of safety culture are slow to permeate into the overall organizational culture of some nursing homes. Based on surveys conducted in 2005 using a hospital survey on patient safety culture, Castle et al<sup>16</sup> found that nursing homes, 11 of 12 scores were considerably lower compared with the hospital benchmarks. Similar surveys conducted in 40 nursing homes in 2006 and 2007, this time using a nursing home survey on patient safety culture, found that staff typically feel the safety culture is poor in their workplaces.<sup>17</sup> Notably, direct care staff reported weaker safety culture compared to administration and managers. This difference persists in community nursing homes as well as in Veterans Affairs nursing homes, termed Community Living Centers (CLCs).<sup>17,18</sup> Interestingly, Quach et al<sup>19</sup> reported that some elements of a strong safety culture exist among direct care providers in VA CLCs; how this compared to community-based nursing homes is not clear. Regardless, in all 3 of these studies, the authors indicate that improved communication between nursing home administrators and staff who provide bedside care may help address the differences in perceived safety culture among nursing home employees.<sup>17–19</sup> Other factors may contribute to the limited uptake of safety culture in nursing homes, as shown by Grunier and Mor,<sup>20</sup> who noted that organizational management, staff turnover, workforce shortages, and the traditional cyclical regulatory environment of identifying and punishing "bad" behavior impeded progress toward culture change.

Twenty years ago, AMDA raised concerns about the survey process. <sup>21</sup> We contend that the punitive nature of the survey process, which has a strong influence on nursing home operations, is a marked barrier to implementing safety culture in nursing homes.

**Table 2** Overview of Just Culture

Behaviors Associated with the Potential for Adverse Events	Appropriate Organizational Responses to Behaviors	Examples from Health care
Human error An unintentional failure that causes, or nearly causes, harm; includes events due to circumstances beyond an individual's control	Accept risk Recognize the high-risk nature of the environment scenario Console Account for factors beyond individual behavior that contributed to the adverse event System redesign Change workflow and implement fail-safes to prevent future errors from happening	Mistaking a medication for one with a similar name (eg, hydroxyzine and hydralazine) leading to administration of the wrong medicine  Accept risk  Educate staff with similar roles to help reduce their risk of a similar error  Console the individual(s) involved  System redesign  Implement design controls  — An order check by pharmacy for high-risk medications  — Tall letters to make distinguishing names easier (eg, hydrOXYzine and hydrALAzine)
At-risk behavior A choice where risk is not recognized or mistakenly perceived to be justified under the circumstances	Coach Help individuals recognize the potential harms associated with their actions Remove barriers to safe choices Change the system so staff does not have to engage in workarounds to do their job System redesign Change workflow and implement fail-safes to reduce the behavior	Using overrides to remove a medication from an automated dispensing cabinet (ADC) outside of an emergency because of delays in receiving medications from pharmacy  Coach the individual(s) involved to recognize the potential for error, such as administering a medication to which the patient has an allergy or has not been evaluated for potential drug-drug interactions  Remove barriers to safe choices  Prioritize orders for urgent medications, such as antibiotics and analgesics.  System redesign  Audit medications removed from the ADC, by whom, and under what circumstances
Reckless behavior Conscious disregard of substantial and unjustifiable risk of harm	Sanction  Take disciplinary action as permitted by the organization's policies and as required by local, state, and federal authorities	Diversion of narcotics by a staff member Sanction Initiate prompt disciplinary action, such as termination or leave without pay, and report the episode as required to the Drug Enforcement Agency, state regulatory boards, and local law enforcement

Adapted from Institute for Safe Medication Practices<sup>7</sup> and Boysen.<sup>8</sup>

Fundamental changes to the survey process are needed in order to support the integration of safety culture into the nursing home sector as a whole. The survey process cannot endorse the blame-free environment called for by safety culture while still holding nursing homes accountable for poor performance and negligence. The principles of just culture, which hold individuals and organizations accountable for their behavior and actions, complement the use of safety culture to improve patient saftey.<sup>22</sup> Reimagining the survey process through the lens of just culture should support a more systemic cultural shift of nursing homes toward safety culture.

### **Integrating Principles of Just Culture Into the Survey Process**

Just culture encourages transparency and error reporting while creating a balance between blame-free and punitive environments that ensure accountability. With just culture, rather than only focusing on outcomes, an organization examines behavioral choices, thereby reducing severity bias. Similar to previous descriptions of just culture, for the purposes applying just culture to the nursing home survey process, we group behaviors that may cause harm into 3 categories (Table 2).

The first category is *human error*, where an unintentional failure that is beyond the control of humans causes or almost causes harm. From an organizational perspective, this includes adverse events as a result of factors that are outside of an individual's control. Just culture does not call for punishment or sanction of individuals with behavior that involves human error. Rather, it aligns with safety culture principles by supporting acceptance of risk along with system redesign to prevent future errors from happening. In the context of a nursing home survey, adverse events that occur despite a nursing home's efforts to prevent them should not incur deficiencies or other punitive

measures. Integrating this aspect of just culture into nursing home surveys would require a process that forgoes assessments based only on scope and severity, in favor of an evaluation that examines reasonable steps taken to prevent the adverse event. One example is a resident who falls and experiences an injury requiring hospitalization. In just culture, the survey team would review overall efforts to prevent falls from occurring, including staff education on fall risk factors and prevention strategies, medication reviews, and handrails along with other environmental modifications to support safe mobility. The survey team would also account for choices made by the resident and family to choose mobility despite a clear recognition of an increased fall risk, recognizing the adverse event occurred as a result of shared decision making and despite prevention strategies.

The second category is at-risk behavior, which occurs when individuals and/or organizations either do not recognize a risk as a consequence of a choice or otherwise minimize or justify the risk. Under just culture, the response to at-risk behaviors includes removing barriers to safe choices, removing any rewards associated with at-risk behaviors, and coaching individuals and/or organizations to recognize the consequences of their choices. At an organizational level, at-risk behaviors are the most challenging to identify and also the areas of greatest opportunity. In the context of a nursing home survey, if the ultimate goal is to improve resident safety, adverse events due to at-risk behaviors should require a remediation plan that includes staff education and coaching as well as objective improvement in process and outcome measures. The nursing home might choose to rely on their Quality Assurance and Process Improvement (QAPI) committee to develop a remediation plan. The severity or magnitude of the problem might also lead to requests for assistance from regional Quality Improvement Organizations (QIOs), state or jurisdictional health agencies, or even nearby hospitals. It is not the

**Table 3**Alignment of Regulatory Oversight During the COVID-19 Pandemic With Just Culture

Behavior Associated With the Potential for Adverse Events	Responses by CMS and Other State Agencies	
Human error	Accept risk	
Outbreaks of COVID-19 in nursing homes in areas of high community prevalence, despite adequate supplies of PPE and optimal infection control practices	Recognition that the risk of COVID-19 outbreaks in nursing homes mirrors the rates of COVID-19 infections in the community	
At-risk behavior	Coach*	
Staff reusing PPE due to supply shortages	CMS engaged regional quality improvement organizations (QIOs) to coach nursing homes on using a PPE calculator	
	Remove barriers to safe choices	
	Establishment of state or regional collaboration to help connect nursing homes with supplies of PPE	
At-risk behavior	System redesign	
Nursing homes unable to cohort staff or use consistent assignments because of staff shortages due to illness and/ or quarantine	States deployed strike teams to assess and provide crisis staff with expertise in nursing homes	
Reckless behavior	Sanction	
Nursing home did not screen all of their staff on entry to the building, and employees with an elevated temperature and signs/symptoms of COVID-19 infection were allowed to work	CMS sanctioned nursing homes through civil monetary penalties and nonpayment for admissions	
Reckless behavior	Sanction	
Nursing home permitted a COVID-positive resident to share a room with a COVID-negative resident after positive test results were known	CMS sanctioned nursing homes through civil monetary penalties and nonpayment for admissions	

\*Note, regulatory survey teams are not designed to coach facilities. In this context, coaching refers to relationships between other governmental agencies and nursing homes for the purpose of teaching and supervision in the interest of resolving at-risk behaviors.

role or function of regulatory survey teams to provide this type of coaching to nursing homes, as this construct has potential for conflict of interest that could undermine their role in sanctioning reckless behavior.

An example of at-risk behavior is of nurse who does not change his or her personal protective equipment (PPE) between providing wound care for sacral wound and a surgical site wound on the leg. The reasoning expressed is that PPE is stored far from the resident's bed and that using the same gloves to change multiple dressings should not be harmful as it is the same resident. Although no harm is intended, the nurse should recognize the risk of cross-contamination and infection in the wounds. Even if in this instance there is no demonstrable harm, under the rubric of just culture, the survey team would put the nursing home on notice to correct the behavior within a specified time frame. The resulting process improvement plan should include several features:

- staff education about transmission-based precautions and how to use PPE
- coaching on proper donning and doffing of PPE
- adapting the system to ensure PPE supplies and trash receptacles are convenient to rooms with residents on transmission-based precautions
- process measure—surveillance for how often rooms do not have adequate supplies of PPE
- *outcome measure*—surveillance for wound infections acquired in the nursing home.

The survey team would need to reassess the nursing home, perhaps limiting its scope only to infection control and prevention issues. If the nursing home demonstrates that it has addressed the atrisk behavior, the survey team would take no further action. If the nursing home has not sufficiently rectified the at-risk behavior, the survey team could elect to take punitive action.

The third category is *reckless behavior*, which involves a conscious disregard of a substantial and unjustifiable risk of harm. Similar to others, we have grouped reckless behavior with the more severe categories of knowingly causing harm and intentionally causing harm.<sup>23</sup> Reckless behavior is outside of what is accepted as the norm and may be self-serving. Just culture calls for punishment or sanction

of individuals who engage in reckless behavior. Under the existing process, survey teams may invoke any of several punitive measures, including civil monetary penalties, withholding reimbursement from CMS, and even closure. Examples of reckless behavior by individuals include drug diversion or continued refusal to properly wear a mask during the COVID-19 pandemic, despite repeated education and coaching. At the organizational level, reckless behavior might manifest as a severe cost-cutting or intentional understaffing.

The COVID-19 pandemic offers a striking example of a missed opportunity for applying the principles of just culture. At least 1 nursing home in Washington state, the epicenter for COVID-19 infections in the United States, received significant fines following an initial outbreak of SARS-CoV-2.<sup>24</sup> These sentinel events were severe enough to require assistance not only from local and state health departments but also from the Centers for Disease Control and Prevention (CDC). The observations by the CDC shed light on the novel nature of SARS-CoV-2 and informed subsequent infection prevention and control activities across the nation. Nevertheless, CMS fined the nursing home more than \$600,000 dollars for not providing "quality care and services for residents during a respiratory outbreak," among other concerns.<sup>25</sup> A survey team trained in principles of just culture would have forgone assessing the scope and severity of the deaths due to SARS-CoV-2 and instead evaluated the behavior and actions of the nursing home. The survey team would have recognized that, especially in early 2020, several circumstances were beyond the control of the nursing home staff: a novel pathogen with a long incubation period, insufficient knowledge of transmission, a new disease with a variable set of clinical symptoms, no diagnostic tests, no experience in treating COVID-19 infections, and no pathogen-specific medications.

A second example also comes from early in the pandemic. Nursing homes that reported higher numbers of COVID-19 cases did not receive Phase Three of Provider Relief Funds under Coronavirus Aid Relief and Economic Securities Act (CARES Act) as a consequence of what was interpreted as poor infection prevention and control practices. <sup>26</sup> Although this may have been true for some nursing homes, the practice also penalized nursing homes that were early adopters of a universal testing strategy to limit the spread of COVID-19 in their buildings. Eventually, CMS recognized the benefits of this approach and required all nursing homes to engage in universal testing of staff

**Table 4**Reimagining the Nursing Home Survey Processes Through the Lens of Just Culture

Behaviors Associated With the Potential for Adverse Events	CMS Response Under Existing Process	Potential Regulatory Response Using Principles of Just Culture
Human error A resident was on a leave of absence longer than anticipated and missed medications	Penalize based on scope (isolated) and severity (actual harm that is not immediate)	Accept risk     Recognize that the facility made reasonable efforts to prevent this adverse event, which was out of the facility's control     System redesign     Systematically review the event to identify potential root causes and develop a contingency plan for residents with a longer than expected leave of absence
At-risk behavior A surveyor finds antibiotic prescriptions based on urinalysis results, without documentation of symptoms or culture results	Penalize based on scope (pattern) and severity (actual harm that is not immediate)	Coach* Regulatory survey team may refer the nursing home to local, state, or regional agencies that offer educational and technical resources for coaching Require staff education on antibiotic stewardship principles and the nursing home's antibiotic use protocol for suspected urinary tract infection System redesign The nursing home revises its protocols to require the
Reckless behavior Several staff members are frequently wearing masks below their nose	Penalize based on scope (pattern) and severity (immediate jeopardy to resident health or safety)	presence of signs and symptoms that localize to the genitourinary tract prior to collecting a urine sample Sanction  • Penalize organization for failure to recognize and address reckless behavior by staff Coach*  • Regulatory survey team may refer the nursing home to local, state, or regional agencies that offer educational and technical resources for coaching

\*Note, regulatory survey teams are not designed to coach facilities. In this context, coaching refers to relationships between other governmental agencies and nursing homes for the purpose of teaching and supervision in the interest of resolving at-risk behaviors.

and residents.<sup>27</sup> In the example above, applying the principles of just culture would call for CMS to recognize that some nursing homes with high care rates had actually engaged in innovative behaviors supportive of patient safety. The value of the approach is evidenced by CMS's eventual endorsement of this practice.<sup>27</sup>

# Changes to Nursing Home Culture Caused by the COVID-19 Pandemic

Over time, the response to the COVID-19 pandemic gave rise to practices that advanced some aspects of safety culture. First, the devastation of SARS-CoV-2 infections on nursing home residents and staff forced acknowledgment of the high-risk nature of nursing home care during the pandemic. Second, the COVID-19 pandemic led to collaborations across ranks and disciplines, which included federal, state, county, and local agencies racing to develop educational resources and strike teams, discussed in further detail below.<sup>28–31</sup> Third, CMS demonstrated organizational commitment of resources to address safety concerns. The agency suspended the regular survey process and instead focused on infection control and prevention.<sup>32</sup> CMS also issued blanket waivers for many activities like telemedicine, relaxed training and certification requirements for nurse aides, and allowed physicians to more freely delegate tasks to a nurse practitioner, clinical nurse specialist, or physician assistant.<sup>33</sup>

Strike teams leveraged key attributes of safety culture to support and coach nursing homes through access to resources including counsel from post-acute and long-term care experts.<sup>34</sup> Many states implemented strike teams in partnership with the National Guard and were able to provide personnel, technical expertise, and material help including staffing, testing assistance, vaccine clinics, personal protective equipment (PPE), and administration of monoclonal antibodies.<sup>35–37</sup> Massachusetts provided an especially successful example of using strike teams to control infections in nursing homes.<sup>38</sup> In April 2020, the governor of Massachusetts authorized disbursement of 130 million dollars to focus facilities, those with the highest rates of COVID-19 infection, if the facilities complied with infection control

guidance by experts in the field. To ensure compliance, education, infection control expertise, and resources, including PPE, were made available. This resulted in a decrease in case counts in the focus facilities and a dramatic increase in adherence to the infection control core competencies as evidenced by audit compliance.

Later in the pandemic, modifications to some aspects of the survey process also aligned with the principles of just culture (Table 3). The changes acknowledged several challenges faced by nursing homes: ongoing PPE shortages; understaffing due to staff who were ill, on quarantine, or had left health care altogether; and outbreaks in nursing homes located in regions with high community prevalence of COVID-19.

### **Implications for Policy**

The COVID-19 pandemic led to changes by CMS and other agencies that advanced safety culture in nursing homes. As stakeholders, it is important that we acknowledge this early shift and work to further develop safety culture in nursing homes, which is foundational to high-quality care. Continuing to support culture change in a more purposeful manner, that is, through policy changes, can help transform the current punitive oversight process into one that recognizes and promotes principles of safety culture.

Embedded within the larger concept of safety culture, just culture should continue to guide survey processes that respond to human error and at-risk behavior with education, coaching, and strategies to reduce risk (Table 4). Just culture also sanctions nursing homes that engage in reckless behavior. As they did successfully for some nursing homes struggling with COVID-19, survey teams can prompt regional quality improvement organizations (QIOs) and/or state and local agencies to provide education, materials support, and technical assistance.<sup>39</sup> Strike teams, implemented as a short-term crisis-oriented solution during the COVID-19 pandemic, have the potential to evolve into a sustainable program that promotes safety culture in nursing homes.<sup>40</sup> Funds from the American Rescue Plan distributed to state and other jurisdictional health departments for the development

of additional state-based COVID-19 strike teams could be the first steps in developing such a program. This would help foster continued instillation of safety culture into nursing homes, while maintaining the focus of survey teams on identifying nursing homes with deficiencies and applying the principles of just culture, including holding organizations accountable for reckless and negligent behavior.

Integrating safety culture into nursing homes and just culture into the survey process will require a significant commitment of resources. Both nursing home staff and surveyors will need education and training on safety culture to advance increased reporting, transparency, and appropriate accountability. Furthermore, federal, state, and jurisdictional health agencies may need to develop new standards and structured mechanisms for evaluation. In addition to the investment of financial resources, promoting expertise among staff and surveyors alike will be integral to the continued transformation of nursing homes into institutions that are firmly rooted in safety culture.

The COVID-19 pandemic revealed fundamental weaknesses among nursing homes across the United States and among the agencies that oversee them. The response of the dedicated people working within this sector of health care also demonstrated that safety culture principles were integral to successful responses to the pandemic. Over time, measured and deliberate integration of safety culture into nursing homes will advance sustained improvements in the quality of care and life for nursing home residents.

#### References

- Percent of certified nursing facilities receiving a deficiency for actual harm or jeopardy. KFF. 2021. https://www.kff.org/other/state-indicator/of-facilities-wserious-deficiencies/. Accessed December 7, 2021.
- Stulick A. Nursing home regulatory accountability cannot be 'carrot and stick systems' only. Skilled Nursing News. 2021. https://skillednursingnews.com/ 2021/10/nursing-home-regulatory-accountability-cannot-be-carrot-and-sticksystems-only/. Accessed November 19, 2021.
- Nazir A, Steinberg K, Wasserman M, Horowitz AC, Lett JE. Time for an upgrade in the nursing home survey process: a position statement from the Society for Post-Acute and Long-Term Care Medicine. J Am Med Dir Assoc 2020;21: 1818–1820.
- Dark M, Wells J, Edelman TS, Mollot RJ, Harrington C. Time to support nursing home surveys and enforcement: response to the position of the Society for Post-Acute and Long-Term Care Medicine. J Am Med Dir Assoc 2021;22: 1119—1120.
- Jerebker J, Barkan B, Fagan RM. The Live Oak Project endorsement of the position statement from the Society for Post-Acute and Long-Term Care Medicine. J Am Med Dir Assoc 2021;22:1120.
- Culture of Safety. https://psnet.ahrq.gov/primer/culture-safety. Accessed November 19, 2021.
- The differences between human error, at-risk behavior, and reckless behavior are key to a just culture. Institute for Safe Medication Practices. https://www. ismp.org/resources/differences-between-human-error-risk-behavior-and-recklessbehavior-are-key-just-culture. Accessed December 3, 2021.
- Boysen PG. Just culture: a foundation for balanced accountability and patient safety. Ochsner J 2013;13:400–406.
- Institute of Medicine (US) Committee on Quality of Health Care in America. To Err Is Human: Building a Safer Health System. In: Kohn LT, Corrigan JM, Donaldson MS, editors. National Academies Press (US): 2000.
- 10. Rodziewicz TL, Houseman B, Hipskind JE. Medical error reduction and prevention. In: StatPearls. StatPearls Publishing; 2021.
  11. Weaver SJ, Lubomksi LH, Wilson RF, Pfoh ER, Martinez KA, Dy SM. Promoting a
- 11. Weaver SJ, Lubomksi LH, Wilson RF, Pfoh ER, Martinez KA, Dy SM. Promoting a culture of safety as a patient safety strategy: a systematic review. Ann Intern Med 2013;158(5 Part 2):369—374.
- 12. Bonner AF, Castle NG, Men A, Handler SM. Certified nursing assistants' perceptions of nursing home patient safety culture: is there a relationship to clinical outcomes? J Am Med Dir Assoc 2009;10:11–20.
- 13. Abusalem S, Polivka B, Coty MB, Crawford TN, Furman CD, Alaradi M. The relationship between culture of safety and rate of adverse events in long-term care facilities. J Patient Saf 2021;17:299–304.
- Guo W, Li Y, Temkin-Greener H. Community discharge among post-acute nursing home residents: an association with patient safety culture? J Am Med Dir Assoc 2021;22:2384—2388.e1.
- Li Y, Cen X, Cai X, Temkin-Greener H. Perceived patient safety culture in nursing homes associated with "Nursing Home Compare" performance indicators. Med Care 2019;57:641

  –647.

- Castle NG, Sonon KE. A culture of patient safety in nursing homes. Qual Saf Health Care 2006;15:405–408.
- Castle NG, Wagner LM, Perera S, Ferguson JC, Handler SM. Assessing resident safety culture in nursing homes: using the nursing home survey on resident safety. J Patient Saf 2010;6:59–67.
- Banaszak-Holl J, Reichert H, Todd Greene M, et al. Do safety culture scores in nursing homes depend on job role and ownership? Results from a national survey. J Am Geriatr Soc 2017;65:2244–2250.
- Quach ED, Kazis LE, Zhao S, McDannold S, Clark V, Hartmann CW. Nursing home senior managers and direct care staff: are there differences in their perceptions of safety climate? J Patient Saf 2021;17:e1616–e1621.
- Gruneir A, Mor V. Nursing home safety: current issues and barriers to improvement. Annu Rev Public Health 2008;29:369–382.
- White paper on the survey process. AMDA. https://paltc.org/amda-white-papers-and-resolution-position-statements/white-paper-survey-process. Accessed December 5, 2021.
- Marx D. Patient Safety and the "Just Culture": A Primer for Health Care Executives. 2008. https://psnet.ahrq.gov/issue/patient-safety-and-just-culture-primer-health-care-executives. Accessed August 15, 2021.
- 23. Patient safety and the just culture. ScienceDirect. https://www.sciencedirect.com/science/article/abs/pii/S088985451930004X?via%3Dihub. Accessed November
- Booker B. Seattle-area nursing home linked to dozens of coronavirus deaths faces \$600,000 fine. NPR. 2020. https://www.npr.org/sections/coronavirus-liveupdates/2020/04/02/826360394/seattle-area-nursing-home-linked-todozens-of-coronavirus-deaths-faces-600-000-f. Accessed November 21, 2021.
- Nursing home linked to dozens of COVID-19 deaths faces \$611,325 fine: coronavirus updates. NPR. https://www.npr.org/sections/coronavirus-liveupdates/2020/04/02/826360394/seattle-area-nursing-home-linked-to-dozens-ofcoronavirus-deaths-faces-600-000-f. Accessed November 21, 2021.
- Special report: Nursing facilities have received billions of dollars in direct financial and non-financial support during coronavirus pandemic. Center for Medicare Advocacy. 2021. https://medicareadvocacy.org/report-snf-financialsupport-during-covid/. Accessed December 5, 2021.
- 27. Interim Final Rule (IFC), CMS-3401-IFC. Additional policy and regulatory revisions in response to the COVID-19 public health emergency related to long-term care (LTC) facility testing requirements and revised COVID-19 focused survey tool. CMS. https://www.cms.gov/medicareprovider-enrollment-and-certificationsurveycertificationgeninfopolicy-and-memos-states-and/interim-final-rule-ifc-cms-3401-ifc-additional-policy-and-regulatory-revisions-response-covid-19. Accessed December 5, 2021.
- Q&A document for COVID-19. AMDA—The Society for Post-Acute and Long-Term Care Medicine. 2021. https://paltc.org/sites/default/files/COVID%20QA% 20012921.pdf. Accessed December 3, 2021.
- AHRQ ECHO National Nursing Home COVID-19 Action Network. Agency for Healthcare Research and Quality. https://www.ahrq.gov/nursing-home/indexold.html. Accessed December 3, 2021.
- Nursing home resources. Agency for Healthcare Research and Quality. https://www.ahrq.gov/nursing-home/resources/search.html. Accessed December 3, 2021
- Nursing homes data dashboard. NHSN. CDC. https://www.cdc.gov/nhsn/ covid19/ltc-report-overview.html. Accessed December 3, 2021.
- Suspension of survey activities. CMS. https://www.cms.gov/medicareproviderenrollment-and-certificationsurveycertificationgeninfopolicy-and/suspensionsurvey-activities. Accessed December 5, 2021.
- Coronavirus waivers. CMS. https://www.cms.gov/about-cms/emergency-preparedness-response-operations/current-emergencies/coronavirus-waivers. Accessed November 19, 2021.
- How QIOs, strike teams helped in COVID-19 trenches with majority of nursing homes. News. McKnight's Long-Term Care News. https://www.mcknights.com/ news/qios-strike-teams-helped-in-covid-19-trenches-with-majority-of-nursinghomes-cms/. Accessed November 19, 2021.
- Utah long-term care facilities start receiving monoclonal antibody treatments. https://www.sltrib.com/news/2021/01/16/utah-long-term-care/. Accessed November 19, 2021.
- Regional Response Health Collaborative (RRHC) program. Department of Human Services. <a href="https://www.dhs.pa.gov:443/coronavirus/Pages/RRHCP.aspx">https://www.dhs.pa.gov:443/coronavirus/Pages/RRHCP.aspx</a>. Accessed November 19, 2021.
- Maryland Department of Public Health. Coronavirus disease 2019: frequently asked questions about "strike teams". https://aahealth.org/wp-content/ uploads/2020/03/MDH-FAQ\_covid19\_strike\_teams.pdf. Accessed November 19. 2021.
- 38. Lipsitz LA, Lujan AM, Dufour A, et al. Stemming the tide of COVID-19 infections in Massachusetts nursing homes. J Am Geriatr Soc 2020;68:2447–2453.
- Sonnenfeld N, Li J, Lichtenfeld J, et al. Centers for Medicare and Medicaid's QIN-QIO targeted response intervention associated with reductions in COVID-19 incidence in nursing homes. Health Serv Res 2021;56:52.
- Protecting Nursing Home Residents from Covid-19: federal strike team findings and lessons learned. Catalyst non-issue content. https://catalyst.nejm.org/ doi/full/10.1056/CAT.21.0144. Accessed November 19, 2021.
- CDC newsroom. CDC. 2016. https://www.cdc.gov/media/releases/2021/p0917-COVID-19-funding.html. Accessed November 19, 2021.