risks they face (globally, many frontline health care workers have acquired Covid-19 and died) and the shortage of highly skilled critical care professionals in most sub-Saharan African countries; keeping these frontline health workers alive must be a top priority.

If SARS-CoV-2 infections rise dramatically in sub-Saharan Africa, the main imperative will be to save those who can be saved with what few resources are available to lessen the damage to communal life. It will not be pretty. Ethical recommendations imported from HICs (and even international agencies)[12] will be of limited relevance; what is also needed is guidance that is informed by how scarcity decisions have been made in LMICs for decades, that is responsive to current circumstances, that embodies shared cultural values, and that is developed through a transparent, community-engaging process. Short of that, how prioritization unfolds will less likely rely on complex allocation schemes and external committees focused on high-tech critical care and more likely depend on the judgments of experienced African doctors as they distinguish between those needing symptomatic treatment such as oxygen and those to be triaged to palliative care. To be ethically defensible, such judgments should incorporate relevant ethical considerations and reasoning and should be documented for potential evaluation. Perhaps more than elsewhere, health care providers in LMICs during the Covid-19 crisis could find themselves regularly confronted with what Lisa Tessman calls "moral failure": situations in which avoiding moral wrong is impossible. Even then, it is up to local bioethicists to make sense of what unfolds—and to bear witness.

1. N. E. Kass, "An Ethics Framework for Public Health," *American Journal of Public Health* 91, no. 11 (2001): 1776-82.

2. R. Maclean and S. Marks, "10 African Countries Have No Ventilators. That's Only Part of the Problem," *New York Times*, April 18, 2020.

3. Z .Wu and J. M. McGoogan, "Characteristics of and Important Lessons from the Coronavirus Disease 2019 (Covid-19) Outbreak in China: Summary of a Report of 72,314 Cases from the Chinese Center for Disease Control and Prevention," *Journal of the American Medical Association* 323 (2020): 1239-42.

4. R. D. Truog, C. Mitchell, and G. Q. Daley., "The Toughest Triage—Allocating Ventilators in a Pandemic," *New England Journal of Medicine* 382 (2020): 1973-75; E. J. Emanuel et al., "Fair Allocation of Scarce Medical Resources in the Time of Covid-19," *New England Journal of Medicine* 382 (2020): 2049-55; D. Sokol, "The Life and Death Decisions of Covid-19," *BMJ Opinion* (blog), March 20, 2020, at https://blogs.bmj.com/bmj/; L. O. Gostin, E. A. Friedman, and S. A. Wetter, "Responding to Covid-19: How to Navigate a Public Health Emergency Legally and Ethically," *Hastings Center Report* 50, no. 2 (2020): 8-12.

5. J. A. Singh and K. Moodley, "Critical Care Triaging in the Shadow of Covid-19: Ethics Considerations," *South African Medical Journal* 110, no. 5 (2020): 341-42.

6. H. Schmidt, "The Way We Ration Ventilators Is Biased. Not Every Patient Has a Fair Chance," *New York Times*, April 15, 2020.

7. R. Cash and V. Patel, "Has Covid-19 Subverted Global Health?," *Lancet* 395 (2020): 1687-88.

8. D. Archard, A. Caplan, and F. William, "Is It Wrong to Prioritise Younger Patients with Covid-19?," *BMJ* 369 (2020): doi:10.1136/bmj.m1509.

9. "The CIA Factbook," Central Intelligence Agency, April 23, 2020, https://www.cia.gov/library/publications/resources/the-world-factbook/.

10. T. Roberton et al., "Early Estimates of the Indirect Effects of the Covid-19 Pandemic on Maternal and Child Mortality in Low-Income and Middle-Income Countries: A Modelling Study," *Lancet Global Health* (May 12, 2020 [epub ahead of print]): doi:10.1016/S2214-109X(20)30229-1.

11. T. Haaser, "Rewarding through Prioritization: The Limits of Reciprocal Obligation in Allocating Scarce Medical Resources in the Covid-19 Crisis," *Journal of Medical Ethics* (blog), April 9, 2020, https://blogs.bmj.com/medical-ethics/2020/04/09/rewarding-through-prioritization-the-limits-of-reciprocal-obligation-in-allocating-scarce-medical-resources-in-the-Covid-19-crisis/.

12. World Health Organization, *Ethical Considerations in Developing a Public Health Response to Pandemic Influenza* (Geneva: WHO, 2007), https://www.who.int/csr/resources/publications/WHO_CDS_EPR_GIP_2007_2c.pdf.

Covid-19: *Ethical Challenges for Nurses*

by GEORGINA MORLEY, CHRISTINE GRADY, JOAN MCCARTHY, AND CONNIE M. ULRICH

The Covid-19 pandemic—with, at the time of this writing, nearly two million cases worldwide and 113,030 deaths[1]—has highlighted many of the difficult ethical issues that health care professionals confront in caring for patients and families. The decisions such workers face on the front lines are fraught with uncertainty for all stakeholders. Our focus is on the implications for nurses, who are the largest global health care workforce but whose perspectives are not always fully considered.[2]

We see three overarching ethical issues that create a myriad of concerns and will likely affect nurses globally in unique ways: the safety of nurses, patients, colleagues, and families; the allocation of scarce resources; and the changing nature of nurses' relationships with patients and families.

Georgina Morley, Christine Grady, Joan McCarthy, and Connie M. Ulrich, "Covid-19: Ethical Challenges for Nurses," *Hastings Center Report* 50 (2020): 35-39. DOI: 10.1002/hast.1110

Safety of Nurses

In the battle against Covid-19, the safety of nurses and other health care workers on the front lines is a pressing ethical concern, as they are asked to work under conditions that pose substantial and inadequately understood risks to their overall health and well-being. Risk of exposure to infectious diseases is not new within health care. Over the last fifty years, health care workers have encountered risks from HIV/AIDS, SARS, swine flu, and Ebola. While Covid-19 has not yet been as deadly as HIV/AIDS or the swine flu, our insufficient understanding about the virus, its pathophysiology, mode of transmission, susceptibility profile, and contagious nature as well as failures in the supply chains for personal protective equipment (PPE) mean that health care workers are being asked to take on substantial but uncertain risk.

The inadequate protection of health care workers across all health care settings raises professional and ethical questions about the extent of these workers' duty to care for patients—including the limits of that duty. The 2015 revised American Nurses Association *Code of Ethics* states that nurses' primary duty is to the recipient of nursing care, whether that be an individual patient, family, or community. The *Code of Ethics* also stipulates that nurses have a duty to promote their own health and safety.[3] These multiple and even competing duties, especially as they combine or conflict with civic and personal interests, place nurses—many of whom have conditions that make them more vulnerable to Covid—in a quandary. They are trying to balance their obligations of beneficence and duty to care for patients with rights and responsibilities to address inadequacies within their health care systems in ways that are consistent with rights and duties to protect themselves and their loved ones.

Contemporary nursing ethics scholarship foregrounds the relational dimension of all human activities, especially caring activities, and recognizes that nurses' personal and professional lives are often grounded in interdependent relationships of responsibility and care.[4] Applying this relational account of care to current practice realities can help policy-makers and health care system leaders recognize additional risks in nursing work—and the emotional weight and practical implications of those risks. This relational context suggests that nurses' concerns about PPE may arise not just because of concerns for personal safety but also because of concerns about transmitting Covid-19 to loved ones, especially those who have medical conditions that make them particularly vulnerable, or because they may be the sole support for and carer of children or dependent adult relatives. Nurses routinely and willingly care for patients in risky situations. However, requiring them to provide care under conditions of inadequate protection (such as lack of PPE) jeopardizes their safety, their loved ones' safety, and their ability to provide longer-term nursing care. Nursing in these conditions demands a disproportionate level of altruism and self-sacrifice.

Employers have a duty to their employees to provide adequate PPE, and any harm that may come to patients through lack of PPE and personnel to safely care for patients is a failure of institutions and systems, not of individuals. If employers provide adequate PPE and appropriate guidance on how to use it, and reasonably address and mitigate the additional foreseen risks that caring for patients with Covid-19 present, then nurses and others will continue to provide patient care that is more aligned with the usual risks that health care workers knowingly take on when they enter their professions.

Both organizations and health care workers also have a duty to steward resources with care. Organizational leaders should provide guidance and support to nurses and other health care providers about when PPE is and is not essential. They should make every effort to supply PPE, encourage its appropriate use, and define expectations for situations where there is a shortage of PPE. Organizations should support decisions to delay or deny treatment in those difficult cases when the absence of PPE poses significant risks to nurses and others so that health care workers can fulfill their duty to protect themselves and their duty to patients who need their care.

Faced with the potential reality that a patient will suffer, clinically deteriorate, or die, many health care professionals will find it extremely difficult to make or implement a decision to deny or delay treatment given their own human response, their professional socialization, and their profession's expectations and norms about saving lives, relieving suffering, and not abandoning patients. In most places, the hope is that rigorous contingency planning and preparation for surging capacity will obviate the need for denying treatment to anyone. Nonetheless, taking the time required to don adequate PPE might lead to small delays in patient care such as implementing cardiopulmonary resuscitation and providing aerosol-generating procedures. Leadership should reassure health care professionals that doing what is necessary to protect themselves will ultimately save more people and that they are doing the morally and professionally appropriate thing. At the same time, nurses and other health care providers should do everything they can to minimize suffering and to support their colleagues who are able to act safely. The possible effects of these difficult experiences on nurses and other health care workers should not be underestimated. Many health care organizations are already taking steps to address moral distress, psychological distress, and post-traumatic stress disorder experienced by their workers; many others need to integrate such support into their responses to the pandemic.

Allocation of Scarce Resources

The second key ethical issue concerns the allocation of scarce resources, which demands decision-making in which nurses are inconsistently included. In any health crisis or emergency, nurses prioritize their care goals for patients.

We urge policy-makers to ensure that nurses' voices and perspectives are integrated into both local and global decision-making so as to minimize the structural injustices many nurses have faced.

Covid-19 has demanded more substantive (and ethical) consideration of how to prioritize care and resources across different settings and units of care. Many jurisdictions around the world have established and are prepared to implement, if necessary, crisis standards of care that apply in public health disasters and conditions of scarce resources. Crisis standards require modification in the care that can be delivered and shift the balance of ethical concern from the needs of the individual to the needs of the community.[5] Triage guidelines use stringent clinical criteria and frameworks—usually developed in advance of public health crises—to guide a health care system's decisions about which patients are most likely to benefit during a crisis from the allocation of, for example, a scarce intensive care unit (ICU) bed, invasive ventilation, or extra corporeal membrane oxygenation (ECMO). The intention is to ensure consistency in decision-making during time-pressured emergencies, remove the burden of decision-making from individual bedside providers, and ensure adherence with basic ethical principles such as fairness, transparency, proportionality, and protection for health care workers from legal liability.[6]

Robert Truog and colleagues note that the allocation of ventilators is possibly one of the most difficult triage decisions,[7] yet rationing them may be necessary because coronavirus frequently manifests as acute respiratory distress syndrome. Triage guidelines and algorithms are generally created by groups of experts, ideally from different disciplines and with public engagement. Some published guidelines and frameworks highlight the need for decision-making by a multidisciplinary triage team that includes a nurse leader, whereas others call simply for a triage officer (a senior physician) to make these decisions. Even when nurses are not involved in the development of these guidelines, they are frequently responsible for managing these life-sustaining technologies and for implementing triage decisions, including withdrawal. Nurses' involvement in the withdrawal and reallocation of ventilator support varies from institution to institution and country to country.

"Repeat triage" or reallocation is necessary during this pandemic. For example, with a shortage of ventilators, nurses and other clinicians may have to continually reassess the effectiveness of invasive ventilation for particular patients and to reallocate a ventilator from someone whose likelihood of recovery does not meet certain criteria to a patient more likely to benefit. Teamwork is essential in addressing critical allocation challenges, and teamwork requires that all voices be heard, especially since providing and withdrawing ventilator support relies heavily on the ability of qualified personnel—specifically, critical care nurses (and, in the United States, respiratory therapists)—to administer this therapy in a way that is actually beneficial. In addition to critical care teams, teams with expertise in palliative care and emotional support are needed when decisions are made to remove life-sustaining treatments.[8] Even with the mantra "staff, space, and stuff" within preparedness planning,[9] the need for qualified and trained providers can be overlooked in the bustle of preparedness planning. "Staff" are not an infinite resource and are in danger of being pushed and stretched until they break.

Indeed, due to PPE shortages, many providers who are not nurses are not entering patient rooms, and so nurses (since it is already a necessity that they enter patient rooms) are being relied upon to conduct the roles of others. In addition to assessing patients, nurses are increasingly fulfilling other necessary roles, from witnessing advance directives and setting up virtual communication platforms to cleaning patient rooms and emptying bins. More than ever, nurses are feeling the burden of taking on additional roles and responsibilities.

Nurse staffing is also a critical concern during a pandemic. While there is a need to be context specific and fluid due to the inability to predict exactly how many nurses might become unwell or need to be quarantined, there is very little guidance regarding optimal or minimum staffing levels for preparation phases, for the initiation of triage, or for adequate provision of crisis care. This creates further uncertainty for nurses, who must be able to meet the needs of patients even if redeployed into unfamiliar areas and roles and even when facilities are understaffed. As with a shortage of beds and life-saving equipment, the lack of qualified nurses and other health care providers (and any relevant specific skill sets, such as ECMO training) ought to trigger the use of triage criteria. Critics might argue that in a public health crisis all health care workers will be stretched thin and faced with harrowing choices. Our concern is whether nurses are at a significantly higher risk. Some have suggested that nurses already disproportionately experience moral-constraint distress (from being unable to carry out what one believes to be a morally appropriate action) and moral-conflict distress (because one feels morally uncertain about the appropriate action).[10] Indeed, in many contexts, nurses do not have the same levels of authority to assure adequate staffing, apply tri-

age criteria, or make allocation decisions, even though they are involved in implementing these decisions.

In some contexts, nurse-to-patient ratios seem to be completely indeterminate, as they may be left to the "discretion of the [c]linical [l]ead."[11] In England, nurse-to-patient ratios are already a point of heated debate due to a lack of legislated minimum ratios (except in the ICU, where ventilated patients are strictly nursed at a one-to-one ratio). During a surge in Covid-19 cases, even protected ratios may have to change given the volume of patients who will need urgent care. A recent document from NHS England suggests that during this pandemic, six ICU patients could be cared for by one critical-care nurse with support from two nurses with previous or recent ICU experience, two nurses with no critical care experience, and a support team of four auxiliary workers.[12] Although these numbers may appear adequate, the level of requisite skill remains questionable, as indeed does whether hospitals will be able to stick to these suggested numbers. All of this raises a multitude of both practical clinical questions and ethical questions about what a minimum ratio should be in a public emergency, what care is deemed essential, how and what to prioritize for patients (beyond obvious life-saving interventions), and at what point we begin to do harm. Nurse staffing levels have been shown to affect patient outcomes.[13] It is also not clear how crisis standards of care apply to nursing care and how or for what nurses will remain accountable. In situations such as the Covid crisis, nurses should be encouraged to remember that the circumstances are not in their control and to accept that some patients will not survive, even as nurses work to ease their suffering and to save as many as possible.

Allocation decisions are likely to exacerbate a tension that health professionals experience even in normal circumstances—perceived moral and emotional discomfort when making or implementing a decision to withdraw medical treatment that is contributing to or keeping a patient alive for longer than they would survive without it. Health care professionals often intuitively feel that withdrawing treatment is morally more troubling than withholding it; nurses have reported feeling that stopping a life-sustaining treatment or therapy can feel like killing the patient.[14] Health care professionals may believe that decisions to stop treatments are more momentous and consequential than decisions not to start them. By contrast, with some notable exceptions,[15] decisions to withhold and withdraw treatment are generally considered morally equivalent by most bioethicists, legal regulations, and international professional guidelines.[16] This "equivalence view" holds that, if withholding a particular treatment for a particular patient is acceptable (for example, because it is not likely to be effective or is burdensome), then, all else being equal, withdrawing the treatment is acceptable (if it turns out to be, or becomes after a time, ineffective or burdensome). The need to repeat triage in order to consider incoming patients who may have a greater chance of recovery is likely to be a cause of moral distress for clinicians.[17]

Dominic Wilkinson et al. propose some strategies that might help health professionals overcome their aversion to withdrawing treatment even when doing so is ethically justified.[18] Under normal conditions, strategies of particular relevance to critical care nurses and other health professionals involved in withdrawing life-sustaining interventions include the conditional offer of treatment based on measurable treatment goals and the offer of time-limited treatment trials. These strategies might not, however, be possible in conditions of crisis standards of care. Due to the potential resource pressures that Covid-19 presents, the health care community has an obligation to be transparent about these limitations with patients and the community.

Some authors argue that we should prioritize health care workers for testing, treatments, vaccines, and even triage because, without them, who will be left to provide care? Two justifications offered for giving priority to health care professionals are that the workers have instrumental value because they are needed for the health care workforce and that prioritizing them would be an instance of due reciprocity, given the increased level of risk that health care workers expose themselves to. Other commentators argue that this prioritization may also incentivize health care workers to continue working in higher-risk environments. Yet these arguments raise serious concerns about who would count as a health care worker, why they should have priority over other essential persons at risk, whether it is merely self-serving for health care workers to recommend that they be given higher priority, and whether considerations of priority status differ for treatments than for vaccines, for example. A related concern is that, as Jackie Leach Scully highlights, many triage guidelines already contain a worrying degree of disablism and prejudice toward those with disabilities.[19] Bringing conceptions of social worth and utility into resource allocation decisions risks introducing other slippery criteria.

Relationships with Patients and Their Families

Nurses have a long history of trust with their patients. However, many ethical issues have altered the nurse-patient-family relationship in the context of Covid-19. A recent Hastings Center publication highlighted the need for nurses, physicians, and other clinicians to move during a pandemic from a patient-centered to community-focused model of practice and care.[20] Nurses have traditionally been motivated by community thinking, and the history of nursing ethics has its roots in a social-justice orientation focused on issues of equity, disenfranchisement, and structural forms of oppression.[21] Some of the necessary steps to protect the public in this pandemic have created new and unfamiliar tensions between nurses and patients and their families.

During the Covid-19 pandemic, many people are dying in isolation from their loved ones, and end-of-life-conversations are taking place over the telephone or "behind the dehumanizing veil of plastic gowns and respirator masks."[22] The challenge for nurses and other health care workers is to

temper these potentially dehumanizing scenarios with imaginative solutions that do not sacrifice compassion and equal respect on the altars of safety and efficiency.

The effects of Covid-19 on nurses and other health care workers are likely to be long-lasting. We urge policy-makers to ensure that nurses' voices and perspectives are integrated into both local and global decision-making so as to minimize the structural injustices many nurses have faced to date. Finally, we urge nurses to seek sources of support throughout this pandemic. For nurses in North America, many health care systems have integrated clinical ethics consultation services with ethicists able to identify and untangle the complex ethical issues that cause moral distress and help mitigate the negative effects of such distress. Other supportive services and colleagues include employee assistance programs, clinical psychologists, chaplaincy services, and mental health hotlines to address psychological distress or other concerns that might arise. The unprecedented crisis in which the global community finds itself is a lesson in humanity. Nurses bring their expertise, knowledge, and skill sets to the health care system in many ways; today, we see this intrinsic and extrinsic value and must do all we can as public citizens to advocate for all they do for us. We owe them much gratitude and respect.

1. "Coronavirus Resource Center," Johns Hopkins University, accessed April 12, 2020, https://coronavirus.jhu.edu/.

2. World Health Organization, *State of the World's Nursing 2020: Investing in Education, Jobs and Leadership* (Geneva: WHO, 2020), at https://www.who.int/publications-detail/nursing-report-2020.

3. American Nurses Association, *Code of Ethics for Nurses with Interpretive Statements* (Silverspring, MD: ANA, 2015).

4. E. Peter and J. Liaschenko, "Moral Distress Re-examined: A Feminist Interpretation of Nurses' Identities, Relationships and Responsibilities," *Journal of Bioethical Inquiry* 10, no. 3 (2013): 337-45.

5. Institute of Medicine, *Crisis Standards of Care: A Systems Framework for Catastrophic Disaster Response*, vol. 1, *Introduction and CSC Framework* (Washington, DC: National Academies Press, 2012).

6. National Academies of Sciences, *Rapid Expert Consultation on Crisis Standard of Care for the COVID-19 Pandemic* (Washington DC: National Academies Press, 2020).

7. R. Truog, C. Mitchell, and G. Daley, "The Toughest Triage—Allocating Ventilators in a Pandemic," *New England Journal of Medicine* (March 23, 2020 [epub ahead of print]): doi:10.1056/NEJMp2005689.

8. J. P. Leider et al., "Ethical Guidance for Disaster Response, Specifically around Crisis Standards of Care: A Systematic Review," *American Journal of Public Health* 107, no. 9 (2017): e1-e9.

9. N. Berlinger et al., "Ethical Framework for Health Care Institutions Responding to Novel Coronavirus SARS-CoV-2 (COVID-19)," The Hastings Center, March 16, 2020, https://www.thehastingscenter.org/wp-content/uploads/HastingsCenterCovidFramework2020.pdf.

10. C. Fourie, "Who Is Experiencing What Kind of Moral Distress? Distinctions for Moving from a Narrow to a Broad Definition of Moral Distress," *AMA Journal of Ethics* 19, no. 6 (2017): 578-84.

11. Department of Health, *Pandemic Flu: Managing Demand and Capacity in Health Care Organisations (Surge)*, April 2009, https://www.hsj.co.uk/download?ac=1205655.

12. NHS England, *Coronavirus: Principles for Increasing the Nursing Workforce in Response to Exceptional Increased Demand in Adult Critical Care*, version 1, March 25, 2020, https://www.england.nhs.uk/coronavirus/wp-content/uploads/sites/52/2020/03/specialty-guide-critical-care-workforce-v1-25-march-2020.pdf.

13. L. Aiken et al., "Effects of Nurse Staffing and Nurse Education on Patient Deaths in Hospitals with Different Nurse Work Environments," *Critical Medicine* 49, no. 2 (2011): 1047-53; L. Aiken et al., "Nursing Skill Mix in European Hospitals: Cross-sectional Study of the Association with Mortality, Patient Ratings, and Quality of Care," *BMJ Quality & Safety* 26 (2017): 559-68.

14. G. Morley, C. Bradbury-Jones, and J. Ives, "Moral Distress in End of Life Care," in *Contemporary European Perspectives on the Ethics of End of Life Care*, ed. N. Emmerich et al. (Springer International Publishing, forthcoming).

15. D. Sulmasy and J. Sugarman, "Are Withholding and Withdrawing Therapy Always Morally Equivalent?," *Journal of Medical Ethics* 20, no. 4 (1994): 218-24; L. Ursin, "Withholding and Withdrawing Life-Sustaining Treatment: Ethically Equivalent?," *American Journal of Bioethics* 19, no. 3 (2019): 10-20.

16. A. McGee, "Finding a Way through the Ethical and Legal Maze: Withdrawal of Medical Treatment and Euthanasia," *Medical Law Review* 13, no. 3 (2005): 357-85; D. Wilkinson, E. Butcherine, and J. Savulescu, "Withdrawal Aversion and the Equivalence Test," *American Journal of Bioethics* 19, no. 3 (2019): 21-28.

17. C. Pagel, M. Ultey, and S. Ray, "Covid-19: How to Triage Effectively in a Pandemic," *BMJ Opinion* (blog), March 9, 2020, https://blogs.bmj.com/bmj/2020/03/09/covid-19-triage-in-a-pandemic-is-even-thornier-than-you-might-think/.

18. Wilkinson, Butcherine, and Savulescu, "Withdrawal Aversion and the Equivalence Test."

19. J. L. Scully, "Disablism in a Time of Pandemic: Some Things Don't Change," *IJFAB the Blog*, April 1, 2020, http://www.ijfab.org/blog/2020/04/disablism-in-a-time-of-pandemic-some-things-dont-change/.

20. Berlinger et al., "Ethical Framework for Health Care Institutions Responding to Novel Coronavirus SARS-CoV-2 (COVID-19)."

21. M. Fowler, "Heritage Ethics: Toward a Thicker Account of Nursing Ethics," *Nursing Ethics* 23, no. 1 (2016): 7-21.

22. N. Gray, "Palliative Care in the Time of COVID," Ink Vessel, March 18, 2020, https://inkvessel.com/2020/03/18/palliative-care-in-the-time-of-covid/.