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CAN BIOETHICS GUIDE GOVERNANCE IN PUBLIC HEALTH EMERGENCIES? LESSONS FROM THE PANDEMIC

John Conley & Arlene Davis*

The role of scientific experts in making public policy has rarely been as controversial as it has been during the COVID-19 pandemic. From the first public health containment strategies to the development and rollout of the vaccines, governmental authorities have claimed to rely on the "science," citing an array of scientists and physicians, most of whom were used to working in relative anonymity. Those experts—with Dr. Anthony Fauci as the prime example—have been alternately praised and vilified in a public discourse driven more by politics than science.

This Article focuses on the pandemic-related work of bioethicists, another category of once-anonymous experts who were suddenly thrust into the public eye. In early 2020, with COVID-19 cases overwhelming health care systems around the world, a raging debate erupted about the triage of patients and the rationing of care and equipment. Bioethicists were often drawn into this debate, sometimes by making real-time policy recommendations, and in other cases by influencing policy through background work. Both their specific recommendations and their longstanding operating principles came under attack from interested advocates and the general media.

This Article tracks the role of bioethics in shaping, first, triage and care-rationing policies and, later, the allocation of initially scarce vaccines. These Authors conclude that, viewed from the perspective of early 2022, bioethics has had little practical impact on the public health response to the COVID-19 pandemic. Early rationing strategies drew heavily on bioethics, but the recommended

* John M. Conley is the William Rand Kenan, Jr. Professor, University of North Carolina School of Law; A.B., Harvard; J.D., Ph.D., Duke. Arlene M. Davis is a Professor of Social Medicine at the UNC School of Medicine-Chapel Hill and Director of the UNC Center for Bioethics; J.D., University of Washington.
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strategies were rarely—if ever—used. When this bioethics influence was discovered by various public constituencies, the response was overwhelmingly negative—and correct, in these Authors' view. During the early vaccine rollout, strategies (and results) were tied much more closely to local politics than any principles of bioethics. This Article's ultimate argument is that policy decisions in public health emergencies should be political, in the sense of made by democratically accountable officials who consult experts only for basic medical information.

TABLE OF CONTENTS

I. INTRODUCTION

The COVID-19 pandemic has been, at best, a challenging time for public experts. The travails of Dr. Anthony Fauci, Director of the National Institute of Allergy and Infectious Diseases, are merely the tip of the iceberg. Epidemiologists, who have usually worked in anonymity and whose quantitative analytical methods epitomize

positivist science, have been attacked for apparently allowing politics to color their views.[1] In late 2020, Democratic vice-presidential candidate Kamala Harris expressed skepticism about a vaccine that she said was being rushed to approval by the Trump administration. Then-New York Governor Andrew Cuomo went further, saying, "[f]rankly, I'm not going to trust the federal government's opinion, and I wouldn't recommend [it] to New Yorkers, based on the federal government's opinion"—casting doubt specifically on the U.S. Food and Drug Administration ("FDA").[2] Those same politicians had to do a 180-degree turn when they later found themselves promoting and administering a mass vaccination program.[3]

This Article focuses on the pandemic-related work of bioethicists, another category of once-anonymous experts who were suddenly thrust into the public eye. Bioethics is a large, well-established enterprise with a long history of attempting to educate the public about the ethical implications of science and medicine.[4] But it is difficult to find evidence that these educational efforts have had any effect in creating broad public awareness of who bioethicists are and what they do.[5] It seems to be the case that, until

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[1] *See, e.g.*, Rachel R. Yorlets, *No One Told Me that Epidemiology Is Political—But It Is*, BOSTON GLOBE (Dec. 6, 2021), https://www.bostonglobe.com/2021/12/06/opinion/no-one-taught-me-that-epidemiology-is-political-it-is/ [https://perma.cc/XZ45-YE6R].

[2] *See* Aaron Blake, *What Andrew Cuomo and Kamala Harris Said About Vaccine Skepticism*, WASH. POST (Mar. 18, 2021) https://www.washingtonpost.com/politics/2021/03/18/what-andrew-cuomo-kamala-harris-said-about-vaccine-skepticism/. [https://perma.cc/M29K-UDEM].

[3] *See* Alana Wise, *The Political Fight Over Vaccine Mandates Deepens Despite Their Effectiveness*, NPR (Oct. 17, 2021) https://www.npr.org/2021/10/17/1046598351/the-political-fight-over-vaccine-mandates-deepens-despite-their-effectiveness [https://perma.cc/F7F4-S2CM].

[4] *See* Hugh Whitall, *Raising Awareness of Bioethics: What Is the Role of a National Ethics Committee?*, (Aug. 22, 2016) https://www.nuffieldbioethics.org/blog/raising-awareness-bioethics-role-national-ethics-committee [https://perma.cc/8G4Q-86UJ] (reviewing these efforts); UNESCO, *About Bioethics*, https://en.unesco.org/themes/ethics-science-and-technology/bioethics [https://perma.cc/PQ57-68DX] (Feb. 15, 2022) (reviewing UNESCO's educational efforts).

[5] *See* Whitall, *supra* note 4 (suggesting the need for more public outreach).

the COVID-19 pandemic, the only members of the general public who were aware of bioethicists were those who had encountered them in hospitals when forced to make critical decisions about medical care for themselves or loved ones.[6]

That state of affairs all changed in 2020. Suddenly, with COVID-19 cases overwhelming healthcare systems around the world, a raging debate erupted about the triage of patients and the rationing of care and equipment.[7] This rationing problem reemerged in November of 2021, as the Omicron variant of the coronavirus caused medical staff shortages.[8] Ventilators were at the core of the rationing debate in 2020,[9] though some news sources reported that no COVID-19 patient in need of a ventilator in the United States had to go without one, even during the early-2020 surge.[10] Some bioethicists reportedly recommended that hospitals use scoring systems that quantified the likelihood of recovery for the value of

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[6] This intuition is supported by Davis's long experience doing ethical clinical consultations with patient families and hospital staff.

[7] *See infra* notes 44–47 and accompanying text.

[8] *See* Andrea Hsu, *Workers Are Calling Out Sick in Droves, Leaving Employers Scrambling*, NPR (Jan. 18, 2022) https://www.npr.org/2022/01/18/1073139544/staffing-shortages-omicron-grocery-hospital-workers-nurses-employers-covid [https://perma.cc/H6DT-JY6T] (reviewing these efforts and reporting Omicron-driven hospital shortages).

[9] Sarah Kliff, *There Aren't Enough Ventilators to Cope with the Coronavirus*, N.Y. TIMES (Mar. 18, 2020) https://www.nytimes.com/2020/03/18/business/coronavirus-ventilator-shortage.html [https://perma.cc/SKF2-LLR7] (reporting on shortage).

[10] *See, e.g.*, Erin Mansfield, *As the Coronavirus Curve Flattened, Even Hard-hit New York Had Enough Ventilators,* USA TODAY (Apr. 28, 2020) https://www.usatoday.com/story/news/2020/04/28/coronavirus-hospitals-avoid-ventilator-shortage-curve-new-york-flattens/3036008001/ [https://perma.cc/8QZS-59UR] (reporting on availability); *Can Anyone Who Needs a Ventilator Get One? So Far, It Looks Like It*, POLITIFACT (Apr. 24, 2020), https://www.politifact.com/article/2020/apr/24/can-anyone-who-needs-ventilator-get-one-so-far-it-/, [https://perma.cc/8ZUS-QS2V]. There were, however, reports of denial of care because of lack of ICU space. *See, e.g.*, Martha Bebinger, *17 Hospitals Had No Room for this COVID Patient. He Later Died Waiting for Dialysis*, NPR (Jan. 19, 2022), https://www.npr.org/sections/health-shots/2022/01/18/1073881763/patients-are-dying-while-waiting-for-specialized-care-because-hospitals-are-full [https://perma.cc/9MZT-JQR2] (detailing an example).

lives.[11] Such systems had been around for a long time, were widely accepted among bioethicists, and had been used by health care providers—but out of the public eye.[12]

With an apparent need to ration care, the proposed scoring systems came under intense scrutiny from both the media and critical medical professionals.[13] Some observers (including the Authors of this Article) saw an intrinsic horror in scoring life, while others argued that some of the proposed systems seemed to amount to "first, let the old people die, and a lot of disabled people too."[14] Then, when the FDA approved the first COVID-19 vaccines for distribution in February of 2021, there were comparable debates about how to allocate the very short, initial supply.[15] North Carolina, for example, adopted a complex vaccine rationing scheme which, after a very slow start, gained some steam, but, like much of the country, has since plateaued at less than 60% of the total population being fully vaccinated.[16] New York's vaccination protocol was at

[11] *See infra* notes 63–67 and accompanying text.

[12] *See id.*; Mike Baker & Sheri Fink, *At the Top of the COVID-19 Curve, How Do Hospitals Decide Who Gets Treatment?*, N.Y. TIMES, (Mar. 31, 2020), https://www.nytimes.com/2020/03/31/us/coronavirus-covid-triage-rationing-ventilators.html [HTTPS://PERMA.CC/J2XQ-ZUWN] (reporting on use of scoring metrics).

[13] *See, e.g.*, Kathleen Liddell et al., *Who Gets the Ventilator? Important Legal Rights in a Pandemic*, 46 J. MED. ETHICS 421 (2020) (reporting on medical ethicists' early-pandemic review of ethical issues). For an especially vivid illustration, see *infra* Part III.D.

[14] *See, e.g.*, Joseph Shapiro, *Oregon Hospitals Didn't Have Shortages. So Why Were Disabled People Denied Care?*, NPR (Dec. 21, 2020) https://www.npr.org/2020/12/21/946292119/oregon-hospitals-didnt-have-shortages-so-why-were-disabled-people-denied-care [https://perma.cc/AZW9-5HXM] (reporting on such allegations in Oregon).

[15] *See infra* Part IV.

[16] The North Carolina vaccination experience is reviewed in detail *infra* notes 149–59 and accompanying text. For updated vaccination rates, see USA FACTS, https://usafacts.org/issues/coronavirus/state/north-carolina [https://perma.cc/D6YP-XGX5].

least as complex, although its vaccination rate is significantly higher with at least 75% of the total population fully vaccinated.[17]

North Carolina's and New York's vaccine rationing schemes led to obvious inequities——people with or without medical connections, politically influential or not, and on the right or wrong side of the digital divide, which have clear class and race correlates.[18] West Virginia, by contrast immediately hit on a simple strategy: most of the deaths are among the elderly population, so vaccinate them first and then worry about everyone else.[19] It worked well early, but the overall effort has faltered, with only 56% of the total population fully vaccinated.[20]

These developments—the adoption and implementation of triage and treatment rationing protocols and early vaccine rationing—can be seen as real-world case studies of what role bioethics can, and should play, in the making of public health-level decisions about the allocation of scarce resources in clinical settings. The purpose of this Article is to explore that role through the lens of these COVID-19 case studies.

This Article finds that, viewed from the perspective of early 2022, bioethics has had little practical impact on the public health response to the COVID-19 pandemic. Early triage and rationing protocols were strongly influenced by bioethics, but the recommended strategies were rarely—if ever—used. As to the "should" question, when this bioethics influence was discovered by various public constituencies, the response was overwhelmingly negative[21]—and correct, in these Authors' view. During the early

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[17] The New York vaccination experience is reviewed in detail *infra* notes 128–48 and accompanying text. For updated vaccination rates, see USA FACTS, https://usafacts.org/issues/coronavirus/state/new-york [https://perma.cc/N5E9-AC6B].

[18] These issues in the North Carolina context are discussed *infra* notes 194–95 and accompanying text.

[19] The West Virginia vaccination experience is reviewed in detail *infra* notes 114–27 and accompanying text. For updated vaccination rates, see USA FACTS, https://usafacts.org/issues/coronavirus/state/west-virginia [https://perma.cc/9XGF-5DGH].

[20] *Id.*

[21] *See infra* Part IV.D.

vaccine rollout, strategies (and results) were tied much more closely to local politics than any principles of bioethics,[22] and it is difficult to see what role bioethics could have played in that process. This Article's ultimate argument is that such decisions should be political, in the sense of made by democratically accountable officials who consult experts only for basic medical information.

Part II of this Article presents a brief introduction to bioethics. Part III reviews the rationing debate during the early stages of the COVID-19 pandemic, with a focus on the role of bioethics in public health decision-making. Part IV reviews the parallel debate surrounding the 2021 COVID-19 vaccine rollout. Part V analyzes these debates and the experiences that triggered them, in an effort to draw some inferences from those experiences about this Article's ultimate question, and Part VI concludes.

II. INTRODUCTION TO BIOETHICS

Bioethics, as a co-founder of the bioethics field Albert Jonsen tells readers in his book, *The Birth of Bioethics*, did not begin with a "Big Bang." [23] Instead, looking back, the foundations of what is understood as bioethics today began in the late 1940s with contributions from scholars across many disciplines, all interested in the moral dimensions of what is now considered the life sciences and health care. Bioethics is characterized as a field that benefits from the contributions of philosophy, law, medicine, and the social sciences—to name a few. Through a variety of methods familiar within those disciplines, such as casuistry or ethnography, bioethics intends to consider, and sometimes to address through practical application of its principles, the problems associated with scientific and technological advancements. Put another way, worry might properly be considered the territory of bioethics. For example, in the domain of bioethics devoted to research ethics, particularly in research conducted on human subjects, philosopher Hans Jonas offers this caution regarding the allure of scientific progress:

> Let us not forget that progress is an optional goal . . . . Let us also remember that a slower progress in the conquest of disease would not

[22] *See, e.g.*, *infra* Part IV.
[23] ALBERT R. JONSEN, THE BIRTH OF BIOETHICS 3 (1998).

> threaten society, grievous as it is to those who have to deplore that their particular disease be not yet conquered, but that society would indeed be threatened by the erosion of those moral values whose loss, possibly caused by too ruthless a pursuit of scientific progress, would make its most dazzling triumphs not worth having.[24]

The COVID-19 pandemic, with the medical community's attention to the biology and genetics of the virus itself and development of therapeutics to combat the virus, certainly brought attention to research ethics both in the laboratory and in human subjects research. However, research ethics was not the only domain of bioethics invoked by the pandemic.

The two other areas of bioethics prominent during the COVID-19 pandemic entered, perhaps, with less agility and more confusion. One of the two areas is clinical (or medical) ethics, which focuses on the relationship between a patient and her physician.[25] In the view of clinical ethics, the profession of medicine necessarily unites technical skills with moral engagement. Some of the principles that clinical ethics relies upon are found in a common morality, defined as "the set of norms shared by all persons committed to morality."[26] In this account, all societies hold general moral norms in common.[27] Found here are familiar principles that, within clinical care, include respect for persons and for the decision-making capacity of autonomous persons, a positive duty to act in order to benefit a patient (beneficence), a negative duty to refrain from causing harm (non-maleficence), and a duty to treat individuals fairly (justice).[28] While these same principles govern action in research ethics,[29] their aims differ. For research ethics, the bioethics aim is to obtain generalizable knowledge for the benefit of society; whereas, for

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[24] Hans Jonas, *Philosophical Reflections on Experimenting with Human Subjects*, 98 DAEDALUS 2, 245 (1969).

[25] ALBERT R. JONSEN ET AL., CLINICAL ETHICS: A PRACTICAL APPROACH TO ETHICAL DECISIONS IN CLINICAL MEDICINE 1 (8th ed. 2015).

[26] Tom L. Beauchamp & James F. Childress, PRINCIPLES OF BIOMEDICAL ETHICS, 393 (6th ed. 2009).

[27] *Id*. at 392–96.

[28] *See generally id.*

[29] *See generally* DEP'T OF HEALTH, EDUC., & WELFARE, THE BELMONT REPORT: ETHICAL PRINCIPLES AND GUIDELINES FOR THE PROTECTION OF HUMAN SUBJECTS OF RESEARCH (Apr. 18, 1979).

clinical ethics, the bioethics aim is to ensure that the individual patient benefits by tailoring treatment accordingly

While some bioethicists would distinguish organizational ethics of healthcare systems, a system being either the entity where they work or the larger network of facilities that includes their entity, as a separate domain from clinical ethics, many individuals who work in clinical ethics are well-acquainted with system-level (organizational) quandaries. These troubling issues, such as patients being unable to access healthcare services at all, or patients ready for discharge but without a safe place to go, were brought before the public in new light during the first months of the COVID-19 pandemic. Circumstances where demand outstripped supply, where multiple patients vied for scarce hospital beds, and where infection spread throughout vulnerable communal settings were all chronicled in tragic detail. While the justice principle, with its emphasis on fair and equitable treatment, provides approaches on how best to allocate scarce resources (i.e., ration) in these types of situations—and bioethicists have typically opined that rationing is best done transparently and at the system-level rather than at the bedside (the individual level)—widespread confusion still took over.

Enter then, public health ethics with its utilitarian approaches, as the uneasy companion to clinical ethics during the COVID-19 pandemic. Utilitarian approaches, with their focus on outcomes, are familiar to those working in clinical ethics. However, in clinical ethics, the outcome sought is typically patient-centric. Whereas, public health ethics and outcomes are directed at the population level. Thus, public health issues, when they do arise in hospital care, often pertain to required breaches of patient confidentiality, such as when physicians are obligated under law to report the presence of an infectious disease or a suspected case of child abuse to proper state authorities.[30] The dilemmas typically presented in clinical ethics more commonly focus on patients, their loved ones, and members of the healthcare team. These individual-specific or

[30] Perhaps the closest analogy to rationing in hospital settings that seems similar to that within pandemic planning, though with distinct differences, is in the area of solid organ transplantation. *See generally* ROBERT M. VEATCH, TRANSPLANTATION ETHICS (2000).

relational dilemmas include ethical issues, such as informed consent, refusals of therapy, privacy, proper boundaries in parental decision-making on behalf of minors, and withdrawal of life-sustaining therapies, which also have legal dimensions.[31] When ethical issues present themselves as novel, they often involve new devices or treatment innovations, or newly conceived patient populations—such as in the areas of reproductive ethics[32]—or neuroethics.[33] This typical circumstance is not to say that healthcare providers ignore public health concerns or population health, but rather that focus is aimed on the patients depending on her medical care.

Public health ethics shifts the focus away from the individual patient's health to the health of entire populations and communities, invoking government power to act—as in, promulgate laws, make rules and regulations, and issue guidance—in the best interest of the public. While both the field of medicine and the field of public health rely on trust, the shift from trust within a relationship to trust in societal-level processes is considerable. The bedside physician who sees public health principles restrict the autonomy and beneficence fundamental to patient care, may resist them. For example, consider the physician whose hospitalized patient will not receive treatment that otherwise could have been rendered because a rationing protocol implemented during the COVID-19 pandemic favors treatment of another patient instead. Under the scoring method dictated by the protocol, the treatment sought is not declined by the patient's physician but rather by another physician's use of the patient's score to permit or withhold a treatment. The other physician, often called a triage officer, has no role in the patient's care nor knowledge of the individual as a patient. Importantly, in the view of institutional or state officials developing these protocols, this distinction, and distance from a caregiving role with any patient,

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[31] *See generally* ALBERT R. JONSEN ET AL., CLINICAL ETHICS: A PRACTICAL APPROACH TO ETHICAL DECISIONS IN CLINICAL MEDICINE (8th ed. 2015).

[32] *See, e.g.*, THE ROUTLEDGE HANDBOOK OF NEUROETHICS (L. Syd M. Johnson & Karen S Rommelfanger eds., 2020).

[33] *See, e.g.*, THE OXFORD HANDBOOK OF REPRODUCTIVE ETHICS (Leslie Francis ed., 2019).

also means that the triage officer may also provide stress relief for that same bedside physician—by making decisions (via a specific algorithm and related score) about a patient's access (or lack thereof) to treatments and by being available to patients and families to convey the triage decision.[34] Physician resistance and stress are not surprising. The physician's goal is to treat her patient. The goal of the triage officer, employing an algorithm directed at utilitarian, population-level outcomes, is distinct and foreign to the traditional physician-patient relationship. In result, during the COVID-19 pandemic, bioethicists working in the clinical ethics field must appeal to physicians in an effort to persuade them that they are not abandoning their patients when allocation schemes based on population outcomes dictate access to scarce resources.

III. BIOETHICS IN THE COVID CARE RATIONING DEBATE

Having introduced bioethics, this Article now turns to examining its role in the triage and rationing debate during the early stages of the COVID-19 pandemic. This Part reviews three studies of triage protocol development—a U.S. hospital survey, an ethical analysis, and a comparative international study—and then considers in detail the experience of Ontario, Canada, as it put in place a protocol that generated enormous controversy. Lastly, this Part then summarizes the major themes that emerged from these studies.

When COVID-19 cases first began to proliferate around the world in late 2019 and early 2020, hospitals were overwhelmed in early "hotspots" like Italy.[35] As the virus spread to the United States, New York City quickly became the COVID-19 epicenter for the country and the primary focus of media attention on medical resource shortages.[36] Fears rose of widespread rationing of Intensive

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[34] *See* Ezekiel J. Emanuel et al., *Fair Allocation of Scarce Medical Resources in the Time of Covid-19*. NEW ENG. J. MED. 2020: 382:2049-55 (May 21, 2020).

[35] *See* Kristina Orfali, *What Triage Issues Reveal: Ethics in the COVID-19 Pandemic in Italy and France*, 17 J. BIOETHICAL INQUIRY 675 (2020), https://link.springer.com/article/10.1007/s11673-020-10059-y#Sec1 [https://perma.cc/9UW7-DD96].

[36] *See, e.g.*, Kevin McCoy & Dennis Wagner, *Which Coronavirus Patients Will Get Life-saving Ventilators? Guidelines Show How Hospitals in NYC, US Will*

Care Unit ("ICU") beds and critical-care equipment, especially ventilators.[37] Public and private healthcare authorities began to consider protocols for who would get priority access to scarce resources, some openly but others not.[38]

As the specific instances reviewed in this Part reveal, many healthcare systems applied preexisting triage and rationing schemes, some developed new protocols, and some apparently had no system at all. On "the front lines," doctors and other healthcare providers were forced to make immediate decisions with life-or-death consequences—a reality to bear in mind in comparing simple versus complex protocols.[39] Some rationing protocols were announced and openly discussed; others were leaked. Ethicists participated on most, but by no means all, of the decision-making bodies. Researchers were able to survey and analyze these rationing protocols as they evolved and to publish their findings with remarkable speed.

A. U.S. Hospital Survey

In one of the first of these analyses, a task force of the Association of Bioethics Program Directors surveyed their members about ventilator triage and rationing practices and published their findings in the *Annals of Internal Medicine* in August 2020.[40] This survey provides an excellent overview of early-pandemic bioethics practices in the United States. These Authors summarize the ethical dilemma of rationing as follows:

Decide, USA TODAY (Apr. 4, 2020), https://www.usatoday.com/story/news/2020/04/04/coronavirus-ventilator-shortages-may-force-tough-ethical-questions-nyc-hospitals/5108498002/ [https://perma.cc/XYC4-4MGW] (describing developing rationing concerns in New York and elsewhere in the United States).

[37] *See id.*

[38] *See id.*

[39] *See* Raphy Rosen, *I'm a Doctor on the Front Lines of Coronavirus. We've Thrown out the Rule Book*, FORWARD (Apr. 3, 2020), https://forward.com/opinion/443033/im-a-doctor-on-the-front-lines-of-treating-covid-19-weve-thrown-out-the/ [https://perma.cc/EH8L-8ZPP].

[40] *See* Armand H. Matheny Antommaria et al., *Ventilator Triage Policies During the COVID-19 Pandemic at U.S. Hospitals Associated With Members of the Association of Bioethics Program Directors*, 173 ANNALS OF INTERNAL MED. 188 (Aug. 4, 2020), https://www.acpjournals.org/doi/10.7326/M20-1738 [https://perma.cc/TNJ3-CAML].

When healthcare resources are severely strained, contingency standards of care, which modify usual practices but still aim at producing similar clinical outcomes, may be implemented. For example, healthcare providers may substitute or reuse scarce supplies. However, such changes may not be sufficient. If demand is greater than the available resources, it becomes ethically justifiable to shift the focus from individual patients' preferences or best interests to saving the most lives possible. It may, unfortunately, be necessary to withhold or withdraw mechanical ventilation from individuals who would otherwise benefit from its use. What criteria should be used to ethically allocate scarce resources and what processes should be used to fairly implement allocation decisions are monumental questions facing many hospitals, healthcare systems, and governmental entities.[41]

The survey addressed these "monumental questions." Almost all of the member hospitals (67 or 92%) responded to the survey, and respondents were evenly distributed across the geographic regions of the country.[42] All of the hospitals had academic affiliations. More than half (36 or 54%) did not have a policy, and another 10% (7) declined to share their policies.[43] Among the 26 original policies (there were also 3 duplicate policies) that were provided to the researchers, only 9 were publicly available via an internet search.[44] The policies varied widely in terms of when they had been drafted (7 or 27% had been drafted within 30 days of the hospital's receipt of the survey) and, for the newer policies, their respective states of drafting and approval.[45] Amazingly, they varied from 2 to 272 pages, with a mean length of 34 pages.[46] In almost all cases, decisions were made by a triage team whose composition varied considerably. All included a physician member, 87% a nurse, 70% an ethicist, 35% a respiratory therapist, and 35% a chaplain; only two policies (8%) required or recommended a community member.[47]

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[41] *See id.*
[42] *Id.*
[43] *Id.*
[44] *Id.*
[45] *Id.*
[46] *Id.*
[47] *Id.*

In terms of the content of the policies, the ethical and professional values that the survey respondents most commonly cited were justice (cited in 89% of the policies), transparency (77%), stewardship (62%), duty to care (58%), and duty to prevent unnecessary loss of life (46%).[48] While acknowledging the ethical arguments for and against pursuing these values individually, these Authors note that the great variation among policies is itself a potential source of *in*justice, especially if the policies are not publicized: "[I]f different institutions within the same community use different criteria or prioritize criteria differently, an individual might unknowingly be admitted to a facility with a policy that is unfavorable to him or her."[49]

The most frequently mentioned criteria to be used in the triage process were benefit, defined as "providing resources to individuals most likely to survive with their use"(25 policies, or 96%);[50] need, defined as "providing resources only to individuals who will not survive without them" (54%);[51] age (50%, but only 8% specified age thresholds); conservation of resources (38%); and a lottery (35%).[52] Only 23% of responding hospitals used first-come, first-served as a criterion, and none used first-come, first-served, or lottery as the sole criterion. In determining need and benefit, 81% used a scoring system, and in all but one case some version of the Sequential Organ Failure Assessment ("SOFA")[53] SOFA, developed in the mid-1990s to assist in the triage of patients with sepsis (a potentially fatal chain-reaction overresponse to an infection),[54] assesses the functioning of multiple organ systems, assigns a score to each, and uses the aggregate score to predict mortality.[55] However, its predictive utility

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[48] *Id.* at 191.
[49] *Id.*
[50] *Id.*
[51] *Id.*
[52] *Id.*
[53] TRACIE, *SOFA Score: What It Is and How to Use It in Triage* (Dec. 21, 2020), https://files.asprtracie.hhs.gov/documents/aspr-tracie-sofa-score-fact-sheet.pdf [https://perma.cc/93UG-VZLD] (describing SOFA, its history, and its use).
[54] *See* CDC, *What Is Sepsis,* https://www.cdc.gov/sepsis/what-is-sepsis.html (last visited Feb. 20, 2021) [https://perma.cc/4DKY-4GHQ].
[55] *Id.*

for patients with respiratory diseases like COVID-19 has been questioned.[56]

In what seems to have been a fairly representative sample of hospitals dealing with the possibility of rationing ventilators during the first half of 2020, several themes that emerged are striking:

(1) Most of the hospitals did not have a policy;

(2) Among hospitals that did have a policy, most had not made their policies readily accessible to the public; as will be seen, such opacity has been a recurrent issue with triage and rationing policies;[57]

(3) All the policies delegated the rationing decision to a committee of experts; very few included a lay member, such as a community or patient representative; and,

(4) No responding hospital relied exclusively on a simple but arbitrary criterion, such as first-come, first-served, or a lottery-based approach.[58]

(5) Instead, all of the responding hospitals seemed to rely on a complex, multi-criteria analysis.[59] Almost all of the policies included as a criterion "benefit," defined in terms of likelihood of survival if the patient were given the scarce resource. Almost all of that group used a preexisting quantitative system, such as SOFA, to assess likelihood of survival.

B. Ethical Perspectives Review

In March 2021, as vaccines were becoming available, philosopher Matthew Altman revisited many of these care-rationing policy questions.[60] Of particular relevance here is his review of the use of quantitative metrics such as SOFA to calculate probability of survival when assessing prospective benefits to the patient and

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[56] *See* TRACIE, *supra* note 53.

[57] *See infra* notes 86-90, 104–10 and accompanying text.

[58] Matheny et al., *supra* note 40.

[59] *Id.*

[60] *See* Matthew C. Altman, *A Consequentialist Argument for Considering Age in Triage Decisions During the Coronavirus Pandemic,* 35 BIOETHICS 356 (May 2021), available at https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8251012/ [https://perma.cc/ZQM3-UA86].

chance of survival.[61] Altman states the fundamental ethical dilemma as follows:

> Although the duty of care persists during public health emergencies, the primary goal changes. Providers have a duty to steward public resources responsibly and in accordance with distributive justice. In times of scarcity, they ought to maximize overall benefits to the community, which may involve prioritizing some patients over others.[62]

Altman's specific focus is on the ethics of including age as a triage criterion, an issue that has drawn intense critical scrutiny from lawyers and activists but perhaps has purchase among some members of the medical community.[63] He argues that "age should be used as a primary principle when allocating life-saving resources during the coronavirus pandemic in order to save the most lives and the most life-years."[64]

While these Authors disagree with Altman's prescription from an ethical perspective, of greater interest to this Article is his review of four "representative" standards for allocating scarce medical resources:[65]

(1) The Daugherty Biddison standard (2019) determines the prospects for survival by measuring the likelihood of organ dysfunction using SOFA and considering comorbid conditions, such as severe congestive heart failure or severe chronic lung disease.[66]

(2) The University of Pittsburgh's Department of Critical Care Medicine standard (2020) also measures the degree of organ dysfunction using SOFA and considers comorbid conditions;[67]

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[61] *See supra* notes 53–56 and accompanying text.

[62] Altman, *supra* note 60, at 357.

[63] *See supra* note 52, *infra* notes 81–85 and accompanying text.

[64] Altman, *supra* note 60, at 356.

[65] *Id.* at 357. The characterization of these four standards as representative is consistent with co-Author Davis's clinical experience.

[66] E. Lee Daugherty Biddison et al., *Too Many Patients . . . A Framework to Guide Statewide Allocation of Scarce Mechanical Ventilation During Disasters*, 155 *CHEST* 848 (2019), available at https://pubmed.ncbi.nlm.nih.gov/30316913/ [https://perma.cc/H9EG-UMKN].

[67] Univ. of Pittsburgh, Dep't of Critical Care Med., *Allocation of Scarce Critical Care Resources During a Public Health Emergency*, 1, 6 (Apr. 15, 2020), https://ccm.pitt.edu/sites/default/files/UnivPittsburgh_ModelHospitalResourcePolicy_2020_04_15.pdf [https://perma.cc/Z4U7-AH55].

(3) The New York State Department of Health's Ventilator Allocation Guidelines (2015) focus only on "the short-term likelihood of survival of the acute medical episode and is not focused on whether a patient may survive a given illness or disease in the long-term (e.g., years later),"[68] and also use SOFA to determine a patient's mortality risk;[69] and

(4) The Washington State Department of Health (2020) standard measures the degree of organ dysfunction using the Modified Sequential Organ Failure Assessment metric, considers comorbid conditions, assesses how severely the patient is affected by COVID-19, and estimates for how long the patient will need the critical care resources.[70] To note, all online versions of this document appear to have been disabled since Altman's publication.[71]

Altman adds that Washington has "struggled" (because of concerns about disability discrimination) with an additional criterion, initially stated as "baseline functional status," which seems to amount to a subjective judgment about "frailty."[72] There is no hard evidence, but this struggle could explain the disappearance of the Washington document from the Internet.

The standards that Altman reviews share several features with those reported in the hospital survey. For instance, none of the standards Altman cites relies on a simple if arbitrary approach, such as first-come, first-served. On the contrary, as with the hospital survey protocols, all standards seem extremely complex. An element of this complexity is that all use a quantitative scoring system that incorporates a version of the SOFA system, which has

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[68] N.Y. STATE TASK FORCE ON LIFE & THE LAW, N.Y. DEP'T OF HEALTH VENTILATOR ALLOCATION GUIDELINES, 1, 34 (Nov. 2015), 1, 34 https://www.health.ny.gov/regulations/task_force/reports_publications/docs/ventilator_guidelines.pdf [https://perma.cc/Q5TR-7HXH].

[69] *Id.* at 50.

[70] Altman, *supra* note 60, at 358.

[71] *See, e.g.*, WASH. STATE DISASTER MED. ADVISORY COMM., SCARCE RESOURCE MANAGEMENT AND CRISIS STANDARDS OF CARE, https://nwhrn.org/scarce-resource-management-and-crisis-standards-of-care-overview-and-materials/ [https://perma.cc/YY7F-6WZJ] (serving as an introduction to the standards that Altman cites).

[72] Altman, *supra* note 60, at 358.

questionable applicability to respiratory diseases like COVID-19.[73] Because the standards Altman cites are complex and highly technical, all would presumably require experts, often acting as committees, to interpret and apply them. If experts have to convene and be consulted before making decisions, delay seems an inevitable consequence—hardly a desirable trait in fast-moving life-or-death situations.[74]

C. International Analysis

A third analysis of COVID-19 triage protocols, by four researchers from a biomedical ethics research institute in Switzerland, compares triage protocols internationally. This 2020 paper, by Susanne Jogues and colleagues, presents "a comparative [ethical] analysis of triage recommendations from selected national and international professional societies, including Australia/New Zealand, Belgium, Canada, Germany, Great Britain, Italy, Pakistan, South Africa, Switzerland, the United States, and the International Society of Critical Care Medicine."[75] After a lengthy analysis of the similarities and differences among the reviewed protocols, the authors offer criteria of their own that they describe as "clear, consistent and implementable."[76]

The authors summarize areas of consensus across the various triage protocol recommendations as follows:

> Whereas in everyday medical practice, with sufficient resources, principles such as universal access, minimizing harm, patient autonomy and proportionality of benefits and harm take center stage, priorities shift in triage situations towards maximizing benefits and the just distribution of scarce resources. Various medical scores incorporating clinical condition, comorbidities and prognosis are used to assess the patient, not only, or not even primarily, with a view to the best possible individual treatment, but also for triage purposes . . . . [F]air and transparent decision-making based on well-defined criteria is vital to ensure individual and public cooperation and to ease the moral burden on

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[73] *See supra* notes 64–67 and accompanying text.

[74] *See* Rosen, *supra* note 39 (frontline physician complaining about impracticality of complex protocols).

[75] Susanne Jogbes, et al., *Recommendations on COVID-19 Triage: International Comparison and Ethical Analysis*, 34 BIOETHICS 948, 948 (2020).

[76] *Id.*

> healthcare staff. Procedural aspects, with clear lines of accountability, and professional communication are also key.[77]

Jogbes et al. also identify several areas of disagreement. For instance, some recommendations focused on long-term and others on short-term prospects for patient survival, though most considered both.[78] While there was consensus on maximizing benefit by quantifying "lives saved" or "life years saved," there was little consideration of the quality of the lives or years saved.[79] Relatedly, while the documents concur that benefit to patients should be assessed using "objective medical criteria," there was little agreement on how to fine-tune those assessments in close cases.[80] Two potential arbitrary tiebreakers were treated inconsistently: Some guidance documents recommended a lottery system, but others explicitly rejected it, whereas only one endorsed first-come, first-served.[81]

Finally, Jogbes et al. mention the often-stealthy role of age in the triage recommendations. Overall, "[h]ardly any of the guidance documents mention age as a hard criterion for triage decisions, and all aim to avoid discrimination."[82] Yet other widely used criteria, including long-term prognosis, comorbidities, and the "frailty scale," are strongly associated with or even a proxy for age.[83]

Jogbes et al.'s own recommendations are based on the following "core principles":[84]

a. Include all patients, new and current, COVID and non-COVID, in triaging considerations.

b. Do not discriminate by age, race, disability, sexual orientation, religion, insurance status, wealth, social status; pay due attention to vulnerable groups (e.g., older adults, minorities, people

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[77] *Id.* at 956.
[78] *Id.*
[79] *Id.*
[80] *Id.*
[81] *Id.* at 956–57.
[82] *Id.* at 957.
[83] *Id.* One version of a frailty scale is explained *infra* note 94.
[84] *Id.* at 957–58.

with disabilities, etc.). Life-cycle considerations can be used as a tiebreaker.[85]

c. There must be a clear definition of maximizing benefit in the different stages of scarcity. It is important to distinguish between first-order criteria (e.g., short-term survival) and second-order criteria (e.g., long-term survival) that are used when there is a tie. Also, flag criteria that should not be used.

These core principles are difficult to criticize, as they do little more than state fundamental and noncontroversial values at a high level of abstraction. But Jogbes and her colleagues then conclude with nine more highly detailed recommendations for triage criteria and procedures.[86] The authors stress transparency, thus addressing a key problem with the aforementioned hospital survey protocols. However, the international recommendations also include the use of scoring metrics and the involvement of a triage committee, which give rise to concerns about fairness, complexity, and the practicality of implementation.

D. Ontario Experience

A final example of triage and standards is the COVID-19 triage protocol implemented by the Canadian province of Ontario, which emerged over the course of 2020 and 2021 and provoked tremendous controversy.[87] The first critical document was a nineteen-page paper from Ontario Health (a provincial government agency in Canada's single-payer system) dated March 28, 2020, and titled Clinical Triage Protocol for Major Surge in COVID Pandemic

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[85] Notwithstanding this core principle, age can be a factor. Because life-cycle considerations can be used as a tiebreaker, and they are based on the premise that everyone deserves the opportunity to live through the various stages of life, age necessarily plays a role in the decision.

[86] Jogbes et al., *supra* note 75, at 958.

[87] *See* Roxanne Mykitiuk & Trudo Lemmens, *Assessing the Value of a Life: COVID-19 Triage Orders Mustn't Work Against Those with Disabilities*, CBC NEWS OPINION (Apr. 19, 2020), https://www.cbc.ca/news/opinion/opinion-disabled-COVID-19-triage-orders-1.5532137 [https://perma.cc/342H-RJVQ]; Caryn Liberman, *Ontario's COVID-19 Triage Protocol 'Discriminates Because of Disability,' Advocates Say,* GLOBAL NEWS (Apr. 28, 2020), https://globalnews.ca/news/7816548/ontario-COVID-triage-protocol-discriminates-disability-advocates/ [https://perma.cc/Q5BA-65XN].

("Clinical Triage Protocol").[88] According to Canadian media critics, this document was drafted in secret by a "bioethics table," a group of bioethicists and physicians convened by Ontario Health.[89] The document did not become public knowledge until copies were acquired "surreptitiously" by a disability rights group and some media outlets, at which point its approach was heavily criticized.[90]

Substantively, the Clinical Triage Protocol envisages three stages of triage, defined by demand on critical medical resources.[91] At every stage, the guiding principle of allocation is "utility," which seeks to derive the maximum benefit to society by allocating resources preferentially to those who derive the greatest incremental benefit. People who are very likely to die from their critical illness, and people who are very likely to die in the near future even if they recovered from their critical illness, would have a lower priority.[92]

At Level 1, patients should be excluded from care if they have less than a 20% predicted chance of surviving acute COVID-19 symptoms or surviving more than a few months, regardless of the acute illness.[93] The survival probability cutoff moves up to 50% at Level 2 and 70% at Level 3.[94] Criteria to be considered in making these predictions include the patient's score on the Clinical Frailty Scale,[95] the presence of "advanced irreversible neurological

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[88] Ontario Health, Clinical Triage Protocol for Major Surge in COVID Pandemic (Mar. 28, 2020), https://med.uottawa.ca/pathology/sites/med.uottawa.ca.pathology/files/clinical_triage_protocol_for_major_surge_in_covid_pandemic_-_march_28_20205.pdf [https://perma.cc/7XVU-MXP5].

[89] *See* Mariam Shanouda & Jessica de Marinis, *Proceed with Caution with Ontario's Critical Care Triage Protocol,* POLITICAL OPINION (Sep. 15, 2020), https://policyoptions.irpp.org/magazines/september-2020/proceed-with-caution-with-ontarios-critical-care-triage-protocol/ [https://perma.cc/U9UG-UATQ].

[90] *See id.*

[91] Ontario Health, *supra* note 88, at 2.

[92] *Id.* at 4.

[93] *Id.* at 4–6.

[94] *Id.*

[95] *Id.* at 6. The Clinical Frailty Scale is a nine-point scale, ranging from "very fit" to "terminally ill." The scoring considers, among other factors, the presence and manageability of disease the patient's degree of dependence on others. *Id.* at 10. It is described as being "in widespread use throughout the healthcare system." *Id.* at 17.

disease" ("advanced or moderate" at Level 3),[96] and the presence of "severe baseline cognitive impairment due to a progressive illness" ("severe or moderate" at Level 3), defined as being "unable to perform activities of daily living independently due to cognitive impairment."[97]

Critics in Canada focused on the potential discriminatory impact these selection policies would have on people with disabilities. Particular ire was directed at the independent living criterion, since it might sweep up large numbers of disabled people living in care facilities or otherwise requiring assistance with daily activities.[98] On the same date the Ontario Health document was issued (March 28, 2020), the U.S. Department of Health and Human Services issued a Bulletin warning of the dangers of discrimination in COVID-19 triage.[99] Attacking the utility principle at the core of the Ontario protocol, the Bulletin decried it as "ruthless utilitarianism."[100]

The next key date in the Ontario controversy was January 13, 2021, when the Ontario Critical Care COVID Command Centre produced a document entitled "Adult Critical Care Clinical Emergency Standard of Care for Major Surge," intended for "[a]ll staff and physicians responsible for adult critical care triage and resource allocation."[101] Like the earlier Ontario Health document, its first enumerated principle is utility:

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[96] *Id.* at 4.

[97] *Id.*

[98] *See, e.g.*, ARCH Disability Law Centre, *Open Letter [to Ontario Premier and Other Officials]: Ontario's COVID-19 Triage Protocol* (Apr. 8, 2020), https://archdisabilitylaw.ca/resource/open-letter-ontario-covid-19-triage-protocol/ [https://perma.cc/MG5J-D6MZ] ("[T]he Triage Protocol has the effect of deeming the lives of persons who require assistance as being less worthy, or assumes that they have a lesser quality of life.").

[99] HHS Off. C.Rs. in Action, *BULLETIN: Civil Rights, HIPAA, and the Coronavirus Disease 2019 (COVID-19)*, HHS 1, 1 (Mar. 28, 2020), https://www.hhs.gov/sites/default/files/ocr-bulletin-3-28-20.pdf [https://perma.cc/DUJ7-NNLD].

[100] *Id.*

[101] Ontario Critical Care COVID Command Centre, *Adult Critical Care Clinical Emergency Standard of Care for Major Surge* (Jan. 13, 2021), https://www.aodaalliance.org/wp-content/uploads/2021/01/Ontario-Adult-Critical-

> Prioritize those with the greatest likelihood of survival – Aim to prioritize those patients who are most likely to survive their critical illness; 'surviving critical illness' is interpreted as survival twelve months from the onset of critical illness. Patients who have a high likelihood of dying within twelve months from the onset of their episode of critical illness (based on an evaluation of their clinical presentation at the point of triage) would have a lower priority for critical care resources. This evaluation is done through a Short Term Mortality Risk (STMR) assessment along with the Clinical Assessment Tools for short term mortality risk assessment . . . .[102]

This document differs from the earlier one in that it also emphasizes other longstanding bioethical principles, including non-discrimination, protection of individual human rights, equity, beneficence, and autonomy.[103] This document also states several prohibited triage criteria, including a patient's demographic characteristics, "a patient's disease or disability independent of their predicted short term mortality risk," "a patient's quality of life (as judged by anyone except the patient)," and "a patient's life expectancy independent of their predicted short term mortality risk."

Likewise, these protocols elicited strong criticism, especially from the disability community. On January 18, 2021, the Accessibility for Ontarians with Disabilities Act Alliance ("AODAA") sent a long letter to the Ontario Minister of Health attacking the protocols and the process that produced them.[104] AODAA began with an accusatory statement about the secrecy of the process:

> We understand that it was sent to Ontario hospitals on or about January 13, 2021. Your Government did not make it public then or after, nor did it acknowledge publicly that such a document was finalized or sent to hospitals. We only found out about it when a copy of it reached us. We are making it public, with this letter.[105]

Care-EMERGENCY-STANDARD-OF-CARE-OCCCCC-20210113.pdf [https://perma.cc/W94Z-XCVA].

[102] *Id.* at 3.

[103] *Id.*

[104] Accessibility for Ontarians with Disabilities Act Alliance, *Open Letter to Ontario Minister of Health* (Jan. 18, 2021), https://www.clps.ca/wp-content/uploads/2021/01/January-18-AODA-Alliance-Letter-to-Minister-re-Jan.-13-Triage-Protocol-1.pdf [https://perma.cc/SSK7-QJMN].

[105] *Id.*

Substantively, the letter called the protocol "a deeply troubling document," particularly because of "the serious and imminent risk that under [the] Government's written directions[] Ontarians with disabilities risk being subjected to disability discrimination when they seek access to lifesaving critical medical care during the pandemic."[106]

AODAA's reaction was not unique. On March 1, 2021, the Ontario Human Rights Commission ("OHRC") also sent a letter to the Minister of Health. In a curious phrasing, the OHRC said that it "obtained a copy of the protocol."[107] Although the OHRC letter was far shorter and more restrained in style than AODAA's, the substantive concerns raised regarding Ontario's triage protocol were similar: "[W]e are concerned that this document and supplementary materials (including the online short-term mortality risk calculator) are being shared within the health-care sector with potentially discriminatory content and without sufficient public input or consultation."[108]

The Ontario protocols apparently remain in effect. As of November 30, 2021, the Ontario system had not had to deny care, though there was concern looking forward because of staff shortages.[109] Interestingly, on May 3, 2021, the province of Alberta published protocols very similar to Ontario's, after a lengthy process

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[106] *Id.*

[107] Ontario Human Rights Comm'n, New Letter to Minister of Health on Critical Care Triage Protocol (Mar. 1, 2021), https://www.ohrc.on.ca/en/news_centre/new-letter-minister-health-critical-care-triage-protocol [https://perma.cc/K759-2NQF].

[108] *Id.*

[109] "The critical care system was able to accommodate this influx of patients by deferring surgeries and procedures, funding new ICU beds, identifying temporary surge space, team-based care models utilizing redeployed staff, and transferring patients between hospitals. This required effective collaboration and coordination across critical care system. The critical care system does not currently have capacity to accommodate a surge as it did during waves 2 and 3 due to worsening staffing shortages, healthcare worker burnout, and health system recovery efforts. Public health measures to mitigate influxes of critically ill patients are needed." Kali A. Barrett et al., *Critical Care Capacity During the COVID-19 Pandemic*, SCI. TABLE, Nov. 30, 2021, https://COVID19-sciencetable.ca/sciencebrief/critical-care-capacity-during-the-COVID-19-pandemic/ [https://perma.cc/K6C4-MCNB].

that included consultation with patient groups.[110] There is no evidence of the kind of uproar that ensued in Ontario. Transparency apparently has its benefits.

E. Summary

The protocols reported in these studies, together with the unfolding Ontario case, share several common elements. First, almost all of the protocols are extremely complex, and it is difficult to see how they could be applied in a timely fashion in a hospital that was overwhelmed by COVID-19 cases. Whether the protocols are longstanding or developed in response to the COVID-19 pandemic, they tend to rely heavily—and controversially—on the bioethical principle of utility: allocating scarce medical resources to do the greatest good for the greatest number of patients.

In seeking maximum utility, most of the protocols focus on individual patients' probability of survival, in both the short and medium term. In assessing that probability, most of the protocols use established scoring metrics. Those metrics have been heavily criticized as being unvalidated for COVID-19 and for incorporating biases against the elderly and the disabled.[111] Few protocols use an arbitrary criterion, such as a lottery or first-come, first-served, and if so, then only as a tiebreaker. Finally, some of the protocols seem to have been developed out of sight of the public, another source of criticism. As the Ontario case illustrates, process may count as much as substance.

The various protocols' reliance on utility deserves further comment. Such reliance is often taken for granted by bioethicists. For example, in one recent paper on bioethics principles during the COVID-19 pandemic, two bioethicists write, "[d]uring times of crisis . . . [t]he interests of the individual are overshadowed by the interests of the population at large, with a utilitarian approach that maximizes net benefit on a societal level."[112] But the fact that

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[110] *Critical Care Triage Pandemic or Disaster*, Alberta Health Servs. (May 3, 2021), https://www.albertahealthservices.ca/assets/about/scn/ahs-scn-cc-critical-care-triage-framework.pdf [https://perma.cc/E536-WN8Q].

[111] *See supra* Part III.D.

[112] Laura Vearrier & Carrie M. Henderson, *Utilitarian Principlism as a Framework for Crisis Healthcare Ethics*, 33 HEC F. 45, 46 (2021).

utilitarianism is taken for granted by expert bioethicists does not mean that it should be taken for granted by society; the reaction to the Ontario protocols reflects this tension. Longtime agreement among experts cannot substitute for democratic deliberation and accountability. This Article discusses these issues more fully in Part V.

IV. EARLY VACCINE RATIONING

The early rollout of the COVID-19 vaccines also raised the issue of the allocation of scarce medical resources in times of crisis. Yet the specific circumstances differed significantly from the triage crises just discussed. Among other things, vaccine shortages quickly became surpluses. Despite the differences between the triage and vaccination cases, the similarity of the fundamental issue presents an opportunity to generate additional insights about the appropriate role of bioethics in public health emergencies. This Part reviews the widely varying approaches to vaccine allocation taken by three illustrative states and then mines these experiences for lessons about the place of bioethics in the public health decision-making process.

Vaccines were in short supply when they first became available in late 2020 and early 2021, leading individual states to adopt rationing protocols for deciding when particular groups would be eligible to receive vaccines.[113] However, the circumstances were different from the critical care shortage at the beginning of the pandemic in at least three important respects. First, the vaccine rationing decisions would not have immediate life or death consequences; rather, those decisions altered longer-term probabilities. By contrast, the denial of an ICU bed or a ventilator could directly determine life or death. Second, the vaccine shortages were universal and unavoidable, at least for a time, whereas the threat of denial of critical care was localized and actual denial was largely avoided by planning and the reallocation and repurposing of resources. Third, by the time the vaccines became available, a great deal was known about the level of risk facing different segments of

[113] *See* Harald Schmidt et al., *Equitable Allocation of COVID-19 Vaccines in the United States*, 27 NATURE MED. 1298, 1302–05 (2021) (providing a thorough summary of state strategies and tables that explain the variation in strategies).

the population, whereas the critical care shortages were made even more difficult because of incomplete and often (in hindsight) inaccurate information.

The vaccine protocols adopted by the states varied considerably,[114] though they tended toward multi-phase approaches, with the eligible categories gradually expanding. As the examples that follow illustrate, some vaccine allocation protocols were complex, approaching the complexity of the critical care protocols. The vaccine protocols were fully disclosed—as they had to be, since they were addressed to the general public—but were generally not developed in the public eye. Unlike the treatment protocols, the vaccine protocols were generally presented as decisions made by elected officials in consultation with health experts. Those officials varied in the extent to which they took responsibility for the decisions, or instead deferred to the experts and following "the science."

Three states—West Virginia, North Carolina, and New York—illustrate three distinct points on the COVID-19 vaccine rollout's complexity continuum, with West Virginia the simplest of the three, New York the most complex, and North Carolina in the middle. The three states also vary in the way the protocols weighed vulnerability, apparent value to society, and political concerns in assigning priority to particular groups. The subparts that follow review these three approaches.

A. West Virginia

West Virginia Governor Jim Justice received a great deal of publicity for his state's very simple approach to early vaccine distribution.[115] As he put it, "age, age, age was driving this and these were the people that are dying, and we really aggressively got after

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[114] *See id.* The examples presented in the following Parts illustrate these differences. *See infra* Parts IV.A–C.

[115] *See, e.g.*, Kevin Stankiewicz, *Governor Explains How West Virginia Became a Top State for COVID Vaccine Administration*, CNBC (Jan. 11, 2021, 5:34 PM), https://www.cnbc.com/2021/01/11/how-west-virginia-became-a-top-state-for-COVID-vaccine-administration-gov-jim-justice.html [https://perma.cc/4WKE-XJW6].

it."[116] Planners involved in the COVID-19 vaccine rollout were told to keep things simple.[117] Justice saw simplicity as a virtue in itself: "If I would say, 'How many cows are out there in that field?' . . . Don't count the legs and divide by four. Just count the cows."[118] Conversely, complexity was dangerous: "I said this to our leading medical experts . . . 'We're going to awaken to the fact that we're trying to develop a plan on how to give out the vaccines and while we're developing a plan, people are dying, people are dying all over the place.'"[119]More specifically, the State gave initial priority to residents in long-term care facilities and those who worked closely with them.[120] The next priority was elderly members of the general public, along with healthcare workers and older teachers.[121] The State used the National Guard and a network of local pharmacies to find and vaccinate these initial target populations.[122]

The governor's folksy account notwithstanding, West Virginia's strategy was not made up on the fly.[123] As early as October 2020, well ahead of the CDC's Advisory Committee on Immunization Practices,[124] the West Virginia Department of Health and Human Resources ("WVDHHR") had developed and issued a draft vaccination plan that stressed simplicity.[125] The WVDHHR broke the vaccine rollout into three phases—(1) insufficient supply, (2) supply adequate to meet demand, and (3) supply exceeding

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[116] *Id.*
[117] *Id.*
[118] *Id.*
[119] *Id.*
[120] *See id.*
[121] *See id.*
[122] *Id.*
[123] *See* West Virginia Interim COVID-19 Vaccination Plan, Executive Summary-Draft, U.S. DEP'T OF HEALTH & HUM. SERVS. CTRS. FOR DISEASE CONTROL & PREVENTION (Oct. 26, 2020), https://www.cdc.gov/vaccines/COVID-19/downloads/west-virginia-jurisdiction-executive-summary.pdf [https://perma.cc/VE9Q-VWHL] [hereinafter WV Interim Plan].
[124] Kathleen Dooling, et al., *The Advisory Committee on Immunization Practices' Interim Recommendation for Allocating Initial Supplies of COVID-19 Vaccine — United States, 2020*, 69 MMWR 1857, 1857–58 (2020) (incorporating preexisting National Academy of Medicine guidance; the latter was relied on by many states in their initial plans).
[125] *See* WV Interim Plan, *supra* note 123.

demand—and described priorities that largely matched how the State ultimately conducted its rollout.[126] Bioethics may have played an unpublicized role in designing this approach, but, as Governor Justice said, it required nothing more than common sense.

At least initially, the approach worked. West Virginia started with long-term care vaccinations in late 2020, before the CDC announced the federal vaccine program.[127] Early on, West Virginia ranked first in using and not wasting its allocated vaccine supplies and was near the top of the list of states for percentage of the population vaccinated.[128] Simplicity thus seemed to be a virtue in the beginning. But that early momentum stalled, and West Virginia now ranks 36th, with 57% of the population fully vaccinated,[129] though that number may be more a reflection of a vaccine-resistant, rural population than flaws in the distribution strategy.

B. New York

At the other extreme was the State of New York, whose vaccine rationing program was complex from the start. Former Governor Andrew Cuomo released the State's initial plan in October 2020 in a "Program Book" that was more than 70 pages long.[130] The plan was said to have been "drafted on the advice and recommendation of clinical and public health experts,"[131] and the Program Book touted the transparency that characterized its drafting. The word "bioethics" (in any of its forms) does not appear in the Program Book.[132] The Program Book began by presenting a "Vaccine Prioritization Matrix" that identified three priority groups: (1) "High Risk Population/Essential Healthcare Workers,", (2) "Lower Risk Population/Other Essential Workers,", and (3) "General

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[126] *Id.*

[127] *See* Stankiewicz, *supra* note 115.

[128] *See id.*

[129] *States Ranked by Percentage of Population Fully Vaccinated*, BECKER'S HOSP. REV. (Mar. 27, 2022, 6:00 AM), https://www.beckershospitalreview.com/public-health/states-ranked-by-percentage-of-population-vaccinated-march-15.html [https://perma.cc/2BTV-LBTY].

[130] N.Y. STATE DEP'T OF HEALTH, NEW YORK STATE'S COVID-19 VACCINATION PLAN (2020) [hereinafter NY Plan].

[131] *Id.* at 6.

[132] *See* NY Plan, *supra* note 130.

Population."[133] But the Matrix subdivided those three groups (confusingly) into six "Priority" subgroups based on "COVID-19 Prevalence in Geographic Area."[134] The Program Book promised the use of "up-to-date data to determine which geographic areas of the state may derive a greater public health benefit to receiving early vaccine."[135] But the selection of those geographic areas involved far more than the prevalence of the virus:

> This may include areas with higher historical burden of disease or areas that have the highest prevalence of COVID-19. In addition, individual factors for hospitals and nursing homes will be considered including cases per facility in prior 14 days, and vulnerability index of population served. New York will also consider whether the vaccine can be used effectively as a potential outbreak interruption strategy and if so, what the criteria will be.[136]

Through a reasoning process that these Authors find impossible to follow, the three initial groups somehow translated into five Phases of administration.[137] When the rollout began in January 2021, Phase 1 was subdivided into Phases 1a and 1b.[138] The definitions of the subphases featured lengthy lists of eligible occupations.[139] Per the original plan, members of the public over sixty-five were in Phase 3 unless they had dangerous comorbidities or lived in "congregate" settings.[140] Cuomo's allocation scheme was immediately attacked from both the right and the left.[141] On the right, conservative and libertarian commentators criticized the plan for

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[133] *Id.* at 28.

[134] *Id.*

[135] *Id.*

[136] *Id.*

[137] *Id.* at 28. The plan also provided an appendix with "Priority Groups Justifications." *Id.* at 76–78.

[138] *See* Paul Ross, *Cuomo: Groups 1A and 1B Can Make COVID-19 Vaccine Reservations Beginning Monday*, WKBW BUFFALO (Jan. 8, 2021, 4:33 PM), https://www.wkbw.com/news/coronavirus/cuomo-groups-1a-and-1b-can-make-covid-19-vaccine-reservations-beginning-monday [https://perma.cc/C48Z-5WP7].

[139] *See id.*

[140] NY Plan, *supra* note 130, at 29.

[141] *See* Ryan Bourne, *The Vaccine Allocation Mess in New York,* CATO INSTITUTE: CATO AT LIBERTY (Jan. 8, 2021, 11:54 AM), https://www.cato.org/blog/vaccine-allocation-mess-new-york [https://perma.cc/XND2-KHS6] (reporting a range of attacks on Cuomo's plan).

being inefficient and gratuitously bureaucratic.[142] On the left, New York City Mayor Bill De Blasio said essentially the same, claiming that a majority of doses allocated to the city were going unused and arguing for the authority to vaccinate the elderly population.[143] There were also complaints that Cuomo's vaccine allocation scheme favored politically connected groups, including public-sector union members.[144] Cuomo—then at the peak of his Emmy-winning, pandemic-fighting celebrity[145]—was unmoved, threatening healthcare providers who violated the rules with large fines.[146]

Despite the initial chaos and controversy, the situation improved in February and March. By late March of 2021, an increase in supply led the State to expand eligibility to everyone fifty and older.[147] For younger people, a list of specific comorbidities was added, while the long and detailed occupational list persisted.[148] As in other states' , the plan was rendered moot by late spring as vaccine supply came to outstrip demand and vaccine resistance became the primary problem.[149] As of March 21, 2022, New York had the seventh highest vaccination rate in the United States,, with 73% of its population fully vaccinated.[150] As with West Virginia, at the other end of the spectrum, the ultimate vaccination rate of New York

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[142] *See id.*

[143] *See id.*

[144] *See id.*

[145] *See* Colin Dwyer, *Andrew Cuomo to Receive International Emmy For 'Masterful' COVID-19 Briefings*, NPR (Nov. 21, 2020, 9:24 AM), https://www.npr.org/sections/coronavirus-live-updates/2020/11/21/937445923/andrew-cuomo-to-receive-international-emmy-for-masterful-covid-19-briefings [https://perma.cc/46CG-SECG].

[146] *See* Bourne, *supra* note 141.

[147] N.Y. STATE DEPT. OF HEALTH, GUIDANCE FOR THE NEW YORK STATE COVID-19 VACCINATION PROGRAM 1, 1 (Mar. 23, 2021), https://ocfs.ny.gov/main/news/2021/COVID-19-2021Mar23-Vaccine-Facility-Guidance.pdf [https://perma.cc/6DUV-HZ59].

[148] *Id.* at 7–9.

[149] *See* Rich Mendez, *New York Covid Vaccine Rates Plummet as States Roll Out More Freebies for Shots*, CNBC (May 24, 2021, 6:14 PM), https://www.cnbc.com/2021/05/24/ny-covid-vaccine-rates-plummet-as-states-roll-out-more-freebies-for-shots.html [https://perma.cc/DHN7-98MT].

[150] *See States Ranked by Percentage of Population Fully Vaccinated*, *supra* note 129.

probably says more about the State's demographics and politics than about the State's substantive plan.

C. North Carolina

As it unfolded, North Carolina's vaccine allocation program was in the middle among the states in terms of complexity. On its face, the State's October 2020 plan, which relied on National Academy of Medicine ("NAM") guidance,[151] was even longer and more complex than New York's plan, especially in defining its rollout Phases and identifying of critical occupations that would get early priority.[152] As was the case with the New York plan, the word "bioethics" (in any form) did not appear.[153] The actual rollout, however, was simpler. By mid-January 2021, the State had divided the population into Groups and was vaccinating long-term care residents and staff and healthcare workers in contact with potential COVID-19 patients (Group 1), as well as anyone over sixty-five (Group 2).[154] On February 10, 2021, North Carolina began a gradual expansion of eligibility to categories of workers deemed "frontline essential" (Group 3), with teachers and school staff at the front of that line.

Governor Roy Cooper eschewed the flamboyance of West Virginia Governor Justice and New York Governor Cuomo, opting instead for low-key briefings with physician and State Health and Human Services Secretary Mandy Cooper. The criticism, when it came, was directed not so much at the plan as at the inefficiency of its implementation.[155] Vaccination required making an appointment

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[151] NAT'L ACADS. OF SCIS., ENG'G, & MED., FRAMEWORK FOR EQUITABLE ALLOCATION OF COVID-19 VACCINE, (2020).

[152] N.C. STATE DEP'T OF HEALTH, NORTH CAROLINA INTERIM COVID-19 VACCINATION PLAN 1, 59–67 (Oct. 16, 2020) [hereinafter NC Plan], https://covid19.ncdhhs.gov/media/675/open [https://perma.cc/FK4Z-4QGQ].

[153] *See id.*

[154] *See* Adam Wagner, *NC Has Updated Its COVID Vaccine Distribution Plan. Find Out What Phase You're In*, RALEIGH NEWS & OBSERVER (Jan. 15, 2021), https://www.newsobserver.com/news/coronavirus/article248179460.html [https://perma.cc/L6ZM-BRF9].

[155] *See, e.g.*, *Host of Problems Slows Rollout of COVID Vaccine in North Carolina*, RALEIGH NEWS & OBSERVER (Jan. 15, 2021), https://www.news

online or by telephone, and people could go to any hospital or county health department where they could get an appointment. Early in the vaccine rollout, news stories (and personal anecdotes, including these Authors') abounded of senior citizens staying up all night at their computers, bouncing around from website to website, desperately seeking a portal that worked and a venue that had appointments.[156] The phone lines at the vaccination centers were rarely, if ever, answered. This unresponsiveness led to charges of discrimination in favor of those who had computers, who had the free time to hover over them for hours at a time, and who could drive or be driven anywhere in the State on short notice——and against those who lacked such human capital. There were also stories about doctors who, not wanting to waste unused doses at the end of the day, called people they knew or who had somehow gotten on an informal waiting list, leading to more charges of favoritism of the well-connected.[157]

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observer.com/news/coronavirus/article248501115.html [https://perma.cc/87ZN-C59Y] (reporting on rollout problems).

[156] *See id.* In a personal example, Author Conley, who is 72 years of age, went through all these travails, visiting county websites in the region at all hours of the day and night but finding that none ever offered available appointments. Then, while dog-walking, he spoke with an equally old neighbor who said she found an appointment in a remote mountain county and immediately drove there—something that many elderly people, including the still-employed Conley, simply could not do. Finally, another neighbor told Conley to forget the websites, call the UNC Healthcare phone number, go on hold, turn the phone on speaker, and go about his business while waiting. Someone answered within an hour and Conley and his wife got appointments at a nearby UNC clinic.

[157] As an example, in Chapel Hill, two UNC assistant basketball coaches who did not meet the then-applicable age criterion got early shots when invited by a UNC doctor at the end of the day. *See* C.L. Brown, *Two UNC Basketball Coaches Got COVID Vaccine Ahead of Schedule. Here's How.*, RALEIGH NEWS & OBSERVER (Jan. 23, 2021), https://www.newsobserver.com/article248700870.html [https://perma.cc/M6RN-T2DH]. The doctor explained that they did not receive preferential treatment; but, left unanswered were questions about the coaches' ability to get on a waiting list in the first place. *Id.* These Authors heard other stories from colleagues and acquaintances in or connected to the medical community who received similar late-day calls; these Authors did not.

Statistically, North Carolina's early results were poor but improved as the first half of 2021 unfolded.[158] As elsewhere, the early inefficiencies were cured by increasing supply and diminishing demand, with vaccine resistance becoming the dominant theme. North Carolina is currently ranked 32nd, with 57% of its population having received two doses.[159] North Carolina shows a striking county-by-county disparity in vaccination rates.[160] That disparity tracks a sharp urban–rural divide regarding income, education, employment, and political leanings.[161]

D. Summary

The most obvious conclusion to be drawn from the three states' vaccine rationing experiences seems to be that vaccine allocation strategies ultimately made little difference. For the first few months, it was hard for people to get vaccinated almost everywhere, and then it became easy as supplies surged and exceeded demand. Current state vaccination rates appear to depend on the public's attitudes toward vaccines rather than anything that state governments have or have not done. Thus, the best predictor of variation in vaccination rates is probably the red-blue political divide.

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[158] This trend can be seen in the chart entitled "Doses Administered by Week" on the North Carolina Department of Health's website. *Vaccinations*, NCDHHS: COVID-19 RESPONSE, (Mar. 30, 2022, 4:00 AM), https://covid19.ncdhhs.gov/dashboard/vaccinations [https://perma.cc/XKQ9-PARE].

[159] *See States Ranked by Percentage of Population Fully Vaccinated*, *supra* note 129.

[160] *See North Carolina COVID-19 Vaccine Tracker*, CITIZEN TIMES (Mar. 30, 2022), https://data.citizen-times.com/covid-19-vaccine-tracker/north-carolina/37/ [https://perma.cc/2GLX-TTUR] (reporting county vaccination statistics compiled from CDC and state sources).

[161] *See, e.g.*, Dan Barkin, *Point Taken: A Different Twist on the Urban-Rural Divide,* BUSINESS NORTH CAROLINA (Mar. 1, 2021), https://businessnc.com/point-taken-a-different-twist-on-the-urban-rural-divide/ [https://perma.cc/KR7Y-DVPF] (reporting on an N.C. Justice Center report on urban-rural disparities); Editorial Board, *A Startling Report on the 2020 Vote Shows a Stark Economic Divide in North Carolina*, RALEIGH NEWS & OBSERVER (Nov. 19, 2020), https://www.newsobserver.com/opinion/article247248969.html [https://perma.cc/CVE2-3VJW] (reporting on a Brookings Institute study of disparities).

The principal distinction across the state plans was complexity. Although many state strategies claimed descent from NAM guidelines,[162] the actual rollouts ranged from New York's highly bureaucratic multi-group, multi-phase approach to West Virginia's laser focus on "age, age, age."[163] Political performance art was also on display in the New York (literally, with the Emmy-winning Cuomo) and West Virginia cases.[164] Bioethics may have lurked in the deep background, but there was no reference to the discipline in the plans issued or the governors' rhetoric. Above all, the allocation decisions made and the manner of announcing them seemed political and driven by the personalities of the respective governors.

V. LESSONS LEARNED: THE PROPER ROLE OF BIOETHICS IN PUBLIC HEALTH DECISIONS?

The ultimate question posed in this Article is: What role should bioethics play in public health-level clinical decision-making? Based on the experience of governments setting standards for critical care triage and vaccine rationing during the COVID-19 pandemic, the short answer is, little to none. As was noted in Part II, bioethics should have—and does have—a significant role in deciding whether and how biomedical research is conducted. Bioethics should also inform counseling and decision-making by doctors, patients, and families in individual clinical cases. Finally, bioethics can, and should, make a significant contribution to the making of public health policy at a system level—for example, planning how to allocate financial resources to meet the health needs of the community in the longer term. However, in the COVID-19 critical care triage and vaccine rationing cases, bioethics has proven to be a poor fit for establishing public health-level protocols that clinicians must implement under urgent time pressure.

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[162] North Carolina was one such state. *See* NAT'L ACADS. OF SCIS., ENG'G, & MED., *supra* note 151 and accompanying text.

[163] The phrase is from West Virginia Governor Jim Justice, quoted in Stankiewicz, *supra* note 115.

[164] *See supra* notes 127–33, 156 and accompanying text.

A. Problems with Reliance on Bioethics

There are several problems with the field of bioethics that drive the above stated conclusion, all of which are abundantly illustrated in the cases and studies reviewed in this Article. First, bioethics starts from principles that are debatable, and in fact have been debated over the history of the discipline.[165] A prime example is utility—the greatest good for the greatest number of patients—that proved so controversial in the Ontario triage case.[166] These principles may now be the subject of consensus among bioethicists, but society as a whole has never debated them in any democratic way. Instead, these bioethics principles have an elite provenance, agreed upon by experts acting outside the public eye.

The same can be said of the strategies for implementing these bioethical principles, at least in the case of the COVID triage protocols. The strategies for implementing the principles have been even more controversial than the principles themselves, among the public, various advocacy communities, and even the expert community. The reliance on preexisting metrics has been a particular target of critics.[167] These Authors reject quantifying the value of life on subjective moral grounds. On a more technical level, critics have argued that SOFA and other widely- and long-used measures of likelihood of survival, all designed in other contexts, have not been validated for use with COVID patients.[168] Looking at the potential effects of those unvalidated metrics, disability and elderly rights advocates have decried the likelihood of discrimination against their constituencies.[169]

Even if there were defenses to these objections, an insurmountable problem is that most of the protocols reviewed in this Article were created out of the public eye and thus lack transparency. Moreover, according to critics, the protocols left behind no readily accessible paper trail. Evidence had to be gathered "surreptitiously," or with interested outsiders mysteriously coming

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[165] *See supra* notes 25–29 and accompanying text.
[166] *See id.*
[167] *See infra* Part II.D.
[168] *See supra* notes 29–31 and accompanying text.
[169] *See supra* notes 72–76 and accompanying text.

into possession of relevant documents.[170] The objections to the rollout plans that are now so strident might have been heard and perhaps resolved in a more transparent process. Instead, critics can enhance their substantive arguments by implying that a technocratic conspiracy was behind the whole triage effort.[171] In the development of any governance protocol, transparency is a great virtue and opacity a great vice.

Complexity was the final problem that plagued all of the triage protocols and many of the vaccine rationing schemes. With respect to the former, it is difficult to see how caregivers on the front lines and their institutions could have possibly applied the protocols within a meaningful timeframe. By the time caregivers went through the prescribed process—assembling the specified decision team, calculating the metrics, reviewing the results, and applying the rules—all the competing patients would probably have died or recovered. In the case of the vaccine rollouts, the early complex schemes were too difficult for the public to understand and fatally inefficient when they had to be administered. As with transparency, simplicity is a virtue and complexity a vice.

B. A Proposed Solution

If bioethics is rejected as a basis for decision-making, the obvious next questions is: what might work better? Informed once again by the instances that have been reviewed, the proposed solution is a process that has several characteristics. The most important of these characteristics are transparency and simplicity.

First, it is critical to recognize that triage and rationing protocols are societal policies with potential life-or-death implications. Therefore, the decision-makers should be democratically accountable. In a representative democracy, this necessarily means elected officials must have ultimate responsibility. Although some may recoil from the idea, triage and rationing policies *are* political

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[170] *See supra* notes 59–60 and accompanying text.

[171] *See generally* Kathleen Hall Jamieson, *How Conspiracists Exploited COVID-19 Science*, 5 NATURE HUM. BEHAV. 1464 (2021) (explaining how stressing transparency and other scientific norms can undermine conspiracy thinking).

questions, and should be. Experts should be advisory, with democratically elected officials free to accept or reject their advice.

Operationally, elected officials should delegate the specific decisions to their appointed health officials, subject to the elected officials' review and approval. Accountability comes from the ability to fire the decision-makers. If a protocol is a failure, or if the public appears to reject it, the elected boss can fire the appointed health official. The public then has the ability to fire and replace the elected official who has ultimate responsibility.

It would be impractical, of course, to draft a new policy every time a new health emergency raised the specter of triage and rationing. But, as the U.S. hospital survey reviewed in Part III,[172] many institutions tried to do just that at the start of the COVID-19 outbreak. Instead, states should adopt standby protocols to keep on the shelf and adapt to particular future crises. In fact, most states had done just that before COVID-19, creating general protocols for public health emergencies.[173] But those protocols were rarely, if ever, the product of a transparent development process. The states should therefore go back to the drawing board and work in the public eye, leaving a complete and readily accessible paper trail. This process would presumably be done by state health departments, which would hear from public health and bioethics experts in sessions accessible to the public, publish the written expert advice they received, publish their working drafts, and invite public commentary before finalizing their results.

Those who draft the standby protocols should strive for simplicity. Simplicity is always a virtue in government action: Plan to do in terms that the general public can understand. Simplicity also raises the probability that when the next crisis comes, those who

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[172] *See infra* Part III.

[173] *See* CDC, PUBLIC HEALTH EMERGENCY PREPAREDNESS AND RESPONSE CAPABILITIES (2018–19), www.cdc.gov%2Fcpr%2Freadiness%2F00_docs%2FCDC_PreparednesResponseCapabilities_October2018_Final_508.pdf&clen=10877260&chunk=true [https://perma.cc/JD2A-552F] (describing the national Public Health Emergency Preparedness and Response Cooperative Agreement Program).

have to deal with it can actually adapt and apply the protocols in real time.

But regrettably, the process recommended here—or any process—is likely to cause more problems than it solves. However transparent the process, the standby protocols—whatever their content—will generate controversy when the time comes to use them. They will have to embody some principles, and not every stakeholder will accept the principles that are chosen. Regardless of the efforts made to avoid discrimination, inequities will inevitably creep in and will be a source of grievance to some. And regardless of how the drafters strive for simplicity, any protocol will still have a level of complexity, both in substance and in the process of the plan's application. It is reasonable to ask whether any protocol could be simple enough to allow its application under circumstances such as the COVID-19 pandemic has presented.

Given these problems, the least-worst option may be a single arbitrary and random criterion, such as a lottery. First-come, first-served is another arbitrary option, but the idea of a race to the hospital seems insurmountably fraught with inequity. The poor elderly patient living alone waits for an ambulance that never comes, while the patient with more human capital gets driven to the emergency room by a concerned relative. With a lottery, when the time for triage and rationing comes, everyone in line has an equal chance. (Simply getting in line may reflect differential access to resources, but no criterion can solve every problem).

A lottery is random and starkly simple. Perhaps because of those very qualities, it may be perceived by the losers as cruel—and rightly so. But every denial of care will be seen as cruel. With a lottery, at least the cruelty will be neutrally distributed without regard to who the winners and losers are. That seems far more compassionate than comparing the value of lives, however conscientiously that calculation is done.

VI. CONCLUSION

This Article began by posing the question of what role bioethics should play in deciding how scarce clinical resources should be allocated in a public health crisis, such as the COVID-19 pandemic.

After introducing the history and purpose of bioethics, this Article reviewed the role that bioethics has played over the last two years of the COVID-19 pandemic in establishing criteria for clinical triage and setting priorities for vaccine rationing. Additionally, this Article examined several actual cases in each category, both domestic and international. This evidence showed that bioethics played a significant but unhelpful role in setting triage protocols but had minimal influence on vaccine rationing, which has proved to be a largely political process. Particular problems with bioethics-based protocols include complexity, which impairs implementation, and a lack of transparency, which undermines public acceptance. On the basis of this evidence, the conclusion is that bioethics should have little influence on public health-level clinical decision-making.

This Article then offered an alternative model for establishing triage and rationing protocols. Acknowledging the social and political nature of such decisions, the recommendation is that ultimate authority should lie with democratically accountable officials rather than experts. The primary values in the process should be transparency and simplicity.

Ultimately, however, there is no basis for confidence that even this alternative model can solve the problems of substance and process that have been identified with existing protocols. Instead, a random and arbitrary system, such as a lottery may be the best of many deeply flawed options for allocating scarce clinical resources in public health emergencies.