

Too old to save? COVID-19 and age-based allocation of lifesaving medical care

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Abstract

Adults aged 65 and over are disproportionately impacted by the coronavirus disease 2019 (COVID-19) pandemic and represent by far the largest share of severe disease and death. This paper critically examines ethical arguments for using implicit and explicit age criteria as a standard for allocating scarce lifesaving resources during the pandemic. Section 1 introduces the topic. Section 2 distinguishes standard from pandemic triage. Section 3 assesses ethical arguments for criteria that are implicitly age-based, including quality-adjusted life years, disability adjusted-life years, and total number of future life years. Section 4 examines ethical arguments for criteria that are more directly age-based, including fair innings, equality between old and young, and priority to the worse off. The paper concludes that neither implicit nor explicit age-based allocation withstands careful scrutiny.

KEYWORDS

allocation, COVID-19, ethics, justice, older adults

1 | INTRODUCTION

Bioethical debates surrounding the use of age and age-related standards for allocating scarce healthcare resources date to the 1980s, a time when there was a growing recognition of the implications of rapid population aging on healthcare utilization.¹ During the coronavirus disease 2019 (COVID-19) pandemic, these debates were rekindled, as critical care resources became scarce during surge phases of the pandemic. In the United States, for example, debates about implementing age-related criteria during the COVID-19 pandemic were informed by pre-pandemic protocols, which commonly incorporated age-associated considerations, such as scoring systems that consider life expectancy or near-term life expectancy beyond acute disease. A 2021 U.S. survey that looked at 35 published, state-approved pre-pandemic protocols from 2007 to 2020 found that they frequently included total life years, 1–5 life years, “children over adults,” and fair

innings.² Yet, despite age-based guidance, the proposal to invoke age, either directly or indirectly, remains controversial. This was evidenced by the considerable pushback in response to U.S. state policies. For example, civil rights complaints were filed in Alabama, Kansas, Tennessee, Washington, and Pennsylvania.³ In 2020, the American Geriatrics Society took a stand against any use of age to exclude people from lifesaving care,⁴ and backed their position with ethical arguments by prominent bioethicists.⁵

Another factor placing age at the forefront of allocation debates during the pandemic is that older people have been far more likely than younger age groups to become severely ill if they get infected with the SARS-CoV-2 virus, and to require hospitalization and

¹Callahan, D. (1987). *Setting limits: Medical goals in an aging society*. Simon and Schuster; Daniels, N. (1988). *Am I my parents' keeper? An essay on justice between the young and the old*. Oxford University Press.

²Scire, E., Jeong, K. Y., Gaurke, M., Prusak, B., & Sulmasy, D. P. (2021). Rationing with respect to age during a pandemic: A comparative analysis of state pandemic preparedness plans. *Chest*, 161, 504–513. <https://doi.org/10.1016/j.chest.2021.08.070>

³Godfrey, E. (2020, Apr 3). Americans with disabilities are terrified. *Atlantic*.

⁴Farrell, T. W., Ferrante, L. E., Brown T., Francis, L., Widera, E., Rhodes, R., ... Saliba, D. (2020). AGS position statement: Resource allocation strategies and age-related considerations in the COVID-19 era and beyond. *Journal of the American Geriatrics Society*, 68, 1136–1142.

⁵Farrell, T. W., Francis, L., Brown T., Ferrante, L. E., Widera, E., Rhodes, R., ... Saliba, D. (2020). Rationing limited healthcare resources in the COVID-19 era and beyond. *Journal of the American Geriatrics Society*, 68, 1143–1149.

intensive medical care.⁶ In the United States, for example, older people have experienced significantly worse outcomes and more deaths than the general population: although the 65+ age group comprises 17% of the total U.S. population, they made up 31% of COVID-19 infections, 45% of hospitalizations, 53% of intensive care unit (ICU) admissions, and 80% of deaths caused by COVID-19 infection between February 12 and March 16, 2020.⁷ Globally, studies consistently show that older age is associated with higher case fatality rates for COVID-19 patients admitted to hospitals or ICUs.⁸ Given this age discrepancy, what role, if any, should age and age-related criteria play in the distribution of lifesaving resources, such as ventilators or ICU beds, when demand outstrips capacity? Is age-based allocation a bitter pill we should swallow? This paper addresses these questions, considering the ethical bases for both implicit and explicit age standards during the pandemic. Throughout, my primary focus will be weak, as opposed to strong, age-based allocation, by which I mean assigning older people lower priority than younger people, rather than imposing an upper age limit on treatment and excluding everyone who exceeds the limit. Section 2 distinguishes standard from pandemic triage. Section 3 considers three ways to extend the logic of standard triage to pandemic triage situations: saving the greatest number of quality-adjusted life years (QALYs), disability-adjusted life years (DALYs), and future life years. With respect to each approach, implicit age bias is revealed, which motivates the need to examine ethical arguments for using explicit age-based standards. Section 4 evaluates three defenses of age-based allocation: fair innings, equal respect, and priority to the worse off. The paper concludes that arguments favoring implicit and explicit age discrimination fall short and that the most ethical way forward avoids age discrimination. While my focus is pandemic rationing in forced-choice scenarios, many of the arguments against age discrimination bear relevance beyond pandemic contexts.

2 | STANDARD VERSUS PANDEMIC TRIAGE

When demand for healthcare resources outstrips available supply, one of the first responses is for healthcare systems to pivot from conventional to contingency to crisis care.⁹ *Conventional care* encompasses everyday healthcare services where well-established policies are in place to manage ongoing resource shortages. Examples include the scarcity of cadaver organs for transplantation and frequent seasonal limits on vaccines to treat influenza. *Contingency care* requires alterations to conventional care but maintains an adequate level of quality to provide patients with functionally equivalent services and ensure that outcomes are similar to those associated with conventional care. Examples include diverting ambulances from a hospital with a crowded emergency department to one that is less crowded. During *crisis care*, resources are depleted, and functionally equivalent care is no longer available. This triggers the application of standard triage criteria aimed at saving the greatest number of lives.

Standard triage prioritizes (1) individuals likely to die without a particular resource and survive with it, followed by (2) those likely to survive even without the resource, and, finally (3) people unlikely to survive even if provided with the resource. In U.S. emergency departments, standard triage is often translated by implementing a triage acuity rating system that assigns each patient a triage level, where, depending on the triage scale used, there are from three to five levels.¹⁰ Standard triage logic applies to many other allocation tools, which are largely based on its principles. For example, Sequential Organ Failure Assessment (SOFA) scores the number and severity of organ failures to rank the order of patients for ICU admission.

During a global pandemic, standard triage scoring might not be adequate, particularly during a surge phase. The reason is that too many similar patients qualify for group-1 designation. When this occurs, allocation moves from standard to *pandemic triage*. During pandemic triage, more people are likely to survive with a scarce lifesaving resource and die without it than can be helped. This reportedly occurred during the surge phase of the COVID-19 pandemic in Wuhan, China and the Lombardy region of Italy.¹¹ Without additional criteria to prioritize patients with similar prognoses, physicians are left without any standard to apply; they may be forced to ration care at the bedside, from one moment to the next. There is an urgent need for additional criteria. While age-based criteria are not the only additional criteria that might be used to supplement prognostic measures, they have figured importantly in debates about the rationing of lifesaving resources. A more complete

⁶Centers for Disease Control and Prevention. (2021). *COVID-19 risks and vaccine information for older adults*. Retrieved 4 May, 2022, from: https://www.cdc.gov/aging/covid19/covid19-older-adults.html?CDC_AA_refVal=https%3A%2F%2Fwww.cdc.gov%2Fcoronavirus%2F2019-ncov%2Fneed-extra-precautions%2Folder-adults.html

⁷Centers for Disease Control and Prevention. (2020). Severe outcomes among patients with coronavirus disease 2019 (COVID-19)—United States, February 12–March 16, 2020. *Morbidity and Mortality Weekly Report*, 69(12), 343–346.

⁸WHO-China Joint Mission. (2020). *Report of the WHO-China Joint Mission on Coronavirus Disease 2019 (COVID-19)*. Retrieved 4 May, 2022 from: <https://www.who.int/docs/default-source/coronaviruse/who-china-joint-mission-on-covid-19-final-report.pdf>; Richardson, S., Hirsch, J. S., Narasimhan, M., Crawford, J. M., McGinn, T., Davidson, K. W., ... Zanos, T. P. (2020). Presenting characteristics, comorbidities, and outcomes among 5700 patients hospitalized with COVID-19 in the New York City area. *Journal of the American Medical Association*, 323(20), 2052–2059; Zhou, F., Du, R., Fan, G., Liu, Y., Liu, Z., Xiang, J., ... Cao, B. (2020). Clinical course and risk factors for mortality of adult inpatients with COVID-19 in Wuhan, China: A retrospective cohort study. *Lancet*, 395, 1054–1062; Wu, C., Chen, X., Cai, Y., Xia, J., Zhou, X., Xu, S., ... Song, Y. (2020). Risk factors associated with acute respiratory distress syndrome and death in patients with coronavirus 2019 pneumonia in Wuhan, China. *Journal of the American Medical Association*, 180(7), 9345–9943; Leoni, M. L. G., Lombardelli, L., Colombi, D., Bignami, E. G., Pergolotti, B., Repetti, F., ... Noll, M. (2021). Prediction of 28-day mortality in critically ill patients with COVID-19: Development and internal validation of a clinical prediction model. *PLoS ONE*, 16(7), e0254550; Auld, S. C., Caridi-Scheible, M. C., Blum, J. M., Robichaux, C., Kraft, C., Jacob, J. T., ... the Emory COVID-19 Quality and Clinical Research Collaborative. (2022). ICU and ventilator mortality among critically ill adults with COVID-19. *Critical Care Medicine*, 48(9): e799–e804. <https://doi.org/10.1101/2020.04.23.20076737>

⁹Institute of Medicine. (2012). *Crisis standards of care*. National Academies Press.

¹⁰Gilboy, N., Tanabe, T., Travers, D., & Rosenau, A. M. (2012). *Emergency Severity Index (ESI), Version 4*. Agency for Healthcare Research and Quality.

¹¹Rosenbaum, L. (2020). Facing Covid-19 in Italy. *New England Journal of Medicine*, 382, 1873–1875. <https://doi.org/10.1056/NEJMp2005492>; Cha, A. E. (2020, Mar 15). Spiking U.S. coronavirus cases could force rationing decisions similar to those made in Italy, China. *Washington Post*.

discussion would consider a wider range of alternative criteria and the synergistic effects of combining chronological age with various co-occurring factors. While this paper touches on other factors, its primary focus is age- and life-stage-related criteria.

3 | IMPLICIT AGE-BASED ALLOCATION

One way of extending standard triage to situations where further distinctions among patients must be made employs a modified save-the-most-lives approach that divides lives into life years and seeks to maximize QALYs or DALYs. Rather than maximizing lives saved, this method disaggregates lives and counts the number of life years, combined with a numeric weighting of health-related quality of life (HRQoL) to generate a numeric ranking. Contrasting this method with standard triage, Rhodes claims that standard triage, which aims to save the most lives, would consider unused ventilators that could potentially save lives to be impermissible; however, focusing on maximizing life years (or QALYs/DALYs) might allow unused ventilators to be held for later use by patients expected to have a longer and healthier life expectancy.¹² For example, in Belgium during the COVID-19 pandemic, hospital beds reportedly sat unused while paramedics and hospitals turned away older people, hoping to preserve capacity for younger people.¹³ If the primary goal is to save the most lives, this approach is a failure, but if the primary goal is to save the most HRQoL years, it might be counted as a success if the anticipated influx of younger patients in fact occurs. In practice, it might be difficult to implement this strategy during a crisis, since it is hard to know in advance whether an influx will occur, when it will occur, and whether ventilators can save life years in the interim.

The implications of extended triage for older adults are noteworthy. In one sense, triage brushes aside differences in chronological age and life expectancy, since its aim is preventing avoidable deaths, irrespective of a patient's life expectancy or underlying health. By contrast, when the objective is maximizing QALYs, DALYs, or life years saved, chronological age matters quite a bit, albeit indirectly, since chronological age is strongly correlated with life expectancy and underlying health.¹⁴ Based on this correlation, Miller proposes an age limit of 70 or 80 for mechanical ventilation during the COVID-19 pandemic as "reasonable and fair," provided that palliative care is offered, because "not many years of life with relatively good health and function are left."¹⁵

One concern with using age as a proxy for life expectancy and HRQoL is that it may promote negative stereotyping, leading people to conflate the proxy (in this case, age) with the true basis for discrimination (life expectancy or comorbidity, for example). It is for this reason that discrimination scholars are reluctant to tolerate proxies, even when they are empirically valid for the purpose at hand.¹⁶ Using age as a proxy for life expectancy or for HRQoL can feed ageism, drawing attention away from the heterogeneity of older adults. By contrast, appealing directly to factors such as frailty, comorbidities, or life expectancy avoids age discrimination and predicts future life expectancy better. For example, during the COVID-19 pandemic, frailty intensive care assessment tools (such as the Clinical Frailty Scale) were originally endorsed in 2020 guidelines set forth in the U.K. by the National Institute for Health and Care Excellence (but subsequently updated¹⁷) and in Germany by a multi-society task force.¹⁸ The Clinical Frailty Scale is less likely to lead to ageism because, as Boreskie et al. note, people of any age can present with frailty, and people who are old are not necessarily frail.¹⁹ However, even if appeals to frailty, comorbidities, or life expectancy are less likely to lead to ageism, they may still feed ageist stereotypes, because they correlate closely with age and distinctions may be blurred between age and the true basis for discrimination.

It could also be argued that maximizing the number of QALYs, DALYs, and life years results in systematically preferring younger over older people, and in this sense is unfair, even though it is not the direct aim of these criteria to exclude older people. Implicit rationing, or the denial of beneficial treatment without an explicit policy or plan in place, is arguably more pernicious than overt age discrimination, because it disenfranchises older people as a group without any awareness or deliberation about what is being done. Shklar refers to this form of disadvantage as "passive injustice" and cautions that it can reflect a failure to know and exert effort in finding out the implications of policies.²⁰ To illustrate, consider an analogous case. Utilitarian analysis is "colorblind" in the sense it does not directly take race into account when setting priorities for scarce resources, yet that hardly shows that it is fair to members of minority racial or ethnic groups.²¹ Since racial minorities have worse health at baseline,²² they face an overall higher risk of severe disease and death if infected with

¹⁶Hellman, D. (2008). *When is discrimination wrong?* Harvard University Press.

¹⁷National Institute for Health and Care Excellence (NICE). (2020). *NICE updates rapid COVID-19 guideline on critical care*. Retrieved 4 May, 2022, from: <https://www.nice.org.uk/news/article/nice-updates-rapid-covid-19-guideline-on-critical-care>

¹⁸Marckmann, G., Neitzke, G., Schildmann, J., Michalsen, A., Dutzmann, J., Hartog, C., ... Janssens, U. (2020, Apr 17). *Decisions on the allocation of intensive care resources in the context of the COVID-19 pandemic, 2nd revised Version S1 guidelines*. <https://doi.org/10.1007/s00063-020-00709-9>

¹⁹Boreskie, K. F., Boreskie, P. E., & Melady, D. (2020). Age is just a number—And so is frailty. *Canadian Journal of Emergency Medicine*, 22(4), 411–413.

²⁰Shklar, J. N. (1990). *The faces of injustice*. Yale University Press.

²¹Sederstrom, N. O. (2020, May 7). *Unblinded; Systematic racism, institutional oppression, and colorblindness*. Hastings Center Bioethics Forum. Retrieved 4 May, 2022, from: <http://www.bioethics.net/2020/05/unblinded-systematic-racism-institutional-oppression-and-colorblindness/>; Braddock, C. (2020). Racism and bioethics. *American Journal of Bioethics*, 8, 1–7.

²²Alvidrez, J., Castille, D., Laude-Sharp, M., Rosario, A., & Tabor, D. (2019). The National Institute on Minority Health and Health Disparities Research Framework. *American Journal of Public Health*, 109(S1), S16–S20.

¹²Rhodes, R. (2020a). Justice and guidance for the COVID-19 pandemic. *American Journal of Bioethics*, 20(7), 163–166; Rhodes, R. (2020b). *Fair allocation of scarce medical resources in the time of COVID-19*. Hastings Bioethics Forum. Retrieved 4 May, 2022, from: <http://www.bioethics.net/2020/04/pandemic-justice-clarifying-guidance-for-resource-allocation/>

¹³Stavis-Gridneff, M., Apuzzo, M., & Pronczuk, M. (2020, Aug 8). When COVID-19 hit, many elderly were left to die. *New York Times*.

¹⁴Kamm, F. M. (2012). Whether to discontinue nonfutile use of a scarce resource. In R. Rhodes, M. P. Battin & A. Silvers (Eds.), *Medicine and social justice* (2nd ed., pp. 165–177). Oxford University Press.

¹⁵Miller, F. G. (2020, Apr 9). *Why I support age-related rationing of ventilators for COVID-19 patients*. Hastings Center Bioethics Forum. Retrieved 4 May, 2022, from: <https://www.thehastingscenter.org/why-i-support-age-related-rationing-of-ventilators-for-covid-19-patients/>

the novel coronavirus.²³ Thus, if we attend only to maximizing benefits, health disparities may grow more entrenched. As Rawlins and Dillon note, the utilitarian principles upon which QALYs and DALYs rest have “next to nothing to offer” in eradicating health inequities.²⁴ Without a separate commitment to health equity, the goal of maximizing life years, QALYs, or DALYs can result in disproportionately favoring medical candidates who are young, able-bodied, white, and well-to-do.

It could be argued that implicit age discrimination differs, because the reason older adults fare poorly with respect to HRQoL is aging immune systems, rather than structural injustices.²⁵ Or it might be claimed that it is due to the high prevalence among people aged 65 and over of chronic conditions associated with more severe COVID-19 disease and death, such as Type 2 diabetes and coronary disease.

Yet, this reasoning is flawed. First, the current level of age discrepancy in morbidity and mortality partly reflects social conditions that contributed to higher death rates by placing older adults at higher risk of infection. Across Europe, elder care homes documented widespread deficiencies in infection prevention and control.²⁶ Prior to the pandemic, similar concerns were evident in the United States, with the U.S. Government Accountability Office reporting major deficiencies in infection prevention and control in 82% of U.S. nursing homes and long-term care facilities serving older people.²⁷ Examples included practices critical to preventing the spread of the SARS-CoV-2 virus, such as not using proper hand hygiene, failing to isolate sick residents, and not using masks or other personal protective equipment.

In addition, when the pandemic was underway, supportive services deteriorated in nursing homes, taking a cumulative toll on older people's health and function. For example, Human Rights Watch reported in May 2021 that residents of U.S. nursing homes had extreme weight loss, dehydration, untreated bedsores, inadequate hygiene, mental and physical decline, and were being given psychotropic medications inappropriately.²⁸ They cited long-standing staffing shortages, which, prior to the pandemic, were offset

by family visitors who helped staff perform essential tasks. Evidence from the Associated Press shows that the toll on U.S. nursing home residents included about 40,000 excess deaths between March and November 2020 that were not caused by COVID-19.²⁹

While it might be thought that a better way to protect the lives of older people would be to correct social conditions in elder care homes, rather than to provide lifesaving resources to them after they become ill, this approach is limited. It does not address the situation of older people today who become infected with SARS-CoV-2 and require scarce lifesaving treatment. Nor does it address the cumulative effect of inadequate long-term care services and neglect, which impaired health and function, undermined resilience, and reduced the ability to fight off infection and rebound to baseline.

The level of age discrepancy in COVID-19 outcomes also reflects the fact that, around the world, public health officials excluded long-term care facilities serving disabled and older adults from pandemic preparedness plans and from the mathematical modeling used to guide pandemic responses, making older people “casualties not only of the virus, but of more than a decade of ignored warnings that nursing homes are vulnerable.”³⁰ Despite the fact that older adults have historically fared worse during humanitarian emergencies,³¹ emergency preparedness planning failed to meet their needs.

Finally, although utilitarian analysis is age-neutral on its face, our readiness to abide by it might be partly explained by the way it disfavors older people and thereby aligns with ageist beliefs. In its 2021 *Global Report on Ageism*, the World Health Organization (WHO) defines ageism as

the stereotypes (how we think), prejudice (how we feel) and discrimination (how we act) directed towards people on the basis of their age. It can be institutional, interpersonal or self-directed. Institutional ageism refers to the laws, rules, social norms, policies and practices of institutions that unfairly restrict opportunities and systematically disadvantage individuals because of their age. Interpersonal ageism arises in interactions between two or more individuals, while self-directed ageism occurs when ageism is internalized and turned against oneself.³²

Summarizing existing literature, the WHO report found that, globally, one out of two people are ageist against older people. An earlier, 2016 WHO analysis of findings from the World's Value Survey, which looked at more than 83,000 people in 57 countries, found that 60% of survey respondents reported that older people were not respected in their country, with the lowest levels of respect

²³Centers for Disease Control and Prevention. (2022). *Coronavirus 2019 (COVID-19), evidence used to update the list of underlying medical conditions that increase a persons' risk of severe illness from COVID-19*. Retrieved 4 May, 2022, from: <https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/evidence-table.html>

²⁴Rawlins, M., & Dillon, A. (2005). NICE discrimination. *Journal of Medical Ethics*, 31(12), 683–684, p. 683.

²⁵Koff, W. C., & Williams, M. A. (2020). Covid-19 and immunity in aging populations. *New England Journal of Medicine*, 383, 804–805. <https://doi.org/10.1056/NEJMp2006761>

²⁶European Centre for Disease Prevention and Control (ECDC) Public Health Emergency Team, Danis, K., Fonteneau, L., Georges, S., Daniau, C., Bernard-Stoecklin, S., ... Schneider, E. (2020). High impact of COVID-19 in long-term care facilities, suggestion for monitoring in the EU/EEA, May 20, 2020. *Euro Surveillance*, 25(22), 2000956. <https://doi.org/10.2807/1560-7917.ES.2020.25.22.2000956>; Amnesty International. (2020). *As if expendable: The UK government's failure to protect older people in care homes during the COVID-19 pandemic*. Retrieved 4 May, 2022, from: <https://www.amnesty.org.uk/files/2020-10/Care%20Homes%20Report.pdf>; Médecins Sans Frontières. (2020). *Left behind in the times of COVID-19*. Retrieved 4 May, 2022, from: <https://www.msf.org/sites/msf.org/files/2020-07/Left%20behind%20-%20MSF%20care%20homes%20in%20Belgium%20report.pdf>

²⁷Government Accountability Office (GAO). (2020, May 20). *Infection control deficiencies were widespread and persistent in nursing homes prior to the COVID-19 pandemic*. Letter to the Honorable Ron Wyden, Ranking Member of the U.S. Senate, Committee on Finance. Retrieved 4 May, 2022, from: <https://www.gao.gov/assets/710/707069.pdf>

²⁸Human Rights Watch. (2021). *US: Concerns of Neglect in Nursing Homes*. Retrieved 4 May, 2022, from: https://www.hrw.org/sites/default/files/media_2021/06/drd_nursinghome0521_brochure_PRINT_0.pdf

²⁹Sedensky, M., & Condon, B. (2020, Nov 19). *Not just COVID-19: Nursing home neglects deaths surge in shadows*. Retrieved 4 May, 2022, from: <https://apnews.com/article/nursing-homes-neglect-death-surge-3b74a2202140c5a6b5cf05cdf0ea4f32>

³⁰Stavis-Gridneff, M., Apuzzo, M., & Pronczuk, M. (2020, Aug 8). When COVID-19 hit, many elderly were left to die. *New York Times*.

³¹World Health Organization. (2020). *Decade of health ageing: 2020-2030*. Retrieved 4 May, 2022, from: <https://www.who.int/initiatives/decade-of-healthy-ageing>

³²WHO. (2021). *Global report on ageism*. Retrieved 4 May, 2022, from: <https://www.who.int/publications/i/item/9789240016866>

for older people found in high-income countries.³³ A European Commission study reported that at least 50% of people in four European Union states think that discrimination against people on the basis of being 55 or over is “widespread” in their country, while a sizable minority (20%–49%) of those in virtually all remaining European Union states report this too.³⁴

It might be objected that triage criteria do not necessarily favor the young, since they might be more likely to survive without medical treatment. In response, triage scenarios of the kind we are imagining are forced-choice situations in which a treatment is literally lifesaving and multiple patients need it to survive. For example, if two patients present with COVID-induced acute respiratory distress syndrome (ARDS) and there is only one ventilator available, we assume that the ARDS patient who is not ventilated will die, rather than being saved by other means, for example by proning (positioning the patient on their belly). The ventilator is a supportive measure that “buys time” to allow the patient's lungs to heal from the effects of the inflammatory response; without this time, the patient will succumb to their disease and die.

In a last-ditch effort, a utilitarian might bite the bullet and simply say that they have different intuitions about the value of saving the lives of younger versus older people. Since utilitarianism aims to maximize happiness or wellbeing, saving younger, rather than older, people is generally preferable, because younger people as a group have more future years ahead to live. In response, chronological age does not necessarily correlate with biological age and life expectancy, and more precise tools exist than age to forecast future life years. For example, for patients hospitalized with COVID-19, assessments of frailty based on the Clinical Frailty Scale (CFS) predict survival more accurately than age.³⁵ However, disability rights scholars have raised important concerns about the use of tools that assess functional status in triage protocols (as CFS does).³⁶ These concerns merit further attention, but fall outside the scope of the present inquiry.

4 | EXPLICIT AGE-BASED ALLOCATION

Although advanced age has rarely been invoked explicitly as a basis for denying people lifesaving medical care, it became an explicit criterion for allocation during the surge phase of the COVID-19 crisis in Lombardy, Italy.³⁷ Reluctantly, without guidelines to cover the

extraordinary influx of patients, the mayor of Bergamo said that the situation “forced the doctors to decide not to intubate some very old patients,” essentially leaving them to die. Subsequently, Italy's Society for Anaesthesia, Analgesia, Resuscitation and Intensive Care published recommendations for allocating intensive care treatment under exceptional circumstances by using an age limit for admission to the ICU.³⁸ In the United States, when crisis standards of care were implemented at the state level with the goal of saving as many lives as possible, age was considered a prognostic indicator of poor outcomes and was relied upon, even though other considerations associated with higher death rates, such as a patient's race and ethnicity, skin color, and sex were expressly forbidden by law.³⁹ Is Italy's more direct approach a bellwether of what is to come as population aging spreads around the globe? From an ethical standpoint, is explicit age-based rationing defensible?

4.1 | Fair innings

One widely used defense of prioritizing younger age groups appeals to so-called fair innings arguments.⁴⁰ These arguments hold that after reaching a threshold of “fair years lived,” people deserve less priority than those who have not yet reached this threshold. A variation of this argument is that although we cannot ethically choose to save a 23-year-old over a 25-year-old, we can ethically prefer a 23-year-old over a 76-year-old. In the latter instance, but not the former, the person who is younger has not had a fair turn, because they have not yet experienced middle age or old age, while the 76-year-old has experienced both. During the COVID-19 pandemic, Caplan has appealed to fair innings to defend giving scarce lifesaving resources first to those under age 18.⁴¹ Churchill has likewise invoked fair innings to defend the view that older adults like himself should step aside for younger people during the COVID-19 crisis if ventilators are in short supply, reasoning that “Every year I live I have less of a claim on scarce and expensive services relative to others younger than me.”⁴²

At first sight, the idea that healthcare systems should try to ensure everyone a fair innings might seem compelling. However, a problem with fair innings arguments is that they look only at a person's chronological age or life stage to determine fair innings.⁴³ Yet, whether a person has had a fair turn depends not just on the number of years they have had or the stage of life they occupy, but

³³World Health Organization. (2016, Sep 29). *Discrimination and negative attitudes about ageing are bad for your health*. World Health Organization. Retrieved 4 May, 2022, from <https://www.who.int/news/item/29-09-2016-discrimination-and-negative-attitudes-about-ageing-are-bad-for-your-health>

³⁴European Commission. (2019). *Special Eurobarometer 493: Discrimination in the EU, poll conducted by Kantar Belgium*. <https://doi.org/10.2838/5155>. Retrieved 4 May, 2020, from https://data.europa.eu/data/datasets/s2251_91_4_493_eng?locale=en

³⁵Hewitt J., Carter, B., Vilches-Moraga, A., Quinn, T. J., Braude, P., Verduri, A., ... COPE Study Collaborators. (2020). The effect of frailty on survival in patients with COVID-19 (COPE): A multicentre, European, observational cohort study. *Lancet Public Health*, 5, e444–e451.

³⁶Wilkinson, D. J. C. (2020). Frailty triage: Is rationing intensive medical treatment on the grounds of frailty ethical? *American Journal of Bioethics*, 21, 48–63. <https://doi.org/10.1080/15265161.2020.1851809>

³⁷Rosenbaum, op. cit. note 11.

³⁸Vergano, M., Bertolini, G., Giannini, A., Gristina, G. R., Livigni, S., Mistraretti, G., ... Petri, F. (2020). Clinical ethics recommendations for the allocation of intensive care treatments in exceptional, resource-limited circumstances: The Italian perspective during the COVID-19 epidemic. *Critical Care*, 24, 165.

³⁹Hodge, J. G., & Piatt, J. L. (2022). Legal decision-making and crisis standards of care: Triage during the COVID-19 pandemic and in other public health emergencies. *JAMA Health Forum*, 3(1), e214799.

⁴⁰Williams, A. (1997). Intergenerational equity. *Health Economics*, 6(2), 117–132.

⁴¹Archard, D., & Caplan, A. (2020). Is it wrong to prioritize younger patients with COVID-19? *BMJ*, 369, m1509. <https://doi.org/10.1136/bmj.m1509>

⁴²Churchill, L. R. (2020, Apr 13). *On being an elder during a pandemic*. Hastings Center Bioethics Forum. Retrieved 4 May, 2022, from <https://www.thehastingscenter.org/on-being-an-elder-in-a-pandemic/>

⁴³Jecker, N. S. (2020). Ending midlife bias: New values for old age (pp. 251–257). Oxford University Press.

also on *what those years and stages have been like*. For example, suppose we are choosing whether to make an ICU bed available to a 34-year-old white man with no co-morbidities or a 68-year-old black man in prison who smokes and has heart disease. What if the 68-year-old man has suffered racial discrimination throughout life? Has he had a fair innings? Perhaps, his 68 years were only half as fair as the 34-year-old's. If so, fairness might require giving both men *equal* chances, despite their age difference. One ethical basis for doing so is luck egalitarianism. A core claim of this view is that the sheer bad luck of being born with an unchosen disadvantage (e.g., being born black, disabled, or poor) should not determine the course of a person's life.⁴⁴ If this stance is correct, it would be difficult to implement fair innings in practice. While age standards based on chronological age or life stages are relatively easy to apply, unchosen misfortune is more difficult to gauge.

One reply to this objection is that by old age, people have had the benefits and challenges of whatever life they have lived. Not every inning goes well, or even "fairly." But the years one has had are played and done. To address this, consider two people who have lived an equal number of years, but one has enjoyed unparalleled opportunities and privileges, while the other has lived a life of deprivation with meagre opportunities. Assessing who has had a fair innings might lead us to rank the less privileged person first. If so, then age is not the sole consideration we recognize as salient. Churchill suggests as much when he makes an appeal to fair innings. As an elder, Churchill claims that he has already "been offered many opportunities and enjoyed much happiness" and adds that in both healthcare access and career opportunities, "I have been favored..."⁴⁵ If Churchill had been subject to deprivation throughout his life would he still claim to have had a fair innings? Would he still be obliged to step aside and put others first? For some, stepping aside only perpetuates a pattern of injustice experienced throughout life.

4.2 | Equality

A second argument in support of explicit age discrimination holds that age discrimination differs from other forms of discrimination, because, over time, people change their age, passing through each age and stage of life. Assuming everyone is subject to the same system of age-based rationing from birth to death, denying older people lifesaving interventions is consistent with a principle of equal respect, since everyone receives an equal chance to access scarce resources over a lifetime. For example, Daniels considers the allocation of limited healthcare resources over a person's whole lifetime and argues that to maximize the chance that they will live to be old, prudent planners would favor having access to scarce lifesaving measures when they are young, even if that means that they will have reduced or no access to such resources when they are old.⁴⁶

Yet, appealing to whole-life equality can only take us so far. Even if a system of age-based rationing realizes equality in the aggregate, equality is not just a matter of scoring equally overall, on a tally sheet of life.⁴⁷ As Anderson notes, the whole point of equality is for people to stand in relationships marked by "mutual consideration, reciprocity, and recognition" and to repudiate relationships characterized by domination, discrimination, and oppression.⁴⁸ Even if age-based rationing of ventilators established equality in the aggregate, over, say, the 75-year period in which people live out their lives subject to an age-based policy, at each time slice or moment, younger and older people competing for ventilators would be treated unequally.

The force of this point is underscored by Hellman, who contrasts age discrimination with discrimination on the basis of an arbitrary factor, such as the first letter of a person's last name.⁴⁹ Unlike discriminating on the basis of having a last name that starts with "A," age discrimination targets a group of people with a history of mistreatment and current marginal status. For this reason, it puts down older people in a way that discrimination on the basis of the first letter of a person's last name does not. If the point of equality is to end oppression, then age discrimination should be avoided as long as older adults are a socially denigrated and marginalized group.

4.3 | Priority to the worse off

Another way to defend priority to younger over older people is to claim that we owe special duties to the worse off. As Shaw puts it, "[b]read for all before caviar for any."⁵⁰ It could be argued that when it comes to life itself, younger people are worse off, because they have lived fewer years. For example, Emanuel et al. argue, "priority to the worst off could be understood as giving priority either to the sickest or to younger people who will have lived the shortest lives if they die untreated."⁵¹ Likewise, Persad et al. hold that priority to the worst-off justifies youngest-first allocation, because it "benefits those who have had least life."⁵²

In reply, this interpretation of priority to the worse off makes assumptions that there are reasons to doubt. First, the proposal to use age to determine who is worse off yields counterintuitive results in particular cases. For example, someone who is young, rich, and healthy would count as worse off than someone who is old, poor, and chronically disabled. Second, as Macklin queries, "what is the basis for claiming that a 6-year-old is worst off by 'not having a full life' when a child of that age has no conception of what it means to have a full

⁴⁷Jecker, N. S. (2020). Ending midlife bias: New values for old age (pp. 139–149). Oxford University Press.

⁴⁸Anderson, E. (1999). What is the point of equality? *Ethics*, 109(2), 287–337, pp. 313, 317.

⁴⁹Hellman, op. cit. note 16.

⁵⁰Shaw, A. B. (1994). In defence of ageism. *Journal of Medical Ethics*, 20, 188–191, p. 188.

⁵¹Emanuel, E. J., Persad, G., Upshur, R., Thome, B., Parker, M., Glickman, A., ... Phillips, J. P. (2020). Fair allocation of scarce medical resources in the time of Covid-19. *New England Journal of Medicine*, 382(21), 2049–2055, p. 2051.

⁵²Persad, G., Wertheimer, A., & Emanuel, E. J. (2009). Principles for allocation of scarce medical interventions. *Lancet*, 373, 423–431, p. 424.

⁴⁴Lippert-Rasmussen, K. (2015). *Luck egalitarianism*. Bloomsbury.

⁴⁵Churchill, op. cit. note 42.

⁴⁶Daniels, N. (1988). *Am I my parents' keeper?* Oxford University Press.



life? The 6-year-old has not formulated any life plans.”⁵³ Macklin goes on to ask, “what is the basis for an ethical presumption that every person born deserves a ‘full life?’”⁵⁴ An alternative rendering would presumably be to say that life is an undeserved benefit or gift.

Taken together, these reasons cast doubt on the idea that younger people are worse off than older people simply by virtue of having lived fewer years. A more intuitively plausible rendering of who is worse off focuses on overall wellbeing as a multidimensional concept. In the context of healthcare allocation, the dimension that comes most sharply into focus is health. Thus, the young, rich and healthy person in the prior example is better off because of their health, rather than worse off because of their youth. Another plausible rendering of who is worse off holds that it depends on the specific allocation domain. For example, Brock maintains that healthcare is a “separate sphere, subject to its own distributive principles, not simply...one aspect of overall well-being,” because the loss of health is not replaceable by other goods in a way that leaves overall wellbeing intact.⁵⁵ According to Brock, a healthy person is better off in the domain of healthcare than someone who is not healthy, irrespective of age or other factors.

5 | CONCLUSION

In conclusion, during public health emergencies like COVID-19, persons who are old too often bear the brunt. Age-based exclusion should never be an easy way to avoid mutual sacrifice. A better

approach brings people of all ages together as equals even while requiring everyone to be subject to the risk of not receiving a vital healthcare resource.

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⁵³Macklin, R. (2020). COVID-19: A view from New York. *Indian Journal of Medical Ethics*, *V*(2), 95–98, p. 97.

⁵⁴Ibid.

⁵⁵Brock, D. (2012). Priority to the worse off in health care resource prioritization. In R. Rhodes, M. P. Battin & A. Silvers (Eds.), *Medicine and social justice: Essays on the distribution of health care* (2nd ed., pp. 115–164, p. 160). Oxford University Press.