EDITORIAL

The Later Innings of Life: Implications of COVID-19 Resource Allocation Strategies for Older Adults

Older adults bear a disproportionate burden of hospitalization and mortality due to COVID-19. They are also at risk for unjust treatment by healthcare resource allocation frameworks under conditions of resource scarcity. Early in the pandemic, age-based cutoffs for resource allocation were proposed and reportedly implemented in Italy.[1] In the United States, the Office for Civil Rights of the Department of Health and Human Services reached resolutions with several states to revise crisis standards of care that had included age-based cutoffs.[2] These cutoffs have largely been eliminated from state crisis standards of care; however, they may be reappearing in decisions about allocation of other potentially scarce medical resources, such as vaccines.

In September 2020, the National Academy of Sciences, Engineering, and Medicine (NASEM) released its Discussion Draft of the Preliminary Framework for Equitable Allocation of a COVID-19 Vaccine.[3] The draft framework appropriately relies on six basic principles: maximizing reductions in mortality and morbidity, mitigating health inequities, giving equal regard to each individual, setting allocation criteria fairly, ensuring that criteria are evidence based, and communicating with the public about the criteria in a transparent manner.[3] It also appropriately recognizes that decisions about vaccine allocation must be responsive to circumstances.[3] Under present circumstances, the draft framework recommends prioritizing those at highest risk of becoming infected and experiencing serious outcomes, those in essential social roles, and those at greatest risk of transmitting the virus to others.[3]

At the same time, the draft framework reintroduces reasoning about age that is ethically problematic. When both younger and older persons are equally at risk, the draft framework recommends prioritizing the younger person for vaccination.[3(p40)] Underlying this type of age-based tiebreaker are frameworks referred to in ethics as "life-years saved" and "fair innings."

Even when used as a tiebreaker, moving from rationing based on immediate reductions in mortality and morbidity to rationing based on a life-years saved framework raises ethical concerns. The Office for Civil Rights judged as discriminatory any reliance on "years of life saved" to decide how resources are allocated to population groups.[2] It observed that such rationing treats individuals based solely on the category within which they fall, rather than on individualized assessments of their likelihood of survival, and it also reasoned that age cutoffs should never be used to exclude people from life-saving treatments, such as ventilators.[2] In acute care settings, multiprinciple allocation frameworks that equally weigh in-hospital survival (using tools such as the Sequential Organ Failure Assessment) and severe comorbidities contributing to short-term mortality should be the primary allocation method when resources are limited.[4]

Moreover, age is not a particularly good proxy for life-years saved. The life-years saved concept assumes the ability to accurately prognosticate long-term life expectancy; however, long-term predictions of life expectancy are notoriously unreliable. The life-years saved approach, in short, obscures the heterogeneity of older adults with respect to their health status and other individual characteristics.[4]

The so-called "fair innings" argument, which favors younger age groups because they have lived fewer life-years, has also been used to justify resource allocation based on age.[5] The fair innings argument is intuitively appealing because it seems unfair that younger people should die without having the opportunity to live through various stages of life. However, this argument also rests on ethically problematic assumptions, two of which we describe here.

First, the fair innings argument assigns greater value to earlier rather than to later stages of life. If the short-term (i.e., <6 month) prognoses of a younger adult and an older adult are identical, the fair innings argument would still favor allocating a limited healthcare resource to the younger adult based on his/her being at an earlier stage in life. This assumption—that earlier stages of life are more valuable—may reflect ageism.

Second, the fair innings argument does not account for factors, such as racism, disparate access to health care, and economic inequality, that are associated with decreased life spans and thus fewer "innings." These factors call attention to many complex reasons why innings may be judged unfair that do not rest simply on whether some persons have had fewer innings than others.

A final version of the NASEM report, "Framework for Equitable Allocation of COVID-19 vaccine,"[6] was released in October 2020. This document incorporated feedback from the public, including oral and written testimony from the American Geriatrics Society (AGS). Importantly, NASEM distanced the guidelines from the previous focus on life-years

DOI: 10.1111/jgs.16893

0002-8614/20/$15.00

saved and instead focused on avoidance of death,[6(pp3–11)] citing concerns about ageism that had been raised in the AGS testimony. However, NASEM did not exclude the possibility of reverting to the life-years saved argument in situations where younger adults have disproportionately high mortality from a pandemic.[6] We commend NASEM for deemphasizing the life-years saved approach in its final COVID-19 vaccine allocation framework. We also urge NASEM and other groups, including Centers for Disease Control and Prevention and Advisory Committee on Immunization Practices, to avoid reverting to the life-years saved argument in the future given its inherent ageism.

Some resource allocation strategies cite the instrumental value of certain groups, such as essential workers, including hospital and nursing home staff, firefighters, and the police, as priorities for scarce resources. One approach argues against prioritizing older adults with fewer remaining life-years to receive a COVID-19 vaccine because "advanced age reduces likelihood of working in high-transmission settings or being an essential caregiver."[7] As with other efforts to insert valuation-based metrics, this approach has significant limitations. As the pandemic continues, we are increasingly aware that the definition of who is "essential" inappropriately excludes many others, such as caregivers, teachers, scientists, delivery drivers, journalists, and grocery store and plant workers. Likewise, society often underestimates the essential contributions of older adults in discussions of instrumental value within resource allocation strategies. For example, grandparents often care for grandchildren and hold together family units. Adults older than 65 years comprised 19% of the caregivers for adults aged 18 years or older.[8] Grandparents may also take on full-time parenting responsibilities for children whose parents have died or are otherwise unavailable. Given advances in longevity, older adults serve in critical leadership roles throughout government, public health, and business; provide philanthropic support; and serve as mentors to younger adults.

When faced with potential and painful shortages of healthcare resources, allocation decisions should be based on the most direct and immediate goal of minimizing immediate and short-term mortality and morbidity. Resource allocation strategies must be developed with multidisciplinary input, applied uniformly and transparently, and subjected to regular and rigorous review to ensure equitable and unbiased implementation and to remove any ageist provisions. Furthermore, a postpandemic review of resource allocation strategies that were actually implemented—including strategies to allocate a COVID-19 vaccine—should be conducted to ensure that unjust resource allocation strategies do not persist.[4] By adopting these approaches, it will be possible to ensure that no group is unjustly disadvantaged by resource allocation strategies under conditions of resource scarcity.

Some fans, assuming the game result, do not watch the later innings; however, just as many believe the later innings can be equally important.

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ACKNOWLEDGMENTS

The authors wish to acknowledge Daniel E. Trucil, MA, MPH, associate director, communications, of the American Geriatrics Society, for his editing and input during manuscript preparation. The authors also wish to acknowledge Kenneth Schmader, MD, from Duke University and the Durham VA Health Care System, and Debra Saliba, MD, MPH, from the UCLA Borun Center and the Veterans Affairs Los Angeles Geriatric Research Education and Clinical Center and Health Services Research and Development Service Center of Innovation, for their review of the manuscript.

Conflict of Interest: T.W.F., L.F., and N.E.L. have no conflicts of interest to disclose.

Author Contributions: T.W.F., L.F., and N.E.L.: concept and design. T.W.F., L.F., and N.E.L.: manuscript preparation.

Sponsor's Role: None.

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