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## **Prioritizing among Equals. Only Medical Criteria?**

### **Abstract**

The COVID-19 pandemic has raised two critical issues in terms of prioritization. Its breakout was accompanied by images of emergency rooms flooded by patients. Vaccines are for prevention, which is something other than treating a disease. In a first phase, however, they too were a scarce resource. In both cases, the elderly, which were much more at risk of hospitalization and death, were at the forefront of the challenge that healthcare professionals and public opinion were confronted with. With regard to ventilators, that risk appeared to go hand in hand with that of being discriminated against. With vaccines, the special vulnerability of the elderly imposed itself as an unquestioned reason for priority. Are medical (clinical) criteria the only ones to be considered in a normative perspective? In the case of COVID-19, it was perhaps easier to focus on them because of the characteristics of the pandemic. Had they been different, some choices would have been more difficult to make.

### **Keywords**

COVID-19, Medical Criteria, Age, Triage, Vaccines.

### **Introduction**

The COVID-19 pandemic has raised two critical issues in terms of prioritization for institutions, healthcare professionals, and the public opinion. The first one concerned triage criteria for allocating beds in intensive care units and ventilators. From the very beginning of the COVID-19 outbreak, it was evident that the elderly were at a much greater risk of hospitalization and death. As soon as the looming threat of a disaster medicine situation turned into reality in many countries, another kind of age-related risk emerged, which is well-known and widely discussed as a source of dilemmas for medicine

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also in *ordinary* times: the idea that young people could (should) be given priority over the elderly. This is an intuitively persuasive proposition in the eyes of many, at least when the mismatch between needs and available resources requires decisions that are and remain however *tragic*. Allocation of ventilators was thus assumed as a test case for a broader non-discriminatory attitude and approach. Vaccines are for prevention, which is something other than treating a disease. At least in a first phase, however, they too were a scarce resource and in many out of the plans that were set out for their allocation the condition and the related rights of the elderly remained at the forefront of the debate. Their much greater vulnerability was considered an almost unquestioned reason for priority.

Both for ventilators and for vaccines, it was the medical (clinical) criteria (disease transmission rate, prognosis in case of infection, possibility to tolerate very burdensome treatments and come back to one's previous life) that governed. These were considered in many countries the science-based tie-breaker which could avoid whatever kind of discrimination, while allowing to save as many lives as possible. Maybe, though not necessarily in an explicit way, they were also considered to be fit to relieve the burden of ethical and political *responsibility* through the reference to alleged *scientific evidence*.

Is it obvious and undisputed that medical criteria, as fundamental as they may be, are the only ones to consider in all circumstances, regardless of all other considerations? If not, what additional individual and public interests and goods should be included in the assessment? What are the consequences, as to the *widening* of the scope of the criteria to be considered, of the crucial difference between prioritizing with regard to an emergency life-saving treatment, which entails letting someone die, and prioritizing in the case of a prevention strategy? Do the specific characteristics of a pandemic affect the decision making process and the exercise of balancing principles and criteria? If so, how and to what extent? And finally: is it possible to say that it was exactly these specific characteristics, in the case of COVID-19, that made it easier to focus on medical criteria and dodge the hard challenge of those situations where the direction they point at could be less clear and therefore a choice more difficult to make?

It is however worth reminding that as soon as the principle of equality is invoked the persisting, deep contradictions that a pandemic ends up exacerbating at the global level come to surface. It is what we could call the paradoxical advantage of being poor: many African countries "are predominantly young; this could be advantageous in the face of a virus that disproportionately threatens older persons. But there is another way of putting it: in LMICs, those in the sixty-five-and-up age range are

relatively few because life-expectancy in most of these countries is low”<sup>1</sup>. Ageing as an opportunity to go through *all* different stages of life remains too often a privilege and the problem with ventilators, in too many countries, is that they are lacking almost entirely, not only that there is a shortage. Even when it comes to vaccines, the terminology seems to shift almost unavoidably from the “domestic” assertion of strict equality to the acknowledgment of some sort of “reasonable national partiality” or “moderate nationalism”<sup>2</sup>, so that a *fair* and *equitable* way of distributing scarce resources becomes the goal.

### 1. Age as Such, Age as a Parameter of Clinical Evaluation. A Big Difference in Principle, but in Most Cases Not in Practice

An insurmountable ban against adopting age as a criterion for allocating scarce life-saving resources has been enunciated in many documents with unequivocal words: “The guaranteeing of human dignity necessitates egalitarian equality (*egalitäre Basisgleichheit*) [...] Any direct or indirect differentiation of the state with regard to the value or duration of life and any associated regulation by the state resulting in the unequal allocation of chances of survival and risks of death in acute crisis situations is inadmissible. Every human life enjoys the same protection”<sup>3</sup>. Age is therefore listed together with other possible risks of discrimination, such as those referring to “sex, condition and social role, ethnicity, disability, responsibility for behaviours contributing to the pathology, costs”, as a criterion that should be deemed “ethically unacceptable”<sup>4</sup>.

<sup>1</sup> K. Moodley *et al.*, *What Could “Fair Allocation” during the Covid-19 Crisis Possibly Mean in Sub-Saharan Africa?*, in “Hastings Center Report”, 50, n. 3, 2020, p. 34. In these contexts, ordinary clinical practice itself is a magnifier of inequality. When a pandemic breaks out, even “seemingly simple measures such as regular hand washing and use of hand sanitizer come at a non-negligible cost” (K. Moodley *et al.*, *Allocation of scarce resources in Africa during COVID-19: Utility and justice for the bottom of the pyramid*, in “Developing World Bioethics”, 21, n. 1, 2021, p. 41).

<sup>2</sup> See respectively E.J. Emanuel *et al.*, *An ethical framework for global vaccine allocation*, in “Science”, 369, n. 6509, 11 September 2020, p. 1309 and N.S. Jecker, A.G. Wightman, D.S. Diekema, *Vaccine ethics: an ethical framework for global distribution of COVID-19 vaccines*, in “Journal of Medical Ethics”, 47, n. 5, 2021, p. 309.

<sup>3</sup> Deutscher Ethikrat, *Solidarity and Responsibility during the Coronavirus Crisis*. Ad hoc Recommendation, 27 March 2020, p. 3. People who are going to die, regardless of their being old or young, “are simply not saved from disease-related death for reasons of tragic impossibility. Here, the principle applies that nobody can be obliged to do the impossible” (*ibid.*, p. 4).

<sup>4</sup> Italian Committee for Bioethics, *Covid 19: Clinical decision-making in conditions of resource shortage and the “pandemic emergency triage” criterion*, 8 April 2020, p. 7.

Two observations are required about this *necessity* and *unacceptability*. First: there are at least some countries, where the allocation of scarce healthcare resources is already decided according to a criterion of cost per quality-adjusted-life-year (QALY) and this means “that the expected quality and length of the life that could be saved are a relevant consideration in determining whom to prioritize in access to life saving treatments”<sup>5</sup>. Referring to medical (scientific, objective) criteria can support *ethical* arguments and decisions, but can never replace them, exactly because alternatives exist, and not only as a matter of just philosophical debate. This is the case especially when it is about setting priorities rather than categorical exclusions. A form of institutional ageism has been denounced even with reference to Goal n. 3 of the 2030 Agenda for Sustainable Development (“Ensure healthy lives and promote well-being for all at all ages”), which sets the target of a one-third reduction in premature mortality (defined internationally by the WHO with reference to the 70-year limit) caused by non-communicable diseases<sup>6</sup>. Why premature deaths and not all of them?

Second: the idea that prioritizing could entail some exercise of balancing between principles rather than a quick fix solution is also widespread, on the premise that not all candidates are eligible. “Basing any decision on social status or a personal relationship with the decision-makers” – to quote only the example of the Austrian Bioethics Commission – can easily appear as “of course completely unacceptable”<sup>7</sup>, but a multi-principled approach has been proposed in many scholarly contributions, guidelines from scientific societies, opinions from institutional committees<sup>8</sup>. In a

<sup>5</sup> A. Giubilini, J. Savulescu, D. Wilkinson, *Queue questions: Ethics of COVID-19 vaccine prioritization*, in “Bioethics”, 35, n. 4, 2021, p. 352. doi: 10.1111/bioe.12858.

<sup>6</sup> See P.G. Lloyd-Sherlock *et al.*, *Institutional ageism in global health policy*, in “British Medical Journal”, 354, 2016, i4514 [published 31 August 2016], p. 2. doi: 10.1136/bmj.i4514. “Ageism” was first described by Robert Butler in an analogy to sexism and racism. For an illustration and an historical sketch of the concept, see L. Ayalon and C. Tesch-Römer, *Introduction to the Section: Ageism Concept and Origins*, in L. Ayalon, C. Tesch-Römer (eds.), *Contemporary Perspectives on Ageism*, Springer, Cham 2018, pp. 1-10. It has been argued that the reaction to COVID-19 crisis is an example of “ambivalent ageism”: age discrimination in care provision is a kind of “hostile ageism”, while “compassionate ageism”, even though starting with an opposite attitude, contributes however to *othering* the elderly as a separate social group. See C. Verbruggen, B.M. Howell, K. Simmons, *How We Talk About Aging During a Global Pandemic Matters: On Ageist Othering and Aging “Others” Talking Back*, in “Anthropology & Aging”, 41, n. 2, 2020, pp. 230-245. doi: 10.5195/aa.2020.277.

<sup>7</sup> Bioethikkommission, *Management of scarce resources in healthcare in the context of the COVID-19 pandemic*, March 2020, p. 12.

<sup>8</sup> The decision to avoid categorical exclusion on the basis of age is consistent with the idea of balancing different parameters and considerations: “the total number of lives saved; the total number of life years saved; and long-term functional status should pa-

pandemic crisis, the decision to take could exclude some human beings from a life-saving treatment that is appropriate with reference to their condition and would be offered in a “normal” situation. Can a *just* clinical evaluation be all we need? This is where age, but also much more controversial criteria, such as social utility (the dilemma of choosing between saving Fénelon or his valet, that Godwin already talked about), or other considerations could step in<sup>9</sup>.

In the same documents that strongly supported the “only medical criteria” argument, the role of age was acknowledged as a part of clinical evaluation. It is exactly this observation that highlights both the breadth and the limits of the economy of moral conflict that this approach makes possible. In principle, there is obviously a radical difference between setting explicitly an age-limit for the admission to ICUs – even though only in case of a dramatic shortage of resources – and considering age-related comorbidities and impairments as important elements for prognosis and assessment of the potential efficacy of a treatment, also looking at the patient’s ability to tolerate it. In practice, in the case of COVID-19, age could be in most cases a reliable proxy of the outcome of a more detailed clinical evaluation, at least when the question to decide is not whether the treatment could offer some concrete chance of survival (short-term survival, to avoid that age become automatically a decisive criterion), but who has the best chances. The Swiss Academy of Medical Sciences, for example, underlines that “age, disability or dementia in themselves are not to be applied as criteria”, because such a choice would amount to discrimination. At the same time, however, the Academy admits according lower priority in case of “specific risk factors for increased mortality and hence a poor short-term prognosis”. Age-related frailty is mentioned as one such risk factor and “is therefore a relevant criterion to be taken into account in a situation of resource scarcity”<sup>10</sup>. The legitimacy of considering this frailty can pave the way to very different options. When (and only when) there is no time for a thorough evaluation, it could be the goal itself of the best possible clinical decision to suggest an age-limit

tients survive” (Department of Health of the Government of Ireland, *Ethical Framework for Decision-Making in a Pandemic*, 27 March 2020, p. 17). I reviewed some of the many texts published immediately after the outbreak of the pandemic in *Se non ci sono ventilatori per tutti. Covid-19 e il criterio dell’età*, in “Dialegethai. Rivista telematica di filosofia”, 21, 2020 [published 31 July 2020]. In this text, I had also already developed some of the considerations proposed in this article.

<sup>9</sup> P. Le Coz, *L’exigence de justice à l’épreuve de la pandémie*, in “Etudes”, 2020, n. 6, pp. 51-62.

<sup>10</sup> Swiss Academy of Medical Sciences, *Intensive-care treatment under exceptional resource scarcity*, Revised Version 4, 23 September 2021, pp. 4-5.

as a criterion that is immediately applicable and significant – in many if not in all cases – also from a prognostic point of view<sup>11</sup>. In other and simple words: with few exceptions, priority will be given to the young, aiming exactly at applying *only* medical criteria and without raising the controversial issue of using age (as such) as a tie-breaker.

The fact that the older the patient the less effective and beneficial an intensive care treatment tends to be, helps explain why this conflict may remain hidden. To make it explicit, suffice it to think of a situation where the chance of survival to discharge are very similar and the two candidates for the only one ventilator available are a 26-year-old young man and a person of 97, to recall the example proposed by James Rachels<sup>12</sup>. At this point, three options are available: a) insist on medical criteria and therefore clinical score: something will always be different and make the difference; b) randomness (“first come, first served” criterion or a lottery), which can be applied both to ventilators and vaccines as scarce resources<sup>13</sup>; c) consider other criteria. The first two options could appear questionable. As to insisting on clinical score: can we really make life or death decisions based on a difference in some clinical parameter that would be substantially irrelevant as to the appropriateness of the treatment in a normal situation? As to randomness: can the idea of a lottery “weighted” only through clinical criteria be really applied in complete peace of mind in a case such as that of 26 and 97-year-old candidates, provided that the latter does not freely renounce<sup>14</sup>?

The Spanish Committee for Bioethics, while harshly criticizing the Recommendations by the Spanish Society for Intensive Medicine, which explicitly mentioned the notion of “survival free from disabilities” (thus allowing to consider them for prioritizing decisions), re-

<sup>11</sup> Much greater probability of survival, together with life expectancy, were mentioned in the Recommendations by SIAARTI, where setting an age-limit was considered as the *last* option. See Italian Society of Anesthesia, Analgesia, Resuscitation and Intensive Care (SIAARTI), *Clinical ethics recommendations for the allocation of intensive care treatments in exceptional, resource-limited circumstances*, 6 March 2020, p. 5.

<sup>12</sup> See J. Rachels, *The End of Life: Euthanasia and Morality*, Oxford University Press, Oxford-New York 1986, pp. 50-51.

<sup>13</sup> Randomness is thus explicitly assumed as a matter of fairness. See, as an example, Ministerio de Salud Argentina, *Covid 19. Ética en la asignación de recursos limitados en cuidados críticos por situación de pandemia*, Recomendaciones, August 2020, p. 6.

<sup>14</sup> Considering that age limits or the exclusion of other groups with reduced life-expectancy “may be very sensitive from a political and psychological point of view”, it has also been suggested as a preferable option “to strengthen advance care planning, assuming that a significant number of patients with a high likelihood of poor outcomes would not opt for intensive care if other choices, such as good palliative care, were readily available to them” (S. Joeleges, N. Biller-Andorno, *Ethics guidelines on COVID-19 triage—an emerging international consensus*, in “Critical Care”, 24, 201 (2020) [published 6 May 2020], p. 4. doi: 10.1186/s13054-020-02927-1).



called the UN Convention on the Rights of the Child of 1989 to introduce an exception of age-related “positive” discrimination for the children<sup>15</sup>. The Dutch Federation of Medical Specialists and the Royal Dutch Medical Association (KNMG) recognized explicitly the distinction between medical and non-medical criteria and the possibility to use the latter when the former is insufficient to make triage decisions, made unavoidable by circumstances. The principle that every person is worth the same implies the impossibility of considering criteria such as social position, disability, personal relationships, ability to pay or status, as well as ethnicity, nationality, legal status, sex, etc. All these clarifications underline the importance of the choice to consider acceptable the priority given to young people, mentioning the fair innings argument under the heading “intergenerational solidarity”<sup>16</sup>. I will come back to this argument later. The point seems to be that medical criteria, while allowing a non-controversial choice in many circumstances, are *as such* insufficient to break the tie when, for example, what is at issue is the *ethical* decision on the possible alternative number of lives/number of life years saved and, even provided that the first option be privileged for fear of discrimination against the elderly, with regard to those situations where the chances of survival to discharge (short-term survival) are roughly the same. The heavy burden imposed by a treatment in an ICU, together with the much more frequent occurrence of comorbidities, can make in most cases the difference to the advantage of the young, therefore postponing or simply averting the responsibility to take a stand as to the possible impasse. At some point, however, the impasse could emerge, depending also on the specific characteristics of the threat we are talking about. These specific characteristics were all, the more decisive, exactly to postpone the exercise of balancing principles and criteria, when it came to vaccine distribution.

<sup>15</sup> See Comité de Bioética de España, *Informe del Comité de Bioética de España sobre los aspectos bioéticos de la priorización de recursos sanitarios en el contexto de la crisis del coronavirus*, 25 March 2020, pp. 9-11.

<sup>16</sup> Some priority could also be recognized to those who are expected to need a shorter stay in intensive care and to health professionals. See Federatie Medisch Specialisten en Artsenfederatie KNMG, *Draaiboek ‘Triage op basis van niet-medische overwegingen voor IC-opname ten tijde van fase 3 in de COVID-19 pandemie’*, Versie 2.0, November 2020, pp. 14-15. An important clarification is however needed. The idea that the young should come first, as persuasive as it can appear, could be dealt with as embedded in a specific culture. Local community views about the life-course and how an older age should be considered can be different and using “fair innings” as a tie-breaker “may be regarded as an imposition of an alien construct and undermine community trust in the basis on which life and death decisions are being made. More empirical research and community engagement are needed [...]” (K. Moodley *et al.*, *Allocation of scarce resources in Africa during COVID-19*, *cit.*, p. 37).

## 2. The Strange Case of the Spanish Flu

When safe and effective vaccines were made available and approved by competent bodies such as FDA or EMA, they were also scarce resources for which prioritization decisions were required. It is easy to understand why: a significant mismatch between demand and supply was unavoidable and a mass vaccination campaign such the one that was launched is impossible to execute overnight, even in the wealthiest countries. I have already underlined that poverty, rather than age, is the first candidate to make the difference, for vaccines no less than for ventilators. The idea that it should not be possible for a government to retain “more vaccine than the amount needed to keep the rate of transmission ( $R_t$ ) below 1, when that vaccine could instead mitigate substantial COVID-19–related harms in other countries”<sup>17</sup>, appears to be wishful thinking. By early February 2022, more than 10 billion doses had been administered globally, but only 10.4% of people in low-income countries had received at least one dose<sup>18</sup>.

That said, it is easy to observe an almost complete overlap of documents, roadmaps, frameworks, and consequent priority decisions. The indication proposed by the WHO Strategic Advisory Group of Experts on Immunization with reference to a scenario of “Community Transmission” and very limited vaccine availability epitomizes a widespread and seemingly uncontroversial approach. Two groups are singled out: a) Health workers “at *high to very high risk* of acquiring and transmitting infection”; b) Older adults “defined by age-based risk specific to country/region; specific age cut-off to be decided at the country level”<sup>19</sup>. I think that this approach offers a significant test-case to understand the role of medical criteria as the pole star when it is about preventing a risk and not deciding about a life-saving treatment.

It is exactly the absence of any doubt about the elderly coming first that prompts this reflection and helps also understand the recommendation of an age cut-off, which was very controversial as a criterion for inclusion/exclusion when allocation of ventilators was debated. The point to make is that, *in this case*, age came out to be not just one among other risk factors, but the one that made the risk of hospitalization and death skyrocket. In general, people’s age or their physical or cognitive impairment alone “does not automatically make them members of a high-risk group”, but prioritization decisions must necessarily be made “for clus-

<sup>17</sup> E.J. Emanuel *et al.*, *An ethical framework for global vaccine allocation*, cit., p. 1309.

<sup>18</sup> Source: [https://ourworldindata.org/covid-vaccinations?country=~OWID\\_WRL](https://ourworldindata.org/covid-vaccinations?country=~OWID_WRL). Accessed 8 February 2022.

<sup>19</sup> WHO SAGE Roadmap for prioritizing the use of COVID-19 vaccines in the context of limited supply. Version 1.1, 13 November 2020, p. 14.



tered groups of people, if they are to have the hoped-for effect”. And “it is already evident that old age is by far the most pronounced and most easily identifiable generic risk factor”<sup>20</sup>. To take the example of Italy, which was the first country outside China to experience the outbreak of the pandemic: the figures updated to 2 February 2022 showed a fatality rate less than 0,1% in the age range 0-29 (139 on a total of nearly 4 million confirmed cases) a rate of 14.3% in the age range 80-89 and higher than 20% for people over 90<sup>21</sup>.

When confronted with this evidence, contending philosophical opinions produce the same conclusion: the goal of saving as many lives as possible regardless of age and their quality can go hand in hand with the goal that is usually conceived of as the most consistent with a strict utilitarian approach. Mathematical modelling indicates that the optimal strategy for minimizing future deaths *or* quality adjusted life years losses “is to offer vaccination to older age groups first”<sup>22</sup>. In the US, the National Academies of Sciences, Engineering, and Medicine considered the option of looking at years of life lost (YLL) instead of number of deaths avoided and simply dismissed the alternative. The YLL approach could be criticized as inconsistent with the principles of equal concern and non-discrimination. Beyond that, “there is little evidence of a social consensus” around it. First and foremost, *from a pragmatic perspective* and given the evidence that the relative risk of COVID-19-related mortality is so high in older age groups, “the YLL approach does not provide substantial additional advantage”<sup>23</sup>. The problem of deciding between vaccination of “those most responsible for driving transmission (vaccination to reduce  $R$ )” or vaccination of “those most likely to suffer severe health outcomes (vaccination to limit disease)” was addressed elaborating again on mathematical detailed models. It was found that “vaccine strategies targeting the elderly are optimal in terms of reducing future mortality, even if vaccinating younger group-ages would have a greater impact on the reproductive number,  $R$ ”<sup>24</sup>.

<sup>20</sup> Position Paper of the Joint Working Group of Members of the Standing Committee on Vaccination (STIKO) at the Robert Koch Institute, the German Ethics Council and the National Academy of Sciences Leopoldina, *How should access to a COVID-19 Vaccine be regulated*, 2020, pp. 2-3.

<sup>21</sup> Istituto superiore di sanità, *Report esteso ISS. COVID-19. Sorveglianza, impatto delle infezioni ed efficacia vaccinale*, 4 febbraio 2022, p. 8.

<sup>22</sup> Department of Health & Social Care (GOV.UK), Joint Committee on Immunisation and Vaccination, *Advice on priority groups for COVID-19 vaccination*, 30 December 2020, updated 6 January 2021, p. 4.

<sup>23</sup> The National Academies of Sciences, Engineering, and Medicine, *Framework for Equitable Allocation of COVID-19 Vaccine*, The National Academies Press, Washington (DC) 2020, p. 101.

<sup>24</sup> S. Moore *et al.*, *Modelling optimal vaccination strategy for SARS-CoV-2 in the UK*, in “PLOS Computational Biology”, 6 May 2021, p. 15. Here again deaths post-2020 and

At the same time, however, this is not to say that the YLL option “would be futile in all situations” and the National Academies recall the Spanish flu pandemic as an example<sup>25</sup>. It is well-known that in this case the fatality rate was very high among the young (a “strange” case, indeed<sup>26</sup>), so that prioritizing them would have been all the more obvious. What would happen, however, if there were no difference or the difference were a small one, even though still with a higher risk for the elderly?

In this case, the alternative between minimizing the total number of COVID-19-related deaths *or* (quality adjusted) life years losses would emerge again, together with other considerations. A first observation could be partially convergent with those already dealt with when addressing the issue of ventilators. A double (or even lower) fatality rate for – let us say – population over the age of 80 as compared to the 20-40 age group would be however, when ascertained as scientific evidence, medically significant. Is that the only thing we should take (and was actually taken) into consideration to make the decision on whom should get the vaccination first? A more articulated approach is perhaps required.

The debate on the legitimacy of discounting the future can offer a point of reference. This issue has been for a long time a very challenging one both for philosophers and economists, starting with Ramsey’s opinion that discounting “later enjoyments in comparison with earlier ones” is an “ethically indefensible” practice, which “arises merely from the weakness of imagination”, and acknowledging that discounting commodities is obviously not to confuse with discounting “a more fundamental good, people’s *well-being*”<sup>27</sup>. Is it possible to speak of “discount” factors of fatality rate, including yet not limited to age as such, so that some balancing could become easier to consider? The willingness to pay a premium in the insurance market, not less than its amount, is influenced by the risk assessment (including the perception

quality adjusted life years (QALYs) lost post-2020 are adopted as outcome measures. See also K.M. Bubar *et al.*, *Model-informed COVID-19 vaccine prioritization strategies by age and serostatus*, in “Science”, 371, n. 6532, 2021, pp. 916–921. The necessity of focusing on reducing “the incidence of disease” rather than “mortality among the most vulnerable” has been instead supported by Rosamond Rhodes: “Vaccines administered to those circulating in the community would reduce the incidence, quickly cut mortality and thereby save the most lives” (R. Rhodes, *Justice in COVID-19 vaccine prioritisation: rethinking the approach*, in “Journal of Medical Ethics”, 47, n. 9, 2021, p. 626).

<sup>25</sup> The National Academies of Sciences, Engineering, and Medicine, *Framework for Equitable Allocation of COVID-19 Vaccine*, cit., p. 101.

<sup>26</sup> For an illustration and interpretation of this peculiarity see G. Woo, *Age-dependence of the 1918 pandemic*, in “British Actuarial Journal”, 24, 2019, e3 [published 12 February 2019].

<sup>27</sup> J. Broome, *Discounting the Future*, in “Philosophy and Public Affairs”, 23, n. 2, 1994, pp. 128-129. Ramsey’s quotation is mentioned on p. 131.

of it). The bigger the risk, both in terms of probability of occurrence and its content as to immediate and long-term consequences, the stronger the motivation to pay and consider the amount of the premium accordingly. The decision we are talking about, which is not a private but a public one, is priority for vaccination: governments decide on behalf of their citizens and the fact that we are facing a possibility for the future and not an immediate life risk could strengthen the impact of other considerations, in addition to assessing how big, in case of contagion, that life risk would be.

In the same Framework proposed by the US National Academies, the goal to reduce “severe morbidity and mortality” is explicitly announced together with that of “reducing negative societal impact due to the transmission of SARS-CoV-2”<sup>28</sup>. The notion of “benefit” for the whole society and not simply that of individual vulnerability is therefore at stake. It is not only about saving the highest number of lives, and this is the argument which explains, for example, why the “instrumental” value of some other workers than those of the healthcare sector is adopted, at least at some point, as a sound reason for priority. The principle of “basic equality”, affirming that “no one person is intrinsically more valuable or worthy of consideration than another” (it is worth observing that age is not mentioned among the possible causes of discrimination), remains the unquestioned premise. However, the fact that “some social roles are essential in this pandemic to ensure the provision of necessary goods and services to the community and to individuals, including but not limited to medical care” is also taken into consideration. This means that the people filling those roles “may legitimately gain priority in those circumstances”. It is true that once a priority group has been defined and there are no further identifiable risk-based differences the principle of equal concern can also support random selection. At this point, the version will be that of a “weighted lottery”, for vaccines as for the allocation of possible therapies<sup>29</sup>. Is it possible to further elaborate on this notion of “societal impact”?

### **3. Giving Priority for Vaccination is Not Equivalent to Letting *This* Person Die**

The huge disproportion as to fatality rate between the elder age groups and the younger ones made the difference and required the pri-

<sup>28</sup> The National Academies of Sciences, Engineering, and Medicine, *Framework for Equitable Allocation of COVID-19 Vaccine*, cit., p. 102.

<sup>29</sup> *Ibid.*, pp. 94-95.

ority of the former for vaccine distribution. As the difference narrows, however, most documents start considering some overlapping of criteria, notwithstanding the fact that even the slightest difference should remain the tiebreaker, if medical criteria were really assumed as the only ones that matter.

It is worth observing that age as such has been introduced in the debate about triage in disaster medicine situations building also on a principle of fairness and not necessarily on the utilitarian rule of the *total* number of life years saved, in case “quality adjusted”. Suffice it to recall the idea of a “prudential lifespan account” elaborated in the context of a tight interaction with the Rawlsian idea of justice<sup>30</sup> and Daniel Callahan’s suggestion of a “biographical standard”<sup>31</sup>. Age as a matter of “intergenerational equity”, according to the metaphor of “fair innings”, has been conceived of highlighting four characteristics of this concept: “First of all, it is a notion of equity that is *outcome based*, not process-based or resource-based. Secondly, it is about a person’s *whole life-time experience*, not about their state at any particular point in time. Thirdly, it reflects an *aversion to inequality*. And fourthly, it is *quantifiable* and even in common parlance it has strong numerical connotations”<sup>32</sup>. Life cycle arguments, when articulating the ethical principles that can inform triage, have been explicitly distinguished, even though looking exactly at fair innings *or* years of life saved, from utilitarian ones (the greatest good for the greatest number), as well as from the egalitarian allocation based on need, the libertarian protection of individual liberty, and the communitarian respect for social and cultural values<sup>33</sup>. Matters of equity intertwine with medical risk assessment and the exercise of autonomy. Perhaps, a further step is possible, considering well-being, together with equal respect, equity, and reciprocity as a value objective applied to priority groups. Reducing societal and economic

<sup>30</sup> See N. Daniels, *Justice between Age Groups: Am I my Parents’ Keeper?*, in “Milbank Memorial Fund Quarterly/Health and Society”, 61, n. 3, 1983, pp. 489-522 and Id., *Am I my Parents’ Keeper? An Essay on Justice Between the Young and the Old*, Oxford University Press, New York 1988.

<sup>31</sup> See D. Callahan, *Terminating Treatment: Age as a Standard*, in “The Hastings Center Report”, 17, n. 5, 1987, pp. 21-25.

<sup>32</sup> A. Williams, *Intergenerational Equity: an Exploration of the “Fair Innings” Argument*, in “Health Economics”, 6, n. 2, 1997, p. 119. doi: 10.1002/(SICI)1099-1050(199703)6:2<117::AID-HEC256>3.0.CO;2-B. Alan Williams, after underlining that age at death is “the key variable which is most often focused upon” (dying at 25 is viewed very differently from dying at 85), adds that it “should be no more than a first approximation, however, because the quality of a person’s life is important as well as its length [...]” (*ibidem*).

<sup>33</sup> M.D. Christian, *Triage*, in “Clinical Care Clinics”, 35, n. 4, 2019, p. 582. doi: 10.1016/j.ccc.2019.06.009.

disruption “other than through reducing deaths and disease burden” and protecting the functioning of essential services, “including health services”<sup>34</sup> (that is, not limited to them) are *also* fundamental goals for governments to achieve.

It is exactly the disproportion as to fatality rate that makes two points clear. First: medical criteria are the first and essential ones to look at and may suffice, provided a robust evidence of relevant differences as to risks and outcomes, to make prioritization decisions. Second: such differences tend yet to be “adjusted” as a consequence of some sort of discount effect resulting from being responsible against a risk rather than an immediate and certain threat incumbent *now* on *this* person, paving the way to a broader use of different principles and criteria and therefore to the complex exercise of balancing them with each other. The face value of risk is easier to adjust than the face value of chance of success when an intensive care treatment is needed, exactly because it tends to be “discounted” as a sort of future discounting, may it be wright or wrong.

This observation helps understand what happened “with boots on the ground” when deciding who should come first. *Social* differences could make a difference, starting with those that are clearly health-related in terms of greater *vulnerability* or *utility*, but perhaps not limited to them.

The last point is not difficult to get across. Recognizing some “social and societal drivers” as a factor of increased risk implies a commitment to mitigating inequalities as a pillar of a medical-oriented strategy: even when there is no evidence that ethnicity by itself could entail a greater risk of severe illness and death, some health conditions associated with it can be “overrepresented” in certain minority ethnic groups and it is also clear that “societal factors, such as occupation, household size, deprivation, and access to healthcare can increase susceptibility to COVID-19 and worsen outcomes following infection”<sup>35</sup>. This special social vulnerability requires therefore to prioritize also these groups accordingly<sup>36</sup>. In Canada, the National Advisory Committee on Immunization proposed to consider in Stage 1 of vaccination campaign adults in indigenous com-

<sup>34</sup> WHO SAGE Roadmap for prioritizing the use of COVID-19 vaccines in the context of limited supply, cit., p. 19.

<sup>35</sup> Department of Health & Social Care (GOV.UK), Joint Committee on Immunisation and Vaccination, *Advice on priority groups for COVID-19 vaccination*, cit., pp. 8-9.

<sup>36</sup> “In the allocation of initially scarce vaccines, the first-priority group should be health care and other essential workers [...] When it comes to allocating vaccines among the general population, economic, ethical, and epidemiological considerations urge us to prioritize the worse off, as identified by measures such as the ADI” (H. Schmidt, *Vaccine Rationing and the Urgency of Social Justice in the Covid-19 Response*, in “Hastings Center Report”, 50, n. 3, 2020, p. 49. doi: 10.1002/hast.1113). The article suggests a provocative yet effective way to approximate the Area Deprivation Index: use the Zip code.

munities “where infection can have disproportionate consequences”, together with “residents and staff of congregate living settings that provide care for seniors; adults  $\geq 70$  years of age, beginning with  $\geq 80$  years of age [...]; frontline healthcare workers”<sup>37</sup>. Indigenous peoples were ranked as third in Brazil, immediately after institutionalized persons and before healthcare professionals and persons  $\geq 90$  years of age, with the traditional communities of Ribeirinhas and Quilombolas being ranked respectively eighth and ninth<sup>38</sup>.

Needless to say, priority to healthcare professionals, starting exactly with those working in living settings for the elderly and great dependents and other “frontline” workers, can also be considered as immediately health protection-related, in this case in terms of a very specific kind of “utility”: they were essential (and very difficult to replace) in order to reduce the burden of deaths caused by COVID-19 and, more in general, to minimize the impact of the crisis on the whole healthcare system. This was assumed as simply obvious in most documents, recommendations, guidelines, where this group was always at the top of the priority list<sup>39</sup>.

The distinction between a *narrow* and a *broad* social utility, with the first indicating “a person’s short-term value to society during a public health crisis or other emergency” and the second “a person’s overall value to society”<sup>40</sup>, points at a much more challenging yet unavoidable question. Is it legitimate to widen the scope for the consideration of these “broader societal interest”, beyond not only the goal of protecting the healthcare system, but also that of protecting other groups’ interests, such as “young children’s interest in having adequate care and support or vulnerable dependents’ interests in minimizing their exposure to coronavirus”<sup>41</sup>? It is true, as I have underlined, that prioritizing access to scarce medical resources essential for health based on a generic conception of “societal value” might sound “ethically suspicious to many people”<sup>42</sup>, if not simply radically inconsistent with the

<sup>37</sup> Government of Canada, National Advisory Committee on Immunization, *Guidance on the Prioritization of Key Populations for COVID-19 Immunization*, 5 February 2021, p. 3.

<sup>38</sup> Ministério da Saúde do Brasil, *Plano Nacional de Operacionalização da Vacinação contra a COVID-19*, 5 ed., 15 March 2021, p. 25.

<sup>39</sup> See as an example, among many others, the definition of groups 1, 2 and 3 in Consejo Interterritorial Sistema Nacional de Salud, *Estrategía de vacunación frente a COVID-19 en España*, Actualización 6, April 2021, pp. 9-11. An illustration of the choices made in many countries can be found in Haute Autorité de Santé, *Stratégie de Vaccination contre le Sars-Cov-2*, 1 March 2021, pp. 70-76.

<sup>40</sup> N.S. Jecker, A.G. Wightman, D.S. Diekema, *Vaccine ethics: an ethical framework for global distribution of COVID-19 vaccines*, cit., p. 312.

<sup>41</sup> A. Giubilini, J. Savulescu, D. Wilkinson, *Queue questions: Ethics of COVID-19 vaccine prioritization*, cit., p. 354.

<sup>42</sup> *Ibid.*, p. 355.



respect of equal dignity and the entitlement to the same fundamental rights of every human being. An *experience* adjusted life years (EALY) criterion has been proposed and examined as a possible, additional tool for resolving conflicts in this kind of resource allocation decisions. A measure of amount of service to society that could be saved could provide “best value for taxpayers” and people whose treatment would be prioritized accordingly would not be “treated better because they are deemed to be more worthy as human beings, but because the wellbeing of other people depends on them”. However, the author himself acknowledges that in situations other than “times of major emergencies, epidemics and war” EALY “might prove to be too elitist to merit its application”<sup>43</sup>. Many people will probably apply the doubt also to emergency times.

Nevertheless, it is to observe that in the very same document where an insurmountable ban seems to be put against using criteria other than medical ones for triage a relevant warning is also included about “systemic threats”: the economic consequences are mentioned, together with the socio-psychological ones and the impact on the elementary conditions of democratic culture. A serious social debate is wished for, to evaluate in a dynamic way, the impact of the pandemic on “the prerequisites of a functioning community” and to decide “which life risks a society is willing to classify as acceptable and which is not”<sup>44</sup>. A thorough scrutiny of the various recommendations for prioritizing groups for vaccine distribution strengthens this awareness. The European Commission, taking care to clarify that the priority groups that are suggested for consideration are “in no particular order”, mentions essential workers *outside* the health sector and distinguishes them from those “unable to physically distance” (which entails a greater risk of infection). As examples, “teachers, child-care providers, agriculture and food sector workers, transportation workers, police officers and emergency responders” are mentioned<sup>45</sup>. Some of these professionals are essential to combat the pandemic as a *medical* emergency. Some are not. In other and simple words: the question is not whether to *also* consider criteria other than strictly medical ones, but what criteria, functions, and roles enter this exercise of balancing and what their relative weight should be.

<sup>43</sup> M. Pruski, *Experience adjusted life years and critical medical allocations within the British context: which patient should live?*, in “Medicine, Health Care and Philosophy”, 21, n. 4, 2018, pp. 565-566. doi: 10.1007/s11019-018-9830-5.

<sup>44</sup> Deutscher Ethikrat, *Solidarity and Responsibility during the Coronavirus Crisis*, cit., pp. 6-7.

<sup>45</sup> Communication from the Commission to the European Parliament and the Council, *Preparedness for COVID-19 vaccination strategies and vaccine deployment*, 15 October 2020, p. 12.

#### 4. Conclusions

Medical criteria are essential to assess the appropriateness of a treatment. The closer we are to a situation in which the latter would be considered in any case futile the easier is to rely *only* on the former to make decisions on the allocation of scarce life-saving resources in a context of disaster medicine. Such decisions become *tragic* exactly when it is unavoidable to deny someone the appropriate treatment they are in need and would receive in “ordinary” times, maybe even if the chances of success are slim. Considering only medical (clinical) criteria in every situation, even when all candidates to the only one ventilator have similar chances of survival to discharge and of coming back to their previous life conditions, can imply ending up in an impasse or falling victim to randomness even when other criteria (being a great age difference perhaps the strongest candidate) could appear intuitively relevant to many.

The alternative is perhaps to recognize that some decisions are tragic not only because we can but lose something that could and should be saved and is important as life can be, but also because they take place in a context that obliges us to redefine or even suspend, at least temporarily, the rules around which institutions and everyday practices are organized. In this exceptional condition of helplessness there may be no clear trump card, no *scientific* evidence to apply as an unquestionable tiebreaker. Different options are available as a matter of ethical and then political responsibility, which does not necessarily imply a drift towards discrimination, as it would be the case if some a priori exclusions were proposed, regardless of any clinical evaluation. This responsibility is predicated upon knowledge and professional competence but cannot be simply replaced by the latter. Whenever physicians disagree on a prognosis, we feel some discomfort. However, we do not expect them to always agree on what use to make of this knowledge, nor are we willing to simply delegate this decision to them. Even abiding exclusively to SOFA scores or using a lottery to preserve the principle of equality intact imply an ethical judgment, according to which alternatives are labelled as a kind of *intrinsece mala* that can never be carried out or included in a balancing exercise, in extraordinary as in ordinary times.

When it comes to vaccine distribution, a future risk-related discount effect seems to encourage, at least at some point, the use of a multi-criteria approach, taking into consideration not only those social conditions of special vulnerability and those roles and functions which are more relevant in order to minimize the impact of the pandemic in terms of individual and public health, but also the importance of protecting and therefore prioritizing other roles and functions that can be important for the well-being and the future of a community of equals. Of course, this

observation goes hand in hand with the awareness that vaccines raise other challenging questions. It is not always true, for example, that everyone asks for priority and many people, for different reasons, refuse vaccination. As it happened with physical distancing and other restrictions of individual freedom, is it legitimate or even necessary to set some limits to self-determination, because of the pandemic being an issue of *public* health? Once again, this is to underline that fighting against it is not just a matter of medicine. It is also a matter of ethics.