

## Commentary



# Inequities, vulnerabilities and ethics in the time of COVID-19: diverse perspectives from the APRU Global Health Program

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## INTRODUCTION

The coronavirus disease 2019 (COVID-19) pandemic has raised a myriad of ethical concerns, in clinical care, public health, and health research. Efforts to protect the public's health, especially in times of crisis, often involve swift government action to act on the public's behalf for collective good. Whilst we sometimes see tensions between common good and individual rights, it is also possible to see the 2 as mutually reinforcing as relevant rights can only receive support within a suitable societal and collective context. The inter-disciplinary and international nature of the field of global health (GH) offers the opportunity to analyze the ethical challenges associated with COVID-19 from diverse perspectives.

## THE ASSOCIATION OF PACIFIC RIM UNIVERSITIES (APRU)

The APRU is a non-profit network of more than 50 leading research universities in the region, representing 18 economies. As the voice of knowledge and innovation, it uses its unique geographical reach across the Americas, Asia, and Australasia to bring together thought leaders, researchers, and policymakers to collaborate on effective solutions to 21st century challenges. Launched in 2007, the APRU Global Health Program (GHP) includes approximately 2,500 faculty, students, and researchers who are actively engaged in GH work. The main objective of the GHP is to advance GH research, education and training in the Pacific Rim, as APRU member institutions respond to global and regional health challenges. The APRU network of university members together represent more than half million employees and more than two million students.<sup>1</sup> One of the five working groups, the APRU GH Working Group on Bioethics focuses on the advancement of ethics training and research among members. In May 2020, the co-authors were part of a webinar to examine several ethical issues in both research and clinical care relating to COVID-19.

**Author Contributions**

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**PUBLIC HEALTH ETHICS**

Public health ethics provides a useful framework for helping us to identify and evaluate the need for such actions, one that extends ethical discussion beyond the ethical principles of beneficence, non-maleficence, justice, and respect for autonomy that are dominant in medical ethics. Recent discussions in public health ethics have appealed to other values such as solidarity, community, mutuality, reciprocity, well-being as well as ideas of common good and public goods and a more central focus on social justice and equity. Such a broader approach can allow us to see how we can all flourish as individuals and as a society as a whole, taking care of everyone including those that cannot always provide for their own interests.<sup>2</sup>

The pandemic has amplified underlying inequities that have placed certain populations at heightened vulnerability to its devastating health, economic, and social consequences. It has forced us to confront the ways in which social determinants of health have led to a wide variety of social injustices. It is a time of renewed interest in GH and increased public appreciation for the potential efficiency and speed of the spread of a novel infectious disease. Within just 6 months, 188 countries around the world have reported cases and, to date, close to half a million people have died.<sup>3</sup> Many countries and individuals have been grappling with how to protect the health and economic security of their populations. At the same time, the dramatic impact of the spread of COVID-19 to low-income countries, which are largely unequipped to fight this pandemic, looms large. Struggling to deal with failing health systems, conflict, poverty and ineffectual government leaders, the developing world is primed for the ravages of COVID-19.

The pandemic challenges us to consider our obligations to protect individual rights but also to safeguard the health and welfare of our global community. A major focus of the field of public health is to address and eliminate health and social inequities and promote social justice. The APRU GH Working Group on Bioethics took this opportunity to reflect on the ways in which social injustices can be mitigated by ethical decisions guided by science and a human rights framework. The purpose of this paper is to exemplify examples of such challenges, from the viewpoints of several GH experts in both the global north and global south. We chose 6 key topics based on the interests and expertise of the co-authors on these topics. They are examples of potential ethical challenges with COVID-19 that could have social justice implications because vulnerable populations and marginalized communities may be disproportionately affected. Below we outline the 6 key topics: 1) resource allocation; 2) clinical research on potential treatment; 3) privacy and digital tracking technologies tracing; 4) global aging; 5) intimate partner violence in Mexico; and 6) vulnerability and discrimination. This work represents the voices of our collaboration to advocate for the use of scientific evidence and a human rights framework to guide decision making around these issues.

**RESOURCE ALLOCATION**

Resource allocation is a necessary feature of all health care. This is because when we decide to use any health-related resource such as personal protective equipment, drugs, vaccines, beds or staff time, we could have used that good elsewhere. The central question is not 'does resource allocation occur?' but 'how should we conduct it?' Resource allocation is an issue within clinical care ethics but also public health ethics as it involves discussions about the nature of health systems and the amount of a society's resources we choose to devote to

health spending. When we are talking about decision making within a pandemic, issues of allocation are particularly pressing: how should we distribute goods when we cannot meet demand? Decisions about how resources should be used ought to be made in advance, wherever possible, and not left to clinicians to make in a crisis situation at the bedside.

Attempts have been made to make allocation decisions, especially within a clinical context, a technical matter using different ‘scoring’ systems.<sup>4</sup> However, this is not possible as any system of distribution will necessarily involve an appeal to certain values. For example, appeal to such things as the ‘medical condition’ of the patient or their supposed ‘chances of survival’ may sound like neutral criteria, but they are not. The assumption here is that notions of efficiency are to take priority. Of course, this is one potential option, but any choice about values requires articulation and justification.<sup>5</sup> A focus on the efficient use of resources might be justified by appeal to the very scarcity of that particular good in the situation and a requirement to get the best outcome from the limited resources we have available. Such an approach is common but is not the only option. There are at least 2 other broad approaches. The first is to respond to prior disadvantage or increased risk and prioritize allocation to bring people up to a predetermined minimum level. The second is to appeal to ideas of all being equally valuable and that we should not try and pick ‘winners.’ Instead, we should give everyone an equal chance of benefitting from a resource through the use of random allocation (e.g. a lottery). Arguments continue about the best approach to use.<sup>6</sup>

How should we decide how to distribute resources? Whatever answer is given will be contentious, but we have a duty to plan for and outline a clear and justified approach.<sup>6</sup> Wherever possible the system of allocation should be discussed and debated within society. It should be open to revision in response to feedback from all relevant stakeholders. However, some system needs to be put in place as a way to protect clinicians from the stress of making decisions.<sup>7</sup> One structural way to help is to separate the day-to-day clinical care of patients from the allocation decisions, with the latter being the responsibility of a triage committee with relevant expertise but no immediate care responsibilities for patients. Such a system can allocate the particular good, such as ventilators, using an agreed mechanism. It is important that such a system is only used at the point of real crisis within a pandemic. It should not come into play too early in anticipation of a shortage that may never actually emerge. Any decisions about allocations should be regularly reviewed, but they cannot be avoided.

## **ETHICAL CONSIDERATIONS FOR CLINICAL RESEARCH ON TREATMENT FOR COVID-19**

The novelty and diversity of COVID-19's clinical manifestations make it difficult to treat; no specific therapeutic guidelines have yet been established.<sup>8,10</sup> An urgent need exists for safe and efficacious treatment for COVID-19.<sup>8</sup> Globally, a myriad of grant opportunities have emerged to research and development potential treatment options for COVID-19, encouraging researchers to shift their research interests and/or to form multidisciplinary alliances to participate in the global efforts to fight this disease. A recent search on PubMed using the terms “COVID-19” yielded more than 26,000 articles, all published within the last 6 months. Thousands of more are added each day. The proliferation of published studies raises the question whether this accelerated level of clinical research has been conducted according to appropriate ethical guidelines. Accelerated publication of articles without the necessary quality control and verification of information and methods has the potential to

spread false results.<sup>11,12</sup> Even if these studies are retracted, they can affect the early application of new treatments and reduce public confidence in research. It is important to distinguish between taking advantage of a funding opportunity from opportunism.<sup>13</sup> Ethical and rigorous scientific guidelines should be implemented to shape the development of prevention and treatment options for COVID-19. These requirements should take into consideration conflicts of interest, the experience and background of the research team, rigorosity of the research protocol, and the potential reach of the outcome. Quality cannot be compromised.

The COVID-19 pandemic has impacted all aspects of society, from patient health to the economies of low-, middle-, and high-income countries.<sup>7,14,15</sup> Therefore, the development of successful therapies will yield incredible benefits on a massive scale.<sup>15</sup> Researchers will provide answers to a problem wreaking havoc on individuals and societies, research institutions will advance their reputations, and industries will provide a product or service to those in need. Declaration of conflicts of interest will facilitate the necessary information for the appropriate evaluation of the research proposal by regulatory agencies and sponsors. Further, it will allow the scientific and medical community to assess the significance of the possible outcomes, weighing potential harms and benefits. No matter how the research team is constituted, whether purely academic, academic-industry, or another combination, the experience and scientific background of the team members should be incorporated into assessments of the ability of the team to carry out ethical conduct of human subjects research, including the duty to report adverse events.

Ethical and clinical considerations abound when testing new therapies in vulnerable populations.<sup>16</sup> It is necessary to consider which types of COVID-19 patients should receive new therapeutic options in testing, such as agents already in the market as well as those in early stages of development.<sup>17-21</sup> COVID-19 patients must be adequately informed about the risks and potential benefits of participation in research studies, and provide informed consent before receiving treatment. Testing a new therapy in critically ill patient populations with severely compromised immune systems may not paint an accurate picture of the effects of the therapy in a different cohort. New treatments should be rigorously tested in a sufficiently large number of patients in order to provide results that are not anecdotal but that will apply across populations. Including diverse populations in clinical research should be considered a crucial element of trials to illuminate efficacy across populations and investigate potential side effects related to a specific genetic or even social background. The participation of a body of external reviewers and regulatory agencies is crucial in international efforts to find an effective treatment for COVID-19, such as in the World Health Organization (WHO) “Solidarity” clinical trial, and to evaluate the ethics of research on new therapeutic options.<sup>22-25</sup>

## PRIVACY AND DIGITAL TRACKING TECHNOLOGIES

The use of digital tracking technologies in many countries affected by the COVID-19 outbreak for contact tracing has raised ethical concerns.<sup>26</sup> Of these, potential violation of personal data privacy has perhaps been the most widely discussed. Contact tracing is itself not new, as it has been an important tool in public health surveillance to identify individuals who have been exposed to the disease and for them to be tested, isolated and/or treated in order to prevent further transmissions of the disease. It is also labor intensive when a large number of suspected cases need to be tested in a timely manner and monitored. Digital technologies

enhance public health surveillance by alleviating demands on already overtaxed public health workers during an infectious disease outbreak, and facilitating rapid reporting, data collection, and analyses.

Digital tracking technologies for contact tracing vary in purpose, features, and complexity, but commonly involve the use of devices like smartphones or electronic wristbands.<sup>27</sup> Broadly speaking, these devices track users through Internet access or Global Positioning System (GPS), or otherwise pick up signals from similar devices that were in close proximity and maintain a record of them. This allows other users who have been in close contact with an infected user to be notified and to take precautionary measures, including undergoing testing and self-isolation. Data collected by these devices may also support public health research aimed at controlling transmission of the disease, or in preventing its resurgence. However, the collection of such data to identify whom a user has been in frequent contact with, places often visited and social activities commonly engaged in, have raised privacy concerns. If detailed information is collected about individuals over an extended duration, collated into a centralized repository and processed for purposes unrelated to public health, such use could become an insidious form of population surveillance. Where digital proximity tracking technologies are being developed and used by private companies, there is added concern of commercial exploitation, not only of individuals but also public health infrastructures that lack regulatory capabilities or suffer from weak governance.

The ethical guidelines of the WHO (2017) on public health surveillance provide instructive considerations that are pertinent to the responsible use of digital tracking technologies for COVID-19 contact tracing.<sup>28</sup> These include whether there is: 1) rigorous review of digital contact tracing necessary to build public confidence and sustain trust; 2) means to assess the effectiveness of such technologies, which could themselves be dependent on the technological infrastructure and users' uptake and digital literacy (such as widespread smartphone use); 3) a robust legal regime on personal data protection; 4) an inclusive communication strategy; and 5) policies to monitor and reduce social inequities aggravated by the outbreak. These guidelines remind us that digital tracking technologies have limitations. Further, none of them are currently able to explain how a user got infected or replace conventional contact tracing that is done by a public health worker in-person. To be effective, these digital capabilities that enhance contact tracing must be part of a wider national pandemic response strategy and remain fully integrated in the public health system.

## COVID-19, GLOBAL AGING, AND END-OF-LIFE

The COVID-19 pandemic is occurring in a widely different demographic reality than that of the Spanish Flu pandemic, which occurred a century ago. Since then, the world has aged dramatically. In the United States, the proportion of adults over 65 years has jumped from 9.1% in 1960 to 16.6% in 2018<sup>29</sup>; over the same period, in Korea it increased from 3.4% to 15.8% in 2009 in Korea,<sup>29</sup> and in Japan from 5.6% to 28.4%.<sup>29</sup> Although still a rather young continent, Latin America is no stranger to aging: in Ecuador, the proportion of individuals over the age of 65 increased from 4.7% in 1960 to a rapidly increasing 7.6% in 2020.<sup>29</sup> Of these older people, a notable minority are in end-of-life, i.e. in poor health and relatively close to death.

Along with suffering from comorbidities, older age has been identified as a key risk factor for severe presentation and death of COVID-19. With more older adults and in poorer health

due to the extension of survival with illnesses, individuals likely to suffer from a COVID-19 infection represent a greater proportion than before. In the context of the COVID-19 pandemic and worsening resource scarcity, aging raises a number of ethical questions with regards to decision-making.

Death of older adults carrying the virus have been interpreted as a direct consequence of the infection, when in reality, it may be the cumulation of frailty and comorbidity, that, added to a novel respiratory infection, precipitated death.<sup>30</sup> All things being equal, the epidemiology of frailty and comorbidity with diseases such as diabetes or chronic obstructive pulmonary disease, increase with age, alongside the risk of dying. Hence, the death of older adults is a complex phenomenon, which can rarely be attributed to a single cause.

Largely medicalized, quasi-segregated and often lonely prior to the pandemic, many older adults in end-of-life may experience additional reductions in their overall quality of life with quarantine measures. For example, families of patients in a long-term facility for older adults with dementia in Quito have been barred from access since the beginning of the epidemic. Accounting for quality of end-of-life, as well as survival, one should assess the benefit of such an intervention. We must question the proportionality—i.e. the balance between the good that can be achieved versus the harm that can result—when choosing prevention measures for older adults in their last stage of life. In quarantine, flexibility when the situations permit may reduce the harm associated with loneliness. Possibly more than in any other population subgroup, the trade-off between quality of life and survival is meaningful and must be considered carefully.

How can we best choose which life-saving interventions are most appropriate for older adults in end-of-life? When the healthcare system is overwhelmed and healthcare rationing measures must be explicitly established, age has been used as a criterion for choosing, for example, who gets a respirator. However, older adults are an incredibly diverse population. Considering physiological age as the expression of a person's general health state, and chronological age as the number of years lived; making healthcare decisions based on chronological age alone ignores this diversity and may disadvantage healthy older adults.<sup>31</sup> For example, when a chronological age threshold is imposed for access to a respirator for COVID patients, an older adult with a high chance of survival but beyond the age threshold may be excluded. While considering the fair-innings argument, whereby healthcare decision in older people are partly driven by the intention of correcting earlier social injustices, the care of older adults in end-of-life should be considered a topic separate from the care of older adults in general. Physiological age, i.e. a person's age expressed as her general health state measured with tools such as the frailty index, rather than chronological age, i.e. the expression of age as the number of years lived, can help make more appropriate healthcare decisions for older adults in end-of-life, and avoid futile treatments.<sup>32,33</sup>

The COVID-19 pandemic is occurring in the oldest demographic state the world has ever been in. While global aging is still decades away from reaching its equilibrium, we must already question our relationship to the end-of-life. The COVID-19 epidemic provides an opportunity for a review of ethical perspectives on the end-of-life. We must improve our categorization of older adults and use physiological age rather than simply years lived when deciding on care of older adults in end-of-life. Should quality of life be more primordial than survival in older adults in their last months or years of life?

## A MEXICAN PERSPECTIVE ON GENDER-BASED VIOLENCE IN THE COVID-19 CONTEXT

In Mexico and throughout the world where violence against women was already a pandemic before COVID-19, significant ethical and social issues have been raised by the restrictive measures policies adopted lacking a gender perspective.<sup>34</sup> Some of the most pressing issues are the extent of consequences of lock downs, the reciprocal duties to healthcare workers, and the need for research. For example, lack of security measures has resulted in physical attacks upon health workers, particularly female nurses, due to assumptions that they are infected. This constitutes a national disgrace.

Intimate partner violence is the most prevalent form of violence against women, which has been exacerbated during the COVID-19 pandemic: stress and economic uncertainty are triggers for abuse, while confinement to home limits women's access to support networks to protect them.<sup>35</sup> Developing mobile applications to serve as panic buttons to reach help is a way to provide women with a rapid tool of protection. For example, in Argentina, a free app "Línea 144" has been developed as a complementary source of information, and women who are unable to make a call because they are afraid they may be heard by their aggressor, so they can make direct contact through a popular third-party messaging app.<sup>36</sup>

Shelter-in-place measures also worsen the unfair distribution of unpaid labor, which is disproportionately assigned to women and girls, and highlight inequality in the overall labor market. These situations draw attention to the importance of an intersectional perspective, since indigenous women and women living in poverty are disproportionately affected. For example, many of the poorest will not have access to a mobile phone or any technology at all because they cannot afford the cost.<sup>37</sup>

Scarcity of medical resources results in lack of access to other essential health necessities, including sexual and reproductive health services. For example, little attention has been given to the need for emergency services for victims of sexual violence, that occurs in the streets but also at home, including safe means to interrupt a pregnancy resulting from rape. A number of these laws mandate the provision of timely abortion services in Mexico. For example, a federal law ensures women's right to abortion in cases of sexual assault (NOM-046). Additionally, each state in Mexico has its own legislation of permitted abortion causes, for example when the woman's life is endangered, the presence of congenital abnormalities or, in the case of Mexico City and the state of Oaxaca, abortion on request during the first trimester. A recent statement by the UN Working Group on Discrimination Against Women and Girls specifies that access to abortion should not be restricted because of the continuing COVID-19 health crisis.<sup>38</sup> Sadly, contrary to this international recommendation, conservative political groups in local legislatures in Mexico have attempted to block this right, effectively eroding the progress towards reproductive rights recently gained after a lengthy fight.<sup>39</sup>

One final issue raised by the pandemic is the need for research. This must also be conducted with a gender perspective, because understanding the realities of women's experiences and lives is essential to understand the pandemic's true effects in Mexico and the rest of the world. This includes: 1) biomedical research about any differential responses to treatment; 2) public health research to look at the negative effects of diverting resources to COVID-19 services that would have gone to other health services instead on women's physical health, and of confinement on women's mental health; 3) economic research to look at the impact of

the pandemic on the female informal workforce; and 4) social research to see whether more girls have been forced to drop out of school because they have to start working in order to bring in financial contributions to the family, and how rates of violence have changed during the implementation of shelter-in-place measures. Such approaches to research will prove invaluable not only to confront the consequences of this pandemic on women, but to have real-world data in place to inform decision-makers in the future.

## **VULNERABILITY IN THE GLOBAL SOUTH: A CALL FOR SOLIDARITY ETHICS AGAINST CHRONIC INJUSTICES**

COVID-19 came with such swiftness and severity that even the most prepared health care systems were stunned before they could set response measures in motion. Many countries quickly shifted to emergency mode in the effort to address the various problems arising from what some leaders likened to a war situation. At the same time, there were worries about risks relating to hastily organized pandemic responses. Concerned agencies sought to provide guidance by advice by invoking ethics guidelines pertaining to emergencies and disasters.

Some ethical guidelines for clinical triage situations came into focus with the publication of papers that appeared to suggest the discriminatory use of ageist criteria in maximizing the benefits from limited intensive care unit facilities and ventilators. Against this backdrop, health care teams wanted to be satisfied that they were being fair in allocating scarce resources in emergency settings. Yet, health care workers themselves were subjected to discrimination in their own communities because of fears that they could be carrying the dreaded virus. In the Philippines, local governments had to pass emergency legislation to forbid and punish discriminatory behavior.<sup>40-42</sup>

Discrimination became particularly problematic in areas where disadvantaged people could not find health security in crowded dwellings. In densely populated informal urban settlements, families have been sleeping together in limited spaces where, in extreme but numerous cases, the only physical barriers available are the clothes they are wearing. There is no room for safe physical distancing or for isolating the ill. To wash their hands, many have to collect water from public faucets, thereby exposing themselves to the virus. Hence, these vulnerable people thought they could protect themselves only by driving suspected carriers away.

As an emergency response, quarantine facilities have been built in areas away from disadvantaged people's dwellings, a pandemic equivalent of evacuation sites for people displaced by floods and typhoons. Such measures have been justified from the perspective of triage ethics—a concept we can call “evacuation ethics” to refer to the community level context in which it is seen to apply. Facing an extreme emergency that cannot be addressed if the affected people were to remain in their communities, they have been temporarily relocated to places where they cannot harm others.

This approach overlooks the fact that the threat to the life and safety of the people concerned existed way before the current pandemic struck and will continue to exist in their communities when they return after the evacuation shelters are dismantled. These vulnerable sectors of the population were not even worried about the impact of COVID-19 in the beginning, feeling they have had to face greater risks to their health and safety all their lives. Before the pandemic, the rest of society was barely motivated to help eliminate those risks.



The severity and transmissibility of COVID-19 have taught us that the threats to the health and safety of the underprivileged endanger us all. If the virus is not eliminated in informal settlements, it will continue to threaten the health and safety of people everywhere in society. We are all interconnected not only metaphysically but also literally and in concrete reality. This is how the whole of society is able to justify the use of emergency powers and resources to address the problems of the vulnerable. Seeing that the problems of the vulnerable have become the problems of everyone, we are compelled to accept a paradigm shift from the ethics of evacuation to the ethics of solidarity. We cannot solve the problems relating to the pandemic by simply evacuating people because its impact is largely due not to the virus itself but to chronic injustice—the failure of disadvantaged people to access basic goods and services such as safe and secure housing, clean water, and essential health care. If people had sustained access to these basic goods and services, temporary quarantine facilities would not have been necessary. Since the problems that require attention are not merely temporary, we need to be guided by the ethics of solidarity in finding durable solutions that could protect the vulnerable—and everybody with whom they are interconnected—beyond the next pandemic.

## CONCLUSION

In this paper, we have outlined some of the difficult ethical dilemmas raised by the pandemic. We have discussed injustices such as homelessness, ageism, increased discrimination against healthcare workers, and spikes in intimate partner violence. We have also drawn attention to the incredible fortitude and dedication of healthcare workers and those on the front lines, who warrant better protective measures. The most vulnerable populations in our societies deserve special consideration and protections in times of crisis such as this. We have underscored the importance of ensuring that populations particularly susceptible to disease, harm or injustice by infection control strategies are included in equitable ways. At the same time, we must also recognize that underlying determinants of health amplify the vulnerabilities and impact of COVID-19 on the most marginalized segments of our society. This paper provides recommendations on how to align our decisions with our moral obligations to protect our global citizens in this time of crisis. But we must also call for durable measures to address the long-standing inequities in access to societal resources beyond the pandemic.

The pandemic has led to unprecedented economic consequences, ones that will likely take many years to overcome. In many countries, those already on the fringes will be the ones who suffer from the greatest burden. Our challenge is to not return to the previous normal but instead to improve our ability to respond to the next emergency. This pandemic has created anxiety and fear, which has bred discrimination and blame, all of which impact national and global security. In the face of this significant threat, we must not isolate ourselves but instead we must go beyond traditional paradigms of geographical borders. We call for “solidarity ethics” and a renewed commitment to solving the world’s problems collectively. To do this, we advocate for more diverse global leadership and increased inclusivity. We call on governments to do more to support and protect their most vulnerable citizens, as well as to build resiliency and preparedness, through deliberate and rationale decision-making based on ethical principles.

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