

Chapter 6

A Global Ethical Framework for Public Health Disasters



Abstract Public health disasters reflect a class of global problems that generate moral quandaries and challenges. As such, they demand a global bioethical response involving an approach that is sufficiently nuanced at the local, trans-national, and global domains. Using the overlapping ethical issues engendered by Ebola and pandemic influenza outbreaks, atypical drug-resistant tuberculosis, and earthquakes, this chapter develops a global ethical framework for engaging PHDs. This framework exhibits sufficient responsiveness to local, global, microbial, and metaphysical realities as well as scientific concerns.

6.1 Introduction

Public health disasters reflect the conceptual, ethical, and practical intersection between the concerns of traditional public health ethics and the emerging academic discourse on disaster bioethics. They refer to three distinct phenomena, namely: public health issues of serious proportions such as infectious disease outbreaks, the attendant public health impacts of natural or man-made disasters, and currently latent or low prevalence public health issues with the potential to rapidly acquire pandemic capacities. Ebola and pandemic influenza outbreaks, atypical drug-resistant tuberculosis and earthquakes reflect this conceptual interpretation in various shades.

Consequently, the moral quandaries at the heart of PHDs reflect the ethical concerns that overlap across individual disasters such as Ebola outbreaks, atypical drug-resistant tuberculosis, earthquakes, and pandemic influenza. These issues may be outlined specifically as different forms of vulnerability, human dignity as well as rights-related issues, uncertainty, and justice, from local and global perspectives. On a closer examination, these overlapping issues show the presence and complicated interaction of human agents, human actions and inactions, biological organisms such as bacteria and viruses, and the possible agency of a divine non-human “God”. As such, addressing these moral issues can only come through a clear under-

standing of the interactions of these human and non-human actors/factors. This idea has at least two conceptual implications.

Firstly, it suggests the inadequacy of the context-specific frameworks developed for each of the representative disasters in relation to properly engaging the ethical quandaries of PHDs as a class of global problem. Secondly, it suggests the need to develop a broader and more encompassing moral compass for engaging public health disasters as a specific class of global health problems. Developing such a broad moral framework will, however, require an approach beyond extant ethical lenses. In other words, the conceptual building blocks of a global ethical framework will reflect some transnational moral diversity as well as incorporate multi-disciplinary perspectives. Scholars like ten Have favors the latter approach in stating that ethics, as it increasingly becomes global and broader, should be a language of several voices.¹

Global bioethics pursues global problems, that is, issues that will cause significant harm in the absence of cross-border and trans-national cooperation.² Without a doubt, public health disasters are a class of global problems as they or their impacts can originate from any region of the world as well as disseminate to other parts of the globe. They, therefore, often rapidly transform local issues into global ones. As such, the attendant ethical quandaries demand a global bioethical solution. Against this conceptual foreground, this chapter seeks to articulate the relational bases of the ethical issues elicited by public health disasters, examine the limits of the four different moral approaches to specific public health disasters that were developed in Chaps. 2 through 5, as well as use some of the associated relational insights to frame a global ethical framework that may help engage the moral issues embedded in PHDs as a category of global health problems.

6.1.1 The Relational Basis of Ethical Issues in Public Health Disasters

The overlapping ethical issues that resonate amongst those elaborated from Chaps. 2 to 5 constitute the moral quandaries elicited by public health disasters, writ large. These quandaries fall into two distinct categories. The first reflects human dynamics, and issues in this class include socioeconomic vulnerabilities, human rights and human dignity, harm, rationing/triage and local and global justice. Central to them is what a single individual or a group of individuals within or outside the location of a disaster may do or fail to do in response to the challenges and needs of other human beings during a public health disaster.

On the other hand, the second category of quandaries arises due to the interaction or non-interaction of human, biological, and non-human dynamics. Issues in this cat-

¹Henk Ten Have, *Global Bioethics: An Introduction* (Routledge, 2016). *Global Bioethics* Pp.19, 171.

²Jay Drydyk, "Foundational Issues: How Must Global Ethics Be Global?," *Journal of Global Ethics* 10, no. 1 (2014). Pp. 116–18.

egory include biological and epistemic uncertainties, biological and geographic vulnerabilities, and whether there is a non-human “being” or “God” who responds to the moral inadequacies of humankind. Hence, these issues partially reflect what humans are yet to know about the non-human dynamics of earthly existence and how this epistemic gap and the associated moral shortcomings (if any) may elicit disasters.

The next section examines the disaster dynamics of the human and non-human-generated quandaries at the individual, institutional, national, and global levels of interplay.

6.1.2 Relational Basis of the Human Quandaries of Public Health Disasters

Some of the moral concerns at the heart of public health disasters echo through the actions or inactions of humans as individuals, groups, professionals, and policy-makers. They involve a range of choices made prior to, during, and after disasters that enhance or curtail the flourishing of self and that of other members of society and/or the global village. These can, however, be analyzed through a relational lens involving two human agents, or groups of these.

Individual members of a society afflicted with a given PHD may be physicians, nurses, civil servants, hunters, morticians, policymakers, or university professors. For public health disasters with biological agents such as a bacteria (e.g. *Mycobacterium tuberculosis*) or a virus (e.g. influenza A virus), the way any of these moral entities encounter the agent and the subsequent way they relate with other members of the society (such as friends, children, colleagues, patients, clients, and strangers) will influence whether a disaster ensues. In the context of Ebola viral disease, an innocent surgery on an undiagnosed patient will start a concentric ring of infection cycle from the health workers to the community.³ This often contributes to the cycle of diseases, deaths, and displacement. The “susceptibility factor” or vulnerability nexus in this context lies in human-human relationships that may be economic, health-related, professional, filial or social.

On the other hand, weak institutions and inept institutional policies create an unfavorable backdrop to PHDs. This mostly applies to developing economies. In the African context, this is particularly significant because most health and social institutions were established without genuine local interests in mind and with goals alien to the local logic and interests.⁴ As such, policies tainted by this background or other

³Yves Guimard et al., “Organization of Patient Care During the Ebola Hemorrhagic Fever Epidemic in Kikwit, Democratic Republic of the Congo, 1995,” *Journal of Infectious Diseases* 179, no. Supplement 1 (1999). Pp. 269–270.

⁴Michael O.S. Afolabi, “Entrenched Colonial Influences and the Dislocation of Healthcare in Africa,” *Journal of Black and African Arts and Civilization* 5, no. 11 (2011). Pp. 235–241; Paulin Hountondji, “Distances,” *Ibadan Journal of Humanistic Studies* 3 (1983). Pp. 135–138; Adetokunbo O Lucas, *Health Research in Nigeria: Is It Worth It?* (Ibadan: Bassir-Thomas Biomedical Foundation, 2003). Pp. 2–5.

kinds of policies, poor or good, or badly implemented ones, will shape social realities by influencing the actions and inactions of different sets of people. O'Hare recently observed that the minimal expenditure on health historically contributed to the crippling of the Sierra Leonean healthcare system. He noted that the country (where 53% of the population live below the poverty line) spends \$25 million on health and \$244 million to give tax incentives to foreign companies and organizations.⁵ In other words, a more rational and need-based spending would have enhanced the capacity of health institutions to mount a better response to the Ebola incident. Addressing this issue will require local and global types of justice.

The nexus between weak infrastructure and negative social outcomes from the Ebola outbreak was not confined to Sierra Leone, as it has also been ascribed to the severity of the outbreak in Liberia and Guinea.⁶ However, external policies through external international bodies may sometimes be culpable in contributing to the weakness of local health institutions. In this vein, Kentikelenis et al. argue that the International Monetary Fund (IMF) contributed to the circumstances that enabled the crisis to arise and/or worsen in the west African region through their prior policies that had partly weakened the health systems in countries like Guinea, Liberia, and Sierra Leone,⁷ Specifically, the conditionalities of the IMF which mandated recipient governments to adopt policies that prioritize short-term economic objectives over investment in healthcare and education⁸ may be fingered because Guinea, Liberia, and Sierra Leone have received IMF support since 1990.⁹ This clearly suggests that the vulnerability of people to health disasters such as Ebola in these regions and the attendant trans-border health risks posed to nearby nations and the global village may begin prior to any specific incident.

The practical and negative outcomes of weak institutions and bad policies often shape local trust in unfavorable ways. For instance, a lot of people in Liberia and Guinea denied the threat of Ebola and thought it was fake to the extent of claiming that the government and health workers were killing patients to simulate an epidemic in order to receive funds from Western governments and organizations.¹⁰ Applying and modifying the language of Battin et al., one may state that how people and nations become victims or persons-in-need or nations-in-need and

⁵Bernadette O'Hare, "Weak Health Systems and Ebola," *The Lancet: Global Health* 3, no. 2 (2015). Pp. e71–72.

⁶Anthony S Fauci, "Ebola—Underscoring the Global Disparities in Health Care Resources," *New England Journal of Medicine* 371, no. 12 (2014). P. 1085.

⁷Alexander Kentikelenis et al., "The International Monetary Fund and the Ebola Outbreak," *The Lancet: Global Health* 3, no. 2 (2015). P. 69.

⁸David Stuckler and Sanjay Basu, "The International Monetary Fund's Effects on Global Health: Before and after the 2008 Financial Crisis," *International Journal of Health Services* 39, no. 4 (2009). Pp. 771–774.

⁹Kentikelenis et al. P. 69.

¹⁰Kevin G Donovan, "Ebola, Epidemics, and Ethics - What We Have Learned," *Philosophy, Ethics and Humanities in Medicine* 9, no. 15 (2014). P.2.

persons-as-threats or nations-as-threats¹¹ reflect (at the institutional level) disparities in institutional relationships in terms of disclosure of intentions, distinguishing real from pseudo-interests, exploitation of trust, as well as short-sightedness (on the part of local leaders and policymakers).

The IMF and other agencies such as the World Bank are not the only avenues where local pseudo-interests have been pursued at the expense of real ones. For instance, the Structural Adjustment Program in most African countries was instrumental to rising ill-health and decreasing access to healthcare in the two-thirds of the population.¹² These are important underlying factors that need to be engaged, understood, and prevented from reoccurring. Some policy deficits which may facilitate PHDs, are however, found in several nations, hence, are global in nature. Whereas cases of atypical drug-resistant TB have been identified in fifty different countries,¹³ diagnostic capacities are generally poor across the globe. Lack of policy in this direction is worrisome because drug-resistant TB is one of the most profound challenges facing global health.¹⁴

The global dynamics of public health disasters also echo through the movement of people as was exemplified by the case of Patrick Sawyer (Liberia-Nigeria nexus), Pauline Cafferkey (Sierra Leone-UK nexus), and Thomas Duncan (Liberia-USA nexus). These cases underscored how an infectious disease outbreak in just a place poses a significant risk everywhere¹⁵ and the capacity of trans-national infectious diseases to get out of control if not handled properly. This notion was exemplified in China's slow reaction to the 2003 SARS outbreak and how the country restricted international access to patients and information which is believed to have contributed to the global intensity of that crisis.¹⁶ In other words, how a local public health disaster is handled determines and influences local severity, and how it spreads elsewhere. On the other hand, well-handled local health crises positively shape the possible impacts on contiguous nations as was demonstrated by Canada's rapid and coordinated response to the SARS outbreak which limited its spread and impact in the United States.¹⁷

Against this background, the relational basis of the human quandaries elicited by PHDs may be examined. Socioeconomic vulnerabilities, for instance, facilitate poor health and biological vulnerability to diseases such as pandemic influenza, tubercu-

¹¹ Margaret P. Battin et al., "The Patient as Victim and Vector: Challenges of Infectious Diseases," in *Blackwell Guide to Medical Ethics*, ed. Rosamond Rhodes, Leslie P. Francis, and Anita Silvers (Blackwell Publishers, 2007). P. 272.

¹² Rene Loewenson, "Structural Adjustment and Health Policy in Africa," *International Journal of Health Services* 23, no. 4 (1993). Pp. 717–718.

¹³ Christopher Dye, "Doomsday Postponed? Preventing and Reversing Epidemics of Drug-Resistant," *Nature Reviews Microbiology* 7, no. 1 (2009). P. 81.

¹⁴ Ross E.G Upshur, "What Does It Mean to 'Know' a Disease? The Tragedy of Xdr-Tb," in *Public Health Ethics and Practice*, ed. Stephen Peckham and Alison Hann (Policy Press, 2010). P. 53.

¹⁵ Thomas R Frieden et al., "Ebola 2014—New Challenges, New Global Response and Responsibility," *New England Journal of Medicine* 371, no. 13 (2014). Pp. 1177–1179.

¹⁶ Theresa MacPhail, *The Viral Network: A Pathography of the H1N1 Influenza Pandemic* (Cornell University Press, 2014). P. 91.

¹⁷ Howard B Radest, *Bioethics: Catastrophic Events in a Time of Terror* (Lexington Books, 2009). P. 86.

losis, and Ebola infections, and is often borne out of the absence of state-financed subsidizing of health for the indigent. People who have never cared for the rights of others can hardly be counted upon to respect the rights of victims of disasters. Indeed, victims of disasters who have been brought up in contexts bereft of an understanding of rights will hardly know when their rights are violated by public health measures such as forced quarantine. In addition, those who associate some rights violation with quarantine measures and whose input has not been sought prior to the implementation of such measures will likely resist or not comply. This played out significantly during the Ebola outbreak in West Africa.¹⁸ Such contextual social resistance may inadvertently bring about positive outcomes. For instance, protests at the location of Ebola quarantine center in a crowded hospital in Abuja, Nigeria compelled the government to relocate it to a safer place, thus, potentially preventing infection transmission. However, they may also bring about negative outcomes. For example, public outcry and social resistance led to the suspension of an Ebola trial in 2015.¹⁹

In addition, lack of knowledge about the limits of influenza therapeutic measures and their possible side-effects as well as the failure of health authorities to disclose these bits of information will make people at risk accept the associated potential harms without asking the right questions and making duly informed decisions. To be sure, by trying to prevent personal harms through wearing protective suits during Ebola outbreaks, some patients may feel alienated and refrain from giving full information necessary for clinical diagnosis²⁰ Also, prior experience with the ethically challenging practice of triage and rationing during disasters will influence how compliance will be achieved. Lastly, the previously stated issues in conjunction with existing local and transnational policies will influence matters of justice.

Against this background, it seems that providing the right education and training (for health workers and other emergency first-responders), information (to the general populace), and enacting the right policies in an inclusive manner that is ideologically suitable and socially sensitive will go a long way in providing the right background as well as orienting all the moral actors involved in a PHD context to relate and act better. Before commenting further on this, the relational basis of the non-human quandaries generated by PHDs needs to be examined. The next section focuses on this.

¹⁸Adia Benton and Kim Yi Dionne, "International Political Economy and the 2014 West African Ebola Outbreak," *African Studies Review* 58, no. 1 (2015). P. 228.

¹⁹Godfrey Tangwa, Katharine Browne, and Doris Schroeder, "Ebola Vaccine Trials," in *Ethics Dumping: Case Studies from North-South Collaborations*, ed. Doris Schroeder, et al. (Switzerland: Springer, 2018). Pp. 49–52.

²⁰David von Drehle, "The Ebola Fighters," *Time Magazine* 2014. P. 10.

6.1.3 *Relational Basis of the Non-Human Quandaries of Public Health Disasters*

The nonhuman or non-anthropogenic quandaries generated by public health disasters centers around the notion of whether human activities (reflected by moral deficiencies), human inaction (reflected by indifference to God-related issues) and elements of the divine (reflected by the will of God) may causally influence natural events such as earthquakes. Integral to these is the increasing relegation of religious and metaphysical concerns *vis-à-vis* the explanation of real-world events.

At the individual level, the Western intellectual tradition generally conceives the human person as a moral agent who is ultimately accountable to himself. This logic locates the destiny of the individual person and consequently that of the whole universe in the conceptual conclave of human agency. Thus, it celebrates the individualistic mantra of me, myself and I,²¹ while advocating free social contact and contract between people as the basis for situating social laws and accountability. This view has its core biological foundations in Darwinism, has generally fostered atheistic and agnostic attitudes, and has adopted science as its religious priest.²² It has likewise given rise to secular strands of morality with their own sets of “*ises*” or descriptive ethical lens and *oughts* or normative ethical prisms. These parameters not only shape individual and social life, but their influences extend to the sphere of institutional goals, activities, pursuits, and global interactions.

However, the liberal, social and democratic secular approach to morality which also resounds in the bioethical enterprise²³ has not completely turned the mind of Western people (its origins) and non-Western people (its destination of globalization) from forsaking the religious quest nor its attendant morality. The religious lens conceives the human person as a creation rather than an evolutionary accident that has emerged *ex nihilo* through speculative and non-repeatable processes such as the Big Bang. Amidst the plurality of gods, the religious moral lens locates the nexus of primary obligation to the dictates of the creator to whom all of humanity is ultimately accountable. It asserts that the moral capacities inherent in human nature are insufficient to enable them to act ethically always, thereby, underscoring the need for some connection with the divine.

There are at least three logical possibilities implied in the preceding analyses in relation to natural disasters like earthquakes. First, it raises the idea that human-generated morality or moral systems may only suffice in selected and situational

²¹ Albert R Jonsen, *The Birth of Bioethics* (Oxford University Press, 2003). Pp. 390–393.

²² John Dupré, *Human Nature and the Limits of Science* (Taylor & Francis, 2003). Pp. 4–5.

²³ H Tristram Engelhardt, “The Search for a Global Morality: Bioethics, the Culture Wars and Moral Diversity,” in *Global Bioethics: The Collapse of Consensus*, ed. H Tristram Engelhardt (Salem: M & M Scrivener Press, 2006). Pp. 18–19.

contexts. That is, only PHDs whose origins are completely natural are amenable to human manipulation through relevant social measures. It also suggests the possibility that responses to the quandaries and challenges associated with such natural disasters may not be adequately engaged through human-based ethical reasoning and responses alone. Thirdly, it implies that ignorance of the “divine will” or disobedience to it will exert tangible effects on personal and social life in the form of divine retribution. If these three ideas are true, then any ethical approach geared towards engaging public health disasters such as earthquakes need to embrace the religious perspective because the moral capacities of all the moral actors cannot be exclusively enhanced by human-created ethical frames of reference.

Public health disasters including earthquakes and volcanic eruptions have been partly ascribed to a religious dynamic, though such a causal nexus is often seen as representing a symptom of superstition or cognitive backwardness.²⁴ Yet, such a charge remains baseless at least for some reasons. One-time events and metaphysical realities are outside the purview of scientific investigations because they are non-replicable. Secondly, there are several transcultural accounts of how the supernatural has *causally* influenced human behavior and experiences, as well as the course of natural events. For instance, there are verifiable miracles that have occurred within the Christian tradition that defy scientific explanations.²⁵ Divine interventions have also been recorded in several traditional religions across the globe.²⁶ Similarly, religious relics have been used in Sicily to thwart earthquakes.²⁷

Hence, an open approach or what scholars like Dupre calls a combination of insights from a variety of perspectives not limited to the scientific arena²⁸ may hold the key to an adequate account of human nature and behavior. Such a combinational approach seems apt for addressing PHDs such as earthquakes that may have some metaphysical undertones. Beyond offering a descriptive account, such an approach should also provide some normative template that bears a relationship to the scientific as well as the religious. Without a doubt, public health disasters foster suffering. But they also create the atmosphere for sober reflection which may facilitate personal ratiocination *vis-à-vis* the individual relationship (if any) to the divine. Therefore, they may serve as a critical avenue for seeking answers to the existential and teleological purposes of life or the affirmation of agnostic and atheistic stance.

It is one thing to affirm the importance of the religious outlook. However, the pluralistic nature of modern life as well as the entrenched notion of multiculturalism—which assumes equal credence and validity to all religions—seems to be a source of potential conflict in deciding which specific perspective to use during a

²⁴David K Chester, “Theology and Disaster Studies: The Need for Dialogue,” *Journal of Volcanology and Geothermal Research* 146, no. 4 (2005). P. 320.

²⁵Craig S Keener, *Miracles: The Credibility of the New Testament Accounts* (Baker Books, 2011). Pp. 309–253.

²⁶Edith LB Turner, *Among the Healers: Stories of Spiritual and Ritual Healing around the World* (New York: Praeger 2006). Pp. 65–74, 105–107.

²⁷Chester. P. 320.

²⁸Dupré. Pp. 3–6.

health disaster that may have a metaphysical undertone. Nevertheless, the conundrum may be solved by what can be described as the Mariner’s pluralistic solution. This notion comes from Jewish history and approximates the mariner’s response to a divinely orchestrated tempest in which everyone on board was asked to call upon their “God” for a solution.²⁹

If some metaphysical causality does shape the occurrence of natural disasters like earthquakes, then paying attention to, giving room to, and allowing people to appeal to a possible dissonance in the relationship nexus with the metaphysical or supernatural increases the possibility of connecting with the “angry god” in question as well as the possibility of repentance which may lead to the end of a given divinely-mediatedly disaster.

Against this background, the next section of this chapter examines the limits of the context-specific secular ethical lenses that were developed in relation to engaging the ethical quandaries elicited by Ebola viral outbreaks, pandemic influenza, atypical-drug-resistant tuberculosis as well as the partly non-secular solidaristic lens developed in relation to the dilemmas of earthquakes.

6.2 Moral Limits of Representative Approaches to Public Health Disasters

This section attempts to tease out the limitations of the *Ubuntuan* ethic, the communitarian and care ethical lens, the anthropo-ecological ethic, and the solidaristic moral approach to public health disasters. An understanding of these limitations—in their local, global, personal, and institutional capacities—will set the proper tone for the systematic formulation and application of a GEF that this chapter ultimately seeks to develop *vis-à-vis* PHDs.

6.2.1 *Limits of the Ubuntuan Ethic vis-a-vis Public Health Disasters*

The *Ubuntu* moral lens is a Bantu-derived African notion and praxis whose conceptual vestiges resound in different parts of the African continent.³⁰ Yet, it is not the case that every African or Bantu person lives and orders their moral life using the *Ubuntu* moral frame of reference. Since culture and society often exist in a fluid

²⁹Holy Bible, *King James Bible* (Project Gutenberg, 1996). Jonah 1:4–6.

³⁰Leonard Tumaini Chuwa, *African Indigenous Ethics in Global Bioethics* (Springer, 2014). Pp. 1–7.

state,³¹ it is no surprise that the forces of Westernization have so much altered the African local culture that to find a “purely” African man in this day and age may be likened to finding a needle in a haystack.

This is partly due to the traditional axis of socialization that has been supplanted or conjoined with other agents of socialization such as radio, television, and Western education; the concerns of which communicate little (if at all) of the indigenous African values and moral vision of life. It is also because of the deliberate forces of neoliberal capitalism as well as the neocolonial interference of some foreign powers in the local affairs of African nations. This has been ascribed to the reluctant way through which political independence was granted to most African states and the formulation of former colonial powers of social and economic policies that contribute to poverty and underdevelopment in the African continent.³²

The African local context is, therefore, neither genuinely *African* nor completely *Westernized* and does not reflect a systematic integration or synthesis of the two. It is a context of dislocation where the local sense of *self* constantly suffers erosion by the alien *other* aided by local and foreign actors.³³ According to Verharen, one of the primary goals of ethics is the nature of life (description) and how it is to be lived (normativity).³⁴ Hence, without a true description of the contemporary nature of the African cultural reality and the attendant moral ethos, it may be difficult to frame an ethical prism that reflects the cognitive frame of mind of the people. Without this, it will also be difficult to assess the impact and point of asymmetries with Western ethical prisms. This underscores the local and national limits of the *Ubuntu* moral framework in African societies as well as the need to forge a relational nexus amongst the people to unpack a social ethic which will help reveal *real* from *perceived* values.

Unpacking such an ethic is necessary because community values reflect a blend of intellectual concepts, feelings, and dispositions,³⁵ and it is the ideological discourses and interactions that occur within different social contexts and involving different social actors that will provide the intellectual basis for formulating an acceptable social ethic. Since every society often embeds internal cultural and moral

³¹ Toyin Falola, *The Power of African Cultures* (University Rochester Press, 2008). Pp. 1–2.

³² Samuel Olorunfoba and Solomon Akinboye, “From African Union of Governments to African Union of Peoples?,” in *Unite or Perish: Africa Fifty Years after the Founding of the Oau* ed. Mammo Muchie, et al. (Pretoria: Africa Institute of South Africa 2014). P. 221.

³³ Michael O.S. Afolabi, “Re-Writing Realities through the Language of Healing; a Critical Examination” (paper presented at the Ibadan International Conference on African Literature Ibadan: Nigeria, July 3–6 2008). Pp. 5–15.

³⁴ Charles Verharen, “Ancient African Ethics and the African Union,” in *Unite or Perish: Africa Fifty Years after the Founding of the Oau*, ed. Mammo Muchie, et al. (Pretoria: Africa Institute of South Africa, 2014). P. 7.

³⁵ Peter J Whitehouse, “The Rebirth of Bioethics: Extending the Original Formulations of Van Rensselaer Potter,” *American Journal of Bioethics* 3, no. 4 (2003). P. 27

plurality,³⁶ such a task is also important because it will help unravel conflicting ethical values and visions within the African fabric. It should also reveal areas of possible synthesis.

Because such a task is currently missing, multiple meanings, nuances, and priorities exist for issues such as vulnerability, human rights and dignity and resource allocation amongst health workers, policymakers, literate and non-literate members of the society. This will clearly weaken the effectiveness of communication during PHDs and may engender unfounded forms of mistrust while hindering cooperation, especially amongst members of the public. This may partly explain why a lot of people resisted quarantine, and many more went into hiding to foil contact tracing attempts in the last Ebola outbreak. This connotes the notion that logic hardly completely holds sway during public health disasters. Illogical behavior during health emergencies is, however, not new. For example, during a cholera outbreak on board a ship in New York in 1849, 150 passengers escaped from the quarantine facility.³⁷

Practically, this creates some degree of uncertainty about possible expected patterns of attitude and behavior to a PHD. For instance, during the Ebola outbreak in Nigeria, a consultant physician agreed to treat one of the contacts of the index case (Patrick Sawyer) in a hotel for financial gain. The diplomat had escaped being quarantined in Lagos and fled to Port Harcourt, 300 miles southeast of Lagos. That singular action caused him his life, infected his wife, other relatives, and patients he had attended to in his private clinic. Ultimately, it put more than 200 people at risk.³⁸ The consultant's decision and action are clearly anti-*Ubuntuan*. However, if someone with advanced medical training could jettison personal safety, sacrifice family health, and community well-being for pecuniary reasons, one can only wonder how a lay member of the society may act when confronted with a similar scenario where a choice that does not favor self is required during a public health disaster.

In relation to other types of public health disasters, the *Ubuntuan* lens also has some limits. In the context of ADR-TB, for instance, *Ubuntu* offers little (if any) insights into the nexus of relationship between humans and microbial life and how this passively (e.g. existential vulnerability) or actively affect the welfare of people (e.g. harm from non-adherence to treatment regimen due to financial reasons) and how bacterial species such as *M. tuberculosis* respond by evolving drug-resistant mechanisms (e.g. biological vulnerability). Whereas some *ubuntu*-centric scholars try to extend the axis of the *ubuntuan* relationship beyond the human ambit to include biological categories,³⁹ such broad claims go against its central logic: I am because we are, since we are; therefore,

³⁶Jing-Bao Nie and Alastair V Campbell, "Multiculturalism and Asian Bioethics: Cultural War or Creative Dialogue?," *Journal of Bioethical Inquiry* 4, no. 3 (2007). Pp. 165–166.

³⁷Sonia Shah, *Pandemic: Tracking Contagions, from Cholera to Ebola and Beyond* (New York: Sarah Crichton Books, 2016). Pp. 81–82.

³⁸Richard Knox, "A Diplomat Infects a Doctor as Ebola Spreads in Nigeria," Fox News <http://www.npr.org/sections/goatsandsoda/2014/09/05/346033875/a-diplomat-infected-a-doctor-as-ebola-spreads-in-nigeria>.

³⁹Chuwa. P. 60

I am.⁴⁰ Indeed, the I-we nexus is anthropocentric and leaves no room for interactions as well as interdependence on microbial forms of life such as viruses and bacteria.

Also, *Ubuntu* specifically does not include the realm of the metaphysical in its relational purview (of course, this does not imply that Africans lack a religious, metaphysical, or spiritual frame of reference). As such, it offers little insights in relation to engaging non-anthropogenic issues raised by public health disasters such as earthquakes. Consequently, it does not offer a moral leeway vis-a-vis relating to a possible “angry god” who may be at the center of such an incident.

On the other hand, if Ebola viral infections were to spread to Euro-American societies to constitute a significant health disaster, the *Ubuntu* moral lens will hardly work due to the non-relational bearings of most people in such societies. In other words, it is difficult to expect people who are accustomed to prioritizing personal interests to adopt an other-centric moral lens during public health disasters. How the individualistic lens runs counter and contrary against the *Ubuntu* prism strikingly played out when the American nurse Kaci Hickox refused to be quarantined, despite some prior exposure to Ebola in West Africa. Regardless of these limitations, the *Ubuntu* moral lens shows the importance of an other-centric frame of mind in relation to engaging the quandaries and practical challenges of public health disasters.

The preceding analyses echo the local limits of the *ubuntu* lens in engaging the quandaries of Ebola viral outbreaks. It also shows some of the general global limits of the *ubuntu* lens as well as indicate the need for a broader moral lens to engage PHDs in general.

6.2.2 *Limits of Ethics of Care & Communitarianism vis-a-vis Public Health Disasters*

Public health disasters such as pandemic influenza entail a web of agency involving humans, animals (such as birds which migrate globally⁴¹ and swine⁴²), and the environment. However, this web of inter-relationship is hardly *normatively* enclosed within the obligational repertoire of most people. Therefore, a solely people-centered lens such as ethics of care (with its focus on human *carers* and the *cared-for*) and the communitarian lens (with its ethical gaze on the community of persons) have some limitations in relation to engaging some of the ethical perplexities elicited by public health disasters in general, and pandemic influenza in particular.

⁴⁰ John S Mbiti, *African Religions and Philosophy*, African Philosophy (London: Longman, 1969). Pp. 204–211; Mariana G Hewson, *Embracing Indigenous Knowledge in Science and Medical Teaching*, vol. 10 (Dordrecht: Springer, 2014). P. 134.

⁴¹ MacPhail. P. 77.

⁴² Kendall P Myers, Christopher W Olsen, and Gregory C Gray, “Cases of Swine Influenza in Humans: A Review of the Literature,” *Clinical Infectious Diseases* 44, no. 8 (2007). Pp. 1084–1087; Rebecca J Garten et al., “Antigenic and Genetic Characteristics of Swine-Origin 2009 (H1N1) Influenza A Viruses Circulating in Humans,” *Science* 325, no. 5937 (2009). Pp. 197–200.

Whereas human relationships ultimately reflect a nexus in which the shifting needs and interdependency of people actively or passively place them into contextual categories of *carers* (the one/s who offer some care, support or nurturing in response to the specific needs of others) and “*carees*” or “*cared-fors*” (recipients of care/nurturing), the self-absorbed nature of contemporary living runs against such a moral current. It also increasingly makes it difficult for individual-based kinds of care to flourish. In other words, while caring relationships occur at the institutional planes (in healthcare settings, for instance), spontaneous kinds of care seem to be fading due to the fragmented nature of modern living.

However, public health disasters demand spontaneous kinds of care that reflect supererogatory inclinations to take on additional responsibilities often at the expense of personal comfort. Whereas scholars like Tronto argue that care ethics offers a better approach for situating the responsibility of moral agents,⁴³ this ethical lens encounters some limitations in the context of PHDs. The care ethical lens seeks to transcend the depersonalized realm of asking “what obligations do I have to Mr. X” to the humane realm of asking “how can I help Mr. X” in scenarios of moral crises.⁴⁴ This assumes some type of Kantian disposition and/or obsession in which moral agents always *reflect* prior to engaging in specific courses of action. This hardly ever happens in normal life because there is no place where only the moral rules reign supreme.⁴⁵

Therefore, it is doubtful if it can consistently be expected to occur in a chaotic disaster situation. If this is true, then how person A will seek to help person B during a public health disaster will be influenced by how they have previously and habitually shown care to friends, neighbors, and strangers as well as the extent of self-effacing that contextual situations demand from them during a disaster context. As such, while the EOC lens embeds a disposition towards doing something for another person,⁴⁶ the current social reality where caring for others seems to reflect the exception rather than the rule implies its shortcoming in engaging the broad challenges generated by PHDs.

The care ethical lens also lacks an avenue for inserting the role and possible influences of microbial and non-human metrics in its normative analysis. This suggests the need for novel kinds of relational-based form of interventions to engage the moral and pragmatic issues engendered by disasters. Nevertheless, the care ethical lens offers a general other-centric orientation *vis-à-vis* engaging the quandaries and health challenges elicited by PHDs.

⁴³Joan C Tronto, *Moral Boundaries: A Political Argument for an Ethic of Care* (Routledge, 1993). Pp. 131–132.

⁴⁴Steven D Edwards, “Is There a Distinctive Care Ethics?,” *Nursing Ethics* 18, no. 2 (2011). P. 188.

⁴⁵Alan Hunt, *Governing Morals: A Social History of Moral Regulation* (Cambridge University Press, 1999). P. 8.

⁴⁶Virginia Held, *The Ethics of Care: Personal, Political, and Global* (Oxford University Press, 2006). p. 30.

The communitarian lens with its bearing towards collective interests in the context of public health⁴⁷ is relevant to PHDs. However, because the common good may be trounced when individual values and visions differ from that of the community,⁴⁸ the communitarian lens becomes limited in the context of a public health disaster where understanding the ideas and inclinations of the moral actors is key to ensuring successful outcomes. Also, that some values subsist and shape moral action in a given community does not make them good in and of themselves. For instance, the washing and burial of Ebola victims through cultural practices that increase exposure to the Ebola virus (provided the cadaver is Ebola-positive) may be slightly modified without necessarily altering the cultural *telos*. However, a communitarian appeal will insist on repeating the cultural norm without alteration, and without minding the potential public health consequences. As such, the lack of contextual flexibility makes the communitarian lens unsuitable for engaging public health disasters, broadly conceived.

Also, community values are not always shared by every member of a given community.⁴⁹ The absence of a leeway for internal moral engagement, therefore, implies that certain viewpoints and ethical intuitions and convictions may be ignored within the communitarian tradition. This again echoes its limits in the context of PHDs. Lastly, communitarianism, like the ethics of care approach, lacks a conceptual channel for incorporating the sphere of microbial and metaphysical considerations into its normative analysis and application. The latter metrics are, however, integral to public health disasters.

6.2.3 *Limits of an Anthropo-ecological Approach vis-a-vis Public Health Disasters*

The anthropo-ecological moral prism combines anthropological with microbial epistemic currents in developing a normative approach public health disasters. It gives room for some existential compromise between humankind and microbial life, reflecting the stance of Lepora and Goodin on the need for ethical compromise in relation to disasters.⁵⁰ Hence, it sounds the sobering notion that the cycle of human infections may never be completely eradicated.

The anthropo-ecological approach is quite useful, as it can help to blur the distinctions between human rights, autonomy, and social responsibilities by placing everyone in the category of infectables, focusing attention on the victimhood and vectorhood of human beings in relation to public health disasters with infectious

⁴⁷ Stephen Holland, *Public Health Ethics* (Polity Press, 2007). Pp. 51–5.

⁴⁸ Ronald Bayer et al., *Public Health Ethics: Theory, Policy and Practice* (Oxford: Oxford University Press, 2007). P. 20.

⁴⁹ Will Kymlicka, “Liberalism and Communitarianism,” *Canadian Journal of Philosophy* 18, no. 2 (1988). P. 200.

⁵⁰ Chiara Lepora and Robert E Goodin, *On Complicity and Compromise* (OUP Oxford, 2013). Pp. 14–17.

dynamics such as Ebola, pandemic influenza and ADR-TB. The anthropo-ecological approach also emphasizes the value of prior social trust in relation to cooperation with health institutions and instructions during public health disaster situations. However, it does not accommodate metaphysical consideration in its normative account and analysis. As such, it becomes limited in the context of PHDs that may have elements of the divine or metaphysical undertones in their causal nexus.

6.2.4 Limits of a Solidaristic Approach vis-a-vis Public Health Disasters

Solidarity focuses on and explores social bonds and connections.⁵¹ The solidaristic approach developed in Chap. 5 clearly states what needs to be done in relation to the human and non-human quandaries of public health disasters such as earthquakes. It also identifies primary actors (such as local government officials and health workers, the unaffected local populace, search and rescue teams, firemen, and international human and material aid) and the potential victims or local populace who need to be mobilized to realize the critical ethical agenda. To be sure, solidarity can help people to set aside self-interests and seek cooperation⁵² as well as pursue goals that may help address collective social challenges, thereby fostering useful social change.⁵³

However, an anthropo-ecological moral prism offers no means of assigning responsibilities. It also offers no means of altering the social milieu to prepare and co-opt people into performing solidaristic and other supererogatory tasks prior to disasters. This is important because human nature is partially embedded within the social milieu and influenced by the prevailing social order.⁵⁴ In other words, it is easier to join forces and cooperate with others in a public health disaster scenario if one is hitherto predisposed to doing so.

On the other hand, the solidaristic lens is also not open to accommodating microbial interactions in its normative account. Nevertheless, it does affirm the place of non-anthropogenic forces in relation to PHDs such as an earthquake. It also underscores the need for self-reflection and proper self-positioning prior to coming into a disaster arena to help others. In other words, it emphasizes the role of coordinated local responses prior to engaging external moral actors to prevent overcrowding and unnecessary human and material resources. Whereas crowded, impoverished societies are associated with significant burdens of infectious diseases,⁵⁵ public health

⁵¹Ten Have. *Global Bioethics* P. 216.

⁵²Anthony Oliver-Smith, "The Brotherhood of Pain: Theoretical and Applied Perspectives on Post-Disaster Solidarity," in *The Angry Earth: Disaster in Anthropological Perspective*, ed. Anthony Oliver-Smith and Susannah M. Hoffman (Psychology Press, 1999). Pp. 157–163.

⁵³James Dwyer, Kenzo Hamano, and Hsuan Hui Wei, "The Disasters of March 11th," *Hastings Center Report* 42, no. 4 (2012). P. 11.

⁵⁴Charles Horton Cooley, *Human Nature and the Social Order* (Transaction Publishers, 1992). Pp. xii, xv, xvii.

⁵⁵Shah. P. 6.

disasters increasingly cut through the social and economic divides of societies. In this regard, the solidaristic lens shows how a classless but systematic response is an essential key to resolving the quandaries and challenges of PHDs.

This section has shown the importance of an other-centric orientation to public health disasters. It has underscored the importance and contexts of solidarity as well as the need to incorporate microbial as well as religious or metaphysical metrics into a useful normative approach to public health disasters. These parameters are clearly essential for any global bioethical approach to a global problem such as PHDs. The notion and methodology of global bioethics, however, embed some challenges. The next section seeks a viable way to overcome these with a view to developing a global ethic for public health disasters.

6.3 Overcoming the Challenges of Developing a Global Ethic

Scholars like Calman contend that extant bioethical frameworks are usually not adequate to engage the problems of public health.⁵⁶ Indeed, it has been argued that bioethics needs a revision of its basic ethical concepts and principles, especially those inherited from the individualistic liberal tradition.⁵⁷ Also, hundreds of pathogens encroach upon the human community with the possibility of triggering pandemics.⁵⁸ This occurs more now than before and contributes to how human beings tend to die very easily.⁵⁹ However, disasters accelerate the process of human death and destruction. Public health disasters come with the traditional barrage of disasters upon which are superimposed novel health-related challenges. They, therefore, warrant more urgent kinds of local and global responses. Benatar and other colleagues argue that bioethics, with an expanded scope and shared foundational values, can help improve global health through such means as facilitating the emergence of a global state of mind, long-term self-interest, and strengthening capacity.⁶⁰ A different ethical approach—a global bioethics—distinct from the mainstream bioethical lens is believed to hold the key to this agenda.

Global bioethics means different things to different bioethicists. It is sometimes seen as an expansion of the scope of bioethics with a view to uniting the East and West, North and South as they all confront the modern challenges of biomedicine to reach common solutions.⁶¹ Hellsten notes that global bioethics has arisen out of the

⁵⁶ K Calman, “Beyond the ‘Nanny State’: Stewardship and Public Health,” *Public Health* 123, no. 1 (2009). Pp. e6–e7.

⁵⁷ Battin et al. P. 274.

⁵⁸ Shah. P. 198.

⁵⁹ Atsushi Asai, “Tsunami-Tendenko and Morality in Disasters,” *Journal of Medical Ethics* 41, no. 5 (2015). P. 365.

⁶⁰ Solomon R Benatar, Abdallah S Daar, and Peter A Singer, “Global Health Ethics: The Rationale for Mutual Caring,” *International Affairs* 79, no. 1 (2003). Pp. 107–108.

⁶¹ Alastair V Campbell, “Presidential Address: Global Bioethics— Dream or Nightmare?,” *Bioethics* 13, no. 3/4 (1999). P. 183.

increasing interconnectedness of people and their ethical dilemmas. She regards it as an attempt to universalize a specific brand of normative principles and values, making them globally acceptable and applicable.⁶² For Drydyk, global ethics encompasses seeking a reasonable and responsible agreement on global problems based on diverse moral grounds.⁶³ Global bioethics is often linked with globalization and does involve the currents of globalization. However, scholars like ten Have recently argued that it is not birthed solely by globalization but involves seeking broader solutions to the ethical issues elicited by health, disease, life, and death.⁶⁴

Methodologically, scholars like Chiarelli believe that a global bioethical approach needs to involve humanistic as well as theological insights and perspectives.⁶⁵ Sinaci notes that serious bioethical reflection cannot engage real issues without the religious dimension, thus, highlighting the need for a clear understanding of religious models and traditions, and their essential concepts: birth, life, health, sickness, suffering, and death.⁶⁶ For ten Have, global bioethics should be inter-disciplinary and incorporate some scientific methodology.⁶⁷ More recently, he has argued that it entails a broader view of the biological, social, political, and environmental dynamics of healthcare, biomedical sciences, and research.⁶⁸

Others have noted that global bioethics also seeks to foster an agreement between mankind and nature.⁶⁹ This is necessary because the health of humankind closely ties with and is shaped by the environment within which they live in a web-like ecosystem of competition (with other life forms) with varying degrees of dependency.⁷⁰ For van Potter, secular morality and religious cooperation can drive global bioethics despite the modern mire of pluralism.⁷¹ In other words, a global bioethics can help tease out a sane and relevant voice amidst the cacophony of ideological voices that are present in today's' intellectual discourse.

⁶²Sirkku K Hellsten, "Global Bioethics: Utopia or Reality?," *Developing World Bioethics* 8, no. 2 (2008). P. 70.

⁶³Drydyk. Pp. 16–17.

⁶⁴Ten Have. *Global Bioethics* P. 211.

⁶⁵Brunetto Chiarelli, "The Bioecological Bases of Global Bioethics," *Global Bioethics* 25, no. 1 (2014). P. 20.

⁶⁶Maria Sinaci, "The Possibility of Global Bioethics in a Globalized World," *Communication Today: An Overview from Online Journalism to Applied Philosophy* (2016). Pp.302–303.

⁶⁷Henk AMJ ten Have, "Potter's Notion of Bioethics," *Kennedy Institute of Ethics Journal* 22, no. 1 (2012). P. 77.

⁶⁸Henk ten Have, "Bioethics Needs Bayonets," in *Global Bioethics: What For? Twentieth Anniversary of Unesco's Bioethics Programme*, ed. German Solinis (Paris: UNESCO, 2015). P. 148.

⁶⁹Amir Muzur and Iva Rinčić, "Two Kinds of Globality: A Comparison of Fritz Jahr and Van Rensselaer Potter's Bioethics," *Global Bioethics* 26, no. 1 (2015). P. 26.

⁷⁰Benjamin A Kogan, *Health: Man in a Changing Environment* (Harcourt Brace Jovanovich, Inc, 1970). Pp. 12, 15.

⁷¹Van Rensselaer Potter, "Global Bioethics as a Secular Source of Moral Authority for Long-Term Human Survival," *Global Bioethics* 5, no. 1 (1992). P. 6.

According to ten Have, a cardinal aspect of global bioethics which is reflected in the Potterian approach is the relatedness of persons to each other, the community, nature, other forms of life as well as the environment.⁷² If adaptive success is shaped by the outcome of human interaction with the environment and other life forms present,⁷³ then a global bioethical framework implies the collaboration between specialists in different fields (philosophy, sociology, medicine, theology, psychology, etc.) who are interested in the same subjects and work with similar information sources⁷⁴ and who reckon with the roles of microbial (e.g. bacteria and viruses) members of the ecosystem. Since there is often a dynamic relationship between nature and nurture,⁷⁵ one can argue that a global ethic (and by extension global bioethics) should flexibly reflect the changing dimensions of the local and global nature of human experiences and ethical lenses in relation to the complex and multifaceted influences that may stem from some of the problems of nurture. Rosemarie Tong recently echoed this idea in describing global bioethics as a form of bioethical approach that takes into consideration the diversity of peoples and cultures in seeking ways to improve people's health across the globe.⁷⁶

The idea of a global bioethics is, however, a very hotly contested issue. According to Hutchings, this arises in the context of realizing a global ethic whose aim is to control moral global policies, laws, and institutions, directly or indirectly.⁷⁷ Objections are leveled against such an interpretation in terms of charges of neo-colonialism, moral imperialism, intellectual hegemony, as well as cultural domination.⁷⁸ At the heart of these conceptual contentions, however, is the nature and variations of moral reasoning and how to arrive at a consensus on this. To be sure, moral reflections and their outcomes or ethical perspectives reflect differing diversities because different moral building blocks constitute their foundations.

For Tristram Engelhardt, these disagreements are perennial and may only be solved via the implementation of a forceful moral orthodoxy. This, according to him, is an intractable task because real consensus is philosophical, ideological, and is impossible due to differing moral premises. Pseudo-consensus, on the other hand, comes readily via the selective appointment of ethicists with little moral diversity.⁷⁹ Another problem with reaching moral consensus is partly tied to the quest to realize

⁷²Ten Have. "Potter's Notion of Bioethics", P. 62.

⁷³Chiarelli. P. 19.

⁷⁴Sinaci. P. 298.

⁷⁵Whitehouse. Pp. 28–29.

⁷⁶Rosemarie Putnam Tong, "Is a Global Bioethics Possible as Well as Desirable? A Millennial Feminist Response," in *Globalizing Feminist Bioethics: Crosscultural Perspectives*, ed. Rosemarie Putnam Tong (Routledge, 2018). Pp. 27–31.

⁷⁷Kimberly Hutchings, "Thinking Ethically About the Global in 'Global Ethics,'" *Journal of Global Ethics* 10, no. 1 (2014). P. 26.

⁷⁸Alan Petersen, *The Politics of Bioethics* (Routledge, 2011). Pp. 7, 17–18; Heather Widdows, "Is Global Ethics Moral Neo-Colonialism? An Investigation of the Issue in the Context of Bioethics," *Bioethics* 21, no. 6 (2007). Pp. 307–312.

⁷⁹Engelhardt, "Global Bioethics: An Introduction to the Collapse of Consensus." Pp. 1–5.

a global ethic that is grounded in acultural and asocial *oughts*.⁸⁰ Such an approach neglects the social embedded nature of human beings, which invariably implies that differing socio-cultural realities will necessitate local nuances even to globally viable ethical prisms.

Moral consensus come in at least two ways: foundational and contextual. Scholars like Engelhardt see moral consensus in a foundational sense. For Engelhardt, if the moral rubric between two moral strangers is dissimilar, reaching an agreement between them becomes difficult. Scholars like Jotterand, however, believe that contextual moral consensus is possible between person X and Y if there is some flexibility of interests and needs as well as tolerance and mutual commitment.⁸¹ But there is a third way of formulating moral consensus by focusing on restricted classes of global problems.

This third option entails looking for local problems across different cultural divides which equally have some global dimensions. This may be followed by formulating context-suitable solutions to each of these representative problems with sensitivity to trans-national nuances and limitations. Finally, examining the common threats posed by the problems, unearthing common cores as well as overlapping quandaries and forging a flexible framework using the conceptual and ethical insights that intersect around the context-specific solutions may give a broader or global normative lens for approaching a specific class of global problems. In other words, if arriving at a comprehensive global ethic for bioethical problems, writ large, constitutes a complicated and controversial task,⁸² it is possible to arrive at theme-specific global “ethics” using the aforementioned methodology.

Because there are hardly people who are in today’s global village existing in an abstract and decontextualized sphere,⁸³ local moral problems often engender some level of global dimension, however weak. Ethicists like Drydyk describe global problems as those that will cause significant harm in the absence of cross-border and trans-national cooperation.⁸⁴ This book has shown that public health disasters such as Ebola viral outbreaks pandemic influenza, atypical drug-resistant tuberculosis and earthquakes pose both local and global harms. In contemporary global health, no country can successfully insulate itself from major health hazards.⁸⁵ By implication, they require trans-national cooperation and solutions. In other words, PHDs rightly belong to the class of global problems.

⁸⁰ Heather Widdows, Donna Dickenson, and Sirkku Hellsten, “Global Bioethics,” *New Review of Bioethics* 1, no. 1 (2003). Pp. 101–102.

⁸¹ Fabrice Jotterand, “Moral Strangers, Prodeduralism and Moral Consensus,” in *At the Foundations of Bioethics and Biopolitics: Critical Essays on the Thought of H. Tristram Engelhardt, Jr.*, ed. Lisa M Rasmussen, Ana Smith Iltis, and Mark J Cherry (Switzerland: Springer International Publishing, 2015). Pp. 211–212.

⁸² Drydyk. Pp. 16–22.

⁸³ Ten Have. *Global Bioethics* P. 234.

⁸⁴ Drydyk. Pp. 116–18.

⁸⁵ Lawrence O Gostin and Ames Dhali, “Global Health Justice,” in *Global Bioethics and Human Rights: Contemporary Issues*, ed. Wanda Teays, John-Stewart Gordon, and Alison D. Renteln (New York: Rowman & Littlefield, 2014). P. 319.

In public health, the presence of individual nuances to standard protocols or clinical interventions or instructions is well-known. For instance, skipping breakfast may be bad for the health of many but not for all. Also, milk may be good for many people, yet, it nauseates some people.⁸⁶ On this note, it is not unreasonable to forge a nuanced ethical framework for engaging public health disasters along relevant lines of divides in terms of individual, social, global, and ecological niches. If this is true, formulating a global ethic in relation to engaging global problems offers a normative lens for engaging global ethical problems, broadly conceived. On this note, the next section of this chapter specifically develops and describes the parameters of a relevant global lens *vis-à-vis* public health disasters.

6.3.1 Framing a Global Ethic for Public Health Disasters

Public health disasters encompass a motley of issues with local and global dimensions. By nature, these issues are partly materialistic and partly non-materialistic and reflect different sets of relational dissonances at the level of human-human interaction, human-microbial life interaction, and human-non-human interaction. As such, any ethical framework geared towards engaging the moral quandaries as well as the attendant challenges of PHDs need to embrace these multifaceted dimensions.

Pragmatically, PHDs as a class of global problems need solutions. Yet, the socio-cultural nuances surrounding them demand that such solutions be flexible to attune to local and global contexts. At the heart of PHDs are relational dissonances encompassing human and non-human dynamics. Associated with these, also, are multiple epistemic facets including the secular, theological, medical, sociological, cultural, as well as philosophical, and ingrained within an ethical broth. Logically, this suggests that any viable global ethical approach to public health disasters will entail multi-disciplinary insights and ideas. Knowledge, broadly conceived, has become increasingly critical to doing ethics as well as understanding the different relationship axes, responsibilities, and duties⁸⁷ that moral actors have toward one another.

On the other hand, global health problems can hardly be solved today exclusively by countries of primary foci. For instance, a pandemic influenza outbreak can rapidly transfer across all the continents within 24 hours. To be sure, local health problems experienced in communities and nations increasingly entail some global dimensions.⁸⁸ This observation partly highlights the urgency for cooperation across national lines to engage public health disasters that foist global vulnerabilities. It also partly underscores how the array of human and non-human interconnectedness that is central to PHDs demonstrate the idea that humans belong to a global neigh-

⁸⁶ Kogan. P.8.

⁸⁷ Eric J Cassell, "Unanswered Questions: Bioethics and Human Relationships," *Hastings Center Report* 37, no. 5 (2007). P. 23.

⁸⁸ Gostin and Dhali. pp. 318–320.

borhood and, by this fiat, need some neighborhood-oriented or relational kind of ethics to solve their common global problems.

Cassel contends that ethics is about relationships.⁸⁹ If this is true, a relational ethical framework not only provides a good approach to engaging moral problems but offers an important way of engaging trans-national issues that have relational dissonances at their core. In other words, understanding such relational disparities should generate useful ways of resolving them. Such a framework cannot rely solely on bioethical epistemic currents and needs to relate with and employ non-bioethical knowledge, partly reflecting ten Have's call for a language of several voices. Therefore, three distinct kinds of relational parameters are integral to framing a global ethic for engaging the moral quandaries of PHDs.

The first is epistemic-based and involves novel combinations of knowledge across different scientific and social sciences spheres. This epistemic-based approach affirms the inescapability of a multi-disciplinary approach to global bioethics. The second parameter will require the application of the multidisciplinary epistemology to the human issues at the center of PHDs. This will involve orienting people within localities, nations, and across global planes to embrace values that facilitate solidarity, recognize mutual respect and dependency, as well as elevate human interests and values above pecuniary considerations. The third and last parameter requires incorporating and not stifling the possible role of non-human divine agency in shaping natural disasters such as earthquakes. This is important because if such a causal factor is at play, a response knitted solely on human agency will not always work.

This three-pronged approach entails new ways of thinking and doing things and demands some form of moral change and moral evolution involving some pragmatically motivated moral changes in response to some of the practical difficulties in social life.⁹⁰ Against this conceptual background, it is exigent to delineate the specific features of this "global ethic". This book argues that such features involve at least five mutually reinforcing relational-based R's. These are: respect for transnational moral values, respect for biological relatedness, respect for metaphysical frames of reference and diversity, responsiveness to vulnerabilities, and responsibility. The specific nature of each of these and their relevance *vis-a-vis* public health disasters is examined in the next section.

6.3.2 A Five-Relational Global Ethic vis-à-vis Public Health Disasters

This section delineates the specific ethical features of the five R's and examines how they may help engage the quandaries of public health disasters. The notion of respect for transnational values reckons with the inevitable cultural and

⁸⁹Cassell. Pp. 20–22.

⁹⁰Richmond Campbell and Victor Kumar, "Pragmatic Naturalism and Moral Objectivity," *Analysis* 73, no. 3 (2013). P. 446.

sociopolitical realities that occur in different national, sub-national, and geopolitical territories. This will contribute towards resolving some of the disputes that arise due to what Hellsten describes as “universalistic imperialism” and “self-contradictory relativism”. This approach is also inevitable partly because included in the gamut of bioethical investigations are questions pertaining to human existence and well-being,⁹¹ which are intricately tied to human cultures and values.

If community values reflect a blend of intellectual, social, and personal concepts;⁹² and if they are not always shared across the board,⁹³—whether one is operating within a Western or non-Western context—⁹⁴ then community values can only be deduced through social discourse and respectful deliberations as well as empirical sociological and anthropological data. This connotes the idea that global bioethics can no more rely on armchair speculation and reflection that takes place between and amongst scholars in books, conferences, and journals. Rather, it must more than ever engage empirical data derived from local, intranational, national and transnational contexts. Respecting transnational values may, therefore, help foster social, intranational, national and transnational cooperation on global health problems such as PHDs.

Respect for biological relatedness entails recognizing and utilizing the significance of the biological ecosystem *vis-à-vis* ethical reflections.⁹⁵ Arguing in this direction, Dupras *et al.* note that embracing and including biological insights present a Potterian approach to broadening bioethical concerns and engaging ethical issues of public health import.⁹⁶ This approach is necessary because humans live in a larger ecosystem where microbial life-forms exist, seek flourishing, and are therefore co-legitimate tenants of the earth. Although people tend to see themselves as victors fighting a winnable war against pathogens, such a simplistic enemy-victor dichotomy does not capture the complexity of the human-microbe nexus.⁹⁷

There are, however, some compelling reasons to balance the relationship between human and other biological forms of life.⁹⁸ Drug resistance exemplified by such conditions as MRSA (methicillin-resistant *Staphylococcus aureus*), drug-resistant gonorrhea, and atypical drug-resistant tuberculosis demonstrate the urgency of finding this balance soon. That there may never be another golden age of antimicrobial

⁹¹ Sirkku K Hellsten, “The Role of Philosophy in Global Bioethics,” *Cambridge Quarterly of Healthcare Ethics* 24, no. 02 (2015). Pp. 185–186.

⁹² Whitehouse. P. 27

⁹³ Kymlicka. P. 200.

⁹⁴ Hellsten, “The Role of Philosophy in Global Bioethics.” Pp. 189–190.

⁹⁵ Van Rensselaer Potter, “Bioethics, Science of Survival,” *Perspectives in Biology and Medicine* 14, no. 1 (1970). Pp. 134, 151–152.

⁹⁶ Charles Dupras, Vardit Ravitsky, and Bryn Williams-Jones, “Epigenetics and the Environment in Bioethics,” *Bioethics* 28, no. 7 (2014). Pp. 327–331.

⁹⁷ Shah. Pp. 208–209.

⁹⁸ Chiarelli. Pp. 19–20.

drug development⁹⁹ also highlights the importance of seeking microbial cooperation as opposed to the entrenched and mechanistically grounded elimination approach to infectious diseases.

Microbes such as *M. tuberculosis* are, from an anthropocentric lens, parasites that require endless elimination through modern arsenals of antibiotics. However, respect for biological relatedness implies conceiving humans and microorganisms as partners in nature,¹⁰⁰ each usually looking out to his and its interests. In the specific context of PHDs, respect for biological relatedness will contribute to reversing or tempering aggressive approaches to infectious diseases, favoring the adoption of rational antibiotic use as well as facilitating the pursuit of innovative non-antibiotic-based treatment options such as immunotherapies and immunomodulators, which may help curb reinfection and reactivation.¹⁰¹ These will positively impact the rate of microbial mutation and resistance, thereby helping to curb the social burdens of associated diseases such as ADR-TB.

Respect for spiritual/metaphysical frames of reference and diversity entails avoiding the “intellectual smugness” with which appeals to spiritual frames of reference in relation to causality are often met in contemporary liberalized societies. It reflects what ethicists like Alastair Campbell describe as a global bioethical vision of respecting the diversity of ethical worldviews including the religious.¹⁰² It also reflects the Mariner’s pluralistic solution described earlier in this chapter as well as reflects the idea of Fritz Jahr, an independent pioneer of bioethics,¹⁰³ that spiritual and unseen worlds need to be factored into the moral analysis of the perplexing issues that humans face.¹⁰⁴ Through this ethical prism, multiple attempts to solve a collective problem should be encouraged as long they do not impede the self-expression of others, the capacity of others to hold contrary views, or lead to harm.

Responsiveness to vulnerabilities constitute understanding and clarifying the underlying social, political, neoliberal, and institutional vulnerabilities that foster PHDs and mounting appropriate acts of solidarity or responses to them. This is necessary because relational dissonances underlie PHDs and the experience of vulnerability that negatively impacts people’s wellbeing is itself relational.¹⁰⁵ If human beings are both capable and needy,¹⁰⁶ responding to the multi-faceted vulnerability

⁹⁹ Stewart T Cole, “Who Will Develop New Antibacterial Agents?,” *Philosophical Transactions of the Royal Society B* 369 (2014). P.1.

¹⁰⁰ Radest. P. IX.

¹⁰¹ Debapriya Bhattacharya, VedPrakash Dwivedi, and Gobardhan Das., “Revisiting Immunotherapy in Tuberculosis,” *Journal of Mycobacterial Diseases* 4, no. 1 (2013). P.2.

¹⁰² Campbell. P. 189.

¹⁰³ Amir Muzur, Iva Rinčić, and Stephen Sodeke, “The Real Wisconsin Idea: The Seven Pillars of Van Rensselaer Potter’s Bioethics,” *Journal of Agricultural and Environmental Ethics* 29, no. 4 (2016). Pp. 587–589.

¹⁰⁴ Amir Muzur and Hans-Martin Sass, *Fritz Jahr and the Foundations of Global Bioethics: The Future of Integrative Bioethics*, vol. 37 (LIT Verlag Münster, 2012). P. xii.

¹⁰⁵ Henk ten Have, *Vulnerability: Challenging Bioethics* (Routledge, 2016). P. 6.

¹⁰⁶ Martha C Nussbaum, *Frontiers of Justice: Disability, Nationality, Species Membership* (Harvard University Press, 2009). P. 221.

issues that echo before and during PHDs necessitates identifying, empowering, enhancing, and engaging the activities of the different moral actors involved in mounting relevant responses.

Finally, the ethic of responsibility entails holding individuals, governments, and institutions at the local and global level accountable to broad and specific acts or inactions. According to scholars like Finkler, to be human encompasses incurring responsibilities for others.¹⁰⁷ For Benatar et al., rights should be enjoyed based on the willingness to accept responsibilities.¹⁰⁸ Other scholars like Chapman have also voiced the need to place less emphasis on rights rhetoric and focus rather on responsibilities of moral agents in specific contexts.¹⁰⁹ Because appeals to rights are often demanding whereas proclivity to executing responsibilities often go with some degree of self-effacing and sacrificial tendencies, emphasizing the latter is necessary in disaster contexts where supererogatory and other-centric dispositions are critical to helping victims and survivors, as well as responders achieve successful outcomes.

An examination of the five nuggets embedded in the relational-based global ethic shows how each one reinforces some of the others. For instance, respecting transnational values will help reinforce the tolerance and respect for religious views shared in such locations. For instance, it is known that variant religious ideas often come to the fore in the context of natural disasters such as earthquakes.¹¹⁰ Showing respect to such views by local responders and international NGOs will further spare victims and survivors of emotional trauma, thereby, contributing to ensuring that both parties achieve some of their desires, and succeed in the face of the tragedy.

Against this background, it is important to examine how each of these five relational nuggets may help engage the quandaries of public health disasters.

6.3.3 A Relational Global Ethic vis-à-vis the Quandaries of Public Health Disasters

This section specifically attempts to explore how the five relational-based nuggets embedded in the proposed global ethical framework may help engage the moral quandaries of public health disasters.

¹⁰⁷ Kaja Finkler, "Can Bioethics Be Global and Local?, or Must It Be Both?," *Journal of Contemporary Ethnography* 37, no. 2 (2008). P. 174.

¹⁰⁸ Benatar, Daar, and Singer. P. 120.

¹⁰⁹ Audrey R Chapman, "Reintegrating Rights and Responsibilities," in *International Rights and Responsibilities for the Future*, ed. Kenneth W. Hunter and Timothy C. Mack (Greenwood Publishing Group, 1996). Pp. —4.

¹¹⁰ Kari A O'Grady et al., "Earthquake in Haiti: Relationship with the Sacred in Times of Trauma," *Journal of Psychology and Theology* 40, no. 4 (2012). Pp. 289–290; Garvey Lundy and Felix Germain, "The Earthquake, the Missionaries, and the Future of Vodou," *Journal of Black Studies* 42, no. 2 (2011). Pp. 247–251; Guitele J Rahill et al., "Shelter Recovery in Urban Haiti after the Earthquake: The Dual Role of Social Capital," *Disasters* 38, no. s1 (2014). Pp. 73–81.

6.3.3.1 Vulnerability

Vulnerability often involves a decrease in as well as constraints to human capacities that engender some level of dependence on others. During PHDs, the causes of vulnerability may be structural, social, epistemic, geographic location, biological, or existential. Responsiveness to these vulnerabilities through context-relevant acts of solidarity will help ameliorate the distress and pains of those affected. If vulnerability reflects a by-product of interactions between individual and contextual risks,¹¹¹ then acts of solidarity must engage underlying causes, or what ten Have recently described as underlying structures of suffering and violence.¹¹² In this vein, the nexus of power exerted by international agencies such as IMF and other neoliberal forces that weaken local contexts need to be eroded by cooperation within and across national boundaries.

Showing solidarity should also entail seeking to understand the different monocultures that may be embedded in any given culture as opposed to the often-misleading Euro-American, African, Asian or Latin-American divides which assume ideological and ethical homogeneity. Finally, it should entail collective transnational responses to specific PHDs. For instance, assisting countries in earthquake-prone regions to build more resilient houses and acquire better warning systems will help minimize losses and harms experienced during incidents. Similarly, supporting biopharmaceutical research to localized but global PHDs such as Ebola will help fast-track the development of therapeutic interventions such as vaccines and drugs.

On the other hand, respecting biological relatedness by seeking non-aggressive therapeutic approaches to infectious diseases will partly slow down the capacities of microbes to mutate and evolve resistance mechanisms, thereby reducing the biological vulnerabilities of humanity to those organisms. The nugget of respecting religious appeals and spiritual diversity can help engage the existential vulnerability elicited by PHDs by allowing the pursuit of metaphysical measures, personally and socially.

6.3.3.2 Human Rights & Dignity

Human rights issues come to the fore in different ways during PHDs. Some occur directly, while others occur as by-products of other specific issues such as triage and rationing. Scholars like Leslie Sklair have advanced the notion that taking human rights seriously entails eroding the distinctions between civil and political rights as well as social and economic rights.¹¹³ In other words, one way to engage the praxis of rights is to focus on the individual person in relation to specific issues that raise or may raise human rights-related violations. If this is true, emphasizing responsi-

¹¹¹ ten Have, *Vulnerability: Challenging Bioethics*. P.71.

¹¹² Ten Have, *Global Bioethics*, P. 214.

¹¹³ Leslie Sklair, "The Globalization of Human Rights," *Journal of Global Ethics* 5, no. 2 (2009). P. 81.

bility will help the moral actors involved in health disaster scenarios in various ways. However, this can best be achieved in pre-disaster conditions.

For instance, the responsibilities of the moral actors such as healthcare workers, first responders, international agencies and NGOs in earthquake-prone regions can be debated, agreed upon, and specified before disasters. Although such an approach helps in the implementation of rights-related decisions such as triage,¹¹⁴ specifying and emphasizing responsibilities prior to disasters will also encourage supererogatory and other non-self-focused courses of actions. For instance, it would have been difficult for Nurse Kaci Hickox to reject being quarantined based on rights grounds if she had been explicitly briefed about the responsibilities and risks involved in going to help with Ebola in West Africa and if she had signed some form of waiver prior to traveling to West Africa. Clarifying responsibilities prior to entering disaster contexts also give moral actors (such as Kaci Hickox) the opportunity to make an autonomous choice of declining or accepting to render help for victims and survivors of disasters.

For public health disasters that engender socio-political differences, respecting transnational values may help foster respect for the local cultural and political values. For instance, while it is true that China was slow to respond to the global impact of the 2003 SARS outbreak,¹¹⁵ respecting the ideological differences by responding to the Chinese attitude in ways that portray them as equal partners engaged in fighting a common threat would probably have led to better transnational cooperation; and consequently, help reduce the attendant global causalities. Campaigns for sanitary burial for Ebola victims or the suspension of traditional burial rites during the 2014 Ebola outbreak was done in a manner void of cultural sensitivity. International attitude as well as the attitude of international workers who traveled to countries like Liberia and Sierra Leone reflected a somewhat condescending approach to this culturally sensitive issue. The same attitude was adopted in relation to the connection between consumption of bats or “bush meat” and transmission of Ebola. Yet, as shown in Chap. 2, the scientific foundation for this connection is porous. Nevertheless, it negatively affected local cooperation.¹¹⁶ Hence, respecting transnational values can help create a context where the dignity of every moral actor is respected and an atmosphere where trust is fostered.

6.3.3.3 Uncertainty

Šehović recently remarked that it is important to come to grips with the permanence of uncertainty in dealing with health emergencies including epidemics.¹¹⁷ There are three major kinds of uncertainty involved in PHDs; however, they all underscore

¹¹⁴ Hu Nie et al., “Triage During the Week of the Sichuan Earthquake: A Review of Utilized Patient Triage, Care, and Disposition Procedures,” *Injury* 42, no. 5 (2011). “Triage during the week of the Sichuan earthquake”, Pp. 515–519.

¹¹⁵ MacPhail. P. 90.

¹¹⁶ Anja Wolz, “Face to Face with Ebola—an Emergency Care Center in Sierra Leone,” *New England Journal of Medicine* 371, no. 12 (2014). Pp. 1081–1082.

¹¹⁷ Annamarie Bindenagel Šehović, *Coordinating Global Health Policy Responses: From Hiv/Aids to Ebola and Beyond* (Springer, 2017). P. 23.

different facets of vulnerabilities. The nugget of responding to vulnerability may help address this moral quandary. Specifically, epistemic and biological uncertainty may be minimized through research and preventive approaches which can be facilitated through context-specific acts of solidarity.

On the other hand, respect for religious causal appeals may help minimize uncertainty for those who subscribe to such an outlook, especially in natural disasters such as earthquakes and volcanoes that have for thousands of years been associated with elements of the divine. It is known, for instance, that religion can serve as a resource rather than constitute a hindrance during disasters.¹¹⁸ Not dissuading this approach also creates the possibility that some natural disasters may be stopped by divine intervention if the right kind of prayers is offered by the right type of people to the right type of “God”. Hence, leading not only to saving the lives of those that prayed but that of the rest of the at-risk community. A recent video clip about a tornado in the Philippines whose path was reversed by prayer seems to support this notion.¹¹⁹

6.3.3.4 Local and Global Justice

Issues related to local and global justice are an important quandary in public health disasters. Responsiveness to vulnerabilities in terms of identifying weaknesses in extant local institutions will clearly help strengthen such agencies and enable them to better serve their relevant functions. For example, a lot of background situations make it difficult for health-related justice to be pursued efficiently in the African context. One essential core of this is the little connection that exists between indigenous forms of knowledge—which are orally but hardly ever systematically taught—and formal instruction.¹²⁰ Bridging this gap is crucial to fostering conditions that will better allow the application of the relational-based global ethical lens to public health disasters.

Global justice significantly shapes local contexts, and, perhaps, demand some urgent attention in the context of PHDs. For instance, The World Health Organization’s (WHO) activities are no longer driven by global health priorities but by donor interests such as the Gates Foundation.¹²¹ This may replace real concerns and global problems with idiosyncratic interests. Specifically, it has contributed to

¹¹⁸ Jean-Christophe Gaillard and Pauline Texier, “Religions, Natural Hazards, and Disasters: An Introduction,” *Religion* 40, no. 2 (2010). P. 83.

¹¹⁹ Kicker Daily News, “‘Power of Prayer’ Stops Tornado from Destroying Ph Village,” <http://kickerdaily.com/posts/2014/10/watch-power-of-prayer-stops-tornado-from-destroying-ph-village/>.

¹²⁰ Hountondji. Pp. 135–140; Michael J Moravcsik and John M Ziman, “Paradisias and Dominatia: Science and the Developing World,” *Foreign Affairs* 53, no. 4 (1975). Pp. 699–705; Oscar OBrathwaite, “Promoting a Pan-African Education Agenda by Shifting the Education Paradigm,” in *Unite or Perish: 50 Years after the Founding of the Oau*, ed. Mammo Muchie, et al. (Africa Institute of South Africa, 2014). Pp. 156–159.

¹²¹ Shah. Pp. 117–118.

the reality that 90% of worldwide medical research expenditure targets problems affecting only 10% of the world's population.¹²² It has also affected the drug-purchasing power of people living in developing economies where up to 90% of drug costs may be borne by individuals.¹²³

Public health encompasses societal collective response to prolong life via creating healthy conditions, or factors that create healthy conditions,¹²⁴ thus, global health problems cannot be fixed unless the underlying forces that have shaped its emergence are examined. One unsettling example is the role of neoliberal forces that generally conceives human beings as instrumental means to economic ends.¹²⁵ Sonia Shah projected that by 2016, 1% of the world population will be in control of more than half of the world's total wealth.¹²⁶ However, health is incompatible with market forces.¹²⁷ In relation to the problem of local and global justice, the relational-based global ethic can help mobilize and unite relevant moral agents and stakeholders with a view to identifying corporations and organizations that perpetuate this trend, sanctioning them (when applicable) and reversing extant laws (for instance, IMF agreements) that have created the situation *ab initio*.

Having discussed some of the ways in which the relational-based global ethic may help address the quandaries of public health disasters, it is important to explore some of the possible justifications of this global bioethical approach embodied within the GEF. The next section addresses this theme.

6.4 Justifying a Global Ethical Framework *vis-à-vis* Public Health Disasters

Beauchamp and Childress argue that pragmatic justification entails justifying moral norms on the basis of their capacities to achieve goals of morality.¹²⁸ Global bioethics constitute trans-national moral responses to the ethical concerns of humanity.¹²⁹ Hence, one relevant feature that a GEF should have is the capacity to help resolve

¹²²Wen L Kilama, "The 10/90 Gap in Sub-Saharan Africa: Resolving Inequities in Health Research," *Acta Tropica* 112 (2009). Pp. 8–12.

¹²³Michael O.S. Afolabi, "A Disruptive Innovation Model for Indigenous Medicine Research: A Nigerian Perspective," *African Journal of Science, Technology, Innovation and Development* 5, no. 6 (2013). Pp. 445–446.

¹²⁴Marcel F Verweij and Angus Dawson, "The Meaning of 'Public' in Public Health," in *Ethics, Prevention and Public Health* ed. Marcel F Verweij and Angus Dawson (Oxford: Clarendon Press, 2009). P. 15.

¹²⁵Ten Have. *Global Bioethics* P. 219.

¹²⁶Shah. P. 112.

¹²⁷MacPhail. P. 201.

¹²⁸Tom L Beauchamp and James F Childress, *Principles of Biomedical Ethics* (Oxford university press, 2013). P. 419.

¹²⁹Ten Have. *Global Bioethics* P. 9.

some of the ethical concerns and problems of humanity in general and in specific locations. On this note, this section seeks to offer some justificatory polemics in relation to the applicability of the relational-based global ethic *via-a-vis* public health disasters. It pursues this conceptual task through the lens of responsiveness to local, global, microbial, and metaphysical/spiritual realities as well as scientific causes/concerns.

6.4.1 *Responsiveness to Local Realities*

Regardless of the interpenetration of peoples and cultures, sociopolitical contexts and cultural values remain distinct within and across continents. Individual nation states have particular legal obligations to offer security and health to her citizens based on available capacity and capabilities.¹³⁰ Since PHDs like pandemic influenza are not just about microbes and science,¹³¹ dismissing local contexts and nuances is not a path fraught with wisdom. The relational-based global ethic offers a means of responding to local nuances and differences in several ways. In the African context, for instance, the notion of responding to vulnerabilities through relevant acts of solidarity can help mobilize relevant stakeholders and other moral actors to engage the underlying social, ideological, and political factors that shortchange responses to health related-issues, especially PHDs. This can help evolve what Farmer describes as models capable of incorporating change and complexity, and which reflect local variations.¹³²

Public health in the African context encompasses some elements of unknown or uncharted territory that has scanty or no interaction with the public social system. Its needs are equally ever hardly anchored into public health policy and plans. On this note, it was observed (in Chap. 2) that public health within the African context incorporates the traditional sense of the science and art of promoting health and preventing disease¹³³ as well as the state of health of those disconnected from the social system with the attendant need to critically understand this and develop relevant interventions. The relational-based global ethic developed in this book may help engage the uncharted “public” within the health system via its responsiveness to local realities. This underscores the need for societies to serve her citizens prior to expecting the same people to be selfless patrons in a time of public health emergencies.

In addition, local solidarity may help change the current background conditions in the so-called developing economies in ways that reflect their own values and

¹³⁰ Šehović. P. 19.

¹³¹ MacPhail. P. 197.

¹³² Paul Farmer, “Social Inequalities and Emerging Infectious Diseases,” *Emerging Infectious Diseases* 2, no. 4 (1996). P. 259.

¹³³ Adetokunbo O Lucas and Herbert Michael Gilles, *Short Textbook of Public Health Medicine for the Tropics* (Arnold Publishers, 2003). Pp. 1–6; Verweij and Dawson. Pp. 14–16

considered interests. This will help reduce external dependency through which some of these countries have hitherto been exploited by institutions such as the World Bank, IMF, and programs such as SAP. In the specific context of PHDs, identifying relevant moral actors and assigning responsibilities can help eliminate or reduce the chaos of disaster. This can also help halt the external influx of aid and NGO workers, which will help avoid unnecessary physical and material presence.¹³⁴

Public health disasters require a great deal of other-centricity with a willingness to embrace additional and supererogatory responsibilities. In contemporary society, however, everyone seems to be sheltered within their own little bubbles, only finding just enough time to prepare a face to meet the faces that others will see, as Thomas Eliot once describes such a social attitude.¹³⁵ Technology has probably worsened this trend.¹³⁶ Yet, the inevitable demands of responding to PHDs also require that society reinvents itself, at least in its other-centric dispositions. The extent of this will probably vary across countries and continents, with traditional communalistic societies such as Asian and African contexts probably finding it easier compared to traditionally individualistic Euro-American societies.

On the other hand, local sources of harm and potential harms that foster PHDs may be addressed by the proposed global ethic in that its capacity to rally stakeholders can stimulate critical internal discussions that may engender local solutions. For instance, concerns about the linkage between how dead bodies were being prepared for burial and transmission of Ebola infection might have been better engaged through internal debates as well as frames of reference that appealed to indigenous models of public health. Such viable indigenous models of preventive health abound in African cultural outlooks including the Yoruba,¹³⁷ the Acholi,¹³⁸ the Ndembe, the Bantu, and the Akan.¹³⁹

Hence, ignoring indigenous systems of response completely and attempting to impose or utilize *only* a Western model of causation and spread will isolate the people, foster ideological tensions for some, and may lead to time wastages that facilitate the easy spread of infection. Similarly, in the industrialized realm where man-made activities such as deep-water injections influence the occurrence of

¹³⁴Eric K. Noji, "The Nature of Disasters: General Characteristics and Public Health Effects," in *The Public Health Consequences of Disasters*, ed. Eric K. Noji (New York: Oxford University Press, 1997). Pp. 17–18.

¹³⁵Thomas Stearns Eliot, *Prufrock and Other Observations* (Filiquarian Publishing, LLC., 2007). P. 6.

¹³⁶Keith N Hampton et al., "Social Isolation and New Technology," *Pew Internet & American Life Project* 4 (2009). Pp. 29, 55–56.

¹³⁷Edward C Green, *Indigenous Theories of Contagious Disease* (Rowman Altamira, 1999). P. 44.

¹³⁸Barry S Hewlett and Richard P Amola, "Cultural Contexts of Ebola in Northern Uganda," *Emerging Infectious Diseases* 9, no. 10 (2003). Pp. 1246–1247.

¹³⁹Afolabi, "Re-Writing Realities through the Language of Healing; a Critical Examination." Pp. 1–3.

earthquakes;^{140, 141} local stakeholders can push for laws that prohibit and/or restrict such activities based on scientific evidence.

Responsiveness to local realities affirms the position of bioethicists such as Callahan and Jennings. In this regard, it specifically echoes the idea that ethics and public health issues can hardly be successfully advanced and pursued without considering the values of the general society as well as that of the specific communities where public ethical course of action is to be carried out.¹⁴²

6.4.2 *Responsiveness to Global Realities*

Karl Popper describes the world as emergent and in need of explanatory approximations of its state of affairs that are non-static.¹⁴³ If this is true, and if people across cultures and geographies are now inevitably caught up in an intricate web of mutuality;¹⁴⁴ a flexible global nexus is needed. This is partly because of the increasing rate at which the world is “shrinking” via the currents of globalization¹⁴⁵ and the ease with which infectious disease dynamics of PHDs (e.g. through Ebola and pandemic influenza) and the emotional components (e.g. through earthquakes) may readily traverse national and international borders. To be sure, there are multiple means through which infection enters and exits the human body as well as the means of infection transmission from one individual to the next,¹⁴⁶ and from one community to the next, and globally. In short, global problems including those with infectious dynamics now spread with ease across national borders.¹⁴⁷

Hutchings notes that a global ethic should help disintegrate and destabilize hierarchies of power, identity and wealth.¹⁴⁸ Such a global ethic will seek to prevent harm and encourage courses of actions which are amenable to this end, explore the cooperation of nations and multi-national organizations relevant to socio-political

¹⁴⁰James W Stratton, “Earthquakes” in *The Public Health Consequences of Disasters* ed. U.S. Department of Health and Human Services (Atlanta: Georgia: Center for Disease Control 1989). P. 15.

¹⁴¹Nicholas Deichmann and Domenico Giardini, “Earthquakes Induced by the Stimulation of an Enhanced Geothermal System Below Basel (Switzerland),” *Seismological Research Letters* 80, no. 5 (2009). Pp. 784–788.

¹⁴²Daniel Callahan and Bruce Jennings, “Ethics and Public Health: Forging a Strong Relationship,” *American Journal of Public Health* 92, no. 2 (2002). P. 172.

¹⁴³Karl R Popper, *The Open Universe: An Argument for Indeterminism*, ed. W.W. Bartley (London: Routledge, 1982). Pp. 46, 130.

¹⁴⁴Verharen. P. 21.

¹⁴⁵ten Have. “Potter’s Notion of Bioethics” 67.

¹⁴⁶Kogan. pp. 154–155.

¹⁴⁷Nancy Kass, “Ebola, Ethics, and Public Health: What Next?,” *Annals of Internal Medicine* 161, no. 10 (2014). P. 744.

¹⁴⁸Hutchings. Pp. 28–29.

and economic contexts to promote wellness and eliminate avoidable diseases.¹⁴⁹ The relational-based ethic developed in this chapter offers several channels through which an agenda like this may be realized. In addition, evolving a global warning system is one way through which a practical approach¹⁵⁰ may be brought to PHDs such as ADR-TB. This is partly supported by the idea that constant vigilance is essential to freedom from infectious diseases.¹⁵¹

Hardly would anyone deny the idea that poorer nations are unable to meet the economic demands that are necessary to engage PHDs at the institutional and social levels. These include procuring vaccines and bearing the financial burdens of temporary pandemic-associated losses due to the closure of businesses as well as any form of compensation (from the government) that may positively influence compliance to public health directives. In this vein, richer nations should be obligated to show differing degrees of pecuniary solidarity. This form of solidarity, however, differs from an act of charity because it is a preventive action that will decrease the possibility of a trans-national and global dissemination of infection cycles.

6.4.3 *Responsiveness to Microbial & Metaphysical Realities*

Pathogens and their human hosts are engaged in an endless cycle of epidemics.¹⁵² Indeed, microbial life forms such as bacteria and viruses as well as possibly unseen forces influence public health disasters in different ways. The relational-based global ethic helps incorporate this idea into the normative response to PHDs. This is important because values derive partly from a normative understanding of human nature and from a transcendental or secular perspective on life and the world.¹⁵³

Whereas scholars like Annas argue that useful disaster-related policies and practices should override individual interests,¹⁵⁴ a global ethic that is sensitive to the metaphysical frame of reference that victims and survivors may autonomously choose to adopt does not support such an idea. Rather, it respects the individuality, dignity, and intrinsic capacity of such people to make choices that cause no harm to others. Obviously, religious claims to **causality** are difficult to reproduce under controlled experimental conditions. However, the fact that science does not offer

¹⁴⁹ Andrew D Pinto, Anne-Emanuelle Birn, and Ross E.U. Upshur, "The Context of Global Ethics," in *An Introduction to Global Health Ethics*, ed. Andrew D Pinto and Ross E.G Upshur (London: Routledge, 2013). Pp. 8, 11.

¹⁵⁰ Nathan D Wolfe, Claire Panosian Dunavan, and Jared Diamond, "Origins of Major Human Infectious Diseases," *Nature* 447, no. 7142 (2007). P. 283.

¹⁵¹ Kogan. P. 179.

¹⁵² Shah. P. 188.

¹⁵³ H Tristram Engelhardt Jr, "Consensus: How Much Can We Hope For?," in *The Concept of Moral Consensus*, ed. Kurt Bayertz (Springer, 1994).p. 23.

¹⁵⁴ George J Annas, *Worst Case Bioethics: Death, Disaster, and Public Health* (Oxford University Press, 2010). Pp. 1–23.

answers to deep existential questions that have confronted humanity since antiquity underscores the need to respect the choices of those individuals that adopt metaphysical ideas to explain and cope with natural disasters such as earthquakes. To be sure, if global bioethics needs to take into account the sphere of the spiritual and unseen in pursuing moral analysis,¹⁵⁵ ignoring this dimension limits the depth of its praxis.

6.4.4 Responsiveness to Scientific Concerns

The concerns of traditional bioethics and global bioethics are inexorably connected with the ethical quandaries that arise from scientific progress, challenges, and their direct and indirect impact on healthcare and biomedicine. As such, any feasible global ethic should contribute to this. Public health disasters underscore certain scientific challenges. The limits of therapeutic approaches to pandemic influenza and the potential harms, the lack of viable and ample vaccines for Ebola, the high index of untreatability of ADR-TB and the benefits of natural gas extraction from deep within the earth and possible risks of triggering earthquakes fall into this category.

In this vein, the relational-based global ethical framework can help (through its responsibility and response to vulnerability nuggets) stimulate responsible research as well as garner relevant actors and stakeholders in relation to confronting these common challenges of PHDs that face humanity today. Specifically, it can help gear up more local, regional, and global funding and participation for Ebola research as well as engender scientific studies that seek to understand the complex causal relationships within the earth's crust with a view to developing clear-cut guidelines on where and when to pursue earth-meddling activities without triggering seismic waves.

Research-related issues also come to the fore during public health disasters. Some of these may be contextually allowed such as vaccine trials during influenza and Ebola outbreaks provided they have tested safe in comparable animal models. Since enrolled human subjects may be more vulnerable compared to ordinary clinical research contexts, responsiveness to their double vulnerability demands that there are more monitoring avenues to detect any form of unacceptable harm, which should halt the research, if need be. In other words, human considerations should always trump scientific ones. The relational-based global lens does not offer justification for clinical research on victims of other PHDs such as earthquakes. This is partly because research in such a scenario is largely a form of scientific luxury,¹⁵⁶ and partly because asking people already burdened with severe emotional, physical,

¹⁵⁵Muzur and Sass, 37. P. xii.

¹⁵⁶Evelyn Shuster, "Interests Divided: Risks to Disaster Research Subjects Vs. Benefits to Future Disaster Victims," in *Disaster Bioethics: Normative Issues When Nothing Is Normal*, ed. Donal P. O'Mathúna, Bert Gordijn, and Mike Clarke (Springer, 2014). P. 110.

and other kinds of traumatic stress to enroll in research reflects asking too much from fragile people as well as a possible violation of their dignity.

Lastly, a global ethical lens that is sensitive to scientific concerns will attempt to network with scientists with a view to using ethical rhetoric to motivate them into pursuing relevant biological questions. For instance, the evolution of typical tuberculosis bacteria species into atypical strains.

6.5 Conclusion

Public health disasters reflect the conceptual, ethical, and practical intersection between the concerns of traditional public health ethics and the emerging academic discourse on disaster bioethics. Specifically, they reflect public health issues of serious proportions such as infectious disease outbreaks, the attendant public health impacts of natural or man-made disasters, and “silent”, latent or low prevalence public health issues with the potential to rapidly acquire pandemic capacities. They are also a class of global problems. Since global bioethics seeks solutions to global problems, PHDs warrant a global bioethical lens to help resolve the moral quandaries as well as the other health-related pragmatic challenges.

This chapter has examined some of the contentious issues central to the debate on global bioethics in terms of its normativity and the methodology of engagement which make arriving at a comprehensive global ethic for bioethical problems a complicated and controversial task.¹⁵⁷ The chapter argued that these contentions may be avoided by using local problems across different cultural divides that have some global dimensions. This may be followed by formulating context-suitable solutions to each of the representative problems with sensitivity to trans-national nuances and limitations. Finally, it argued that examining the common threats posed by the problems, unearthing common cores and forging a flexible framework using the conceptual and ethical insights that intersect around the context-specific solutions may give a broader or global normative lens for resolving a class of global problems.

The chapter has also shown that public health disasters have human and non-human dynamics. These dynamics cannot be adequately addressed by each of the context-specific moral approaches developed for specific PHDs in Chaps. 2 through 5, that is, the *Ubuntu* ethic, care ethics, communitarianism, anthropo-ecological ethics and solidaristic moral lens. While each of these may have limited normative power in engaging the broader ethical issues that public health disasters generate, they clearly underscore the relevance of an other-centric orientation, the importance and contexts of solidarity as well as the need to incorporate microbial as well as religious or metaphysical metrics into a useful normative approach to public health disasters.

The chapter also showed that the moral quandaries at the heart of PHDs reflect some differing degrees of relational dissonances. Therefore, to properly engage

¹⁵⁷ Drydyk. Pp. 16–22.

these quandaries as well as the other practical challenges, it is important to understand the complex human, biological and, possibly, metaphysical variables that resonate around them. On this note, the chapter developed a global ethical framework based on five relational moral nuggets. These are respect for transnational values, respect for biological relatedness, respect for spiritual/metaphysical causal appeals and diversity, responsiveness to vulnerabilities, and responsibility.

The chapter also highlighted how a relational-based global ethic may be applied to public health disasters as an important contemporary global problem. Because personal morality often differs from public morality, and because other-centricity is hardly a norm in contemporary society, it is important to seek creative ways to create some level of other-centricity in the populace prior to the occurrence of a PHD. Social and formal education and a right psychological mindset¹⁵⁸ are essential to realizing this goal. Finally, this chapter offered four levels of justification for the proposed global ethic. In this vein, it argued that the proposed ethic is justified for engaging public health disasters as a class of global problems because it is responsive and sensitive to local realities, global realities, microbial as well as spiritual realities and scientific concerns. By reflecting these four values, the GEF is sufficiently nuanced to engage different Western and non-Western contexts. This is important because nuances permit challenging and unusual scenarios to be flexibly engaged using the same frame of reference.¹⁵⁹

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¹⁵⁸ Fatimah Lateef, ‘Ethical Issues in Disasters,’ *Prehospital and Disaster Medicine* 26, no. 4 (2011). P. 296.

¹⁵⁹ Stephen Holland, ‘The Virtue Ethics Approach to Bioethics,’ *Bioethics* 25, no. 4 (2011). P. 197.

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