Shortly before coronavirus disease 2019 (COVID-19) burst into public consciousness, several anthropologists met to discuss how to prepare for the next global health emergency. During the annual meeting of the American Anthropological Association in Vancouver, we chatted about epidemics and other health emergencies during a reception of the Anthropological Responses to Health Emergencies (ARHE) special interest group of the Society for Medical Anthropology. An epidemic may not have been a common topic of conversation for most social gatherings at that time in Vancouver. Nevertheless, as medical anthropologists, we were eager to discuss beneficial anthropological interventions with recent disease outbreaks, particularly Ebola virus disease (EVD) in Central Africa, vaccine hesitancy and measles outbreaks globally, and the Zika public health emergency. ARHE members collaborated broadly to organize webinars, update virtual resources, and prepare public health briefs grounded in ethnographic research. Recognizing the importance of anthropology for health emergency responses, we discussed how to synthesize lessons learned in preparation for the inevitable next infectious disease outbreak. The "next" health emergency was right around the corner. On January 20, 2020, the World Health Organization declared COVID-19 a ‘public health emergency of international concern’. On March 11, 2020, WHO assessment was shifted to declare COVID-19 a pandemic, and since that time, the virus has spread to 184 countries and surpassed 1.2 million confirmed cases globally. This Open Anthropology issue highlights ways that anthropological knowledge can be useful for responding to the initial phase of an emerging pandemic.

This novel coronavirus is, by definition, a new pathogen. Limited and shifting biomedical knowledge exists to reduce transmission and provide treatment. Indeed, as we write this article, a vaccine and clear therapeutic protocols seem quite faraway. In the face of biomedical uncertainty about a highly pathogenic and contagious disease, anthropology’s cross-cultural perspective on epidemics can provide guidance on preparing social and cultural responses that limit human suffering. In other words, COVID-19 is new, but human responses to epidemics are not. This issue of Open Anthropology examines anthropological perspectives on outbreaks of other
infectious diseases, including HIV/AIDS, cholera, Ebola virus disease (EVD), influenza, SARS, tuberculosis (TB), and Zika. We selected these articles to highlight the breadth of anthropological knowledge available for enhancing culturally informed responses for the COVID-19 pandemic. Each anthropologist has written extensively on related topics, and we invite readers to consider each author’s scholarship beyond this article.

**Cultural construction of illness and inequality**

When a new virus disease emerges, people rely on preexisting and competing cultural explanations of infectious diseases. Anthropologists have long been interested in identifying cultural interpretations of unfamiliar diseases during epidemics. Mark Nichter (1987) documents how such interpretations guided local engagement with a viral outbreak among rural villagers of South India. Nichter notes that cultural interpretations recognized the social and political aspects of a “disease of development” that disproportionately affected the poor, “while the government saw it as a disease involving viruses and ticks” (419). This kind of research shows the value of using local knowledge to gain insight into COVID-19 as new disease, especially in a social context shaped by ambiguous biomedical guidance and government inaction.

Similarly, during the early period of the AIDS epidemic, rural Haitians’ understood that social inequality intensified vulnerability for poor and marginal groups (Farmer 1990). Haitian narratives countered the US dominant discourse that blamed viral transmission on Haitians, pointing to cultural differences related to Vodou practices or a supposed unfamiliarity with biomedicine. In contrast to the dominant “geography of blame,” Haitians recognized early that social inequality increased their risk, a view that closely matched later epidemiological studies. Outsiders blamed Haitians and other specific “risk groups” (e.g., gay men and heroin users), which delayed implementing risk reduction measures for everyone and contributed to the spread of the virus to every social group across the globe.

Similar patterns exist for the other diseases reviewed in this article. On the other hand, public health interventions that recognize local cultural models as well as social inequality are more likely to build trust, promote community participation in disease control, and provide meaningful care. For instance, rather than treating Zika as "just another mosquito disease," anthropologists underscore the importance of addressing Zika’s harm to women and children, who required increased care while researchers sought a cure (Stolow and Castro 2018). Drawing attention to important cultural views of vulnerable groups may also help reduce harmful cultural models that delay emergency responses, such as the current misguided attempts to associate COVID-19 with flu and other preexisting diseases.

**Stigma and "othering" in epidemics**

The anthropology of outbreaks is conclusive: stigma and “othering” pose serious health hazards during epidemics. The human tendency to divide society into "us" and "others" when fear strikes becomes especially prevalent during infectious disease epidemics and leads people to physically distance themselves from perceived sources of transmission. In reference to preparing for a human influenza pandemic, Schoch-Spana (2006, 36) argues that, “implying a foreign point of
origin for the pandemic against which the country can and must be secured creates a 'geography of blame' likely to stigmatize Asia and Asian-American peoples, neighborhoods, and commodities.” Using a “fortress mentality” of controlling borders and imposing quarantines does not translate into effective disease control strategy, which becomes apparent when the virus spreads undetected (36). Indeed, as Schoch-Spana and others anticipated, calling COVID-19 a “Chinese virus” led to harmful actions against Asians that delayed emergency preparedness for the general population. Similarly, focusing on an Asian origin and older people as “risk groups” creates a false sense of security for people who do not identify as Chinese or older. During an epidemic, stigma and othering create confusion, anxiety, mistrust, and denial of risk that hinder effective health emergency responses.

Additionally, “othering” of sick people in quarantine and treatment centers can also create social distress for members of the targeted group as well as caregivers and healthcare workers. Humanitarian efforts during the EVD outbreaks in Guinea and other West African countries relied on Ebola treatment units. With a focus on providing biosecurity, people experienced treatment and quarantine as a form of social death (Gomez-Temesio 2018). Patients and caregivers came to think of Ebola cases as “zombies” and the “walking dead,” occupying a liminal state between life and death. To avoid stigma, discrimination, and social death, people may evade biologically safe but dehumanizing protocols and treatment options. In the new era of COVID-19, harmful social constructs have no relevance to a virus, which spreads to any suitable biological host regardless of ethnic and age groups. During the pandemic, anthropologists can provide insight into diverse social dynamics across the globe, and we can help ensure that emergency responses eliminate all forms of stigma and “othering.”

Social determinants of health and hotspots

Effective disease control responses require attention to social determinants of health. In reviewing the anthropology of AIDS, Paul Farmer (1997) calls on anthropologists to use biosocial approaches that identify social barriers to accessing resources in an ongoing pandemic. He warns that “the conflation of structural violence and cultural difference has marred much commentary on AIDS, especially AIDS among the poor” (523). Unequal social structures produce unequal disease exposure and treatment, especially during an outbreak when all resources become constrained. Such biosocial approaches demonstrate that epidemic responses must avoid attributing variations in infection risk to cultural differences, which exaggerates the ability of vulnerable groups to adhere to public health recommendations.

Unequal social structures and processes result in infectious disease epidemics becoming particularly harmful for people experiencing social inequalities, particularly due to class, ethnicity, race, and gender. Pfeiffer and Nichter (2008) examine responses to HIV/AIDS, malaria, tuberculosis, SARS, and avian flu, and they contend that emerging disease outbreaks require global responses that recognize “the realities of health disparities and human suffering” (410). During disease outbreaks, coordinated and comprehensive health services must be extended to vulnerable areas that already experience barriers to disease prevention and treatment. During the emerging COVID-19 pandemic, effective public health preparedness requires anticipating how the disease will disproportionately affect low-income and powerless groups—
ethnic minorities, displaced people, homeless, prisoners, and mentally ill. Anthropologists will not eliminate social inequalities during a global health emergency, but we can draw on insights from previous outbreaks to advocate for lessening health disparities and limit suffering from a new disease.

During epidemics, officials and the public typically understand hotspots as locations with high morbidity and mortality rates. Taking a broader view, the anthropology of viral hemorrhagic fevers shows that social determinants of health shape hotspots. Brown and Kelly (2014) examine how EVD hotspots emerge from social engagements linked to “material, institutional, and animal worlds” (283). This work brings “greater attention to the social and material interpenetration of ‘risky’ spaces—hospitals, homes, the bush, the market—during and outside of outbreak situation” in order to go beyond narrow views of disease prevalence and individual behavior. This comprehensive view underscores why identifying epidemic hotspots before death counts increase requires attention to low-income populations, political marginalization, food and water insecurity, and undersupplied and understaffed medical centers. Across the globe, anthropologists can enhance COVID-19 preparedness by pinpointing hotspots where biosocial and material factors limit access to basic resources and increase the risk of some people being marginalized from health services due to stigma, othering, and social inequality.

Political responses, boundaries, and community health

Anthropological knowledge challenges harmful messages that reinforce social hierarchies and political boundaries and thereby intensify suffering and death. We have seen this between the global north and south in past health emergencies. As Lowe (2010) demonstrates, the 2003 Southeast Asia H5N1 avian influenza responses focused on stopping the disease "there" before it came "here." The boundaries between risk and blame were reassessed into categories of "global vulnerability" and "Indonesian responsibility" (642). During COVID-19, political leaders seeking to create social stability may focus on political control of specific groups rather than preparing a comprehensive emergency response. Controlling the national borders and domestic boundaries may do little to stop disease spread, a position advanced early on in WHO guidelines for COVID-19.

Studies of cholera epidemics in Venezuela show how official discourse creates a “politics of exclusion” toward indigenous people, blaming cultural differences for the deaths during epidemics (Briggs 2004). Briggs notes that the invisibility of indigenous people dying during epidemics helped “to define categories, borders, and relations of established social orders, reifying complex and contested networks of bodies and meanings as coherent systems” (166). Official discourses of exclusion along with counter narratives of conspiracies reveal the deadly consequences of social exclusion and unequal health services. Similarly, during a cholera outbreak in Haiti, the Dominican Republic responded by increasing military surveillance “to definitively seal the border” (Andrews 2017: 339). Within the Dominican Republic, officials became concerned with regulating Haitians as “dangerous” bodies rather than responding to the public health threat. During the COVID-19 pandemic, these ethnographic accounts alert us to the likelihood that social surveillance and political exclusion will intensify stigmas associated with domestic or international border/boundary crossers—migrants, immigrants, refugees, and
Viruses know no borders, so violent political discourses and social measures generate conditions for viruses to replicate, moving from body to body regardless of what side of a border someone finds themselves.

Syndemics

During an epidemic of a new disease, researchers inevitably will detect syndemics, which consist of the increased harm due to the interaction of the new pathogen with other health conditions and social inequalities. Singer and Clair (2003) note, for example, that the HIV/AIDS pandemic and resurgence of TB created disproportionate disease burdens for poor communities. In considering HIV interacting with variety of diseases, the authors note that “the issue is not just coinfection but enhanced infection due to disease interaction” (425, emphasis in original). Likewise, the syndemic of respiratory diseases and high rates of asthma has created a lethal combination in poorer areas with little control over air quality (426). Syndemics “involve the interaction of diseases or other adverse health conditions (e.g., malnutrition, substance abuse, stress) as a consequence of a set of health-threatening social conditions (e.g., noxious living, working or environmental conditions, or oppressive social relationships” (428-429). Like hotspots, anthropologists can begin preparing public health responses to expected COVID-19 syndemics. Using knowledge of previous epidemics, anthropologists can anticipate that COVID-19 syndemics will involve HIV, asthma, diabetes, food and water insecurity, and other common distressing conditions among poorer and powerless groups.

Communication, misinformation, and compliance

Clear and consistent tracking of infectious disease rates is essential for managing pandemics. In the United States, lack of data to track COVID-19 transmissions has left government and public health responders flying "blind" and, in some cases, downplaying the extent of the health emergency. In the void of reliable data, myths and misinformation spread organically and quickly. Anthropological data can offer insights when big data is missing. Erikson (2008) discusses the frailty of using big data to accurately predict the path of transmission of Ebola during the West African outbreak of 2014–2016, which partly relied on cell phone tracking. The data models assumed that people use cell phones in the same way globally, and therefore tracking the cell phone would supposed equate tracking an individual. Many people, however, used multiple cell phones, and few had cell phone plans that could be tracked easily. While big data was fumbling, anthropologists fared better by linking patterns of transmission to “things that were being said, done, and thought on the ground” (322). This kind of grounded ethnographic data can help generate pandemic responses that are sensitive to injurious social contexts. For COVID-19, anthropological knowledge can clarify or describe the contexts that affect the interpretation and practice of behaviors like hand washing, physical distancing, and cleaning surfaces. As a clear current example, discussion among anthropologists in ARHE support and promote WHO’s move away from the term "social distancing" and instead using "physical distancing,” to avoid a sense of social isolation.

Nevertheless, social inequalities shape an individual’s ability to adhere to public health guidelines. During cholera outbreaks in Mexico, rural residents understood messages about
washing hands and purifying water, but they were suffering from local water scarcity that the government’s cholera control efforts did not address (Ennis-McMillan 2001). During the COVID-19 pandemic, public health measures that promote washing hands and other hygienic measures need to address water insecurity that can exacerbate multiple forms of suffering during an infectious disease outbreak. People from disadvantaged groups with limited access to basic water services may become physically sick as well as mentally distressed from the stigma of being labeled as noncompliant and potential transmitters of disease.

Preparing for later phases

At this initial phase of the pandemic, the world is in crisis, grappling with many unanswered questions. The uncertainty puts many people in a state of paralysis. But, as Lakoff (2008) describes, “in the absence of quantitative risk assessment” when facing a novel pandemic, our field can assist with an "imaginative enactment” (402). The idea of "imaginative enactment" refers to the process of generating knowledge about internal vulnerabilities within systems (403). That is one of many skillsets anthropologist can offer during and after the pandemic. The diversity of our field is an asset to be united under, as demonstrated by the increasing contributions of multispecies ethnographies (Porter 2013), situating viruses in a 'biology of context' (Caduff 2012, 344), and involving diverse field sites (Fearnley 2014).

While the world engages in the immediacy of this earlier phase of a pandemic, anthropologists can begin preparing for future social and cultural consequences. Zhan (2005) examines how the “post-SARS feeding frenzy” created new forms of bodily distress and social tensions (34).

Likewise, people may put faith in the discovery of vaccines and other biomedical tools to protect people from COVID-19. Yet, the anthropology of epidemics shows that the introduction of vaccines and new therapies create new social concerns, including vaccine hesitancy (Sobo 2016). We expect similar concerns as well as unequal access to vaccines to emerge once a COVID-19 vaccine appears.

Closing: Meaningful responses

This Open Anthropology issue provides guideposts for negotiating an uncertain terrain of the current phase of a global health emergency. To address this uncertainty, our review offers helpful anthropological knowledge for understanding human responses to disease outbreaks. We believe anthropological perspectives can contribute to humanitarian responses that limit suffering from COVID-19. Viruses and humans interact in a shared ecology, and epidemics are part of the human condition. Indeed, during our ARHE meeting last November in Vancouver, we reaffirmed the scientific consensus that humans will encounter regular outbreaks of serious infectious diseases related to population displacement, climate change, drug resistance, and entrenched social inequality. To enhance preparedness for current and future health emergencies, anthropologists can contribute to public health measures that eliminate stigma and reduce social inequality. We can also identify useful cultural practices that enhance health, solidarity, and meaningful communication and ritual in every place where anthropologists live and work across the globe. Lastly, we can to turn to anthropological knowledge of past epidemics to navigate the uncertainties and complexities of life after the COVID-19 pandemic has been reasonably contained.
We seem a long way from our ARHE conversations last November in Vancouver, and we are certain that COVID-19 now figures into conversations occurring worldwide—in videoconferences, quarantine facilities, treatment centers, and homes where families negotiate physical distancing measures. In the midst of our current global health emergency, we have a measure of hope knowing that anthropologists have many insights to share about their work in previous outbreak settings. Along these lines, we encourage readers to consult the Anthropological Responses to Health Emergencies (ARHE) Call to Action: Influence of Medical Anthropology for COVID-19 Response. Anthropologists have much wisdom to contribute to meaningful coronavirus responses as well as discussions about the inevitable next health pandemic.

Acknowledgements: We are grateful to Ed Liebow for encouraging us to share resources on an important topic. We thank Janine McKenna and Chelsea Horton for support through the editorial assistance.

Additional resources:
Join ARHE on Facebook.
AAA COVID-19 Resource Page
A growing list of additional resources about the COVID-19 pandemic are also openly available from Wiley.
Social Science and Humanitarian Platform
University of Washington Libraries COVID-19 Resources
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