

Health Care in the Time of Climate Crisis:
An Earth Ethics Perspective
by Karenn Gore

Clinical Climate Change Conference
New York Academy of Medicine
January 24, 2020

INTRO

Thank you for inviting me to be with you today. Thank you to the Institute for Exposomic Research at the Icahn School of Medicine at Mt. Sinai for convening us.

I am the founder and director of the Center for Earth Ethics at Union Theological Seminary. We draw from the world's faith and wisdom traditions to confront the ecological crisis and we work through education, convening and movement building.

RELIGION/ ETHICS

Religion is relevant to climate change work for a few reasons: One is that religious identity drives behavior in much of the world. At its best, religion can call people to values that transcend politics. There is organizing power and reach in faith communities. As in the Civil Rights movement, moral language and communal cultural strength can inspire breakthroughs for social change.

People also often turn to spirituality in times of loss and faith communities are often at the forefront of disaster relief efforts, helping people make sense of what has happened and act in service to help their neighbors.

Interfaith dialogue can discern values that are held in

common across different doctrines and can even unmask some of the belief systems embedded in mainstream secular society. For all these reasons the Center for Earth Ethics takes religion seriously but is not forwarding one particular religious viewpoint. We are working on an ethical framework for our ecological crisis.

Ethics becomes particularly important in times when people sense that morality is out of step with the laws and norms of society. So it is today. The climate crisis is unfolding, and those that suffer most are those least likely to have a voice: the poor, marginalized and most vulnerable peoples of the world (including the elderly, young children and the infirm), all future generations, and

nonhuman life. Those laws and norms that facilitate this system and hasten this trajectory are upheld by entrenched political power and financial interests. They also reflect a deeply held beliefs, or illusions, that prevent people from grasping reality and responding to it. I am not a medical professional, and I am eager to learn from you all who are. But I do want to talk about ethics, in the largest sense of the term ... how to avoid doing harm, and how to heal. I will focus my remarks on insights from my field, and connect them to clinical health care as best I can.

WHERE WE ARE

We live in an extraordinary time, in the midst of an existential crisis that seems to have crept up on us. Since the Industrial Revolution, humans have been digging and burning the oil, coal and gas stored in the Earth at an ever-increasing pace, releasing emissions that are called greenhouse gases because of the heat-trapping effect in our thin shell of atmosphere. Warnings from scientists go as far back as the nineteenth century but have been more specific, thoroughly researched and urgent, culminating in the recent reports from the International Panel on Climate Change, known as the IPCC.

Their 2018 report concluded that in order to limit the temperature rise to 1.5 degrees over pre-Industrial

averages (which is what they have deemed relatively manageable to adapt to), we need to act decisively to curb emissions (by about 45% of 2010 levels) within the next 12 years. According to the math, it means we have ten years left to make those changes in all sectors of society, including buildings, transport, industry, and land use. What it really means is that every unit and aspect of time is of the essence, and even to meet the less desirable target of 2 degree rise, we must act right now.

At the same time, there has been rampant deforestation and soil depletion, removing critical carbon sinks as well as destroying habitat for other species- whole interconnected webs of plant and animal life. Who knows

how many untapped potential medicines we are destroying unwittingly? It must be said that this is habitat for some humans as well.

I was born in 1973; in my lifetime alone, the human population has about doubled while the wild animal population has been cut in half, 40 per cent of wetlands have been lost, half the coral reefs have died, and we have destroyed half of the world's forests. In this same time period there have been lifestyle changes aided by technologies that, for all their benefits, have also brought about things like the phenomenon of "screen time" and the proliferation of waste, especially single use plastics. It often feels as if the world is in shock.

optimist/pessimist joke

HOW WE GOT HERE

How did we get here? The main way that society measures success, metrics like GDP (gross domestic product), do not count some pretty striking things: depletion of resources, pollution, inequality, the spread of disease, or the long term benefit of positive actions like conservation. The argument has been that short term economic growth is good for the well-being of all, and we needn't concern ourselves with those so-called externalities. We needn't worry if the products bought and sold are harmful as long as there are more of them, we

needn't worry about long term consequences or aggregate effects, as long as the jobs numbers look good and the stock market is up. We now face a reckoning.

The U.N. Special Rapporteur on Extreme Poverty and Human Rights, Philip Alston, issued a detailed report last year, which stated "Climate change threatens to undo the last 50 years of progress in development, global health, and poverty reduction." On Dec 19th, researchers from the Climate Impact Lab who are working on precise data driven estimates to project future impacts, recently told the House of Representatives Oversight committee that their main finding to date is that "the increase in global mortality rate due to climate change induced temperature changes

in 2100 is larger than the current mortality rate for all infectious diseases.” And this is only a fraction of what will come, if we continue on the path we are on.

Of course, even with 1 degree of warming (in some areas it is a bit more) we now see the stronger storms, exacerbated floods, more severe heat waves, melting ice and permafrost, rising sea levels, raging wildfires, worsened droughts, seasonal weather disruption, and the like, including the ongoing fires in Australia right now that have killed 32 people since September, including 3 Americans yesterday who were piloting a tanker plane to drop fire retardant. It is also estimated that these fires have killed 1 billion animals.

ROLE OF HEALTH CARE PROFESSIONALS

Health care professionals are on the frontlines of this crisis, not only because you treat people who are hurt and suffering, and diagnose and strategize and communicate about how to manage risks that affect whole populations, but because we have a planetary health problem that we, as a whole, have not been able to fully grasp.

Many have used analogies involving doctors in trying to explain what is happening. Climate scientist Katharine Hayhoe has said the Earth is running a fever, pointing out that a thermometer is not conservative or liberal, Democrat or Republican. One public intellectual said that

we should understand our situation as caretakers of someone who has symptoms of sickness and, having sought multiple opinions, we have found out that the vast consensus is that the patient is suffering from ‘a serious progressive disease’ called [anthropogenic] climate change. One political leader reached for this analogy a few months ago that illustrates the problem with the gap between the process of treating a patient and the current process of our self-government: "Congress right now, he said, “is like a room full of doctors arguing about what to do over a cancer patient. And half of them are arguing over whether medication or surgery is the best approach. And the other half is saying cancer doesn't exist.”

Needless to say, we need more of the kind of disciplined

thinking that comes from actual real-life doctors to come to our aid.

Today we will learn more about the way that climate change impacts affect human health, from the injury and trauma associated with extreme weather events, to disease vectors, to issues around hydration and nutrition, to the physiological effects of extreme heat. I have visited some communities impacted already, such a community in Lowndes County, Alabama where a combination of poverty, raw sewage on the ground, rising heat, and more rainfall, have created a haven for disease. As a study by the National School of Tropical Medicine at Baylor College confirmed a couple of years ago, there is a resurgence of

hookworm and significant risk of the advent of tropical diseases not known in that region before.

There are also health care concerns on the other end of these impacts: the same activity that is the primary cause of the disruption in our Earth's atmosphere-- the extraction and burning of fossil fuels-- also causes ambient pollution that harms human health in the communities where these toxic sites are located. For example, I visited a community called Belew's Creek in North Carolina which is inundated with coal ash, and suffers high cancer and asthma rates. For years, people there were told that cancer ran in their family, but now they are making the connection and fighting back. Soon I plan to visit St. James, Louisiana,

where a giant petrochemical company is planning a 90 billion dollar mega-complex in an overwhelmingly African-American community that has already suffered from the health impacts of the literally dozens of other such plants that are already there in that region, so much so that the region has been dubbed “death alley.”

Some people talk about social services in the time of climate change by emphasizing adaptation. But if all these activities are continued and expanded, if more coal plants are built and more oil and gas fracking and drilling is done, and emissions continue to rise, as they have this past year, there will be no end point of climate impacts to adapt

to, no static point of what health care will look like in an altered environment. it will just get exponentially worse.

So one thing I want to emphasize is that health care in the time of climate crisis must be concerned with the level of cause as much as the level of effect. This way of thinking is quite familiar to those of you trained in preventative medicine, public health and exposomics. We urgently need your insights and input in this global emergency.

ATTITUDE TOWARDS NATURE

What is the deepest level of cause of the climate crisis?

On September 19th, 2014 an essay titled *Pursuit of the Common Good* was published in the journal *Science*, co-authored by an economist, Partha Dasgupta, and a climate scientist, Veerabhadran Ramanathan, that called for cross-disciplinary engagement in a difficult but infinitely worthwhile task: “Over and above institutional reforms and policy changes that are required,” they wrote, “there is a need to reorient our attitude towards nature and thereby towards ourselves.”

I want to explore what that means for clinical settings. But first I would like to offer some suggestions from my field of work about our collective relationship to nature now. There was a moment years when the CEO of a large fossil fuel

company said something interesting- his contention that fossil-fuel driven economic development was alleviating human suffering (part of the fallacy of the economic growth paradigm we have already considered)- - and when pressed about the problem that his business plan was going to lead to global ecological collapse, he said “what good is it to save the planet if humanity suffers.” The obvious response to this is: “well, so we have some place to live?” Another response is that, if we do not mitigate climate change, the suffering will be unimaginable. But these responses are not even quite adequate to fully deal with the mistaken way of thinking he gave voice to. And it is not just him. How is it that so many have come to think that the Earth—air, water, soil, other species of life—is

simply a backdrop or set of resources, rather than integral to our bodies and our lives.

Part of this problem is theological. Some say it goes all the way back to Plato—who posited a separation between matter and spirit referred to as “dualism” that threaded on through European thinkers such as Rene Descartes and Francis Bacon. Others say it is based on a bad translation of the concept of “dominion” in the Book of Genesis- and a distortion of the concept of “Imago Dei,” that human beings, and only human beings, are created in the image of God.

In that same vein, a clue might be found in the conversion of the Roman emperor Constantine to Christianity in the early 4th century, precipitating the marriage of institutional Christianity to empire and colonization. This had a big impact on wiping out animistic spirituality that saw nature as sacred and alive, which made it a lot easier to think of rivers and forests and mountaintops as objects and resources rather than living beings. Imperial forces like to extract resources and control local populations and it helps to promote a belief system amenable to that. In 1967, a medieval historian named Lynn White wrote a paper called the Historical Roots of Our Ecological Crisis in which he claimed that “The victory of Christianity over paganism was the biggest psychic revolution in the history

of our culture.” This is not a comment on the essence of Christian faith, by the way, it is simply an observation of the effect of this convergence of forces.

Then, in the fifteenth century, when the Vatican issued decrees--papal *bulls*, they were called—that proclaimed that the land and the peoples of the Americas and Africa should be “conquered, vanquished and subdued,” this mentality was instilled in the beginning of European peoples presence in the land we are in now. In fact, Pope Alexander VI’s decree even explicitly stated that the non-Christian peoples of these lands (meaning everyone there at the time) were part of the “flora and fauna” to be subdued. The dehumanization of people of color and the

sense of license to pillage the natural world were linked. And judging from the amount of environmental racism there is now—the number one indicator of the placement of a toxic facility in this country is race—it still is.

As far as Christian theology is concerned, there is a lot of work being done to redress this particular doctrinal mistake. In 2015, Pope Francis published an encyclical entitled *Laudato Si: On Care for Our Common Home* which is devoted to the concept of “integral ecology.” A quote from paragraph 116: “An inadequate presentation of Christian anthropology gave rise to a wrong understanding of the relationship between human beings and the world. Often, what was handed on was a Promethean vision of

mastery over the world, which gave the impression that the protection of nature was something that only the faint-hearted cared about. Instead, our “dominion” over the universe should be understood more properly in the sense of responsible stewardship.”

INDIGENOUS WISDOM

More people are also recognizing that the wisdom of Indigenous peoples is powerful, especially as a counterforce to the chain of events we have set in place. Several teachings from Indigenous peoples of this land come to mind—one, from the Iroquois (Haudenosaunee), is that every important decision made today should be made with seven generations ahead in mind. There is also

the concept of reciprocity with nature- that as we take, we must also give, even- and perhaps especially- if that is in the form of conscious acknowledgment and respect.

The contrast in belief systems was evident at the conflict at Standing Rock. I was able to be there but I will quote the writer Walter Kirn to give you a sense of what it was like: “It is not a romantic or fanciful event but an earnest and passionate spiritual intervention by people for whom spirit and matter are not separate categories at all but a living, interpenetrating unity. Their immediate concern is with a pipeline capable of fouling the local waters with toxic oil from the nearby fracking fields. Their larger concern is with a mad philosophy that pits human beings

against their natural home for vain and temporary benefits.”

The Native peoples at Standing Rock said “we are not protestors, we are protectors.” They marched behind a banner that said “Defend the Sacred.” The term “water protector” became widespread- and the term “sky protector” has begun to be used as well. This is one example of a reorientation of our attitude towards nature.

HEALING POWER OF NATURE

The pioneering environmental scientist Rachel Carson wrote: “Those who contemplate the beauty of the earth find reserves of strength that will endure as long as life

lasts. There is something infinitely healing in the repeated refrains of nature -- the assurance that dawn comes after night, and spring after winter.”

There is now a lot of new research confirming that exposure and immersion in nature is beneficial to health. A study published in the Journal of the American Heart Association in 2018 found that exposure to the natural world lowers the risk of cardiovascular disease by reducing stress. The government of Japan promotes the practice of shinrin-yoku or “Forest Bathing,” because of its proven health benefits. ” As one Japanese doctor has put it, “This is not exercise, or hiking, or jogging. It is simply

being in nature, connecting with it through our senses of sight, hearing, taste, smell and touch.”

Some of this might seem more in category of common sense but the medical research and recommendations are helping people to take it more seriously. According to EPA, the average American spends over 90% of their life indoors and we know also that an ever increasing amount of that time is devoted to screens. In the 2003 book, Last Child in the Woods, Richard Louv coined the term “nature-deficit disorder,” sparking a wave of mainstream cultural inquiry into the effect of nature on health, which has included books such as The Nature Fix. Some of the ensuing discourse seems to dwell on the lack of specificity

of accessing the beneficial effect and seeks to identify “micro-hacks” of nature to short cut the benefits with maximum efficiency.

I think of the words of one of my favorite theologians, Howard Thurman, an African- American Baptist and mystic who was a significant influence on Martin Luther King Jr. (he was dean of Boston University’s Marsh Chapel when King was a student there and he wrote an extraordinary book called Jesus and the Disinherited which King carried around with him for some time. In The Search for Common Ground, Thurman wrote: “Man cannot long separate himself from nature without withering as a cut rose in a vase” and he posited that many modern

mental and emotional disorders result from feeling “rootless” and “vagabond” and even a deranging effect of sensing that collectively we are “fouling our own nest.”

MENTAL HEALTH

This community has long been aware of the connection between the realm of the physical and the realm of the mental and emotional. The Climate Psychiatry Alliance states that “mental health is profoundly impacted by the disruptions associated with climate change” and has created a forum to bring psychiatrists together to have a collective voice on this issue. Of course, this includes trauma from extreme weather events and the stress-inducing effects of extreme heat and the like, but

there is a growing body of work around mental health and climate in a more broad sense.

In 2017, the American Psychological Association endorsed a body of research identifying “eco-anxiety.” Dr. Lise Van Susteren uses the term “pre-traumatic stress disorder.” Many people are now discussing the phenomenon of “climate grief” – brought on by the sense of the current loss of biodiversity and empathy for the suffering of those experiencing climate impacts, as well as the recognition that the future looks much different than we had imagined, and that we may have saddled our children with an unspeakable burden. This is a real mental health issue. It is one that religious and spiritual leaders

deal with as well and we all need the best clinical research and insights to draw from.

To return to the theme of concerning ourselves also with the level of cause . . . consider this: the American Psychological Association also stated: “To compound the issue, the psychological responses to climate change, such as conflict avoidance, fatalism, fear, helplessness, and resignation are growing. These responses are keeping us, and our nation, from properly addressing the core causes of and solutions for our changing climate, and from building and supporting psychological resiliency.”

Not only is the climate crisis causing mental health issues, but it seems that our failure to respond to the climate crisis is itself a mental health issue. After all, half the global warming pollution in the atmosphere has been put up there in the last 20 years, the time that we have known the most about this and had the most available alternative in clean renewable energies. Metaphors of addiction and suicide are hard to avoid. Clinical insights about preventing and treating these maladies are not incidental to our ability to solve the climate crisis.

Here again, connection to nature has proven therapeutic. I would suggest that this may be especially true if there is an establishment of reciprocity with nature, rather than

resource extraction. A sense of belonging *is* reciprocal, and powerful, and hard to fake. The trauma theorist Bessel Van Der Kolk has written that “safe connections are fundamental to meaningful and satisfying lives;” perhaps in the time of climate crisis that insight can also be applied to the connections of humans to nature as well as to each other

In the book *Braiding Sweetgrass: Indigenous Wisdom, Scientific Knowledge and the Teachings of Plants*, Robin Wall Kimmerer writes, “Restoring land without restoring our relationship is an empty exercise. It is relationship that will endure and relationship that will sustain the restored land. Therefore connecting people and the landscape is as

essential as reestablishing proper hydrology or cleaning up contaminants. It is medicine for the earth.” We could add to that: It is also medicine for humanity.

PUBLIC HEALTH ADVOCACY

In addition to reconnecting to nature, there is a bit of hard core public health advocacy work that needs to be done.

In this situation, surely the call to heal must include a duty to warn.

You all are familiar with the power of marketing and PR.

The history of the tobacco companies and their deliberate campaign of misinformation around smoking is an important case in point. Thank you to the American Lung

Association, one of our co-hosts today, for the great work done on that issue, and on so much else. In the book Merchants of Doubt, the historian of science Naomi Oreskes and Eric Conway lay out that history and its connections to the dynamics of current misinformation from the fossil fuel industry. When medical professionals step up to educate the public and hold all the layers of our self-government accountable to the truth about public health hazards, it brings change.

One of my favorite figures in American history is Dr. Alice Hamilton who was active a hundred years ago, in the aftermath of World War One. The American Public Health Association, one of our co-hosts today, which does such

wonderful work, gives an award in her name every year.

She was an expert what was termed “industrial medicine” at a time when toxins such as lead and mercury were poisoning workers in factories and there was no precedent for preventative measures or government oversight or regulation. Indeed there was a sense that anything that interrupted the industrial juggernaut of the early twentieth century was somehow anti-American. With a combination of meticulous research, moral reasoning and skilled advocacy, she was among those that achieved the first protocols, laws and policies for occupational medicine.

Incidentally, in 1919, Hamilton was the first woman faculty member of Harvard University and it was not because they

were looking for a woman—in fact they made stipulations to her contract that said she was not allowed in the faculty club, could not go to Commencement and could not have any football tickets-- it was because she was the preeminent figure in a new and critical field. Hamilton explained that qualified male scientists rejected this field because it was “tainted with socialism or with feminine sentimentality for the poor.” This too is something for us to be aware of—the notion of a taint-- some of the most essential approaches in clinical climate work may initially be treated the same way. And of course, it is combined with the inevitable pushback from those with a financial stake in the status quo. Be as unintimidated as Alice Hamilton was in protecting workers in factories.

Today, the so-called “externalities” of our industrial society have increased to the point that they threaten the future of human civilization. Chemical companies and the political leaders they donate to are leading efforts to roll back protections from toxic chemicals like the ones Alice Hamilton and later, Rachel Carson and others fought for. The federal government is pushing out scientists who are telling the truth about climate change and even removing the mention of it from public documents. We need a public health campaign like never seen before, and I applaud those in this community that are already rising to the challenge.

CONCLUSION

I hope that this this talk has been helpful in some way. I know that your work is noble and necessary and hard, even in the best of times. Thank you for listening to the perspective I bring from Earth Ethics and being open to the ways it intersects with health care. This is no ordinary time and we are together in not knowing how it will all turn out. As the Buddhist teacher Joanna Macy has put it, “The insights and experiences that enable us to make this shift may arise from grief for our world that contradicts illusions of the separate and isolated self. Or they may arise from breakthroughs in science, such as quantum physics and systems theory. Or we may find ourselves inspired by the wisdom traditions of native peoples and mystical voices in

the major religions [saying] that our world is a sacred whole in which we have a sacred mission.”

When it comes to matters of life and death, Doctors and other health care professionals have unique respect and authority in our society. We need you to warn and we need you to heal. We need you to be aware of the climate crisis in your individual practice ... particularly as you treat the poor, the elderly and the children who will bear a disproportionate burden, but also in your work among all peoples of all backgrounds; we are inter-connected, the current trajectory of the climate crisis is a force that would ultimately spare no one, and we need treatment at the level of cause as well as effect. Solving it should be a

unifying cause- we all breathe air, we all drink water, we all eat food that grows in soil. We are the Earth. Let's trade the illusion of externalities for the reality of exposomics, the harm of mere extraction for the healing of reciprocity-- and let's get this done. Thank you.

THE END