WHITEPAPER

The 4 Stages of Health System Climate Action

What stage are you in?

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HEALTHCARE CLIMATE ACTION NETWORKS

Introduction

The transition to a NetZero emissions world is not your father's environmentalism. That early environmentalism was all about "less": Turn down the thermostats, drive a small, high mileage car, buy less stuff. While systems should engage in reducing the energy intensity of their buildings (which lowers both costs and emissions), climate action is nothing like 1970s environmentalism. As Bill Gates has put it, "There are two numbers you need to know about climate change. The first is 51 billion. The other is zero."[1] We need to go from emitting 51 billion tons of greenhouse gases per year today, to zero tons as soon as possible.[2]

Climate action is a global transition to clean renewable energy, and the elimination of greenhouse gases. It is about an even better life than we have now, and one that is entirely powered by renewables, and without the health destroying emissions of burning fossil fuels. The future is one in which energy is abundant, clean, and priced consistently.

? ***Where is your health system in its journey to eliminate emissions?***

We need to go from emitting 51 billion tons of greenhouse gases per year today, to zero tons as soon as possible.

Health Systems' Risks from Climate Change

Climate Risk

Fires, floods, droughts, and storms are already damaging communities today, and will do much more damage in the future. Bond ratings agencies and investors now use Geospatial Intelligence Systems: sophisticated risk analysis tools that combine detailed data from multiple sources to enable the risks from climate change to be assessed at the individual property level. Your health system has likely already been assessed by investors and the bond rating agencies; anyone buying a 30-year bond wants to be sure that your assets will not be stranded by drought, or destroyed by storm. There are also concerns about the increased risk to health system finances from the higher prevalence of mental health issues and the increase in ED admissions that occur in a warming world.[3] A warming world will see more new viruses and pandemics.[4]

Mission Risk

This risk cuts to the heart of every health system's mission: improving the health of the community. Greenhouse gas emissions have the Earth on track (even with current global commitments to reduce emissions) to be 4-degrees centigrade warmer by 2100.[5] A global average temperature that high will make most of the US uninhabitable. Right now, the pollution from burning fossil fuels, specifically particulate emissions, kills 350,000 Americans each year. The healthcare industry is responsible for 10% of these greenhouse gas and particulate emissions. Everyone considering working for a health system – from techs to nurses to physicians -is now asking:

? ***Is your health system doing all it can to reduce harm to the community?***

Transition Risk

Investors want to see health systems reduce greenhouse gas emissions, as do potential employees, customers, and increasingly the entire community. Systems are already engaging in the transition, with over 40 now having signed the HHS climate pledge to reduce emissions 50% by 2030, and to be NetZero by 2050. Making those changes involves risk. Are you measuring emissions correctly? How are you transitioning to clean energy? How are you guiding clinicians to choose lower emissions preference items? How are you shifting the suppliers to be zero emissions?

? ***How are you ensuring that you are optimally managing the transition to NetZero?***

Pollution from burning fossil fuels, specifically particulate emissions, kills 350,000 Americans each year

Stages of Climate Action

Health systems have gotten started on the work, and we find systems to be at one of 4 stages in their journey to zero emissions.

Stage 1:

Little Engagement, with Perhaps Some Grass Roots Initiatives

Most health systems are here. Every health system is doing something to reduce emissions – even if unintentionally. Most emissions come from the use of fossil fuel energy, and so if your organization is trying to reduce

its energy costs by tightening the building envelope, switching to LED bulbs, and better managing HVAC and lighting, then you are reducing your emissions. While health system leadership has not focused on it, there may a grass roots effort underway. It focuses on low impact elements like recycling and composting because the grass roots staffers don't have the authority to tackle shifting to renewables and transforming the energy intensity of operations and buildings. There may be a mention on the health system's website regarding composting, recycling, and LED bulbs. There is a spark at these systems. Bechara Chouchair, Chief Community Health Officer at Kaiser Permanente, told us that while these systems are doing little, "I am actually encouraged by this. At least they are doing something. Let's celebrate the work." He is right. Dorothy and company had to get on the Yellow Brick Road to get to the Emerald City, and Stage 1 is the first step to getting to Stage 4.

Stage 2:

Leadership Making a Start

Health systems making a start know that they must reduce emissions and might even understand the idea of getting to NetZero. They might be engaging in these efforts by building LEED buildings, installing HVAC management technology, buying more efficient company vehicles. In these systems the board might be asking management to engage in a few "sustainability activities" each year like installing rooftop solar panels or car chargers. The system may even have a Director of Sustainability and it likely touts its efforts on the web, or even with a brochure. While these systems have made a giant leap to being actively engaged in the work, some big steps are missing. They have not accounted for their emissions, do not track how they are lowering emissions, and have no goal for zero emissions. They are emitting "less" but without a commitment to "zero." Reducing emissions is not a metric tracked by the board or the executive team.

Stage 3:

Committed to NetZero by a Date Certain

At these health systems there is deep understanding from the board through to the frontline that without dramatic action we are heading to a 4-degree warmer world that will make the US largely uninhabitable, and that to prevent this the world must shift from emitting the equivalent of 51B tons of $C0_2$ every year, to zero tons. They have educated the board, executives, medical staff, and front line on the health impact of pollutants today, and the apocalyptic future if we don't act a quickly to end emissions.

> **"I am actually encouraged by this. At least they are doing something. Let's celebrate the work."**
>
> **Bechara Chouchair, Chief Community Health Officer at Kaiser Permanente**

They understand that health systems not committed to zero emissions pay more for capital, have higher operating costs, and are less competitive in the market for employees, and patients. Everyone at the health system has a deep understanding that each year 8 million people die unnecessarily (350,000 in the US) because of the particulate emissions from burning fossil fuels. We cannot be working passionately and diligently to improve health while at the same time harming health with our own emissions. These health systems have accounted for their emissions, benchmark against other health systems, and have a plan of action. The technology to achieve NetZero goals is available today. Health systems just need to deploy it: improved energy efficiency, heat pumps for our buildings, electric for our vehicles, and renewable energy electric plants to power them all.

Stage 4:

Actively Engaged in Climate Action

At these systems (and they are few) there is a palpable desire to make the exciting transition to zero emissions as fast as possible. Ramé Hemstreet told me that at Kaiser Permanente, "Every project is an energy project." In other words, every project at the system strains for zero emissions. That's why Kaiser has succeeded in building the first zero emissions medical office building. Health systems involved in Climate Action have set a goal of when they will achieve NetZero, have committed to achieving NetZero not through offsets, but by getting to actual zero emissions, account for their emissions, and have projects, plans, leaders, tracking and milestones. At these organizations people feel climate action in their bones. They have detailed plans for eliminating Scope 1, 2, and 3 emissions. There are accountable executives, and the board regularly reviews performance. The entire organization is working passionately and diligently to improve health by making the energy transition. As Kate Walsh at Boston Medical Center has said, "We don't compromise on quality, and we are not going to compromise on sustainability either."[6]

> **"We don't compromise on quality, and we are not going to compromise on sustainability either."**
>
> **Kate Walsh,**
> **Boston Medical Center**

? ***What stage are you in with your health system?***

1 Gates, Bill. *How To Avoid A Climate Disaster*. Alfred K. Knopf, 2021, p. 1.
2 To be more specific, we can calculate the impact of any greenhouse gas in terms of it's CO^2 equivalent. When looking at all emissions – CO2, methane, nitrous oxide, etc – the CO^2 equivalent per year is 51 billions. This is expressed as 51 billion tons of CO^2e
3 Seo, Hannah. How Heat Waves Take a Toll on Mental Health. *New York Times*, August 19,2022. https://www.nytimes.com/2022/08/19/well/mind/heat-mental-health.html
4 Carlson, C.J., Albery, G.F., Merow, C. et al. Climate change increases cross-species viral transmission risk. Nature 607, 555–562 (2022). https://doi.org/10.1038/s41586-022-04788-w *What are you doing to ensure that you are mitigating those risks?*
5 Vince, Gaia. Nomad Century: *How Climate Migration Will Reshape Our World*. Flatiron Books, 2022.
6 Hogan, Neal. *Leading on Climate Action*. Tilly Press, 2022, p. 8.

Let's get to work.

Healthcare Climate ActionWorks partners with health systems to lower emissions by installing sustainability tactics that have a demonstrated ROI. Through our onsite presentations, our onsite workshops, our SAS emissions accounting platform, consulting, and our partnerships with industry leaders, we can implement the tactics that will be most effective for your organization.

Neal C. Hogan, PhD, is the Founder and Chairman of Healthcare Climate ActionWorks. Neal has worked with health systems for over 30 years, first as a founding executive and Managing Director of the Advisory Board Company, then as Managing Director of BDC Advisors. Neal has a PhD from Harvard University in the History of Science.

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