“That’s Understandable” Podcast - Season 1 - Episode 7
The Climate Crisis & Health
Final Transcript

Brendan 00:05
- Hi, welcome to "That's Understandable", the podcast helping you make better sense of the complex world of health care. If this is your first time joining us, I'm your host, Brendan McEvoy, US Head of External Communications at AstraZeneca. And I'm glad to have you with us today. The World Health Organization refers to the climate crisis as the single biggest health threat facing humanity. Not only do we see extreme droughts last longer, storms get more severe, flooding impact more communities, glaciers melt faster, and temperatures rise across the globe. We see existing health threats intensify, and even some new threats emerge. Temperature and precipitation changes increase health risks, including food and waterborne illnesses and heat-related injuries and deaths. Shorter winters and longer pollen seasons increase respiratory illnesses like hay fever and asthma. Severe storms can impact transportation infrastructure, on which patients rely to access treatment. Climate changes can alter the distribution of insects, exposing humans to more illnesses like Lyme disease, Zika, West Nile, and dengue. These negative health effects already and will continue to disproportionately impact those who are already at risk; people of color, low-income communities individuals with pre-existing conditions, older adults, and children. And while we in the healthcare sector are responsible for providing care for people whose health is impacted by our changing climate, we are also responsible for greenhouse gas emissions that contribute to the problem in the first place. The research, development, manufacturing, and delivery of healthcare is energy-intensive, and the healthcare sector accounts for more than 8% of all greenhouse gas emissions in the U.S. and about 5% of all worldwide emissions. Ultimately, the best thing we can do for the health of the planet is keep people healthy. This paradox, the healthcare sector caring for people experiencing the health results of the climate crisis, yet in doing so, contributing to the problem, serves as a reminder that health and the climate are inextricably linked. Evidence is mounting that we're at a critical point with our climate, and it's everyone's responsibility to do their part to limit the impact of that crisis. If we don't, it is estimated that there could be more than 9 million climate-related deaths globally each year by the end of the century. Joining us today to expand on this topic and discuss initiatives underway to make a meaningful shift in decarbonizing the healthcare sector are Pam Cheng, Chief Sustainability Officer and Executive Vice President of Global Operations and IT at AstraZeneca, and Dr. Victor Dzau, President of the U.S. National Academy of Medicine. Pam leads AstraZeneca's manufacturing, supply chain, procurement, and IT functions across 18 countries. Under her leadership, AstraZeneca's global operations has transformed significantly, driving top performance and value across the business. Pam also leads AstraZeneca's sustainability strategy and function. Dr. Dzau is recognized globally for a highly decorated career as a scientist, administrator, and leader. Under his tenure, the National Academy of Medicine has launched initiatives aimed at reversing the effect of climate on health by mobilizing the biomedical community to drive changes through research, communication, and policy, and taking actions to decarbonize the healthcare sector. Thank you, Pam and Dr. Dzau, for joining me today.

Pam Cheng 03:41
- Hi, Brendan. Good to be here.

Dr. Victor Dzau 03:43
- Good to be here, too.

Brendan 03:45
- So when we hear about the climate crisis and the references to greenhouse gas emissions, carbon, and similar topics, I think most people think about automobiles and airplanes as being the major culprits. But really, the healthcare industry is a huge contributor of emissions, even greater than the aviation sector. So maybe, Dr. Dzau, could you talk a little bit about that challenging paradox?

Dr. Victor Dzau 04:09
- Thank you, Brendan. It's great to be with you and with Pam. I'd like to begin by saying that we need to understand that climate change is hurting human beings, causing suffering. So many people think about climate change as future generations hurting the environment and maybe affecting the natural domains of polar bears, et cetera. I want to put a human face to this. This is now urgently hurting human beings. As you said in your introductory remarks, it's causing tens of millions of people dying each year related to climate issues globally. And if you look at the extreme weather events, such as we're seeing now with wildfires, hurricanes, you name it, and if you look at the extreme temperatures, cold or hot, you think about air pollution and the smoke coming up from Canada to the United States, you think about drought, famine, you think about vector-borne disease, as you said. All this is causing more suffering, deaths, and illnesses. So I'd first like to emphasize that climate change is a public health crisis. Unlike what many people think along other areas, about carbon emissions, et cetera, I think of this in human terms. Now, you're quite right. What's the role of the healthcare industry? First of all, we need to realize this, and as a trusted industry and profession, we need to tell people about this issue so people understand the urgency and begin to act on it. So we have a big role in telling the story of what it's doing in human health. Second is, I'm a physician. I took the Hippocratic oath, which is do no harm. And of course, as you said, healthcare industry is a big emitter of greenhouse gas. Actually, 8.5% in this country. It's more than the cement industry, more than many other industries. It's huge. And so obviously, we're gonna have to reduce this and not contribute to it. If you look at the contribution of the healthcare sector to global emissions, 4.5-5%, so it's very large. I think the key issue is to say, why are we contributing this? Should we not do something about this? Now, as we talk about later on, first of all, a practice of medicine consumes a lot of energy, emits a lot of greenhouse gas. That includes that we deliver care, the high intense energy technology that we use, the anesthesia gas that we use, the waste that we have in terms of disposables, all that contributes to it. Certainly, we can change the way we practice, and I'm sure we'll talk about that later. But also, we should understand that a lot of emissions come from supply chain, what we purchase, and how much is emitted from supply chain. That is, whether it's manufacturing, transportation, you name it. So my message is that the entire sector, which is everybody, from doctors, nurses, to pharmaceutical companies such as AstraZeneca, device, and supply chain, all have to act together in order to make a difference.

Brendan 07:35
- So Pam, from your perspective, coming from the bio-pharmaceutical industry, what are some adjustments that a company like AstraZeneca is making to help contribute to decreasing our emissions footprint?

Pam Cheng 08:06
- I think this is a problem that, to Dr. Dzau's point, climate change is not just hurting the planet, it's hurting people. You know, sort of answering your question in terms of what the industry can do, the pharma industry, pharma sector can do, it's gonna take all of us to make a difference. Within AstraZeneca, we believe in that linkage between healthy planet and healthy people. The pharma sector, the industry, the life science industry is in the business of making people healthy. But if we don't have a healthy planet, then that's a moot point. In AstraZeneca, a few years ago, we launched our Ambition Zero Carbon program. Our Zero Carbon Ambition

program is effectively saying by 2025, we want to reduce our Scope 1 and 2 carbon emissions by 98%. On top of that, we want to be net zero before 2045. Now, how do you do that, right? I mean, it takes an incredible amount of energy to run our operations, global operations, to allow the scientists to innovate and the engineers to go into the factories to make medicine. By end of 2025, we're saying we want to convert all those energies that we use today to make medicine and to innovate to clean energy. A few months ago, a few weeks ago, actually, we've announced our partnership with Vanguard Renewables to use to transition into biogas for the United States in terms of AstraZeneca R&D sites and our manufacturing facilities. We're doing something similar in the UK, for example. So our ambition is how do we take that carbon footprint away and at the same time still allow us to carry out our mission, which is to make people healthy. Right? And if you look at what we are trying to do within AstraZeneca, we're now starting to go upstream and say, how do we embed sustainability into everything we do, starting from drug discovery to drug development, to commercial manufacturing, to delivery of our medicines to the patients around the world, right? How do we embed sustainability as a part of how we normally do business instead of running them as projects? Because that's not sustainable, precisely, right? So certainly we are very much focused on that. There are a few things specifically that I think it takes private-public partnership to make a difference. One of the examples I would use is leaflets. In every pack of medicine that AstraZeneca makes or any of the pharma sector company makes, there's something called the patient leaflet. And I can tell you, if you take one of those leaflets and you unfold them, it can probably cover your dining room table, right, in very, very fine prints. And in the digital era, most of our information, the way we consume our information are almost always through digital means. So the question is, can we replace these paper leaflets through a digital medium, right, using a barcode, for example? So in Japan, to give you an example, Japan has moved to all digital patient leaflets, right? AstraZeneca was one of the first companies to make that conversion. So we are trailblazing in that space. So imagine the power of every single pack of medicine around the world without these paper leaflets. Because imagine the carbon footprint caused by that, right? You've got to cut down trees to make paper. You then print the paper. You then have to ship these papers in the boxes of medicines. And then they create landfill because you ultimately discard them in the waste system. So that's one example. Another example is what we are doing within AstraZeneca is all the fleets, the cars that we have with our sales representatives, with our people around the world, we have the ambition to convert them all into electric vehicle. Now, it's a huge challenge because we do business in most parts of the world, and in some parts of the world, the infrastructure for EVs are not there. However, it takes sort of ambitions like ours to say, how do we create and support those infrastructure to allow us to go to 100% electric vehicles, for example? And the last thing I will mention, and I pass it back to you, Brendan, is in the end of the day, above and beyond decarbonizing our own footprint, what can we do to help the environment to contribute above and beyond what we are doing? So we've got an initiative called AZ Forest, where we work with governments around the world. We work with agencies and entities around the world where we go and we plant trees. And we make sure these trees survive. Five, 10 years from now, these trees are surviving, grown into grown trees, where it can help the environment, create jobs locally, create sustainable communities in these locations, for example. So above and beyond getting rid of our own carbon footprint, but doing things that we can help with the ecosystem and biodiversity around the world.

Brendan 13:17
- Thanks, Pam, for sharing those examples of what AstraZeneca is doing. I think it's helpful to put into perspective some of the ways a bio-pharmaceutical company like ours or other industry players are helping to decrease their emissions. You know, earlier, Dr. Dzau, you talked about sort of perhaps a lack of awareness around the how significant of a crisis this is and the impact that has. So, you know, I actually came across a report recently. It was actually released by the Medical Society Consortium on Climate and Health, the Natural Resources Defense

Council, and Wisconsin Health Professionals for Climate Action. And they quantify that the financial toll of climate change to be at least $820 billion each year in the U.S. And obviously, I think hearing a number like that really puts it into perspective what we're talking about here. Pam, maybe I'll start with you. You know, the cost of decarbonizing the health care sector, in this case, you reference some of the actions that AstraZeneca is taking, I imagine can be quite high, right? And I think it's often cited as a reason for inaction or a reason to just really continue business as usual. So what has been your experience in implementing some of the programs here at AstraZeneca?

Pam Cheng 14:32
- So I can answer that question easily, that being sustainable, decarbonizing is not cheap. (laughs) And it takes a lot of resources to do. It's not easy, because true to the matter, if it's inexpensive and easy to do, everyone would do it. But it really does take investment. It takes focus. It takes resources. It takes expertise. But it's not, it should not be reasons for inaction, because true to the matter is we in AstraZeneca look at this as we don't have a choice. This is we have the responsibility and this is our role to play. Right, to Dr. Dzau's point, this is gonna take everyone to work together. And we're happy to take that step forward and to demonstrate that these solutions can be scaled. So just like the biogas we talked about, they are more expensive, significantly more expensive than the natural gas that we can buy today. But we also believe longer term, once these solutions are scaled and improvements are made, we can be equally as efficient, if not more efficient. And at the same time, better for the planet. Right? So we fundamentally believe longer term sustainability is good for business. And we've got examples within AstraZeneca that demonstrates sustainability is good for business. And I'll give you a couple. Right. You think about energy use. When we started talking about sustainability, one of the things we talked about is instead of decarbonizing, we should decarbonize plus reduce consumption. Right? So one of the things that we a campaign we launched was how do we reduce energy consumption, reduce waste. Right? And our employees, I mean, we got significant engagement from our employees and we found very creative ways of reducing energy consumption. Well, that's a great example. Sustainability is good for business, isn't it? Right? And we look for ways to simplify how we do business, for example, and reduce waste. So we do believe, yes, in many, many fronts, you know, AZ Forest, for example, the biogas at the moment that we're working on, even the leaflets, because we need to change our equipments and so on and so forth. They're gonna take investments. But longer term, it's good for business. It's good for the planet. And we also believe years out and we're seeing it playing out now, actually, there's regulation requirements of products being needing to be sustainable. The designs of the packagings and so on and so forth needs to be sustainable. So we do believe companies that are sustainable in the long run will be rewarded. And this is something that my encouragement is within the sector will be on is that we should not be looking at de-carbonization as an optional thing to do. It's a must do.

Dr. Victor Dzau 17:27
- We have been working on the business case for de-carbonization, particularly for the hospitals and others. And I think there's enough evidence that actually you save money soon in the long run, if not even the short term. I think there are places like the Gunson Clinic in Wisconsin, the University of Arkansas, Little Rock. They have shown that when they start going to renewable energy and creating energy centers that goes away from fossil fuel to the use of diesel or other forms of energy, actually there's savings. It's a matter of initial investment. And if you look at the practice of medicine, certainly there's a lot more savings if you actually look at whether you're looking at waste reduction, you name it. When Pam talked about creative ways, certainly it's been our experience in the health care industry that when the frontline workers begin to care about this issue, they'll be watching out for things that can be done to reduce waste and to improve health care. I think the most important thing to remember is we're not just here to look at the issue of carbon emission. We're looking at issues of how to improve

people's health. And the two issues are totally aligned. Aside from the fact that you can reduce carbon emission and therefore reduce climate change and health. Also, the new ways of caring for people, as I talked about in terms of virtual care, using remote monitoring, things like that can actually improve the care of the people and improve well-being and prevention. So I think these are aligned. We can talk about whether these are long-term investment, but I think there's already short-term gains if one were to be willing to do this.

Brendan 19:27
- While Pam and Dr. Dzau discussed the incredible costs that climate change has on the health care ecosystem, I couldn't help but start to think about the personal impact and cost of climate change on the health of individuals, specifically those from historically disadvantaged communities. (gentle music) So we know that social determinants of health or the conditions and environments in which people are born and live are impacted by the climate crisis. People who are part of historically disadvantaged groups are more likely to suffer the effects of our changing climate and less likely to have the resources to manage subsequent health implications. Could you share a little bit more about this extra component, this added layer on top of the climate crisis?

Dr. Victor Dzau 07:35
- Yeah, I think this is an issue of equity, and that's a major factor, as our collaborative calls it, Climate Change, Human Health and Equity. The office at the Department of Health and Human Services calls it the Office of Climate Change, Health and Equity, because we know that it's not only a crisis of public health, it's also a major issue of equity. Let's take the world to begin with. The richest 1% of the population, the richest countries which account for 1% of the population in the world, are responsible for over two times more the amount of emissions of the poorest 50% countries. And people living in low-income countries are five times more likely than people in high-income countries to be displaced and affected by weather disasters, climate disasters. Climate change itself can push an additional 100 million people across the globe into poverty in the next 10 years. So these are huge issues. And of course, if you look at the United States, you're right. Certainly, the marginalized populations, low socioeconomic populations, population of color are a lot more affected. We know examples like the Asthma Alley in New Jersey, where the pollution is so bad, and it's mainly people of color living there, that they have high incidence of asthma. There is high incidence of cancer in the corridor between Louisiana and Texas, where, in fact, there's petrochemical, you name it. So we do know that the poor population are suffering a lot more than the rich population. Not to say that the poorest population don't have the insurance mechanism, don't have the resilience, don't have access to basic health services, and don't have the ability to adapt or even mitigate. So obviously, they're much more affected. This is why it's so important to consider these issues. You call social determinants. Social determinants, to me, are expression of social inequity. And the poor communities are the ones who are greatly affected. Now, at the National Academy of Medicine, we have launched an initiative called Climate Communities Network, where we're gonna bring together the most vulnerable population, lived experience, from different communities to come together and to bring together strategic partners, such as AstraZeneca, but also government, EPA, HHS, others, as well as foundations and other actors, together to think about solutions for these communities. So the way we have picked the community is to use an index called Community Environmental Justice Index that maps across the country those communities which have the greatest climate impact with the least resources. And by bringing them together, we're gonna learn from them, and we're gonna be able to help them to think about what kind of things can we do. So I quite agree with you. Social determinants is really important. It's really what affects how we can achieve health equity, and in this case, equity in climate change and health.

Brendan 23:37
- That's great. It's great to hear about the Climate Communities Network. It's something I think I'm looking forward to checking out myself there and sort of how to approach that at the local level. And again, I think this theme of the importance of collaboration and partnership is really critical to the action. Pam, do you want to maybe talk a little bit about how it kind of all fits together here? You know, sustainability, health equity, all fits under the same umbrella?

Pam Cheng 24:02
- Absolutely. So we are motivated to improve health and reduce disparity, as you've mentioned. So everyone has an opportunity to live the healthiest life in a thriving community and on a healthy planet. So through the programs we have, we aim to positively impact a significant number of lives, including those underserved, to drive equitable outcomes through early detection and early treatment. So we're going beyond our traditional effort of philanthropic things like making medicines available and so on and so forth. But we're going beyond that and to sustainably drive enabling better and more equitable healthy health outcomes globally.

Brendan 24:45
- It's easy to feel overwhelmed by the magnitude of the climate crisis, especially after hearing experts like Pam and Dr. Dzau discuss the many factors involved. I came into this conversation with an understanding that health and climate form a loop, where the actions in one area echo through the other. But as we talked, it became even more evident how closely the two are connected. I thought it was especially important to hear about disparities certain socioeconomic groups experience, yet encouraging to hear the actions organizations are taking to not only reverse health care's impact on the environment, but simultaneously promote equity through their sustainability efforts. I'm actually gonna put a pin in the conversation here because I think we could actually continue on for way longer than we have. But I did want to take maybe just take another minute or so. We have this quick game that we call five questions. So if you'll humor me and play along, I'll ask the questions and then Pam, I'll start with you each time. Whatever first comes to mind. And given we were talking about sustainability and climate, we thought we would kind of take a bit of a, you know, use that as a theme for the question. So pretty much all of them are along that lens. So here we go. We'll jump right in. So, Pam, are you an early riser or a night owl?

Pam Cheng 26:04
- Night owl.

Brendan 26:05
- Night owl. All right. How about you, Dr. Dzau?

Dr. Victor Dzau 26:07
- Both.

Brendan 26:08
- Both. (all laugh)

Dr. Victor Dzau 26:10
- It's true.

Brendan 26:11
- You must not get much sleep then. (Dr. Dzau laughs)

Pam Cheng 26:14
- You must teach me.

Dr. Victor Dzau 26:15
- You know, the problem is being a doctor, at least in training, I've learned to live with much less sleep. But now, you know, when I was growing up, I didn't want to miss what's exciting at night. So I'm a night owl. At the same time, I got to get up early to work. So I've trained myself to have less sleep. So I'm both a night owl and also early riser.

Brendan 26:38
- We'll have to get some tips on that for sure. So, Pam, what is your favorite season and why?

Pam Cheng 26:44
- I love the fall for the colors.

Brendan 26:47
- How about you, Dr. Dzau?

Dr. Victor Dzau 26:49
- Absolutely.

Brendan 26:50
- The fall?

Dr. Victor Dzau 26:51
- It's the best temperature, as Pam said, great color. I just love that season.

Pam Cheng 26:50
- There we go.

Brendan 27:01
- Love it. Yeah, there you go. What about which musical artist concert are we most likely to find you at, Pam?

Pam Cheng 27:08
- Hmm, that's a hard one. You know what? You're gonna laugh at this, but probably Taylor Swift because of my girls. (all laugh)

Brendan 27:19
- Are you gonna join her at that concert, Dr. Dzau, or do you have someone else in mind?

Dr. Victor Dzau 27:23
- Well, you know, I'd like to do that, but I'm gonna sound a little bit more traditional. I love classical music and particularly chamber music and particularly the violin. So I think about Yo-Yo Ma, I think about Anne-Sophie Morton, who's a great violinist. I've been to their concerts. I'd love to go to their concerts. Actually, I know them. So, yes.

Brendan 27:51
- Oh wow!

Dr. Victor Dzau 27:52
- You're gonna find me in those places.

Pam Cheng 27:54
- All right, I'm coming with you. I'm skipping Taylor Swift. (laughs)

Dr. Victor Dzau 27:57
- Yeah, but Pam was gonna say, if you invite me to Taylor Swift, I'll come. (all laugh)

Brendan 28:03
- That's funny. All right, Pam, is it the beach or the mountains for you?

Pam Cheng 28:08
- The mountains.

Brendan 28:09
- Mountains. Dr. Dzau?

Dr. Victor Dzau 28:13
- Both.

Brendan 28:14
- Both?

Dr Victor Dzau 28:14
- There was a time when I lived in Massachusetts trying to decide whether I go to the mountains, New Hampshire, Berkshire versus the beach, but I love both.

Brendan 28:24
- Best of both worlds. All right, the last question. So, Pam, what is something that you do regularly to be in touch or in tune with nature?

Pam Cheng 28:32
- To go outside, take a walk. Love that.

Brendan 28:35
- Yeah, great. Dr. Dzau?

Dr. Victor Dzau 28:38
- Well, this is where the mountains are so good. Left hiking, right?

Brendan 28:40
- How true. (laughs)

Dr. Victor Dzau 26:50
- Really far from the city and particularly at night when you can actually see the stars that you can't see in the city. When I was growing up in Hong Kong, I used to just lie on the grass and look at the stars. Beautiful. You can't see it around here.

Brendan 28:59
- Yeah.

Dr. Victor Dzau 29:00

- But when you go to the mountains and further away from the city without the city lights, I think it's just wonderful to be with nature.

Pam Cheng 29:07
- And Brendan, we come a full circle because the skies are brighter and clearer when we don't have pollution. So, back to sustainability.

Brendan 29:16
- There you go. You know that's

Dr. Victor Dzau 29:17
- You know what? Pam and I are both from Hong Kong.

Pam Cheng 29:21
- That's right. (all laugh)

Brendan 29:23
- Lots of commonalities here. (gentle vibrant music) I'm sure many people feel a sort of decision paralysis when it comes to taking any kind of action to combat the climate crisis, but as Pam and Dr. Dzau both mentioned, we are all impacted by the current reality facing our environment, and we all have a responsibility to do something now. I encourage each of us to take a serious look at our individual carbon footprint and take steps where possible. There are many opportunities to reduce one's personal impact, but just a few include changing your modes of transportation, such as walking, riding a bike, or using public transit rather than driving a car, washing clothes on a cold water cycle and hanging them to dry rather than using a dryer or switching to LED light bulbs. Thanks again for joining me today. For more information on AstraZeneca's and the National Academy of Medicine's sustainability efforts discussed in today's episode, be sure to check out our show notes. Until next time, be well, be healthy, be understanding.