

Jeremy Abbate ([00:00:00](#)):

Us. Lucy will say hello and then flip it to me live.

Zan Fleming ([00:00:16](#)):

Well, hello everybody. Those who are joining us for the Targeting Healthy Longevity session that will begin in just a few minutes. This is Z Fleming. I'm the C E O of CATA Institute joined by my colleague Thomas sir, the executive Vice president. And we'll get started in just a moment. But all to say this is part of our rolling series on this year's conference and we've started off with a bang in May with our interview of F D A Commissioner Robert Taylor, and we continue to have what I believe are uniquely valuable sessions. And Thomas, you might just mention a few that we've had and will be coming.

Thomas Seoh ([00:01:16](#)):

Well, our inaugural session for this year was a fireside chat with F D A Commissioner Rob Kiff on the topic of the regulation of health span products. To our knowledge, it's the first comments of the sitting F D A commissioner on this topic, which is of great interest to everyone in the healthy longevity field. Our second session was last month where George Brandenburg of us against Alzheimer's and the Davos Alzheimer's Collaborative led an extraordinary panel that consisted of Mark McClellan, former F D A Commissioner and former C M S S administrator, the C E O of Eli Lilly. Dave Ricks the heads of the UK equivalent of the F D A and C M S, the M H R A and NICE Dr. June Rain, or actually Dame June Rain and Dr. Samantha Roberts, Hillary Evans from the Alzheimer's Research UK and the World Dementia Council on a topic of developing preemptive interventions in the Pred disease state, which was a fascinating discussion. We are having this Loneliness session today. The next session will be November 17th on the Cosmos Trial Zen. I know you like to refer to it as the largest randomized controlled trial you probably haven't heard of, which looked at 21,000 plus subjects with the beneficial cardiovascular and brain health benefits of a nutritional supplement and a multivitamin.

Zan Fleming ([00:02:52](#)):

Well, that's right. And stay tuned for other sessions that will be happening within the calendar year and soon thereafter. But I believe we're just approaching the top of the hour. And so I want to formally say that this is Ann Fleming, c e o of Catis Institute with my colleague Thomas, sir, vice president of the Institute. And welcome to session three of this year's targeting Healthy Longevity Conference. Loneliness is a pervasive threat to public health in general and to healthy longevity in particular. And we've presented this topic early and often going back to the first conference in London in 2017 when Lucy or a moderator today led a highly acclaimed discussion. But this topic reflects the wide scope of the conference going well beyond drugs and other technologies to include every relevant consideration for increasing healthy longevity. So before we get started, just some instructions from Thomas

Thomas Seoh ([00:04:17](#)):

Instructions. Well, it's a housekeeping reminder to enter any questions you may have in the q and a function of the Zoom webinar platform or in the chat. Speaking of chat, we have enabled it. We encourage audience interaction and just to warm it up if you're willing, please say hi, indicate where you're logging in from, maybe your affiliation or your interest in the topic. But otherwise, back to you Z

Zan Fleming ([00:04:45](#)):

And thank you Thomas. I'm delighted to bring on our distinguished moderators, Lucy Rose and Jeremy Abbott. Lucy and I actually go back many years to f D a days where she was a powerhouse and she continues to be. But besides being a amazing F D A expert, she has developed a passion and articulation of the challenges involved in loneliness. And as mentioned, she got us started with this topic going back to 2017. Jeremy Abbott is another New Yorker and a amazing moderator and his own right Lucy will say a few more words about him, but that's enough of me. Over to you, Lucy and Jeremy.

Lucy Rose ([00:05:41](#)):

Thank you Z, and I appreciate you're not saying exactly how far we go back.

Zan Fleming ([00:05:46](#)):

Indeed,

Lucy Rose ([00:05:48](#)):

Powerhouse, I'm not sure. I certainly know you are, and thank you for having me and it is not lost on me to see Big Ben in the background there and thinking about London in the first conference. Before we get started, I'd also like to add my voice in thanking you for having me and us and having this happen, but also to welcome folks who are not a part of the Catal Institute as well today. We certainly did a fairly broad invitation for this conference and there's some of you who've not been involved in any of their previous ones, and we're really excited to have you join us today as well. And hopefully you'll really participate too, especially in our chat and help us make sure that what we offer today as best as we can, meets the needs of all of the different folks that are on the call this day.

([00:06:32](#)):

So if you do have a question or want further explanation, please let us know in the chat and we'll do the best we can to try to make it relevant and meaningful for you. Everybody who's a part of it. Jeremy, it's really great to have you. It's not lost on me that it takes two of us to moderate a session with Julianne. She's that powerful. Clearly the guru in my mind on loneliness. It makes me feel rather weak and insignificant frankly, to even be on the same call with her in spite of whether or not I was the first speaker on loneliness for this. Thank you for joining us, Jeremy. Just for folks to know, Jeremy is the vice president publisher of Scientific American, does a whole lot of this kind of work for a lot of different folks and works very hard to help bring science to all of us in this country and around the world in ways that all of us can understand it as well.

([00:07:24](#)):

So without saying, I'll let him say for himself how important this is to him. I know it is. So Jeremy, I'm going to turn it over to you after one more thing. I have to acknowledge the fact that it feels really weird. We're speaking on loneliness and we're sitting in three different states, Julianne. So please, as we think about social loneliness today, I just bring that up before somebody asks us in the chat, what's the matter with you? We do recognize ideally we'd be in the same room and holding hands and being connected and all the things we need to do, but because of the nature of our work and all of that, we're in separate rooms and separate states. So Jeremy, I'm going to kick it over to you to introduce Julianne, if you will. Please

Jeremy Abbate ([00:08:04](#)):

Thank you. And thank you Lucy z Thomas. Pleasure to be here. We are as noted, physically separated, but socially quite linked up today. It is a pleasure. I'm Jeremy Abbott, VP publisher of Scientific

American. Really excited to explore this most important topic as it relates to health, to longevity, to the mental health conversation that has rightfully become an increasingly linked part of overall health and that conversation. I am thrilled that as Lucy noted, we are joined by the Loneliness Guru. We will call her Julianne Holt. Lunds stat is a professor of psychology and neuroscience and director of the Social Connection and Health Lab at Brigham Young University. She's also the founding scientific chair and board member for the US Foundation for Social Connection and the Global Initiative on Loneliness and Connection. Her research has been seminal in our understanding of social isolation and loneliness as risk factors for early mortality. I don't think there's a better speaker to unpack this important issue than Julianne. So Julianne, welcome. Thank you for joining us and I'm going to throw it over to Lucy to start probing around this amazingly important and complex topic.

Julianne Holt-Lunstad ([00:09:32](#)):

Thank you. Happy to be here.

Lucy Rose ([00:09:35](#)):

We're the ones that are happy to have you here. And as I look at the chat, we really do have people from all over the world. I'm hoping you're looking too, Julianne as we start.

Julianne Holt-Lunstad ([00:09:43](#)):

I am, and I'm seeing so many from areas. I saw someone from my home, state of Minnesota, people from the uk, the East Coast, Arizona, all over,

Lucy Rose ([00:09:55](#)):

And someone here from Spain. So we have people that are having dinner as we speak as opposed to lunch or breakfast as we might have here in the state. So thank you all for joining us from all over everywhere. It's a pleasure. And as we go through, again, please feel free to use this as a place to ask questions. So Julianne, I think the number of people we're seeing here is indicative of how important this is and how important folks are beginning to recognize that it is particularly post covid, as so many of us went into situations that felt even more isolated than normal. But as we get started, it feels like we really need to start with everybody having a shared understanding of what we mean when we say loneliness. So if you don't mind, could you kick us off when I say this is all about loneliness, what does that mean to you?

Julianne Holt-Lunstad ([00:10:45](#)):

Yeah, so first off, I hope rather than being known as the Loneliness guru, maybe the social connection person, but I say it in just, but at the same time these terms are, there are a lot of terms out there that are related but are kind of different. And so it's helpful to have a common language and understand what we mean by all of these things. And so my work has been focused very broadly on social connection and how important it is to have people in our lives, people we can rely upon and high quality relationships. And loneliness is a particular indicator of lacking social connection. And so it's often thought of as somewhat of even a biological signal that our social needs are not being met similar to how hunger and thirst are biological signals that we need food or water. And so in that sense, loneliness can be adaptive, but it also is a very distressing feeling.

([00:12:16](#)):

But we need to be careful because it's also different than objectively being isolated. So if you're objectively alone or have a small social few social relationships or infrequent social contact, you would be considered isolated. And of course, objectively being isolated puts you at increased risk for feeling isolated or feeling lonely, that subjective, distressing feeling, but they don't always coincide. You can be isolated and not feel lonely and you can be in a room full of people and still feel lonely. But it also is different from other indicators of lacking connection as well because isolation may be more related to the absence of the positive good side of social connection, which is different from social negativity, which is the actual presence of something negative and bad or at least is associated with negative kinds of outcomes. And so I mention this because we often use loneliness very broadly to indicate all forms of lacking connection, but it really is a little bit more narrow than that. And it's important to note because we do as humans have social needs and when those needs are lacking, it's associated with risk. And so loneliness is that important signal that helps us recognize that something may be lacking, but it's not the only potential risk factor.

Lucy Rose ([00:14:12](#)):

Okay, so it sounds like it's not having your social needs being met to the extent that you feel distressed at some point and it causes stress to your system when that happens, just so folks can begin to get a feel of the physiology that occurs with this as well. When that does happen, what happens in your body? What do folks actually feel from this and why is this something that's concerning to people?

Julianne Holt-Lunstad ([00:14:41](#)):

Yeah, so really, I mean if you think about it, humans are a social species and so loneliness can signal areas in our brain associated with threat because throughout human history we've needed others for survival. And in fact, some neuroscientists argue that social is the neuro default. And so this can be a very threatening kind of position to be in if you're either alone or with people that you cannot trust or rely on, that can heighten a sense of threat that can signal areas of the brain that can release, for instance norepinephrine, that can signal in the periphery various areas that would lead to dysregulation of various biological systems. And so there's evidence to suggest that various biological and physiological systems operate most optimally. We are social and become dysregulated when we are not. While that might be adaptive in the short term to cope with whatever demands that might occur in the immediate moment when imagine, I think many people are familiar with that heightened fight or flight response, imagine living like that day in and day out and that can put significant wear and tear on our body when these systems become chronically dysregulated.

Lucy Rose ([00:16:39](#)):

So let's take about that a second because I can't imagine there's anybody watching wherever you sit, be it Spain, be it New Zealand, I think I saw a few minutes ago. Very cool guys, wherever you are, there's probably not a person on here who's not felt that Sometime when you do feel that O M G kind of moment here and you get nervous and scared,

Julianne Holt-Lunstad ([00:16:59](#)):

Your heart beats

Lucy Rose ([00:17:00](#)):

Faster,

[\(00:17:00\)](#):

Cortisol is released, so your heartbeat faster, you feel sweaty palms, you can feel your blood pressure going up. All kinds of things happen in response to that. In essence, fear where in this case stress of a different sort, perhaps feeling left out, feeling like you don't belong something happening. And what you're saying I think if I'm listening right, is that what you have when you have long-term chronic loneliness is at least some degree of that happening in an underlying way throughout the entire aspect of that period of your life and what's happening, which causes then that inflammation perhaps to occur in other things that might result in some of the physiological things we see at the end of the day. Have I got that right? Is

Julianne Holt-Lunstad [\(00:17:48\)](#):

That Yeah, yeah. Great. And thanks for putting it into clear and simple, understandable ways to, sadly academics sometimes overcomplicate things.

Lucy Rose [\(00:18:04\)](#):

I personally am not a neuroscientist. I

Julianne Holt-Lunstad [\(00:18:06\)](#):

Realize that you also

Lucy Rose [\(00:18:07\)](#):

Not only are a psychologist but in that part of the world and I just want to make sure that everybody who's on is tracking with us because you can feel it even being a host for this. You can feel your palms getting a little sweaty knowing that people are watching and that is something important. And when that happens, what we know and what you have shown in your research, which is really important, is the impact that can have as we think about healthy longevity, which is what keis is all about, the impact that can have then on your physical self, and we'll get to the emotional self shortly, but that physical piece, everything from famous 15 cigarettes and the decrease or the increase in early mortality to dementia and heart disease and diabetes and other things.

Julianne Holt-Lunstad [\(00:18:56\)](#):

I can also mention that this can also influence our behaviors too. And so we may not be sleeping as well and we know how important sleep is to health. We may be more likely to turn to unhealthier kinds of behaviors, whether that's turning to our comfort foods or perhaps using substances inappropriately, whether that's drinking too much or other kinds of substance use to perhaps cope with the pain that we may be experiencing. And so there's not only what might be happening internally, but behaviors then of course can also impact some of those health outcomes as well.

Jeremy Abbate [\(00:19:54\)](#):

That was the moment that really underscored it for me. When I got interested in this topic, it was actually through an organization. It was a company working on a social connection app and they asked Scientific American to do a data analysis for them. And one of the people involved, and it was actually the book by John Caspo and William Patrick Loneliness that came out I think maybe 15 years ago. And it crystallized, and I'll quickly read you the passage that made me so interested in this topic. The passage was early on in the book, whether you are at home with your family, working in an office crowded with

bright and attractive young people touring Disneyland or sitting alone in a flea bag hotel on the wrong side of town, chronic feelings of isolation can drive a cascade of physiological events that actually accelerates the aging process.

(00:20:54):

Loneliness not only alters behavior but shows up in measurements of stress, hormones, immune function and cardiovascular function. And over time these changes in physiology are compounded in ways that may be hastening millions of people to an early grave. And it was provocative for me, introduction to this world, but what you're saying is interesting, having effect on sleep, having effect on eating the need to soothe. So to me, the causality, it's a multiple multifactorial causality and cascades, which I think have so many components to them. I know that you're working on so many different levels, but wow, the implications of this are pretty massive for our health.

Julianne Holt-Lunstad (00:21:42):

Absolutely. And so one thing I should point out is we have very good evidence of some of these impacts that it has on our behavior, but if you look at the large studies that look at how it eventually, as you say, lead to an earlier grave, it was important that they controlled for a lot of these because we already know of course that nutrition's important physical activity is important. All of these kinds of lifestyle factors are important for our health. And so what these findings actually controlled for that. And so the effects on mortality or earlier death are over and above any kind of effect that might be explained solely by these behaviors. And so I don't want to dismiss how important and that being a particular pathway, but it's not the only one. So there is importance to isolation and loneliness over and above these other lifestyle factors.

Jeremy Abbate (00:22:50):

Right. Interesting.

Lucy Rose (00:22:51):

And in fact, the association appears to be close to somewhere between 26 and 30% of increase incidence of stroke and heart attacks as well. I think if I have read that right, again, controlling for all the other factors, loneliness itself is associated with those direct causality, who knows, but certainly associated with that as well in terms of your work. So the impact is powerful in and of itself even without the, is what you're saying.

Julianne Holt-Lunstad (00:23:22):

And the other factor that I think comes up a lot is this really just depression. And so particularly with the studies looking specifically at loneliness, most of those studies control for depression. And so even though there are bi-directional associations between loneliness and depression particularly, at least when it comes to earlier death, we know that the impact of loneliness is over and above any effect of depression.

Jeremy Abbate (00:23:58):

So I mean, just to be clear and going back to Lucy's original ask about the definition, depression is a term that is used both colloquially but also scientifically. And it would appear then that we're focused on almost the scientific definition of loneliness. And its specific cause, right as a driver of health implications solely. And just that data alone is pretty provocative and again speaks to things we'll talk

about later, policy issues, awareness, education. But I think to me it's really valuable to grasp the idea that there is a scientific definition of loneliness. I'd love to talk a little bit about international. I mean you see reports about what countries are the most happy and what countries are the most content and where does loneliness play into the larger picture of global populations Culturally, and I don't want to get ahead of ourselves, but that definition is that definition uniform across cultures or what is the nuance when it comes to looking at global populations?

Julianne Holt-Lunstad ([00:25:17](#)):

It's really important and so thank you for bringing that up because the one tricky part about it is, of course as humans we have social needs. And so that is something that is universal, but how we measure that, how we talk about it, how we express all of those things can vary. And there's exciting but also challenging aspects of this. It's exciting that we're seeing so much increased attention to this issue. But of course it's concerning because that attention is becoming because so many people are struggling. And so it is critically important that when we are, say for example, assessing loneliness, are we actually measuring the same thing when we measure in the us we're measuring it in say, Zimbabwe. And so many of our assessments were developed in North America, most of the research is being done in North America, Europe, uk, primarily western wealthy countries.

([00:26:41](#)):

There is more evidence coming out in low and middle income countries and we are very systematically trying to identify and support research across the globe, but we are trying to be really cautious and careful to make sure that we are speaking the same language. I had actually a very comical kind of interview where it was the interviewer was speaking Spanish, and although I took high school Spanish, I don't speak it well enough to, I needed an interpreter. And so I had a little earpiece and the interpreter was telling me what this interviewer was saying, and I kept getting all of these questions about living alone. And so I'm answering it according to what I'm hearing in my ear. But really what I recognized was that in Spanish they use the same word for isolation, loneliness, and living alone. Solidad, I might be saying it wrong, for those of you who are Spanish speakers, I'm sure you can correct me, but the point being is that there are some languages that don't have a different word for isolation and loneliness.

([00:28:08](#)):

And so even just in this interview as I'm trying to talk about it, I would've had very different answers had I been talking about loneliness versus responding about what I thought were questions about living alone. And so as far as thinking about this on a global scale, we can't ignore some of those language issues and as well as some of the cultural meaning. But there are several studies that have been doing this and in fact, I was an academic advisor to the Gallup and Meta global state of connection survey that came out. They did a deep dive on seven countries and 142 countries I think should be released soon. And there is variability, but it's not something that is say, uniquely American.

Lucy Rose ([00:29:08](#)):

Yeah, thank you. And I note from it looks like it's Fred who actually talked about different places in the world where there may be less, or I'm going to think about the blue zones for just a second, Julianne, where we've gotten some reports, there are pockets of our world where folks seem to live longer and healthier. And one of the things that constantly pops up at the top of the list as to the why is the social connection piece, which is fascinating kind of looking at the flip side of this, how that wherever may be in the world, whatever we define or however we look at that, how living in positive social connection

since we're going to now call you the social connection guru is a positive piece on health and life. So I reflect on that with you as you think globally about that. And thank you Fred for bringing that up.

Julianne Holt-Lunstad ([00:30:01](#)):

And I've regularly visited a couple of those blue zones in Sardinia, Italy and Iria Greece. I've been visiting them for the past seven years each summer. And I see firsthand how tight knit these small communities are and they truly care for each other. And I think it is something that we can really think about as we talk a lot about establishing programs and things. These small villages are very modest. They have limited resources, but they look out for each other. And that's one lesson that we can learn is how just important even community is in really addressing this and changing how we interact with each other.

Lucy Rose ([00:31:01](#)):

It's interesting. I remember reading John CIO's writing on a villages of a hundred and how a hundred seemed to kind of be a magic number where everybody felt like they had a purpose and that they belonged and were supportive of one another in such a way. These blue zones, many of them are smaller areas like you say in the villages that you visited as well where you can actually see that playing out, which is really cool. I think we could spend a lot of time playing with that one as we think about interventions. Perhaps we can come back to that.

Jeremy Abbate ([00:31:32](#)):

Yeah, I was going to say the same thing. I was going to say the same thing. When you look at animals say that don't get cancer, you say what is happening systemically that we can learn from? And I would think maybe the same thing happens in social systems where you look at pockets of populations where there is social connectivity, longevity, happiness, and maybe you say, can we reverse engineer this and try to figure out what's driving this?

Julianne Holt-Lunstad ([00:32:04](#)):

And in fact, there was a piece published in, I think it was science, where they looked across a variety of social species and identified a social gradient. And it's fascinating because we see this across so many different kinds of species and they document this evidence and including humans, I should say including humans among them, but a variety of social species and really showing this social gradient of those that are more social, showing better kinds of outcomes and those that are less showing worse kinds of outcomes. And in some cases, even experimental studies on these social species have shown that it causally influences physiology, health kinds of outcomes and even lifespan itself. And so while we may not be able to do the kinds of experimentation in humans, we do have that evidence in other animals. And so we do have causal evidence in that among other social species to be able to have some of that more make stronger kinds of claims.

Lucy Rose ([00:33:37](#)):

Yeah. I'm going to push us back just a second. I want to get to potential interventions and what they can look like or as I say, potential treatments in quotes or whatever as we go because there's so many positive things we can talk about as we get a little closer towards the end. But in building again the cause as to why this is so important, Julianne, I want to go back to your research about our 15 cigarettes that I kind of touched on just for a second and bring that back again because I think that's such a powerful representation. I have never smoked and I don't know, but I think that's about a half a pack a day or whatever that you may have been



Julianne Holt-Lunstad ([00:34:15](#)):

Looking for. I don't smoke either, so I had to look it up. There are 20 cigarettes in us in a pack. I had to Google it,

Lucy Rose ([00:34:23](#)):

Nevermind again. Well, we've proven win, but the fact is, can you explain what that means? I just want folks, we do have a lot of academicians on here and we have gerontologists and physicians who may understand a lot about this physiology, but I want to really get back just for a second to the real impact, but also to the numbers of people in this country that are impacted by this and who may be the most. Because as we set the stage, this is not just my poor grandmother sitting over here living by herself, therefore she's lonely. As we get to that, you're going to hear whether people knew this or not that the most at risk group are actually not the elderly but the young folks in our world. So let's go to the cigarettes first and then if we can do demographics for a minute, I think that'd be great.

Julianne Holt-Lunstad ([00:35:10](#)):

Yeah. First off, maybe I can share with you a little bit of background. Back when I did my initial meta-analysis looking at various indicators of social connection and how this impact mortality, I had been doing research in this area for a while and many came before me. You've talked about John Cascio's work, but many, many others have come before me. So I knew that there was research out here for decades, and yet the general public and the medical community didn't seem to really recognize social factors as being important for their health, maybe for their emotional wellbeing, but not necessarily health. And so in doing this meta analysis, we looked at all of the data that was available at the time on this, and what we found was that higher levels of social connection were associated with a 50% increase odds of survival. And so I thought, wow, this is huge.

([00:36:30](#)):

But at the same time, I also knew are people going to know what that means or just how serious to take it? Because I mean, we're constantly hearing things in the media one week, eggs is good for us the next, it's bad and just don't often, I think the general public has a hard time understanding just how to contextualize all these different health findings. And so we set out to benchmark our findings relative to other factors taken quite seriously by the public. And so we found other meta-analyses on these other factors and we included lots of comparisons. For some reason that smoking one just caught the media's attention, but there were many other comparisons. And so first off, I want to just say I'm in no way trying to claim that we shouldn't take these other factors seriously for our health, but rather just helping us put into context how important our relationships are just as much as we take seriously these other kinds of things for our health.

([00:37:52](#)):

And so of course I feel like I need to do an update to it because it's now old and there's newer data out now, but I want to just put that into context so people know where that's coming from. And certainly I didn't mean to offend anyone whose life's work is around smoking cessation because of course we know that I still remember someone saying something to me to the effect of, well, so does that mean if as long as I smoke with friends, I'm okay as if these things cancel each other out or that somehow one overrides another. But all of these factors are important and really it's just meant to help us think about just how seriously we should take this for our health. As far as, you also mentioned about some of the kinds of prevalence rates. And one thing that's really interesting is that smoking has been such a public health success in the sense that we've seen dramatic reductions, prevalence rates of smoking, and sadly we're

seeing increasing prevalence rates of not just loneliness, but a variety of factors that suggest that people are less socially connected.

(00:39:25):

And so I'm most familiar with the US data. So just as a caveat, what I'm saying is related to the US data. So one thing I'll share with you that's I think was really compelling to me is I was looking at some recently published data from the American time use data, and this is just where they track Americans, what are they doing during the day and how are they spending their time? And one of 'em was looking at social types of factors and they had data from 2003 to 2020, so roughly two decades. And what we see is dramatic kinds of increases in time spent alone, reductions in time spent with household family and non-household family reductions in time spent with friends, reductions in time spent in companionship. And you see these trends happening across these decades. And so this is not unique to the pandemic.

(00:40:36):

It didn't just start there and it didn't even start just the few years before that. And first off, it suggests that getting back to normal is not going to be enough. We weren't in a good place even before the pandemic, but we also can look to other kinds of data, for instance, Bob Putnam's work that looks at social capital and how that he shows even decades before that declines. And so it's not surprising that we're seeing such high rates of people reporting that they are lonely. And so when you take together a large portion of the population that is either lonely or lacks some kind of social connection in at least one way and possibly multiple ways along with these serious kinds of consequences, it suggests that we really need to be doing a lot more because the potential consequences of ramifications may be far and large.

Jeremy Abbate (00:41:51):

Those are amazing statistics. And I just want to also say in terms of the benefits of a public health campaign, say to quit smoking or I remember years ago on tv, the campaigns against littering very effective, but you had a very specific goal in mind. If you tell someone smoking's bad, they'll quit smoking hopefully, right? That's the idea. But if you say loneliness is a problem and it's creeping up because of the complexity of this because it's not just about social isolation, I would think it would be a much harder or more nuanced campaign because there's so many factors driving this. And as we know, it's not just about physical isolation or even some of these cases social, it's that subjective feeling. So I know we're not really talking about right treatments yet, but I would think this would be a challenge even if we tried a public awareness campaign.

Lucy Rose (00:42:46):

Julianne, I want to raise one more thing before you address this. I want you to put one more layer on it if you don't mind, because I think loneliness is so stigmatized in our country. We were taught you can do this, raise yourself up by the bootstraps, you don't need any help with that. Just this concept of rugged individualism and you can do it yourself or you're being selfish, you don't really need that, you can figure that out or whatever. And we found ourselves much, so much of the mental health area that you work in and social connections, we find ourselves to a great extent unwilling to say, I'm lonely or to admit it. So how does all that play? When we get to the interventions, we can talk about de-stigmatizing as well, but in Jeremy's question, how do we layer that? How do we use that knowledge as well to help people be more open to talk about loneliness? What does that mean?

Julianne Holt-Lunstad ([00:43:39](#)):

Yeah, I mean one silver lining of the pandemic is that it clearly demonstrated how this is more than just a personal issue and that there can be external factors that can influence your loneliness, can influence how socially engaged you are. And so it helped I think a lot of people to become more open about talking about being lonely and maybe even their struggles in isolation or other ways. And I think related to both of these, so both one of the recommendations included in the surgeon general's advisory that I was the lead scientific editor on, we call for national health guidelines for social connection, just like we have health guidelines for sleep, for exercise, for diet. And so related to I think both of your questions is, and I recently wrote a piece on this, on what would it take and what's the evidence to support these kinds of recommendations and how might we go about actually establishing them? And yes, it is a challenge, but you think about even just the dietary guidelines, think about how complex that is. And they weren't necessarily perfect, but they've been iterating. And as evidence becomes more evidence becomes available that those have been updated. And so we've thought about, okay, well what would these guidelines be? Because tell you, not only before the pandemic would I get all sorts of journalists ask me, so how many friends do I need for a health benefit?

([00:45:45](#)):

But then during the pandemic, I had journalists asking me, how much social connection and engagement and interaction do we need? At what point are we going to start seeing all these health problems? What are we supposed to be striving for here? And so the public clearly has an appetite for wanting to know at what level they're okay and perhaps even what level they should be striving for. And so it might need to be kind of here's where there may be some risk, here's what might be adequate and here's what might be a goal to aim for. And recognizing that there may be some kind of continuum there. But we do have to be really careful as you say, because if we say, okay, there's some evidence to suggest four to six relationships may be associated with a health benefit. Well, if you don't have that people, we don't want people to feel terrible and shamed and all sorts of stigma if they don't, but how do we help people to feel empowered and in ways that can help them reach some of these?

([00:47:07](#)):

And of course, I'm just going to clarify a lot of this, like I said, is on a gradient, so coming up with a specific number is very challenging. But I think similar kinds of challenges were faced with the dietary guidelines in terms of quantity, in terms of making sure various nutritional groups are met and taking into account age and differences and cultural differences and all the different kinds of needs that might potentially vary, but nonetheless, the need for some kind of guide or recommendation because this also can have important implications in terms of how we raise awareness, but also can potentially impact things like policy. Because if we think about what kinds of level of interaction, even just a minimal, the minimum level of interaction that may be necessary that can influence things like visitation among people who are in residential kinds of settings, it could influence policy at schools and in most extreme cases it can influence policies like solitary and confinement. And so we need to think about these recommendations as both helpful to the general public and how to raise awareness but also make them empowering as well.

Lucy Rose ([00:48:54](#)):

Yeah,

Jeremy Abbate ([00:48:54](#)):

The analogy to dietary, sorry, I was going to say the analogy of the dietary guidelines is a great one because I was thinking the same thing. Sorry, I was, go ahead.

Lucy Rose ([00:49:02](#)):

And I really want to come back to that. I want to end and put a real period on potential, your desire for guidelines before we end today, because I really want you to have the opportunity to share even more about how important that could be for us. I'm also noting all the amazing and wonderful questions that are coming in via chat, and I want to work one end right now. Juliana goes along with exactly I think what you were getting at. And one of my earlier questions as well about age and where we really see loneliness and where this is. And I want to bring up, and Wendy thank you for this question. She said, wondering about the distinction between superficial and deep connections. And it makes me think about the difference between social and emotional loneliness as we think about that dichotomy. One being more quantitative when you're talking about numbers is what made me think about that.

([00:49:53](#)):

How many friends do I have and what does that look like perhaps? And the other being perhaps more qualitative, what's your relationship like with your partner or your family or your best buds or whatever that may be? And do we see, does that help drive perhaps a difference in age? Let's start with the first question, which to me is where do we see loneliness and what demographics I think might be surprising? First, what percentage in the US are lonely of people overall? Secondly, where do you see that breaking out? And then thirdly, I'd love to tease a little bit about that emotional social, how about that?

Julianne Holt-Lunstad ([00:50:29](#)):

Hopefully I can, I'll make, just

Lucy Rose ([00:50:32](#)):

Jump in if I forget. Log in while you can't.

Julianne Holt-Lunstad ([00:50:35](#)):

Okay. So one of the things that I should just be very clear is because we are all social beings, any one of us can experience loneliness and none of us are immune. And so I want us to be really careful about making assumptions about who is lonely and who is not, because sometimes it can even be leaders in our community. It could be celebrities, you name it. So we all have social needs, but some particular groups often face more barriers to connection than others. And so we do see different kinds of prevalence rates in different kinds of groups. So it was often assumed that it was primarily an older adult issue. And yes, we do see loneliness in older adults, but the highest prevalence rates are actually among our youth. Depending on the study, often either adolescents to young adults is where we see the highest levels of loneliness. But interestingly, in older adults, we see the highest amount of isolation. And one thing I should be clear about is that we have very strong evidence that objective isolation, even controlling for loneliness also puts people at risk. So we should not dismiss the importance of isolation even if people aren't feeling lonely. Although loneliness can often co-occur with isolation in terms of age, we see that distinction. So now remind me what, because you had so many layers of questions in there.

Lucy Rose ([00:52:20](#)):

I did, I did. I was just testing your memory here. No, that's it. First, I don't know that we ever set the overall impact of loneliness in terms of percentages or numbers in this country. And you may have the numbers internationally or globally, I don't have those at my fingertips, but the percentage of people that indicate they are chronically lonely are over 50% I think in this country.

Julianne Holt-Lunstad ([00:52:47](#)):

And that actually that's not

Lucy Rose ([00:52:49](#)):

Alone.

Julianne Holt-Lunstad ([00:52:51](#)):

Yeah, it's difficult to pinpoint because different studies are categorizing people as lonely or not lonely in different ways. And so in some surveys they will include those who feel both moderate and severe levels of loneliness in those prevalence rates, and then some only the most severe. And so understandably, you're going to see larger prevalence when you include the moderate to severe and smaller when you just look at the most severe. And so we do see evidence in the US some prevalence rates are above 50%. And in those surveys, again, the younger populations are even higher than that. But often when you look across the globe, a lot of those are looking more at the more severe levels of loneliness. And so those are a little bit smaller. Those can range anywhere from around 10% to, depending on the survey, they're a little bit higher or lower. But I've seen anywhere from prevalence rates from 20% to 75%. And it might sound like this huge range, but it depends on exactly those factors I just described. But also when you look at some of 'em, when you look at just the youth, it's more towards that 75%. Wow,

Jeremy Abbate ([00:54:43](#)):

The driver in the youth because of possibly expectations that young people should be social if you're not feeling connected. I just wonder if some of the the expectation driving that.

Julianne Holt-Lunstad ([00:54:57](#)):

Yeah, some of the root causes perhaps that you may think for that. Yeah. So certainly if we think about what is often a common definition of loneliness, it's described as the discrepancy between our desired level of connection and our actual level of connection. And we can think about what kinds of factors would exacerbate this discrepancy. And so of course, one of the factors that people look to a lot is social media because it can often make everyone else's lives look more exciting. But we also have to think about that adolescence is a time when we expect our social circles to be expanding, whereas in older stages of life, we don't necessarily expect that and in fact often expect those to be shrinking. And so that discrepancy can be influenced based on those kinds of expectations. And in fact, there are some studies that ask older adults who are, would currently according to the U C L A loneliness scale are scoring high on loneliness and ask them to describe a time when they felt the loneliest.

([00:56:20](#)):

And they'll often describe a time in their youth. And so there's also perhaps something about that developmental period, not only the expectations, but also there's a transition, particularly when we look at young adults, it's when a time when for many young adults, they're leaving their home of origin for the first time. It may be a large disruption from even their community if they're moving away. And in fact, we do see across lots of studies that these big life changes if you move, if get a divorce, if you

retire, if you have a baby, all of these kinds of major life changes can often be trigger points for loneliness. And so we kind of want to think about youth as a particularly important time because it's also an important time when, and actually lots and lots of evidence shows that our early experiences have profound effects on later outcomes. So our early social experiences can impact later relationships, but also later health outcomes. And so the fact that this is so high among our youth should be particularly concerning for what we can expect decades down the road because knowing how early life experiences are so impactful term,

Jeremy Abbate ([00:58:16](#)):

One of the questions that came in was how are we defining young people? I know you talked about young adults and life changes, so I'm assuming in that sense it's someone in their early to mid twenties, but then you also talked about adolescents and the expansion of your social network and the expectations there. So when you're talking about, you're talking maybe 13, 14, even as young as that.

Julianne Holt-Lunstad ([00:58:36](#)):

Yeah, there are some studies we'll look at young adults, which would be the 18 to 24, 28. So that would be young adults. Some look at adolescents which often look at around 12 to 17, but some studies are a little bit narrower. But of course this is important at every stage of life. And so even in childhood and even in infancy, those early life experiences are so important. And even the social bonding that occurs so early in life is important. We're seeing the loneliness in our adolescents and depending on the study, so for instance, there was one study that showed loneliness peaked at age 19, but for instance, I recently just looked at the state of Utah, B R F S S S data, and they showed that loneliness peaked among 10th graders. So depending on the sample, that exact range might differ, but generally speaking, adolescents and young adulthood is where we're seeing the highest prevalence rates.

Jeremy Abbate ([01:00:05](#)):

Wow. And what about the gradients? You talked about, if I could just, you talk about scales of loneliness and you talked about surveys that would determine if one is somewhat or moderate or highly lonely. How important are those gradients to developing our picture of the importance to health and I thinking about alcohol, one glass is okay, but two starts to be a risky, is there a direct correlation between those gradients and the health risks?

Julianne Holt-Lunstad ([01:00:31](#)):

I love this question because of course we like to think of and speak as if someone is lonely or not, but in reality, we're all somewhere on the spectrum from high to low, right? And same when it comes to broader levels of social connection. And in fact, the research, most research looks at it on a continuum not. And so that's really important. And what I found to be particularly really elucidating was there's some evidence that has taken large nationally representative samples across from adolescents to older age and looked at how the different components, the structural, functional and quality components of social connection impact various markers of health. And what they found was a dose response effect. And so in other words, as each level of increment of social connection, increased risk decreased, and they included things like inflammation, markers of inflammation, body mass index, blood pressure, waist circumference. There were some others as well. Also, some other studies found that kind of social gradient. And so it's really helpful for us to think in that respect because it also helps us recognize that this applies to every one of us. I think we like to think sometimes when we talk about loneliness, it's like,

oh, we need to help the lonely people. No, everyone needs help. I think of it also similar to diet and exercise, again, in the sense of

Lucy Rose ([01:02:56](#)):

Some of us

Julianne Holt-Lunstad ([01:02:57](#)):

Are doing better than others, but we could all probably do a little bit better and that there are ways to improve that. And so I think it's really helpful to think about that gradient and think about where we're at on it and how we can make small improvements that can also translate to small improvements in health. Ultimately, of course, we'd like larger improvements, but at least those smaller might be more manageable for us to start working towards,

Jeremy Abbate ([01:03:27](#)):

Like you said earlier, we're all immune. No one is immune to being lonely. And you think about it as gradients. Paul McCartney was right, look at all the lonely people. I mean, we could all potentially be lonely. And that's again, an important part of this.

Julianne Holt-Lunstad ([01:03:43](#)):

And I'll add, if we think of loneliness as that adaptive biological signal, like hunger, it's a normal part of human experience. It's like, who of us haven't ever felt hungry? Well, who of us have never felt lonely? Really, it's something we all experience. The issue is when we get stuck in a pattern and we get stuck in loneliness and we can't seem to get out of it, and that can be more detrimental.

Lucy Rose ([01:04:15](#)):

We've been talking about individuals and the impact on individuals and what that means. There are a couple of other aspects that I'd love to explore just briefly before we go into interventions and what they may look like on all kinds of levels. But the first one of those is productivity even. Because as we think about impact, we also have to look at what does that mean to us in overall cost to the country, both in a personal way and in family ways, but also economically? What does that look like? And as you look at the data, it shows 154 billion in productivity lost just directly from absenteeism from work due to loneliness. And that doesn't include less quality work when you are there or any of the other things that might be factored in just absenteeism. How big, how do we even get our arms around? Does that impact and what does that look like?

Julianne Holt-Lunstad ([01:05:15](#)):

It's amazing because most adults spend the majority of their waking hours working. And so it's of course an incredibly important part of our lives. And so I think there's, in a sense two parts to your question. One is just how important are these kinds of work relationships? But like you said, beyond just how does it benefit me, but how does it benefit society and even employers and how does it help their bottom line ultimately? That's often what is cared about hybrid

Lucy Rose ([01:06:04](#)):

Workplace today and all the folks working from home. What are those implications? Yeah,

Julianne Holt-Lunstad ([01:06:10](#)):

Yeah. And so I'm reminded of a variety of studies that look at this and things that show, for instance, the more connected we feel to our workplace, whether that is studies that show having a work best friend or even just how much you are able to collaborate and there's more of a community of collaboration in the workplace and how that can influence productivity. And this of course just makes common sense. If you like the people you're working with, you're more likely to work harder, feel more committed to that work. And so that of course benefits the employer, but it also can, as the outcomes that we talk about in terms of health that can influence, if you're not healthy, you're going to miss more days of work. It's going to cost your employer the benefits program more money. And so it can have far reaching kinds of effects in addition to of course, when you're more connected and committed to feeling a part of that workplace that the kinds of work is going to be higher quality work, it's going to be more productive, so the employer can benefit from that as well. And there's going to be less turnover because people are going to be more committed to that work.

Lucy Rose ([01:07:54](#)):

It's just as we think about our post covid world and we think about loneliness, and then we think about folks not coming in to work in the same way and losing that connection too perhaps in a very real way, how does that impact both the individual as well as the larger workforce and what that looks like in terms of keeping up with all this productivity? It's an interesting thing, I think, for books like you to be thinking about as you do research into the impact of all of that.

Julianne Holt-Lunstad ([01:08:21](#)):

And also thinking about the variability when we think about remote work, the variability not only in different types of employment and workplaces and also the variability in home environment and thinking about both the promotion of our workplace relationships and our non-work relationships and ensuring that we can create some kind of, whether it's, we call it balance or harmony, the workplace harmony, that we need to consider both of those as important contributors to our health and wellbeing, and they can contribute in different ways to some of our meaning and purpose. And so sometimes when we think so and focus solely on say, productivity outcomes, we might miss how that could potentially be taking away from our non-work relationships. But at the same time, if we are really emphasizing more at home kind of work, we may not recognize where people who have home situations that are less conducive to that or may live alone, they may be getting less social interaction. And so it's really complicated and we need to keep in mind both of those important factors.

Jeremy Abbate ([01:10:05](#)):

I was going to say, you can't dismiss one format over another just because there are workplaces where people are in person, but they're all on headphones or on virtual meetings, and there are workplaces that are more virtual where you're having a meaningful discussion. And so it is a nuanced

Julianne Holt-Lunstad ([01:10:22](#)):

Approach,

Jeremy Abbate ([01:10:23](#)):

I guess, to assess. It's like dismissing one media format over another without looking at the quality of the information.



Lucy Rose ([01:10:31](#)):

Yeah. Yeah. There's so many questions coming in, guys. I

Jeremy Abbate ([01:10:35](#)):

Know it's amazing.

Julianne Holt-Lunstad ([01:10:36](#)):

We had three hours

Lucy Rose ([01:10:37](#)):

Here because they're all good and I'm watching them go guys, and I am seeing them all, and thank you all for sending them in. I'm going to try to bring some of them in right now just to try to make sure that we continue trying to cover these. But one kind of goes to the other component here that we've covered the individual. We've looked at work and work productivity society on the larger scale. Mark asked a question about alienation and society and how all this is playing out and what might we see? Is there any data? Are you seeing anything that might something to do with, and this has nothing to do with politics. I'm not trying to go there at all, but how we are interacting as a society and what loneliness may play into that or how that might be causing more loneliness or both.

Julianne Holt-Lunstad ([01:11:28](#)):

And they're probably bidirectional there, but it's really interesting because as we're spending more and more time in isolation and more and more time simply interacting with people who are like us, we often can have, it can be a contributor to not only distrust in others and distrust in other groups, and that can potentially create some of these divisions that we are often seeing because we aren't often interacting with people who are from different backgrounds, different perspectives than ourselves. And part of that is being able to be out in our communities being when we engage with people who have differing viewpoints, we can start to see them as more complex human beings and see where we do have kinds of common ground. But if our only interactions with them are online, it may be more difficult to see them. And the other aspects of them, and I'm not trying to just pick online because if we're also only interacting with people in person that are only like us, that can happen just as easily in person too.

([01:13:05](#)):

But we need to be able to start engaging with people who have these different backgrounds. And so that's, I think why there's such an emphasis on really looking at the importance of connected communities and beyond just the individual, but how our communities are connected because it ultimately can influence the health, the wellbeing, the economic prosperity, even the safety of our communities and communities that are more connected show better outcomes on all of these levels. And so we need to start thinking about this from more of a larger perspective and going beyond the individual level, because what might feel comfortable for an individual might create more of this isolationism, and that in part, I'm not saying the whole thing, but in part maybe fueling some of these issues.

Lucy Rose ([01:14:19](#)):

Jeremy, can you bring us back there in just one second. Hold one thing because somebody else asked a question and follow up I want to go to, but I want to then just piggyback on that as we move to interventions so that we can think about what can we do about that And hold that thought. I mentioned

earlier the difference between social and emotional and the quantitative versus qualitative kinds of loneliness perhaps. And somebody has asked several times and it's been brought to our attention. So I really want to bring this up to hear your thoughts on this. Is there any data that shows one is more important than another that we should be thinking in terms of it's more important to build deeper relationships or more important to have lots of them? Or is that so individualized? It's really hard. Getting back to Jeremy's question about layering and what that looks like. Is there any wisdom here that you can? There

Julianne Holt-Lunstad ([01:15:11](#)):

Is. Yeah. So it's interesting because I spent probably the first decade of my career focused solely on looking at the quality of relationships and how that moderated the kinds of effects that we see. And really recognizing it's not just having people in our lives, but having high quality relationships. And so it was really surprising to me when I did my large meta-analyses that some of these more objective kinds of indicators of just the size and diversity of people's social networks, things like living alone, which you would think are just such crude kind of proxy indicators of how socially connected people are. And yet they were incredibly powerful predictors. And so really what I think I've come to, so first off, I always go into data recognizing I always have to be open to the fact that I'm wrong. So what does the data actually telling us?

([01:16:23](#)):

And so what I've come to the conclusion is that having people in our lives, so things like size of social network, household size, these kinds of things, so having people in our lives is necessary, but it's not sufficient. And so that's why often these, otherwise, what might seem like crude indicators are so powerful is because often these are the ones that are so stable, but again, they're not sufficient. So just having people in your lives doesn't mean that you can rely on them or not. And so some of these other factors in a way build on that. But we do see larger kinds of effects for some of these more objective quantitative kinds of indicators. But I don't want anyone to take away, it's just checking off the numbers of interactions or number of people because truly, like I said, it's not sufficient. And so the quality of these relationships is really important. And in fact, we do have evidence that negativity in relationships can be associated with negative kinds of health outcomes. And so one of the big concerns is with so much emphasis on loneliness, if we are pushing interventions that simply increase social contact without sensitivity to quality, we could potentially be doing unintended harm. We could be increasing conflict with people. So we have to be absolutely conscientious about just how important the quality component is as well.

Lucy Rose ([01:18:20](#)):

So then what are some of the policies and practices do you think that might have the biggest bang for the buck to promote this social connectedness? You kind of were going there before I intervened with this question, but I really wanted to get that out. I think that is so important. But now what can we do about this? What are the things you've seen that we could be thoughtful about in terms of making the biggest impact? Two countries even have ministers of loneliness now, I think England and Japan, right?

Julianne Holt-Lunstad ([01:18:47](#)):

Yep, yep.

Lucy Rose ([01:18:48](#)):

What should we do?

Julianne Holt-Lunstad ([01:18:50](#)):

Well, so in the Surgeon General's advisory that I

Lucy Rose ([01:18:56](#)):

Led

Julianne Holt-Lunstad ([01:18:57](#)):

That work on, we include a number of recommendations. So if people want more information, go read it. I know it's long, but just we shortened it, so be happy it was originally like two to three times longer. But I'll just point to a few things that are, there's more the structural and systemic kinds of changes and policy kinds of changes. And then there's the kinds of things that individuals can do today. And so the bigger lifts, you've mentioned a minister of loneliness, but having some kind of leadership position in the United States is one potential route to go. Not necessarily that they dictate how this is done, but to help provide leadership to oversee and coordinate what's happening on a local level because we know that there needs to be local sensitivity to any kind of work that's being done in this area. But there can be national kinds of approaches to say the national health guidelines.

([01:20:16](#)):

But one of the things that I have written about is really kind of extending this idea of the health in all policies framework of recognizing that all policies across sectors have implications for health. The same can be true for applying a social in all policy approach. During the pandemic, it became very obvious the social relevance of every single sector of society because when we had to limit our social contact, it impacted our work education, our entertainment, travel, you name it. Well, if you were to ask people in the Department of Transportation, they may not see this as an issue relevant to them. And yet, transportation is so important in terms of not only do people use transportation to get to areas in their community to be able to gather. And so having safe and efficient and accessible transportation can really facilitate social connection. But things like roads can potentially be barriers too.

([01:21:36](#)):

You put a massive freeway through a community and it can cut people off from what might happen on the other side of that freeway. And so as we think about our existing policies and practices, whether that's at a government level or even within our own institutions or organizations that we are a part of, we need to think about how do these facilitate social contact or social connection and in what ways are they barriers? And we can start by really evaluating what we're already doing and trying to first eliminate some of those barriers. So oftentimes it can seem daunting to create some new program or whatnot, but oftentimes we can just look at, okay, what are we already doing? Can we integrate that into what we're already doing? Are we doing things that are actually getting in people's way? Sometimes it's just as simple as let's get out of people's way and let them so that this can occur naturally. And in fact, we have far stronger evidence of the benefits of when this happens naturally than when we try to artificially create something. And so that's a huge step that we can do is start to eliminate some of these barriers so people can connect. So these are just some of the ways that we can

([01:23:10](#)):

Start to think about it. But I did want to just share one other thought, and that is around norms. Because we can create policies, we can create infrastructure, we can create programs, but social norms are incredibly powerful. And if our policies don't align with our norms, they're going to fall flat. So we think

about, okay, a lot of workplaces have a policy, it's like, oh, it's a eight to five workday. But really the norm is you work until it's done. And so you think about what the norms are versus what the policies are. Often those norms carry far more weight in what actually happens. And so we need to start really thinking about the norms, whether they are the norms in workplaces, the norms in our communities, and really starting to model the kinds of norms, especially those who are leaderships within organizations to model the kinds of social norms that will help facilitate greater social connection.

Lucy Rose ([01:24:24](#)):

I note again in the chat, there are a lot of great ideas. There are links to things, there are great ideas, great answers to some of these. So I hope those of you who are listening are also monitoring that. Thank you all for all of your thoughts there. Jeremy, what were you going

Jeremy Abbate ([01:24:38](#)):

To say? I was going to say, I mean it's incredible to think about what happened in the mid 20th century with the National Highway system and we were going to connect people and the automobile was going to save America. And so much, at least where I live right now, I'm not there, but in New York, you had were saying neighborhoods that were decimated by these massive highway programs and then people were isolated and cut off. And so you had most things. Technology and progress can be a Faustian bargain. So you look at what it gives, but what it takes to away. And it would seem to me that even just from an infrastructure standpoint, smart urban development and city development, town development would include not just physical ecology and sustainability, but that's social ecology component. And again, that's just one aspect. As you note, there's so much more policy infrastructure, there's social norms. But to me, when we're thinking about how we construct the civilizations of tomorrow and how we even look at things like the built environment, we take into account what this means for social connectivity.

Julianne Holt-Lunstad ([01:25:51](#)):

In fact, one thing that's always, I note when, so I periodically am over in Europe, many of these cities are very old cities, and I come back to the US and the one thing that becomes so striking to me is that many of the communities, or at least the community that I'm in, that many of the newer communities are really designed for cars and not for people. And so these older communities that I have been in Europe, they were designed and built before cars were invented. And so we are unfortunately not thinking about this as we design our cities and our communities, or at least it hasn't been. I know that there are many who are now doing incredible work and really paying attention to that. So I want to applaud those who are, but unfortunately, for far too long, it really was, as I said, often designed around cars. And you look at many American neighborhoods and you drive in and drive right into your driveway, into your garage, shut the garage, and you don't see your neighbors often don't interact. There are many areas are not very walkable. And so it's not surprising that we're feeling less connected to people in our community when it isn't easy and to connect in ways that just would naturally otherwise bring us together.

Lucy Rose ([01:27:42](#)):

It is interesting though that we are beginning to see a movement, at least in this country, in that direction. We are also seeing some communities coming together and having their own block parties and celebrations and doing that. But architects now are beginning to design apartment buildings with staggered balconies so that folks can stand outside and talk with one another. We are seeing communities, I think of Reston Town Center all of those years ago, which began putting a community

together with this actually in mind. It's now also gotten so big, it's probably not a part of this thought anymore, but there is hope. Julian, did

Julianne Holt-Lunstad ([01:28:20](#)):

You see how amazing it was when they needed more outdoor seating? Because during, as a response to the pandemic and streets became shut down, but they put in more outdoor seating and how people were gathering and how incredible it was when people were now given a space to do that.

Lucy Rose ([01:28:46](#)):

I think there is movement in the direction at least.

Jeremy Abbate ([01:28:49](#)):

Exactly, exactly. There's movement. And when I think back many decades ago when there was the rise in the gated community, and as you say, so much of our culture, our built environment was built for cars for a long time. And cars have had it nice. If cars were really social animals, great, great for cars. But unfortunately, we need to really think about what is that human connectivity, and not just in the built environment, but our online environment as noted, our work environment, the way hospitals, churches, everywhere people gather to really think about what makes that social connectivity as seamless as possible. And as you know, Julianne, to get rid of barriers to me would seem the mantra of any, if we ever had a minister of loneliness in this country, that would be something. How do we get rid of barriers to make people able to connect better?

Lucy Rose ([01:29:48](#)):

Yeah,

Julianne Holt-Lunstad ([01:29:49](#)):

And I think you touched on that a little bit earlier, but in thinking about even how we approach things like the environmental impact of a particular project or strategy, the economic impact, we need to be thinking about the social impact

Jeremy Abbate ([01:30:13](#)):

Powerful.

Lucy Rose ([01:30:14](#)):

We are approaching

Jeremy Abbate ([01:30:15](#)):

In, I was going to say we have time for a few more questions or

Lucy Rose ([01:30:18](#)):

Sorry. Yeah, please. And Thomas's insight. I just ask everybody to take a moment and read that before we end as well, talking about it takes time to forge connections. Julianne, this just goes right along with what I think you were saying earlier. If you don't have time, I don't want to commit the time. It's really hard. Slow down, reach out with kindness and curiosity and caring. What a lovely way, Thomas to pull

this together and think about that. And we are social animals and we do need to think about that every day. Julianne, is there something you would like to leave us with after this far ranging discussion on this a piece which still take home or think about for ourselves? No,

Julianne Holt-Lunstad ([01:30:58](#)):

I'll just add too, and I apologize, I just scrolled up so I didn't get to fully read what Thomas had wrote, but I love that. And I think it also helps us think about even being kind to ourselves and thinking about sometimes it can feel frustrating that our relationships aren't what we want them to be, and we don't often instantly have best friends or a close relationship. And those relationships take time and it takes time to go from a complete stranger to an acquaintance and from an acquaintance to a close friend or even a best friend. And so we think we should really a, be kind to ourselves in the sense that we're not a personal failure if that doesn't happen instantly, we need to be patient. But it also is important to think about how all of those little moments add up and how important over time and the consistency of that and how we need to invest in our relationships on a consistent basis if we want to build and maintain the kind of relationships that we want. And ultimately, I remember something that my parents would always say, and that is if you want to have good friends, you need to be a good friend. And so really take each moment to think about how you can reach out and be there for someone else, because even the evidence shows that often by helping others, we help ourselves too.

Jeremy Abbate ([01:32:49](#)):

Great message. Great sentiment.

Julianne Holt-Lunstad ([01:32:52](#)):

Dan, welcome back.

Zan Fleming ([01:32:53](#)):

Wow, I can't get over this. It's been such a unique and valuable discussion and it sets multiple conference records first for such an engaging and enjoyable and rich discussion. The 90 minutes just zoomed right by. And then for the quality and quantity of the chat discussion, I just can't get over it all. I think we all have felt an intense sense of connectedness for the past 90 minutes and how appropriate it is in this discussion about loans. So we can't thank Julianne and Lucy and Jeremy enough for this great discussion, and I know we'll be talking about it for many days to come. Just a few words from Thomas to close this out. Thank you again.

Thomas Seoh ([01:33:54](#)):

Wow, this sounds so mundane. But just to let you know, the next targeting healthy longevity session will be on November 17th on the Cosmos trials, the largest trial. You may have never heard of controlled trials. You may never have heard of involving over 21,000 subjects on clinical, cardiovascular and brain health benefits of a nutritional supplement and a multivitamin. So registrants will receive information in the email and we will be distributing the link to the YouTube recording within a day or so, followed by a transcript and the chat log. So please stay tuned to the kit.org website, although you'll get registrants will get this information by email. And with that, I want to thank the speakers and you, the audience for your attendance and wish you all a good day wherever you are on the globe, speakers and attendees, the virtual hall will be left open for a few minutes for those of you who are available and want to Terry. But otherwise, thank you.

Julianne Holt-Lunstad ([01:34:52](#)):

Thank you guys.

Thomas Seoh ([01:34:53](#)):

So that was unlike many or most of our other sessions. I think

([01:35:03](#)):

Perhaps because it's such a universal human yearning, one of the observations or insights I had was we recognized the need for social connections, but I certainly hadn't thought about it in terms of basic human needs like hunger and thirst and the need to move and so forth. And so it's weird to see society sort of coming up to recognize that now generally, even though researchers like Julianne have known this for decades, and somebody who commented on my comment, not here, but in another context, said, it says something about our modern society, that traditional societies always understood this, but somehow we've lost sight of it and we now have to train ourselves to go back to basics.

Zan Fleming ([01:35:53](#)):

Also true.

Julianne Holt-Lunstad ([01:35:55](#)):

Yeah,

Zan Fleming ([01:35:56](#)):

Go ahead, Julianne.

Julianne Holt-Lunstad ([01:35:58](#)):

No, I was just saying so true and so profound. Yeah.

Thomas Seoh ([01:36:03](#)):

Julian, how did you, sorry, Z, go ahead.

Zan Fleming ([01:36:06](#)):

Well, I was just going to say that we have really tried hard to bring different groups together as a community and the six years that the conference has been going, but this really takes it to a level that we haven't seen before in terms of the interaction and even when we had live meetings and could have people in the same room conversing. I don't think that we've seen this much energy in the discussion that we saw today. So it may be in part the subject, certainly it's the moderators and our star expert, but also I think the audience is a select group of people who showed up today.

Thomas Seoh ([01:37:02](#)):

Julianne, I wanted to ask you, I mean, you participate in hundreds if not thousands of these things and just came off a big weekend for your social connectedness foundation. How did you find this particular webinar?

Julianne Holt-Lunstad ([01:37:19](#)):

It was great. And in fact, I remember Lucy saying, if you don't have fun, we failed. And I feel like we had fun, or at least I did. And so I just realized, so I didn't scur, I was trying to stay present in our conversation and I didn't have a chance to look at the comments. So first off, Thomas, I apologize if I literally just said exactly what you had said.

Thomas Seoh ([01:37:48](#)):

Oh, no, no, no. That doesn't

Julianne Holt-Lunstad ([01:37:50](#)):

Matter that way.

Thomas Seoh ([01:37:51](#)):

And the chat is not the main event. So the chat is there available to look at afterwards, but I'm glad that you were not distracted.

Lucy Rose ([01:38:00](#)):

But yeah, so hopefully it was just worth repeating. But yeah, I'm now just trying to look through and see, but it looks like there's quite a, whoa, quite a bit of huge amount of chat. Yeah, I was noticing that Julianne, I know we're still alive now, so if there is somebody on that really wants Julianne to answer something specific, put it back up there. We are looking at speak, but there was a lot of interaction. It would've been nice to acknowledge every single one of them, but I think we'd been here Thomas till five if we did that.

Thomas Seoh ([01:38:38](#)):

That's true. I don't know Saif or Zoom mista, whether if someone raises a hand, whether we can identify them and talk 'em out. I don't want to speak for your time there, Julian, and for our co-moderator, but if that's an option and we see it, we could try an experiment of one or two or three of those. But please carry on. Sorry,

Lucy Rose ([01:39:03](#)):

I think I have about 10 more minutes, but then I need,

Zan Fleming ([01:39:08](#)):

We know you do, and just to remind everybody, we will be sending you what was or is right now in the chat though it will be reserved as well as the recording of the whole session, which will show up soon on the YouTube channel where you can see other sessions as well. We've done now, gosh, some 150 sessions I think now going back over those years,

Lucy Rose ([01:39:42](#)):

Julianne, we have had this question come up several times and Shaheen, I believe says, I would still love ideas on how to help older parents, less lonely in their own homes when caregivers have to work. Any ideas to help with that? Several people have brought that up. Any thoughts or ideas? Any creative ways that you've heard that you might can share with them? Okay, so I am just looking at the question, and I am not sure



Speaker 6 ([01:40:15](#)):

If it's

Lucy Rose ([01:40:15](#)):

Asking about older adults who are less lonely or how to help them. Lonely, older person whose caregiver, perhaps their child or whomever has to go to work every day and they're there alone. I think that might be it.

Thomas Seoh ([01:40:29](#)):

And Shahe also added, especially when parents don't trust bringing strangers into their homes to help.

Lucy Rose ([01:40:36](#)):

Okay, thank you. Intact. But it's not unique. I mean, first off, we need to be really sensitive that older adults are quite varied

Julianne Holt-Lunstad ([01:40:53](#)):

And it's interesting that somehow 65 plus even sometimes 50 plus are classified as older adults. And yet you look at say, someone who's 65, they may differ vastly from someone who's say 85 or 95. And so it really can vary depending greatly on a number of factors, including regardless of age, their level of mobility, and to what extent they are home bound because many seniors are quite active. And so the extent to which older adults can be involved in their communities, there are lots of opportunities for volunteering. Many older adults have incredible skills and things to offer and are really unfortunately an untapped resource and natural resource for us. And so perhaps, I think it may have been, now I've lost the question, but maybe it was parents, but if say an older adult parent is an able to get involved in volunteering at a local cause that is relevant to them and their skillset. So for instance, my mother, when I was growing up top piano lessons, and so music was always really important to her, but for someone else that might not be their thing.

([01:42:54](#)):

And so really thinking about how they can still feel needed and really contribute and in a way that might be a little bit of identifying some matchmaking to find what might be best. But there's many ways for older adults to continue to be active in their communities and now even among those who may be more home bound ways to be active remotely and for those who may be home bound. And so that becomes more challenging when there may be more severe kinds of mobility or even cognitive issues that may make that kind of activity a little bit more challenging. And so there are increasing programs out there. And in fact, the Foundation for Social Connection has established a resource that as well as so the administration for community living, their connect to effect, I hope I have the right name there, but the community or administration for Community Living has some resources for various programs and interventions that you could look into in terms of what might be available in your local community

Thomas Seoh ([01:44:42](#)):

Among the policies, suggestions, is there anything for a youth core or something that would go out for intergenerational exchange? It's an idea, people that do it voluntarily, but maybe that's something that could be more codified. It's not mandatory, it's not a draft, but there may be nudges. Is there such a policy that in discussion?

Julianne Holt-Lunstad ([01:45:04](#)):

Yeah, I mean there are of course programs where they get youth and train them or to become volunteers to interact with older adults. There are others where it's more of a bi-directional where they're helping each other. And if we can think about it, I've even heard of novel ideas where especially when we think about things like housing shortages where young people can't often afford housing, where older adults may be able to rent a room or whatever it might be that that could benefit both the youth and the older adult. And so we can think about lots of different models of how that might look, but there intergenerational approaches may be really useful. And Lucy, you talked earlier about the blue zones and one of the things that I observe every time I'm there is how intergenerational all of their everyday gatherings, the social gatherings, I am amazed at even I think of the Greek festivals in Riva, Greece and there's dancing and music and food and everything, and it's amazing. And you see youngsters, I mean little kids to teenagers, to adults, to 90 year olds out there all dancing together. And so it's really just I think a testament to how there aren't often these large divides between generations and there's more of that intergenerational interaction that occurs in these communities. And that may be a really important avenue to pursue in some of these solutions.

Lucy Rose ([01:47:07](#)):

Thomas, just to go to that as well, where we're seeing some of that occur already today with intent is in some of our, for lack of a better term, nursing homes as we know, or homes where retirement homes or people are, where they are integrating young people in their twenties, providing free housing for them to live among retirees who need extra help and are part of that living environment and truly integrated fully and showing a different generation and how they interact, thinking about parties and things and all the different generations made me think of that. We're seeing that in other countries, especially in Scandinavia, but seeing it more and more here as well, which is at least a beginning thinking about a creative application for some of that intergenerational work as well.

Zan Fleming ([01:48:01](#)):

Thank you. And Julianne, I know you're going to have to leave, but just a few words about healthcare professionals and what's happening with professional societies in terms of awareness and making this at least some kind of issue to identify and encounters with patients.

Julianne Holt-Lunstad ([01:48:29](#)):

So I'll refer people. I published a paper in the New England Journal of Medicine, and I want to say the title, something like Social Isolation and Loneliness as Medical Issues. And in that I lay out a framework because many providers, while there's recommendations to assess loneliness or lacking social connection in the electronic health record, many providers don't know what to do with that. And so I propose a framework which I refer to as the ear in both ways, to as an acronym for educate, assess, and respond, but also to really remind you actually need to listen to understand the needs of your patients. And so it provides a simple but flexible way to empower providers to know what to do when they encounter a patient, but also how to perhaps integrate it into even preventative care along that lines and across various specialties within medicine. And I'm also really conscientious about the fact that providers are really limited on time and recognizing that I am sure for many are already experiencing burnout and adding one more thing that they have to do.

Zan Fleming ([01:50:29](#)):

And loneliness.

Julianne Holt-Lunstad ([01:50:30](#)):

Yeah, loneliness. That's right. And loneliness themselves. And so really this is meant to help them recognize not only is this relevant to patient care, it's not taking away from patient care, but how important as you say it is, even to their own wellbeing in the role that they do. But also calling out the importance of the need for training and support. Because if providers don't have the resources that they need, this will also continue to be a problem. But yeah, I would recommend looking at that piece for just a little bit of information on what the medical community can do. There's so much more. I also recommend looking at the recommendations in the advisory. There's a whole section on the health sector and recommendations on that. So unfortunately I need to run, but I want to thank

Zan Fleming ([01:51:44](#)):

You much. That is so helpful. Much,

Lucy Rose ([01:51:47](#)):

Stephanie, actually just put a link to

Zan Fleming ([01:51:48](#)):

Your article. We can't thank you enough. And thank you for this bonus time with you. This was great. Thank you. Thank you so much, Lucy. Thank

Lucy Rose ([01:51:56](#)):

You. Really appreciate it. Thanks for having us guys.

Zan Fleming ([01:51:59](#)):

Bye

Lucy Rose ([01:52:00](#)):

Bye. So connect. Bye-bye everyone. Bye. Thank you.