

Webinar

Confronting COVID-19: Healthy Buildings; Optimizing Mental Health

Date: March 31, 2020

00:00:00> 00:00:01:	So welcome to all of you.
00:00:01> 00:00:05:	I'm Rachel Mccleary, senior vice president at you'll I an,
00:00:05> 00:00:08:	on behalf of you'll, I would like to welcome you
00:00:08> 00:00:11:	to this global webinar on the coronavirus.
00:00:11> 00:00:16:	This webinar on healthy building strategies and opportunities to maximize
00:00:16> 00:00:19:	mental health through built environment is the 2nd in a
00:00:19> 00:00:22:	series which you lie is offering members and real estate
00:00:22> 00:00:26:	leaders who are working to navigate the challenges posed by
00:00:26> 00:00:29:	the health crisis and who want to contribute to its
00:00:29> 00:00:30:	resolution.
00:00:30> 00:00:32:	Next slide.
00:00:32> 00:00:35:	The Urban Land Institute is a research and education nonprofit
00:00:35> 00:00:39:	whose mission is to provide leadership in the responsible use
00:00:39> 00:00:43:	of land and creating and sustaining thriving communities worldwide.
00:00:43> 00:00:45:	Excuse me if you are new to you alive.
00:00:45> 00:00:48:	Welcome as we said last week in the last web.
00:00:48> 00:00:51:	And are we know this is a very challenging time
00:00:51> 00:00:52:	for you.
00:00:52> 00:00:53:	Will I members, our partners,
00:00:53> 00:00:58:	their colleagues and families? Our thoughts go out to individuals
00:00:58> 00:01:02:	and communities who are coping with an ever deepening health
00:01:02> 00:01:03:	and economic crisis.
00:01:03> 00:01:05:	As are you alive family we want you to know
00:01:06> 00:01:07:	that we are here for you.
00:01:07> 00:01:10:	

00:01:10> 00:01:10:	you,
00:01:10> 00:01:13:	lie members and their partners as they navigate this strange
00:01:13> 00:01:15:	new world of ever changing information.
00:01:15> 00:01:19:	An worry. And although we cannot come together in person
00:01:19> 00:01:21:	as is our practice with webinars like this one,
00:01:21> 00:01:24:	we are coming together virtually now and in the coming
00:01:24> 00:01:27:	weeks you will lie is rolling out on line and
00:01:27> 00:01:30:	web based content of all kinds dedicated to informing and
00:01:30> 00:01:34:	connecting you lie members around COVID-19 and other topics as
00:01:34> 00:01:35:	well.
00:01:35> 00:01:38:	The building Healthy Places Initiative was launched in 2013 to
00:01:38> 00:01:40:	leverage the power of you allies.
00:01:40> 00:01:43:	Global networks, to shape projects and places in ways that
00:01:43> 00:01:46:	improve the health of people and communities.
00:01:46> 00:01:49:	Over the years we have been working with you,
00:01:49> 00:01:52:	align members to explore the intersections of health,
00:01:52> 00:01:55:	social equity, real estate and to promote healthy places.
00:01:55> 00:01:59:	This crisis has underscored how critically important health is and
00:01:59> 00:02:01:	highlighted more acutely than ever before,
00:02:01> 00:02:04:	how interconnected. We all are rich and poor.
00:02:04> 00:02:06:	Young and. Old, the US and the world.
00:02:06> 00:02:08:	We need each other now more than ever.
00:02:08> 00:02:11:	And now more than ever we need policy solutions and
00:02:11> 00:02:14:	strategies that lift everyone up and leave no one behind.
00:02:14> 00:02:17:	We know that all of you are problem solvers and
00:02:17> 00:02:19:	you are dedicated to doing all you can to help
00:02:19> 00:02:22:	prevent the spread of the virus to navigate the business
00:02:22> 00:02:25:	and planning impacts and to help mitigate the impact of
00:02:25> 00:02:28:	this crisis on communities and vulnerable people.
00:02:28> 00:02:30:	We know that you are working to help cities and
00:02:30> 00:02:32:	communicate communities,
00:02:32> 00:02:35:	navigate the pandemic and rebuild after it in ways that
00:02:35> 00:02:35:	foster.
00:02:35> 00:02:38:	Social equity and provide opportunity for all.
00:02:38> 00:02:40:	Our goal with this web and R series.
00:02:40> 00:02:43:	Another coronavirus information and programming,
00:02:43> 00:02:46:	is to give you insights and information that help you
00:02:46> 00:02:47:	do just that.
00:02:47> 00:02:50:	We have compiled information relevant to the real estate industry

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00:02:50> 00:02:54:	on our issue page you will i.org/COVID-19 which we are
00:02:55> 00:02:58:	updating regularly as more information becomes available.
00:02:58> 00:03:01:	Overtime we're sharing this web and R and all related
00:03:01> 00:03:04:	content in the spirit of information sharing an education,
00:03:04> 00:03:07:	please see this see this statement on your screen for
00:03:07> 00:03:08:	further important disclaimers.
00:03:08> 00:03:12:	As you know, today's. Webinars focused on two intersecting topics.
00:03:12> 00:03:15:	How to keep buildings healthy and how to optimize mental
00:03:15> 00:03:19:	health with built environment strategies in this time of disruption
00:03:19> 00:03:23:	last week we heard from infectious disease specialist Kathy Tracy,
00:03:23> 00:03:27:	healthy buildings expert Whitney Austin Gray and emergency planner Susan
00:03:27> 00:03:28:	Basak.
00:03:28> 00:03:31:	Next week on April 7th will examine it considerations for
00:03:31> 00:03:34:	multifamily buildings and affordable housing,
00:03:34> 00:03:36:	and on April 14th will take a look at the
00:03:36> 00:03:40:	shifting economic landscape and how to cope with the collapse
00:03:40> 00:03:42:	of rent payments for housing and retail.
00:03:42> 00:03:45:	All webinars are linked to an listed on that you
00:03:45> 00:03:49:	will i.org/COVID-19 issue page webinars are being recorded,
00:03:49> 00:03:52:	a partial web and our partial recording of this webinar
00:03:52> 00:03:55:	will be shared by email with registrants and will also
00:03:55> 00:03:57:	be posted on the web.
00:03:57> 00:04:00:	But Professor Alan's portion will be omitted from the recording
00:04:00> 00:04:02:	and from the shared slides.
00:04:02> 00:04:04:	So here are speakers for today's web and R.
00:04:04> 00:04:06:	In the interest of time and getting to the meat
00:04:07> 00:04:09:	of the matter will just offer quick names and titles
00:04:09> 00:04:10:	for full full BIOS,
00:04:10> 00:04:13:	please look at the web and our web page.
00:04:13> 00:04:17:	I'm delighted to hand the moderating duties over to Elizabeth
00:04:17> 00:04:17:	Shreve,
00:04:17> 00:04:21:	Elizabeth's principle with the SWA Group based in San Francisco.
00:04:21> 00:04:23:	And as our moderate are today,
00:04:23> 00:04:26:	she is a long time you will remember and champion
00:04:26> 00:04:30:	of the building Healthy Places Initiative and as chair of
00:04:30> 00:04:33:	the UI Sustainable Development Product Council.
00:04:33> 00:04:35:	Elizabeth thank you Rachel. Hello everyone,

00:04:35> 00:04:39:	I'm so grateful to be here to moderate the connection
00:04:39> 00:04:42:	today or through this session with the UI community I've
00:04:42> 00:04:45:	been involved with building healthy places for.
00:04:45> 00:04:47:	A while and and we can all see how this
00:04:47> 00:04:49:	pandemic is really driving home.
00:04:49> 00:04:53:	The point that health is fundamental to the way that
00:04:53> 00:04:56:	we design and build with challenges that most of us
00:04:56> 00:04:58:	could never have foreseen.
00:04:58> 00:05:02:	So today we'll be hearing from First Doctor Joseph Allen,
00:05:02> 00:05:07:	assistant professor of exposure assessment science at the Harvard TH
00:05:07> 00:05:10:	Chan School of Public Health and director of the Healthy
00:05:10> 00:05:12:	Buildings Program.
00:05:12> 00:05:15:	There he is the recent author of healthy buildings,
00:05:15> 00:05:19:	how indoor spaces drive performance and productivity,
00:05:19> 00:05:22:	along with John Macomber at Harvard Business School,
00:05:22> 00:05:27:	and he'll be providing some links to his resources.
00:05:27> 00:05:29:	As part of his presentation,
00:05:29> 00:05:33:	our friend Joanna Frank, longtime friend of building healthy places,
00:05:33> 00:05:37:	is the founding president and CEO of the Center for
00:05:37> 00:05:40:	Active Design based in New York City,
00:05:40> 00:05:45:	where she advances design and development practices to foster healthy
00:05:45> 00:05:47:	and engaged communities so.
00:05:47> 00:05:50:	Here we are. It's early days in this pandemic and
00:05:51> 00:05:54:	one thing we know is that we're all faced with
00:05:54> 00:05:55:	so much uncertainty,
00:05:55> 00:05:59:	were isolated, and yet we're finding ways to connect often
00:05:59> 00:06:01:	in new and unexpected ways.
00:06:01> 00:06:04:	For example, yesterday I took a break from work for
00:06:04> 00:06:07:	a music jam session with my 98 year old father
00:06:07> 00:06:11:	who lives in a retirement community where six people have
00:06:11> 00:06:14:	died from COVID-19 this week were frantic,
00:06:14> 00:06:17:	of course, and he's chafing at missing his ukulele E
00:06:17> 00:06:18:	band rehearsals.
00:06:18> 00:06:21:	So we got on zoom with one of my brothers
00:06:21> 00:06:23:	in Nashville on the guitar.
00:06:23> 00:06:26:	My brother on banjo in New Hampshire.
00:06:26> 00:06:29:	My dad on Long Island with his ukulele E and
00:06:29> 00:06:32:	we made some really bad music together and we laughed.
00:06:32> 00:06:35:	We all felt like we were far away from each
00:06:35> 00:06:36:	other.

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00:06:36> 00:06:38:	An yet in some ways we were closer.
00:06:38> 00:06:41:	We're facing the immediate situation at hand.
00:06:41> 00:06:43:	How do we get through this crisis?
00:06:43> 00:06:48:	And we're also facing the great unknown of what's ahead
00:06:48> 00:06:51:	after the chain of transmission has slowed.
00:06:51> 00:06:55:	So our speakers are going to help us today with
00:06:55> 00:06:56:	what we do know.
00:06:56> 00:06:59:	What are some of the immediate hacks that we can
00:06:59> 00:07:01:	put into practice right now?
00:07:01> 00:07:05:	What can we do at this moment to foster health
00:07:05> 00:07:08:	and well being as we get through this crisis?
00:07:08> 00:07:11:	And then, what are some of the possibilities and best
00:07:11> 00:07:13:	practices for what lies ahead?
00:07:16> 00:07:19:	And with that, I think we'll just jump right into
00:07:19> 00:07:19:	it.
00:07:24> 00:07:28:	I think public health experts are the clearly the unsung
00:07:28> 00:07:31:	superheroes of the moment.
00:07:31> 00:07:34:	So let's let's thank them as often as we possibly
00:07:35> 00:07:35:	can,
00:07:35> 00:07:39:	even though the only measure of success is that nothing
00:07:39> 00:07:40:	happens.
00:07:40> 00:07:44:	So with that, Joanna is going to address some of
00:07:44> 00:07:48:	the aspects of mental health both in the near term
00:07:48> 00:07:50:	and into the future.
00:07:50> 00:07:52:	Joanna great, thank you so much.
00:07:52> 00:07:55:	So great place for me to kind of segue.
00:07:55> 00:07:58:	As my expertise is really in buildings,
00:07:58> 00:08:01:	so we're going to jump straight into what will be
00:08:01> 00:08:04:	the role of buildings as we go forward.
00:08:04> 00:08:06:	So the Center for active design,
00:08:06> 00:08:09:	the organization that I that I lead was actually created
00:08:09> 00:08:13:	with the belief that the built environment could change the
00:08:13> 00:08:15:	trajectory of health,
00:08:15> 00:08:18:	and we believe that because of the body of public
00:08:18> 00:08:22:	health evidence base that we were translating at the time,
00:08:22> 00:08:25:	there's No 10 years ago to really look at how
00:08:25> 00:08:26:	come we combat?
00:08:26> 00:08:29:	Chronic disease and one of the things that gave us
00:08:29> 00:08:31:	the belief that this was even possible,
00:08:31> 00:08:34:	that we as a bunch of building designers and operators
00:08:34> 00:08:37:	and real estate developers and City of New York?
00:08:37> 00:08:40:	Why did we even think we could address public health?

00:08:40> 00:08:43:	One of the reasons for that was actually looking at
00:08:43> 00:08:46:	the precedent of history and how New York City actually
00:08:46> 00:08:49:	was able to overcome its very high levels of infectious
00:08:49> 00:08:52:	disease. So these are the slides that I have now
00:08:52> 00:08:55:	used for a decade to talk about the precedent that
00:08:55> 00:08:57:	New York City is set in a looking at infectious
00:08:57> 00:09:00:	disease and how to leverage our buildings are built in
00:09:00> 00:09:01:	VIA.
00:09:01> 00:09:03:	Mentor policy around built environment,
00:09:03> 00:09:06:	so let me go back 10 years and present this
00:09:06> 00:09:08:	to you and really go back to the 1800s.
00:09:08> 00:09:11:	So in the 1800s the majority of New Yorkers were
00:09:11> 00:09:15:	dying of infectious disease and the way that New York
00:09:15> 00:09:19:	City actually looked at addressing that infectious disease was looking
00:09:19> 00:09:22:	at how can we take our built environment?
00:09:22> 00:09:25:	Both the physical elements of the built environment as well
00:09:25> 00:09:28:	as the policy and how can we leverage that to
00:09:28> 00:09:30:	combat this infectious disease?
00:09:30> 00:09:33:	The subway system was created to alleviate.
00:09:33> 00:09:37:	Overcrowding in lower Manhattan. The reservoir system and the piping
00:09:37> 00:09:40:	of water was created in order to bring fresh drinking
00:09:40> 00:09:43:	water to the residents of New York.
00:09:43> 00:09:46:	There was a policy created around how to set minimum
00:09:46> 00:09:49:	standards for light and air around housing.
00:09:49> 00:09:52:	The Tenement House Act was the first of its kind.
00:09:52> 00:09:54:	There were other policy changes as well.
00:09:54> 00:09:59:	A entire new Department was created called the Sanitation Department.
00:09:59> 00:10:02:	Prior to that, dead horses were left on the street.
00:10:02> 00:10:06:	That was typical. So sanitation was introduced as something that
00:10:06> 00:10:08:	was part of the public realm.
00:10:08> 00:10:11:	All of these these things were put in place,
00:10:11> 00:10:14:	and they had a dramatic impact on infectious disease rates.
00:10:14> 00:10:17:	And you can see here by the 1940s that there's
00:10:17> 00:10:19:	a complete reversal,
00:10:19> 00:10:22:	and that infectious diseases, now only down to,
00:10:22> 00:10:25:	is down to 11%, and we're really seeing a chronic
00:10:25> 00:10:25:	disease.
00:10:25> 00:10:29:	Is the thing that begins to be affecting the majority
00:10:29> 00:10:29:	of New Yorkers specifically and affecting the death rates.
VV. IV. 2V VV. IV. J2.	of new renters specifically and ancoung the death fates.

00:10:32> 00:10:35:	And this is all prior to the widespread use.
00:10:35> 00:10:38:	Of antibiotics, so I think I'm starting with a message
00:10:38> 00:10:41:	of hope because I think that you know we're talking
00:10:41> 00:10:43:	about mental health specifically in this part,
00:10:43> 00:10:45:	and I do feel like as a as a building
00:10:45> 00:10:46:	professional,
00:10:46> 00:10:48:	we had to feel like what is our role.
00:10:48> 00:10:50:	What can we do? What place do we play in
00:10:50> 00:10:50:	this?
00:10:50> 00:10:52:	An I think that we have leverage.
00:10:52> 00:10:56:	The built environment successfully in the past to overcome infectious
00:10:56> 00:10:56:	disease.
00:10:56> 00:10:59:	There's more than 100 years of public health research in
00:10:59> 00:11:00:	how to do this.
00:11:00> 00:11:03:	We are absolutely at the center of this coming going
00:11:03> 00:11:05:	forward and there's a lot that we can do.
00:11:05> 00:11:07:	And so I'm excited to share.
00:11:07> 00:11:08:	Some of that with you today.
00:11:08> 00:11:12:	What's interesting is that we have spent the last 10
00:11:12> 00:11:15:	years really looking at how to overcome chronic disease using
00:11:15> 00:11:19:	our built environment because that is what causes the majority
00:11:19> 00:11:21:	of deaths in the US and globally.
00:11:21> 00:11:24:	But there's a lot that we know about infectious disease,
00:11:24> 00:11:27:	so we're excited to kind of bring this back to
00:11:27> 00:11:30:	the forefront and talk about it with everybody in the
00:11:31> 00:11:32:	coming weeks and months.
00:11:32> 00:11:35:	So across the globe, the three leading causes of premature
00:11:36> 00:11:37:	death it are smoking,
00:11:37> 00:11:39:	perhaps no surprise to anybody.
00:11:39> 00:11:42:	The other two, though I think I'm probably more of
00:11:42> 00:11:45:	a surprise and that is physical inactivity and social isolation,
00:11:45> 00:11:49:	and both of those are actually associated with negative mental
00:11:49> 00:11:50:	health outcomes,
00:11:50> 00:11:52:	which includes increase in anxiety,
00:11:52> 00:11:55:	increase in depression and increase in stress.
00:11:55> 00:11:58:	And we're really going to be focusing on mental health
00:11:58> 00:12:01:	and how our built environment can be leveraged for mental
00:12:01> 00:12:02:	health.
00:12:02> 00:12:04:	For positive mental health outcomes,

00:12:04> 00:12:07:	but we think we've talked a lot about the physical
00:12:07> 00:12:08:	infectious disease.
00:12:08> 00:12:11:	I think everybody will agree we under very high levels
00:12:11> 00:12:12:	of anxiety right now.
00:12:12> 00:12:15:	And there's a lot that we can use in our
00:12:15> 00:12:18:	built environment to to alleviate some of that stress and
00:12:18> 00:12:19:	anxiety,
00:12:19> 00:12:22:	and it's just good to understand the role that your
00:12:22> 00:12:27:	built environment is playing in either exacerbating or actually diminishing
00:12:27> 00:12:29:	those mental health issues.
00:12:29> 00:12:32:	So we run a building certification system as well as
00:12:32> 00:12:33:	other things,
00:12:33> 00:12:36:	but we run the fit well building certification system and
00:12:36> 00:12:40:	fit well is actually based on public health research.
00:12:40> 00:12:42:	It was created by the USCDC that I don't think
00:12:42> 00:12:44:	needs any introduction.
00:12:44> 00:12:47:	This point and the General Service Administration,
00:12:47> 00:12:50:	which is the arm of the US federal government that
00:12:50> 00:12:54:	actually manages the operation and building of federal buildings across
00:12:54> 00:12:54:	the US,
00:12:54> 00:12:57:	is about 9000 buildings and their portfolio.
00:12:57> 00:13:00:	So the CDC took this global evidence based coming out
00:13:00> 00:13:04:	of public health and translated it into practical design strategies
00:13:04> 00:13:07:	that could be used first and foremost on the GSA's
00:13:07> 00:13:10:	portfolio of existing buildings. And then we were selected as
00:13:10> 00:13:12:	the operator of fit well,
00:13:12> 00:13:15:	three years ago to really take this incredible evidence based
00:13:15> 00:13:17:	these set of strategies.
00:13:17> 00:13:20:	And bring them to the private sector and also kind
00:13:20> 00:13:23:	of a wider swath of the public sector and globally
00:13:23> 00:13:23:	as well.
00:13:23> 00:13:26:	So we operate fit well and we are the third
00:13:26> 00:13:29:	party certifier for fit well and behind fit well is
00:13:29> 00:13:31:	this amazing body of public health,
00:13:31> 00:13:34:	which is growing all the time public health research so
00:13:34> 00:13:36:	currently behind fit.
00:13:36> 00:13:39:	Well there are 5600 peer reviewed public health research studies
00:13:39> 00:13:42:	and up until now I would always have to explain the difference between kind of public health and medical

	health
00:13:46> 00:13:47:	and and you know why this.
00:13:47> 00:13:50:	Is important to all of us in the building industry
00:13:50> 00:13:53:	and I don't think we need to do this anymore,
00:13:53> 00:13:56:	so that's interesting how times change so very quickly.
00:13:56> 00:13:59:	So this very large body of evidence is coming out
00:13:59> 00:14:02:	of academic institutions around the world.
00:14:02> 00:14:05:	It has been translated into the design and operational strategies
00:14:05> 00:14:07:	that are there and housed within fit.
00:14:07> 00:14:10:	Well, all of this you can download for free on
00:14:10> 00:14:11:	football.org.
00:14:11> 00:14:13:	All of the strategies in there to use it as
00:14:13> 00:14:14:	a certification.
00:14:14> 00:14:17:	There is a cost. We are a nonprofit.
00:14:17> 00:14:19:	We try to keep that to an absolute minimum.
00:14:19> 00:14:22:	To cover our time, but this evidence base exists.
00:14:22> 00:14:23:	This is another, I think,
00:14:23> 00:14:26:	a real kind of positive piece here is that we
00:14:26> 00:14:30:	know what elements of our built environment are impacting
	our
00:14:30> 00:14:30:	overall health,
00:14:30> 00:14:34:	health holistically and then individually in these outcomes.
00:14:34> 00:14:37:	So the outcomes listed on the screen right now are
00:14:37> 00:14:39:	really looking at holistic health outcomes.
00:14:39> 00:14:41:	Were looking at Community health,
00:14:41> 00:14:44:	reducing morbidity, instill feelings of well being.
00:14:44> 00:14:47:	That's where we're going to really concentrate today,
00:14:47> 00:14:50:	so that's kind of all aspects of mental health.
00:14:50> 00:14:53:	Social equity for vulnerable populations.
00:14:53> 00:14:56:	Again, something that has been heightened in focus over the
00:14:56> 00:15:00:	last few weeks and is otherwise something that I feel
00:15:00> 00:15:01:	like is not top of mind.
00:15:01> 00:15:06:	Providing healthy food options, promoting occupant safety and then increasing
00:15:06> 00:15:07:	physical activity.
00:15:07> 00:15:11:	So all of these together make up holistic health and
00:15:11> 00:15:14:	every strategy within fit well has a body of evidence
00:15:14> 00:15:18:	that shows a correlation or Association between that particular design
00:15:18> 00:15:21:	or operational strategy. An impact on at least one of
00:15:22> 00:15:23:	these health impact categories.
00:15:23> 00:15:26:	The body of evidence is so large for public health

00:15:26> 00:15:28:	that we can actually use it to weight each of
00:15:28> 00:15:29:	the strategies.
00:15:29> 00:15:32:	So you know that one strategy has a greater,
00:15:32> 00:15:34:	measurable impact on health and another.
00:15:34> 00:15:37:	And that's very important because all of us in the
00:15:37> 00:15:39:	building industry you don't have unlimited budgets.
00:15:39> 00:15:41:	You don't have unlimited opportunities.
00:15:41> 00:15:44:	Everybody has to be able to prioritize what is going
00:15:44> 00:15:47:	to have the greatest impact on health on this body
00:15:47> 00:15:50:	of evidence really helps to inform that decision making so.
00:15:50> 00:15:53:	Very important and very powerful and impactful and I think
00:15:53> 00:15:56:	it's one of the reasons that fit well has already
00:15:56> 00:15:59:	been so successful after a very short amount of time
00:15:59> 00:16:01:	that it's it's answering a lot of the basic questions
00:16:02> 00:16:05:	coming from the real estate industry coming from building owners
00:16:05> 00:16:06:	and designers.
00:16:06> 00:16:08:	And that is what should I prioritize.
00:16:08> 00:16:09:	What should I do first?
00:16:09> 00:16:12:	How am I going to have the greatest measurable impact
00:16:12> 00:16:15:	that is specific to my building population through my community
00:16:15> 00:16:17:	to my particular building type?
00:16:17> 00:16:19:	So all of those questions can be answered.
00:16:19> 00:16:20:	So just to kind of focus.
00:16:20> 00:16:22:	In on the mental health,
00:16:22> 00:16:27:	peace, mental health actually already accounts for the largest burden
00:16:27> 00:16:29:	of disease globally.
00:16:29> 00:16:31:	These are a number of British studies.
00:16:31> 00:16:35:	I am British, but there's really no bias here.
00:16:35> 00:16:38:	There is really looking at just the kind of the
00:16:38> 00:16:39:	scale of anxiety,
00:16:39> 00:16:44:	disorder and major depressive disorder and its its overall impact
00:16:44> 00:16:46:	on absolutely on health.
00:16:46> 00:16:49:	But also next side on the economic impact of mental
00:16:49> 00:16:50:	health as well.
00:16:50> 00:16:54:	Another UK study. Looking at the actual cost of loss
00:16:54> 00:16:57:	of work associated with psychological problems,
00:16:57> 00:17:00:	we see that across the globe this is not a
00:17:00> 00:17:03:	US or UK or any other country issue.
00:17:03> 00:17:05:	As I mentioned at the beginning,

00:17:05> 00:17:10:	social isolation is up there within physical inactivity and smoking
00:17:10> 00:17:14:	as the leading cause of premature death globally and accounts
00:17:14> 00:17:18:	for the majority of last six sick days in the
00:17:18> 00:17:19:	US, as well as in the UK.
00:17:19> 00:17:22:	So all of this is really important.
00:17:22> 00:17:25:	It was important before. The coronavirus and I I would
00:17:25> 00:17:28:	say that it's going to be an even greater factor
00:17:28> 00:17:30:	as we begin to return to work and right now
00:17:30> 00:17:34:	as we are all isolated as practicing social distancing.
00:17:34> 00:17:36:	So how do we design our spaces where we live
00:17:36> 00:17:38:	and where we work to promote mental health,
00:17:38> 00:17:42:	specifically promote mental health and it's interesting.
00:17:42> 00:17:45:	We already just looked at Professor Alan's the diagram around
00:17:45> 00:17:47:	direct impact and indirect impact.
00:17:47> 00:17:50:	'cause I'm going to talk a little bit about that
00:17:50> 00:17:50:	also,
00:17:50> 00:17:52:	but as it relates to mental health,
00:17:52> 00:17:56:	so there are particular design and operational strategies that have
00:17:56> 00:17:58:	a direct impact on mental health.
00:17:58> 00:18:00:	But in the near term and then there are other
00:18:00> 00:18:04:	strategies that have an indirect impact and a slightly longer
00:18:04> 00:18:06:	duration before they impact mental health.
00:18:06> 00:18:10:	So something like a strategy that promotes physical activity would
00:18:10> 00:18:12:	be an example of an indirect strategy.
00:18:12> 00:18:16:	So physical activity has an impact on your mental health,
00:18:16> 00:18:18:	but only if you participated in it.
00:18:18> 00:18:20:	So we are going to stick to those direct impacts
00:18:20> 00:18:22:	or mental health today,
00:18:22> 00:18:24:	just so that we could have narrowed it down to
00:18:25> 00:18:27:	where the evidence base is strongest.
00:18:27> 00:18:28:	As far as mental health.
00:18:28> 00:18:32:	So we've kind of already talked about this a little
00:18:32> 00:18:32:	bit.
00:18:32> 00:18:35:	As far as outdoor space and access your greenery and
00:18:36> 00:18:40:	how over the last decade we've perhaps become divorced from
00:18:40> 00:18:41:	this in some ways,
00:18:41> 00:18:44:	but we are profoundly impacted by our ability to be
00:18:44> 00:18:47:	within nature to have access to tree canopy,

00:18:47> 00:18:50:	it lowers our rates of depression,
00:18:50> 00:18:54:	anxiety, and stress, and a very important word there.
00:18:54> 00:18:58:	High-quality outdoor spaces. We see that the well maintained outdoor
00:18:58> 00:18:59:	space.
00:18:59> 00:19:02:	A well maintained greenery plantings trees all have a very
00:19:02> 00:19:06:	positive impact on addressing mental health and also associated with
00:19:06> 00:19:07:	trust as well.
00:19:07> 00:19:10:	But when you start to see that maintenance diminish,
00:19:10> 00:19:14:	you'll actually begin to see that these spaces can become
00:19:14> 00:19:17:	very negative very quickly if they are not maintained and
00:19:17> 00:19:20:	you will actually see a negative impact on trust.
00:19:20> 00:19:23:	If you have poorly maintained greenery so it has to
00:19:23> 00:19:24:	be well maintained,
00:19:24> 00:19:27:	but if it is, it has a very direct and
00:19:27> 00:19:29:	measurable impact on mental health outcomes.
00:19:29> 00:19:32:	Kind of staying within that outdoor idea.
00:19:32> 00:19:35:	We are simple creatures and digging around in the dirt
00:19:35> 00:19:38:	is very good for us so gardening is associated with
00:19:38> 00:19:40:	a wide range of health outcomes.
00:19:40> 00:19:43:	Includes including again, reducing depression,
00:19:43> 00:19:45:	anxiety, stress, and mood disturbances as well.
00:19:45> 00:19:48:	Lot of research around this doesn't have to be a
00:19:48> 00:19:50:	fruit and vegetable garden.
00:19:50> 00:19:53:	It can be any kind of gardening for vegetable gardening
00:19:53> 00:19:57:	is particularly interesting because it's also associated with a higher
00:19:57> 00:20:00:	likelihood that you will eat fruit and vegetables.
00:20:00> 00:20:02:	At the recommended daily amount,
00:20:02> 00:20:05:	which again then has that indirect impact on mental health
00:20:05> 00:20:06:	outcomes.
00:20:06> 00:20:09:	So this is actually interesting in that it's one of
00:20:09> 00:20:11:	the least use strategies in fit well.
00:20:11> 00:20:13:	And yet we know that it has such a profound
00:20:13> 00:20:15:	impact on many aspects of health.
00:20:15> 00:20:18:	We were already going to promote gardening and van fruit
00:20:18> 00:20:20:	and vegetable plot specifically,
00:20:20> 00:20:23:	so you better believe that you're going to be hearing
00:20:23> 00:20:25:	a lot more about this from us going forward air
00:20:25> 00:20:26:	quality.
00:20:26> 00:20:29:	So Doctor Allen has kind of talked about air quality

00:20:29> 00:20:30:	a little bit.
00:20:30> 00:20:31:	I want to bring it to the.
00:20:31> 00:20:35:	Outdoor air quality. Indoor air quality is obviously very important.
00:20:35> 00:20:38:	Outdoor air quality is just as important,
00:20:38> 00:20:43:	so very important to understand that almost vulnerable vulnerable populations
00:20:43> 00:20:46:	are often also the populations who are in areas with
00:20:46> 00:20:47:	very poor air quality.
00:20:47> 00:20:50:	Most just looking at the Maps of New York and
00:20:50> 00:20:53:	seeing that the Bronx is being very hard.
00:20:53> 00:20:56:	Hit with coronavirus deaths. It also has some of the
00:20:56> 00:21:00:	worst outdoor air quality in the country and always the
00:21:00> 00:21:02:	highest rates of chronic disease.
00:21:02> 00:21:05:	Disparities, etc. Air quality is very important globally.
00:21:05> 00:21:08:	Obviously we know about this and we also see that
00:21:08> 00:21:12:	poor air quality is associated with higher levels of anxiety
00:21:12> 00:21:13:	as well in some populations.
00:21:13> 00:21:15:	So access to public transport,
00:21:15> 00:21:17:	access to good quality outdoor air.
00:21:17> 00:21:21:	These are all very important for mental health as well
00:21:21> 00:21:22:	as equity as well.
00:21:22> 00:21:23:	Natural day lighting. I mean,
00:21:23> 00:21:25:	I can't say enough about this.
00:21:25> 00:21:28:	This is such a simple thing to think about,
00:21:28> 00:21:31:	and yet it has such an impact on our overall
00:21:31> 00:21:31:	health.
00:21:31> 00:21:33:	So natural day lighting is also.
00:21:33> 00:21:36:	Not just allowing you to kind of be able to
00:21:36> 00:21:37:	tell what time did is,
00:21:37> 00:21:40:	but it's also going to affect your ability to sleep
00:21:40> 00:21:41:	at night as well,
00:21:41> 00:21:45:	so those people who have more access to daylight and
00:21:45> 00:21:49:	natural daylight actually are seemed to have better sleep patterns
00:21:49> 00:21:49:	as well,
00:21:49> 00:21:53:	and sleep is so important to levels of anxiety and
00:21:53> 00:21:53:	stress.
00:21:53> 00:21:56:	It's also associated with obesity as well,
00:21:56> 00:21:57:	so when you lose sleep,
00:21:57> 00:22:01:	you're more likely to eat more calories the next day,
00:22:01> 00:22:04:	and a lot of sleep disorder will result in higher
00:22:04> 00:22:06:	levels of stress and so on.

00:22:06> 00:22:08:	So notural day lighting incredibly important
00:22:08> 00:22:08:	So natural day lighting incredibly important.
00:22:11> 00:22:12:	It's associated directly with the amount of sick leave that that workers take.
00:22:12> 00:22:15:	
	If you want to make the economic argument which has
00:22:15> 00:22:16:	real estate professionals,
00:22:16> 00:22:19:	we usually do so is direct correlation between that.
00:22:19> 00:22:22:	I think. The other thing that's really important.
00:22:22> 00:22:25:	It is that natural day lighting is something that our
00:22:25> 00:22:28:	employees actually rate as one of the highest things that
00:22:28> 00:22:30:	they are looking for when it comes to a place
00:22:30> 00:22:33:	to work, such Alan kind of pointed like started to
00:22:33> 00:22:36:	talk about this and we are absolutely very well aware
00:22:36> 00:22:38:	of the demand from employees.
00:22:38> 00:22:41:	For work environments that promote their health and Wellness,
00:22:41> 00:22:44:	and natural lighting is number one on their list views
00:22:44> 00:22:45:	of nature.
00:22:45> 00:22:48:	So we've kind of talked about getting out into nature.
00:22:48> 00:22:51:	Very important. But being able to see nature also has
00:22:51> 00:22:54:	been shown to have a very therapeutic effect on people.
00:22:54> 00:22:57:	There was a very famous study done about patients looking
00:22:57> 00:23:01:	out of hospital windows and that their recovery time was
00:23:01> 00:23:04:	faster than those who couldn't see nature out of the
00:23:04> 00:23:06:	windows. We see this in our homes.
00:23:06> 00:23:08:	We see it in our workplaces as well.
00:23:08> 00:23:10:	Maybe you want recovering faster,
00:23:10> 00:23:13:	but it does have a therapeutic effect and a positive
00:23:13> 00:23:15:	impact on mental health outcomes generally,
00:23:15> 00:23:17:	and it doesn't have to be as grand as a
00:23:17> 00:23:20:	big forest that you have out of your window.
00:23:20> 00:23:23:	With simple creatures we can really look at any kind
00:23:23> 00:23:26:	of views of nature and it has a positive impact
00:23:26> 00:23:27:	on the reduction of stress.
00:23:27> 00:23:29:	It could have potted plants.
00:23:29> 00:23:31:	It can be of use out of your window,
00:23:31> 00:23:34:	even images of nature will have an impact on mental
00:23:34> 00:23:34:	health,
00:23:34> 00:23:37:	although not as greater raters as the real thing.
00:23:37> 00:23:39:	So these are all really.
00:23:39> 00:23:41:	Interesting and pretty easy hacks to do at home next,
00:23:41> 00:23:43:	so I want to kind of bring this down.
00:23:43> 00:23:46:	We don't usually talk about individual environments,

00:23:46> 00:23:48:	but I did want to kind of bring it down
00:23:48> 00:23:51:	to what you can do today while you work at
00:23:51> 00:23:51:	home.
00:23:51> 00:23:53:	Or you know, as your social distancing.
00:23:53> 00:23:55:	Depending on where you are,
00:23:55> 00:23:57:	we work globally. We work with a lot of partners
00:23:57> 00:24:00:	who are at different phases in this epidemic.
00:24:00> 00:24:03:	At the moment pandemic, so optimizing your work environment we
00:24:03> 00:24:04:	can go through this list.
00:24:04> 00:24:07:	We will also have this available for folks in the
00:24:07> 00:24:10:	next couple of days with all the citations associated with
00:24:10> 00:24:12:	it so you don't have to.
00:24:12> 00:24:15:	Madly write it down so you're really looking at how
00:24:15> 00:24:18:	to combat physical inactivity and social isolation.
00:24:18> 00:24:20:	You need to really be thinking about how do I
00:24:20> 00:24:22:	avoid prolonged sedentary time?
00:24:22> 00:24:25:	How do I create my own standing desk?
00:24:25> 00:24:27:	I have a whole stack of recipe books that I've
00:24:27> 00:24:29:	created my own with.
00:24:29> 00:24:31:	Like how do we take those breaks?
00:24:31> 00:24:34:	Walking while social distancing, social isolation.
00:24:34> 00:24:36:	You still need to think about how do I interact
00:24:36> 00:24:38:	with people in a Safeway?
00:24:38> 00:24:40:	Maybe it's the folks that you live with.
00:24:40> 00:24:43:	Very important to take the time to do that too,
00:24:43> 00:24:45:	actually. Interact with one another,
00:24:45> 00:24:48:	healthy food, something like you must have healthy food in
00:24:48> 00:24:51:	your house if at all possible our eating habits.
00:24:51> 00:24:54:	What we eat absolutely has an impact on mental health
00:24:54> 00:24:56:	as well as our physical health.
00:24:56> 00:24:59:	Staying hydrated again, setting up your desk so that you
00:24:59> 00:25:01:	can see out of a window so you could see
00:25:01> 00:25:04:	plants ensuring that your indoor air quality is optimum by
00:25:04> 00:25:06:	opening a window or stepping outside,
00:25:06> 00:25:10:	give yourself that daylight. There's a lovely expression which is
00:25:10> 00:25:11:	daylight bathing.
00:25:11> 00:25:13:	If you just go stand in the sunshine.
00:25:13> 00:25:14:	If there is any. For a time,
00:25:14> 00:25:16:	and that's actually very good for you.
00:25:16> 00:25:18:	Setting up good task lighting,

00:25:18> 00:25:21:	maintaining a routine, and good sleep habits.
00:25:21> 00:25:22:	I don't know about you,
00:25:22> 00:25:24:	but I live with a couple of older teenagers and
00:25:24> 00:25:25:	my goodness,
00:25:25> 00:25:28:	their sleep habits are terrible and I must make sure
00:25:28> 00:25:31:	not to fall into them interacting with your household games,
00:25:31> 00:25:33:	board games, dancing, get creative.
00:25:33> 00:25:36:	It's really important that we move that we interact with
00:25:36> 00:25:38:	one another to the greatest extent possible.
00:25:38> 00:25:41:	Support your local community, reach out to people who are
00:25:41> 00:25:43:	vulnerable people in the front lines,
00:25:43> 00:25:46:	talk to them and we have very low levels of
00:25:46> 00:25:47:	trust in the US already.
00:25:47> 00:25:51:	Between neighbors between communities, let's try to start to overcome
00:25:51> 00:25:52:	some of those barriers.
00:25:52> 00:25:55:	At this time, staying involved in public life through remote
00:25:55> 00:25:55:	access.
00:25:55> 00:25:57:	We're doing the census in the US.
00:25:57> 00:25:59:	Right now there's a lot going on.
00:25:59> 00:26:02:	Stay involved obviously. Can't be there physically,
00:26:02> 00:26:04:	but we can be through our computers through all of
00:26:04> 00:26:06:	those kind of devices that we use.
00:26:06> 00:26:09:	Obviously wash your hands and then regular cleaning,
00:26:09> 00:26:12:	cleaning practices, especially for high target areas.
00:26:12> 00:26:13:	We're all living in these close,
00:26:13> 00:26:16:	confined areas, especially who the folks in New York so
00:26:16> 00:26:17:	very important.
00:26:17> 00:26:20:	Again, kind of same cleaning practices we're looking at for
00:26:20> 00:26:23:	officers that we bring those to our homes,
00:26:23> 00:26:24:	especially in high high touch areas,
00:26:24> 00:26:26:	so will will give this to everybody.
00:26:26> 00:26:29:	You don't need to to be writing it down and
00:26:29> 00:26:29:	well,
00:26:29> 00:26:31:	like I said, will cite it as well.
00:26:31> 00:26:33:	So we are working with folks across the world.
00:26:33> 00:26:36:	Folks are beginning to look about preparing that to go
00:26:36> 00:26:37:	back to work,
00:26:37> 00:26:40:	which is exciting. It's really good to be talking to
00:26:40> 00:26:42:	our partners in the Asia Pacific region as they had
00:26:42> 00:26:44:	a different phase then we are here.
00:26:44> 00:26:46:	So how do you repair your workplace?

00:26:46> 00:26:47:	How do you get your?
00:26:47> 00:26:50:	Tenants to come back your employees to come back to
00:26:50> 00:26:50:	work.
00:26:50> 00:26:53:	How do you, as an employee have that confidence to
00:26:53> 00:26:54:	return back to work?
00:26:54> 00:26:56:	This is very much about mental health.
00:26:56> 00:26:58:	This is very much about trust,
00:26:58> 00:27:00:	so here are some of those stats that Doctor Alan
00:27:00> 00:27:03:	kind of just kind of touched on and that we
00:27:03> 00:27:04:	often speak about.
00:27:04> 00:27:05:	And that is that job seekers.
00:27:05> 00:27:07:	If you are looking to attract talent,
00:27:07> 00:27:10:	you need to be able to demonstrate to your employees
00:27:10> 00:27:13:	that you are supporting their health and Wellness and you
00:27:13> 00:27:14:	share their values.
00:27:14> 00:27:17:	That was pre coronavirus. I can only imagine what that
00:27:17> 00:27:19:	number is going to do afterwards.
00:27:19> 00:27:21:	It's been growing now for the last decade.
00:27:21> 00:27:24:	The other thing is that if you want to retain
00:27:24> 00:27:25:	and attract,
00:27:25> 00:27:28:	if you want to retain those those same employees again,
00:27:28> 00:27:32:	you're going to have to demonstrate that you are promoting
00:27:32> 00:27:33:	their health and Wellness.
00:27:33> 00:27:35:	So how do you demonstrate this?
00:27:35> 00:27:37:	How do you do this in a way that that
00:27:37> 00:27:39:	builds trust and engenders trust?
00:27:39> 00:27:42:	You'll notice that our list is very similar to Doctor
00:27:42> 00:27:43:	Allen's list,
00:27:43> 00:27:46:	and that is because we are all pulling from the
00:27:46> 00:27:47:	same body of evidence.
00:27:47> 00:27:49:	I am not a public health expert.
00:27:49> 00:27:52:	We have fantastic public health expertise on staff.
00:27:52> 00:27:54:	But I'm here to tell you there is a big
00:27:54> 00:27:55:	body of evidence,
00:27:55> 00:27:58:	and there's a reason that folks looking at the evidence
00:27:58> 00:28:01:	base are coming up with the same strategy as it's
00:28:01> 00:28:03:	because this is what is supported by the body of
00:28:03> 00:28:06:	evidence. So I would say if you want your employees,
00:28:06> 00:28:09:	your tenants, your investors to trust that you know what
00:28:09> 00:28:10:	you're doing,
00:28:10> 00:28:13:	you will use the evidence base to inform the strategies,
00:28:13> 00:28:16:	and then you will communicate that to folks very important,

00:28:16> 00:28:18:	that we communicate what we're doing,
00:28:18> 00:28:21:	why we're doing educational signage around hand washing,
00:28:21> 00:28:22:	only 40% of fit well.
00:28:22> 00:28:24:	Users were doing this before.
00:28:24> 00:28:26:	And I would say that's going to go up massively
00:28:27> 00:28:27:	because again,
00:28:27> 00:28:30:	people felt like it was insulting to put hand washing
00:28:30> 00:28:32:	sign in Class A office space.
00:28:32> 00:28:35:	I don't think they're going to think that anymore.
00:28:35> 00:28:38:	Cleaning protocols we've touched on ventilation.
00:28:38> 00:28:41:	All of these things. This is obviously a very reduced
00:28:41> 00:28:41:	list.
00:28:41> 00:28:44:	Again, this is on our website under the resources for
00:28:44> 00:28:45:	fitwell.org.
00:28:45> 00:28:46:	All of this is cited,
00:28:46> 00:28:48:	all of it has specificity to it,
00:28:48> 00:28:51:	so increase ventilation. Only just is you know the headline
00:28:51> 00:28:52:	here,
00:28:52> 00:28:56:	but there's very specific protocols that have already been established.
00:28:56> 00:29:01:	Way before the coronavirus, this current current coronavirus again,
00:29:01> 00:29:03:	humidity. This is all very specific,
00:29:03> 00:29:06:	and indoor air filtration as well,
00:29:06> 00:29:09:	so this doesn't need to be invented reinvented.
00:29:09> 00:29:12:	This is stuff that's best practices already,
00:29:12> 00:29:15:	it's it's very well known how to do this,
00:29:15> 00:29:19:	not maybe widely executed, but it's something that that is
00:29:19> 00:29:21:	is in our body of knowledge.
00:29:21> 00:29:23:	So as we kind of conclude this,
00:29:23> 00:29:25:	
	like how do we build trust?
00:29:25> 00:29:27:	like how do we build trust? I must say that. We,
00:29:25> 00:29:27: 00:29:27> 00:29:29:	
	I must say that. We,
00:29:27> 00:29:29:	I must say that. We, as I mentioned, we work around the world.
00:29:27> 00:29:29: 00:29:29> 00:29:32:	I must say that. We, as I mentioned, we work around the world. We have folks who are really kind of at the
00:29:27> 00:29:29: 00:29:29> 00:29:32: 00:29:32> 00:29:36:	I must say that. We, as I mentioned, we work around the world. We have folks who are really kind of at the other end of this in the Asia Pacific region who
00:29:27> 00:29:29: 00:29:29> 00:29:32: 00:29:32> 00:29:36: 00:29:36> 00:29:38:	I must say that. We, as I mentioned, we work around the world. We have folks who are really kind of at the other end of this in the Asia Pacific region who are now beginning to look at.
00:29:27> 00:29:29: 00:29:29> 00:29:32: 00:29:32> 00:29:36: 00:29:36> 00:29:38: 00:29:38> 00:29:39:	I must say that. We, as I mentioned, we work around the world. We have folks who are really kind of at the other end of this in the Asia Pacific region who are now beginning to look at. How do I get my tenants?
00:29:27> 00:29:29: 00:29:29> 00:29:32: 00:29:32> 00:29:36: 00:29:36> 00:29:38: 00:29:38> 00:29:39: 00:29:39> 00:29:43:	I must say that. We, as I mentioned, we work around the world. We have folks who are really kind of at the other end of this in the Asia Pacific region who are now beginning to look at. How do I get my tenants? My shoppers, my employees, to come back to the built
00:29:27> 00:29:29: 00:29:29> 00:29:32: 00:29:32> 00:29:36: 00:29:36> 00:29:38: 00:29:38> 00:29:39: 00:29:39> 00:29:43: 00:29:43> 00:29:44:	I must say that. We, as I mentioned, we work around the world. We have folks who are really kind of at the other end of this in the Asia Pacific region who are now beginning to look at. How do I get my tenants? My shoppers, my employees, to come back to the built environment?
00:29:27> 00:29:29: 00:29:29> 00:29:32: 00:29:32> 00:29:36: 00:29:36> 00:29:38: 00:29:38> 00:29:39: 00:29:39> 00:29:43: 00:29:43> 00:29:44: 00:29:44> 00:29:45:	I must say that. We, as I mentioned, we work around the world. We have folks who are really kind of at the other end of this in the Asia Pacific region who are now beginning to look at. How do I get my tenants? My shoppers, my employees, to come back to the built environment? Come back to our offices,

I was talking to a mall owner in the in
China.
They were talking about putting on an art exhibition talking
about all the ways that they will be promoting health
within their buildings.
So very important that you communicate what you're doing and
that it is going to resonate with your audience.
So whomever your occupants are.
And I also think that consistency is key to building
trust as well.
You can't just say that you're following these protocols,
you can't just say that you have all of these
different practices around optimum indoor air quality.
You also need to show the results of all of
the testing that you're doing.
You need to demonstrate in a very public way,
the way that you're doing that cleaning.
So really important that we are very vigilant in the
way that we actually enact all of these strategies because
I think people are going to be very quick to
to actually distrust that we're that we're following through on
these operational strategies so you know,
in a time of heightened anxiety,
I think this is something that we need to guard
against so.
This is kind of where we find ourselves today.
The last side we have a lot of our fantastic
partners who are using fit well.
This is. This is very much a partnership between us.
We have the evidence base we are here to translate
it for the building industry for the real estate developers,
for the owners and the large employers for everybody.
Really, it exists. We want you to use it so
it's exciting to be able to continue to work with
you and to really kind of respond.
We'd like to get a little bit ahead and not
just be responding and actually.
Be looking forward at how we can look at the
next month or next.
Two months of really looking at how to create this
messaging and this information for you.

00:31:39> 00:31:43:	So thank you. Thank you both so much that would
00:31:43> 00:31:44:	those would really exciting.
00:31:44> 00:31:48:	We're clearly kind of thinking on our feet here as
00:31:48> 00:31:48:	well.
00:31:48> 00:31:52:	As you know, relying on information and data and evidence
00:31:53> 00:31:56:	that have come up in the past and adapting to
00:31:56> 00:31:58:	radically new situation.
00:31:58> 00:32:01:	So we have a lot of questions that have come
00:32:01> 00:32:04:	up and we've been trying to kind of collate them
00:32:04> 00:32:05:	as they come in.
00:32:05> 00:32:09:	Some people are using the chat box and some people
00:32:09> 00:32:11:	are using question and answer,
00:32:11> 00:32:13:	but we do see all those questions.
00:32:13> 00:32:17:	I'm going to start by fielding a few questions questions
00:32:17> 00:32:20:	that I think will be covered if you follow up
00:32:20> 00:32:22:	with the speakers publications.
00:32:22> 00:32:26:	We're going to leave to last if we have time.
00:32:26> 00:32:33:	OK so start with Joanna perhaps?
00:32:33> 00:32:36:	The issue of the densifying and many of us have
00:32:36> 00:32:41:	been focusing our practices on creating places that bring people
00:32:41> 00:32:42:	closer together.
00:32:42> 00:32:46:	Team workspaces, civic life to community life,
00:32:46> 00:32:50:	cities foster, exchange of ideas and social interaction.
00:32:50> 00:32:54:	But what about the benefits of D densifying?
00:32:54> 00:32:57:	Do you see that as a possible outcome from as
00:32:58> 00:33:01:	we as we recover from this immediate crisis?
00:33:01> 00:33:05:	Sure, I mean I would say that I am.
00:33:05> 00:33:07:	I mean we mentioned this earlier right?
00:33:07> 00:33:10:	This has been our life's work to bring people together
00:33:10> 00:33:14:	to use the built environment to increase social interaction,
00:33:14> 00:33:17:	to increase trust to create public spaces that really bring
00:33:17> 00:33:20:	people together and address all of the kind of inequity
00:33:20> 00:33:22:	that we see in our built environment.
00:33:22> 00:33:24:	So I would say that.
00:33:24> 00:33:30:	D. Densifying built environments is absolutely not the
00.00.24 > 00.00.00.	outcome that
00:33:30> 00:33:33:	we will be supporting going forward.
00:33:33> 00:33:38:	I think that we see very dense cities around the
00:33:38> 00:33:42:	world that have been some of the most effective at
00:33:42> 00:33:45:	addressing the spread of this virus.
00:33:45> 00:33:47:	Hong Kong comes to mind.

00:33:47> 00:33:51:	Singapore Seoul. These are very dense cities,
00:33:51> 00:33:55:	so I think that to run all the way to
00:33:55> 00:33:57:	the other extreme and say.
00:33:57> 00:34:00:	We can no longer live in close proximity to one
00:34:00> 00:34:01:	another.
00:34:01> 00:34:04:	We can no longer share public spaces or streets or
00:34:04> 00:34:06:	gather in large groupings.
00:34:06> 00:34:10:	Is is not the outcome that we will be supporting,
00:34:10> 00:34:13:	and I would actually say that all of the folks
00:34:13> 00:34:16:	on the on the web and I hear the the
00:34:16> 00:34:20:	building industry really needs to have an informed and strong
00:34:20> 00:34:24:	argument based on the evidence base as to why creating
00:34:24> 00:34:29:	a more spread out built environment has negative consequences.
00:34:29> 00:34:32:	We you know we have a limited amount of resources
00:34:32> 00:34:33:	as a planet.
00:34:33> 00:34:36:	We need to think about sustainability and we need to
00:34:36> 00:34:39:	think about the ability to support public transport that requires
00:34:39> 00:34:41:	a certain density.
00:34:41> 00:34:44:	It's essential if we're going to reduce our carbon footprint,
00:34:44> 00:34:47:	so I think that we need to really look at
00:34:47> 00:34:50:	this holistically and bring it all together.
00:34:50> 00:34:52:	And not just react in this short term,
00:34:52> 00:34:56:	so I would say that we as the building industry
00:34:56> 00:34:58:	really need to to look at this and then come
00:34:59> 00:35:01:	together with the United Voice.
00:35:01> 00:35:03:	Elizabeth can I jump in on that 'cause I I'd
00:35:03> 00:35:06:	like to add something on the detoxification part.
00:35:06> 00:35:08:	Yeah, so I think it's a good comment and I
00:35:09> 00:35:12:	think we have to disentangle defensive vacation in terms of
00:35:12> 00:35:13:	city life,
00:35:13> 00:35:17:	verse densification inside buildings and dis entangle short- term versus long-term.
00:35:17> 00:35:21:	So certainly densification is good for a whole bunch of
00:35:21> 00:35:21:	reasons.
00:35:21> 00:35:24:	In cities I don't see that changing at all.
00:35:24> 00:35:28:	In fact, it's quite impossible considering the growth in populations
00:35:28> 00:35:31:	and for all those other reasons Joanna mentioned.
00:35:31> 00:35:32:	In the short term inside buildings,
00:35:32> 00:35:35:	there's no question we're going to densify.
00:35:35> 00:35:37:	I mean, this is what social distancing is,
00:35:37> 00:35:40:	what physical distancing isn't going to get a lot more

00:35:40> 00:35:40:	creative.
00:35:40> 00:35:43:	We're going to re populate our buildings and follow the
00:35:43> 00:35:46:	path of Singapore of South Korea and other areas that
00:35:46> 00:35:49:	have had success in flattening this curve because we're going
00:35:49> 00:35:51:	to have to spread people out.
00:35:51> 00:35:52:	l've been asked a lot lately.
00:35:52> 00:35:55:	Does this mean the end of open floor plans?
00:35:55> 00:35:57:	And I don't think that's the case at all and
00:35:57> 00:35:59:	what it's going to be just like anything.
00:35:59> 00:36:02:	It's hard to paint a broad stroke against one approach
00:36:02> 00:36:03:	versus another.
00:36:03> 00:36:05:	There are good and bad ways to do it,
00:36:05> 00:36:07:	and so we can be smart.
00:36:07> 00:36:10:	The evidence the scientific evidence shows and we have a
00:36:10> 00:36:12:	new study led by one of my postdocs,
00:36:12> 00:36:16:	mimosa danio showing higher risk of upper respiratory illness associated
00:36:16> 00:36:19:	with higher occupant density and this is healthy students in
00:36:19> 00:36:19:	dorms.
00:36:19> 00:36:22:	So the evidence base is quite rich on the occupant
00:36:22> 00:36:23:	density side of this.
00:36:23> 00:36:26:	We're going to have to draw in that literature really
00:36:26> 00:36:30:	strongly to make informed decisions and I think we definitely
00:36:30> 00:36:34:	need to disentangle these short-term versus the long term approaches
00:36:34> 00:36:35:	to dealing with. Covid now,
00:36:35> 00:36:39:	but also thinking about the post Covid world a year
00:36:39> 00:36:41:	from now or sooner if we get a really nice
00:36:41> 00:36:44:	scientists breakthrough before that vaccine comes.
00:36:44> 00:36:47:	Yeah, I think that's a great point.
00:36:47> 00:36:50:	I think the difference between the density within a building
00:36:50> 00:36:52:	and the density of a city,
00:36:52> 00:36:55:	and I think what we see in the narrative is
00:36:55> 00:36:56:	a word that is used.
00:36:56> 00:37:00:	To respond to the folks kind of maybe pre existing
00:37:00> 00:37:03:	ideas of our built environment.
00:37:03> 00:37:05:	I don't know. But but yeah,
00:37:05> 00:37:09:	absolutely so I I think that it's it's going to
00:37:09> 00:37:10:	be.
00:37:10> 00:37:13:	It's going to be about using that evidence based,
00:37:13> 00:37:14:	so it's it's it's.
00:37:14> 00:37:18:	It's great that folks are turning to the evidence based

00:37:18> 00:37:19:	as much as they are,
00:37:19> 00:37:22:	so we're all we're all going to dig in on
00:37:22> 00:37:23:	this one.
00:37:23> 00:37:25:	So thank you OK, and we know that people are
00:37:26> 00:37:30:	using distance learning and remote workplace habits at sort
	of
00:37:30> 00:37:33:	a digital infrastructure that's coming up and we have yet
00:37:33> 00:37:36:	to see if that some of those habits are going
00:37:36> 00:37:37:	to stick.
00:37:37> 00:37:40:	You know, in the future that made the debt help.
00:37:40> 00:37:45:	Offset some of the crowding and give us flexibility to
00:37:45> 00:37:45:	respond.
00:37:45> 00:37:49:	lf, if, if hopefully, it won't happen,
00:37:49> 00:37:53:	but another pandemic might come up.
00:37:53> 00:37:55:	OK, a question for Joe.
00:37:55> 00:37:58:	I think best practices for grocery shopping.
00:37:58> 00:38:03:	Given that we're hopefully setting foot in groceries stores over
00:38:03> 00:38:05:	the next several weeks,
00:38:05> 00:38:10:	what about customers? Welcome grocery store managers be doing to
00:38:10> 00:38:15:	minimize risk to customers and to workers in their stores.
00:38:15> 00:38:18:	If you forget the great question your publications,
00:38:18> 00:38:21:	then you can. You can just refer us to one
00:38:21> 00:38:23:	of your publications.
00:38:23> 00:38:24:	Yeah, I can see right through.
00:38:24> 00:38:26:	It is an article in Washington Post I wrote and
00:38:26> 00:38:29:	I'll give you some of the background in the science
00:38:29> 00:38:31:	behind it and where this probably wear.
00:38:31> 00:38:32:	This question came from this,
00:38:32> 00:38:34:	but there's a lot of poor information out there that
00:38:35> 00:38:37:	came largely from a preprint scientific study that wasn't peer
00:38:38> 00:38:39:	reviewed and not questioning the science,
00:38:39> 00:38:41:	but it needed some, I think,
00:38:41> 00:38:43:	expert interpretation before it hit widespread,
00:38:43> 00:38:46:	and that's the finding of virus detectable virus on many
00:38:46> 00:38:46:	services.
00:38:46> 00:38:48:	Cardboard for 24 hours, and it led to a string,
00:38:48> 00:38:50:	I think of a lot of anxiety in the public
00:38:50> 00:38:51:	thinking about,
00:38:51> 00:38:53:	well, does this mean I can't accept the package?
00:38:53> 00:38:56:	This mean I can't go to the grocery store?
00:38:56> 00:38:58:	And certainly if we're going to be affected at social

00:38:58> 00:38:59:	distancing,
00:38:59> 00:39:01:	we're all going to have to remain.
00:39:01> 00:39:03:	We're staying at home as best we can,
00:39:03> 00:39:05:	except for these times that we need to get out
00:39:05> 00:39:06:	with these essentials.
00:39:06> 00:39:09:	And so the article talks about I can address this
00:39:09> 00:39:10:	question specifically.
00:39:10> 00:39:12:	Is that first? There's no such thing as no risk.
00:39:12> 00:39:14:	The goal is to minimize risk,
00:39:14> 00:39:16:	and in fact, I talked about this article that the
00:39:16> 00:39:18:	risks here are de minimis.
00:39:18> 00:39:20:	Ann. I said that there are small and manageable.
00:39:20> 00:39:22:	The risks are low and manageable.
00:39:22> 00:39:24:	You know Fomite transmission is real.
00:39:24> 00:39:27:	This is definitely happening with this virus we've known about
00:39:27> 00:39:29:	for my transmission for a long time.
00:39:29> 00:39:31:	These are. Seas of diseases,
00:39:31> 00:39:34:	inanimate surfaces. But if you take basic precautions you can
00:39:34> 00:39:35:	protect yourself.
00:39:35> 00:39:38:	You can protect the other people in case you're asymptomatic
00:39:38> 00:39:41:	transmitter and this is the basics of hand washing.
00:39:41> 00:39:44:	Maintaining 6 feet buffers. I think we're about to see
00:39:44> 00:39:45:	the culture change in the US,
00:39:45> 00:39:47:	where mass will become very commonplace.
00:39:47> 00:39:49:	I think it's a smart approach,
00:39:49> 00:39:51:	definitely not mass taken from healthcare.
00:39:51> 00:39:54:	Do this shortage. I'm talking bout homemade masks and I
00:39:54> 00:39:57:	think you'll see a lot more of that and you
00:39:57> 00:39:58:	can protect yourself.
00:39:58> 00:40:01:	You can protect the workers and they can protect you.
00:40:01> 00:40:05:	So it's actually a manageable risk.
00:40:05> 00:40:08:	OK, great, and while I've got Joe going.
00:40:08> 00:40:12:	Quick question when's your book available?
00:40:14> 00:40:16:	Well, so I don't mean just to be applied from
00:40:16> 00:40:17:	the book.
00:40:17> 00:40:19:	I appreciate somebody asking. It comes out on April 21st.
00:40:19> 00:40:21:	You can order it now.
00:40:21> 00:40:23:	We have a website, you can find it or if
00:40:23> 00:40:24:	you just Google it.
00:40:24> 00:40:26:	I would also want to lose my terrific collaborator,
00:40:26> 00:40:30:	Co. Author and friend John Macomber from the Harvard

	Business
00:40:30> 00:40:31:	School.
00:40:31> 00:40:33:	And he's an expert in real estate finance,
00:40:33> 00:40:35:	who Co authored me. So thanks,
00:40:35> 00:40:38:	thanks. Another quick question for Joe.
00:40:38> 00:40:42:	What's the incubation period people are concerned about
	that cruise
00:40:43> 00:40:47:	ship that showed the presence of the virus weeks later.
00:40:47> 00:40:49:	Well, so different question. One is incubation period,
00:40:49> 00:40:54:	the other words environmental persistence will address the incubation.
00:40:54> 00:40:57:	I'm really surprised I've been talking about this recently that
00:40:57> 00:41:00:	CDW haven't updated their guidance on this and actually look
00:41:00> 00:41:01:	at CDC's guidance.
00:41:01> 00:41:04:	They say this, the incubation period is based on data
00:41:04> 00:41:06:	from MERS Co coronavirus,
00:41:06> 00:41:08:	which was fine in the early days of this and
00:41:08> 00:41:10:	we didn't know much about this virus,
00:41:10> 00:41:13:	but we actually have data from this virus and I'm
00:41:13> 00:41:15:	surprised they haven't updated this.
00:41:15> 00:41:18:	I looked at the science on this just over the
00:41:18> 00:41:18:	weekend.
00:41:18> 00:41:21:	It's 5 days of the meeting incubation period,
00:41:21> 00:41:23:	97% of cases found by the 11th day or so,
00:41:23> 00:41:26:	so that incubation. On the environment persistence,
00:41:26> 00:41:28:	you know when I first found these cases in particular,
00:41:28> 00:41:31:	that cruise ship. This is what tipped me off early
00:41:31> 00:41:31:	on.
00:41:31> 00:41:34:	Again, this forensic investigation thing that that multiple modes of
00:41:34> 00:41:35:	transmission were happening.
00:41:35> 00:41:39:	You don't get these kind of high prevalence.
00:41:39> 00:41:42:	Infection rates happening in places in particular places that are
00:41:42> 00:41:43:	starting to manage that,
00:41:43> 00:41:45:	and you had explosive growth there.
00:41:45> 00:41:48:	Same with the senior home in Kirkland and elsewhere,
00:41:48> 00:41:51:	so it tells you the ultimate modes are operating in
00:41:51> 00:41:52:	terms of it matters.
00:41:52> 00:41:54:	A whole bunch of factors can determine how long it
00:41:54> 00:41:56:	survives in the air and on surfaces,
00:41:56> 00:41:58:	and I can point you to some of that that

00:41:58> 00:42:00:	other that other research,
00:42:00> 00:42:02:	but I guess I'd point people more.
00:42:02> 00:42:05:	Control side of this. We know these modes of transmission,
00:42:05> 00:42:06:	we know how to counteract them,
00:42:06> 00:42:09:	hand washing, social distancing, cleaning services.
00:42:09> 00:42:13:	And then including these building level factors like ventilation,
00:42:13> 00:42:15:	filtration and relative humidity. OK,
00:42:15> 00:42:21:	great. Alright question, I think for Joe and maybe for
00:42:21> 00:42:27:	both of you people have closed governments have closed parks
00:42:27> 00:42:31:	and open spaces during this crisis.
00:42:31> 00:42:36:	Because they really don't have the manpower to monitor how
00:42:36> 00:42:37:	people excuse me.
00:42:37> 00:42:42:	Reflect respect, social distancing. What is a safe social distance
00:42:42> 00:42:44:	when you're outdoors?
00:42:47> 00:42:50:	Well, Joanne maybe you could address that because I you
00:42:50> 00:42:50:	know.
00:42:50> 00:42:53:	I think it speaks to one the importance of being
00:42:53> 00:42:56:	outside and mental health here and then I can maybe
00:42:56> 00:42:59:	address the specifics on what the guidance says specifically.
00:42:59> 00:43:01:	Show absolutely. I mean, I,
00:43:01> 00:43:04:	I think that we know that proximation nature,
00:43:04> 00:43:07:	the physical activity side of both our mental health and
00:43:07> 00:43:09:	physical health is so important.
00:43:09> 00:43:12:	I think people are actually really valuing the fact that
00:43:13> 00:43:14:	they do typically get outside.
00:43:14> 00:43:17:	And now that you know this is something like that,
00:43:17> 00:43:21:	think about it actually heightens our awareness of how much
00:43:21> 00:43:22:	we do crave that.
00:43:22> 00:43:23:	So I think that yes,
00:43:23> 00:43:27:	there there is obviously social distancing at the moment and
00:43:27> 00:43:30:	in places like New York City where we're based.
00:43:30> 00:43:33:	You know, it's hard when there's millions of people in
00:43:33> 00:43:35:	a relatively small area.
00:43:35> 00:43:37:	I had seen one idea which was to close the
00:43:37> 00:43:41:	streets to create like the Summer Streets program where we
00:43:41> 00:43:44:	actually take over a lot of the streetscape to create
00:43:44> 00:43:48:	more public space so people can actually be outside and
00:43:48> 00:43:51:	actually have the space between them in order to,
00:43:51> 00:43:53:	you know, kind of maintain those social,
00:43:53> 00:43:55:	those safe social distance numbers,
00:43:55> 00:43:57:	which I believe are two meters.

00:43:57> 00:44:00:	6 feet, is what I've read.
00:44:00> 00:44:04:	Many Times Now, I don't think anyone's contradicted that yet,
00:44:04> 00:44:08:	although everything done changing pretty quickly.
00:44:08> 00:44:11:	So yeah, I think that just kind of being creative
00:44:11> 00:44:11:	about,
00:44:11> 00:44:13:	especially in the denser areas.
00:44:13> 00:44:16:	We see the access to.
00:44:16> 00:44:19:	Public space as again it's an equity issue.
00:44:19> 00:44:23:	We already know this that the folks living in neighborhoods
00:44:23> 00:44:26:	that already have a lot of the major health disparities
00:44:26> 00:44:30:	of having higher rates of chronic disease having worse air
00:44:30> 00:44:34:	quality. Also have the least access to well maintained public
00:44:34> 00:44:35:	outdoor spaces.
00:44:35> 00:44:40:	So again, you're just seeing this concentration of built environment
00:44:40> 00:44:44:	factors that are absolutely leading to the fact that these
00:44:44> 00:44:47:	populations have higher rates of chronic disease,
00:44:47> 00:44:49:	have higher rates of. Uh,
00:44:49> 00:44:51:	this COVID-19 disease, you know,
00:44:51> 00:44:54:	and it's just exacerbated. So I think that we do
00:44:54> 00:44:58:	absolutely need to once again look at our outdoor spaces.
00:44:58> 00:45:00:	It's fascinating that in the 1800s,
00:45:00> 00:45:04:	the press around Central Park and the park system was
00:45:04> 00:45:07:	that it was specifically the workingman's long.
00:45:07> 00:45:10:	That was how it was presented in the papers at
00:45:10> 00:45:13:	the time that these park systems were really seen as
00:45:13> 00:45:14:	that,
00:45:14> 00:45:16:	and I think that we need to once again look
00:45:16> 00:45:20:	at the ratio of public space and access to public
00:45:20> 00:45:23:	space that we have across all of our built environments
00:45:23> 00:45:27:	and. It enough in every instance and I I would
00:45:27> 00:45:30:	I would say it isn't knowing what the what the
00:45:30> 00:45:32:	numbers look like.
00:45:32> 00:45:34:	Alright, great that's great Elizabeth.
00:45:34> 00:45:36:	I'll just add a maybe point resource and it wasn't
00:45:36> 00:45:39:	including this and maybe Rachel we can get this out
00:45:39> 00:45:41:	at you alliance at fourhealth.org tube.
00:45:41> 00:45:43:	Is it not that I wrote with the one of
00:45:43> 00:45:47:	the leading experts at our school in infectious disease Epidemiology
00:45:47> 00:45:49:	on myths around social distancing,
00:45:49> 00:45:52:	and one of them is about getting outside and we

00:45:52> 00:45:55:	use that all activity needs to stop and that's simply
00:45:55> 00:45:55:	not the case.
00:45:55> 00:45:57:	And in that case we argue that we,
00:45:57> 00:45:59:	instead of using social distancing,
00:45:59> 00:46:02:	used word physical distance thing we want to maintain our
00:46:02> 00:46:03:	social connect.
00:46:03> 00:46:05:	Connections but maintain a physical space.
00:46:05> 00:46:08:	This means going outside, getting out to parks,
00:46:08> 00:46:11:	and doing your best to make maintain doing your best.
00:46:11> 00:46:14:	Maintaining that 6 foot buffer which is actually based on
00:46:14> 00:46:14:	aerosol physics,
00:46:14> 00:46:18:	so it's it's. That's another evidence based recommendation.
00:46:18> 00:46:20:	Someone just didn't pick it out of a hat that
00:46:20> 00:46:21:	there's this distance.
00:46:21> 00:46:24:	It's based on what we know about disease transmission,
00:46:24> 00:46:26:	air assault, and particles of different sizes.
00:46:26> 00:46:29:	It's going to involve a lot of social trust that
00:46:29> 00:46:30:	when you're out there,
00:46:30> 00:46:32:	people will stay in and do these things,
00:46:32> 00:46:36:	but sodas sodas. All of these interventions were doing right
00:46:36> 00:46:38:	hand washing the social trust you know.
00:46:38> 00:46:41:	People covering their compenses. This is all about social,
00:46:41> 00:46:43:	trusted people doing what's right.
00:46:43> 00:46:46:	We're going to have to depend on each other there,
00:46:46> 00:46:49:	right? Great? OK, so I'm going to have to jump
00:46:49> 00:46:51:	in because we are at a time.
00:46:51> 00:46:53:	There's so many great questions here.
00:46:53> 00:46:55:	I hate to stop this conversation,
00:46:55> 00:46:57:	but I gotta ask both of you.
00:46:57> 00:47:00:	One last question, what is the one thing that real
00:47:00> 00:47:03:	estate leaders should do or remember at this time?
00:47:08> 00:47:11:	Should I jump?
00:47:11> 00:47:15:	Tradjenta so as a as a UX real estate developer,
00:47:15> 00:47:18:	I would say that we've got to stick to the
00:47:18> 00:47:19:	science.
00:47:19> 00:47:24:	The real estate industry really has to stick to what
00:47:24> 00:47:24:	is.
00:47:24> 00:47:26:	Backed by the evidence base,
00:47:26> 00:47:28:	because trust is going to be paramount,
00:47:28> 00:47:32:	and if you start winging it and doing stuff that
00:47:32> 00:47:33:	isn't evidence based,
00:47:33> 00:47:36:	I think that you have the risk reputational risk of

00:47:36> 00:47:40:	really of diminishing that trust in your occupants.
00:47:40> 00:47:42:	So I think to us this is this is the
00:47:42> 00:47:45:	time to really hunker down with the evidence base.
00:47:48> 00:47:50:	I'll second that and you know,
00:47:50> 00:47:53:	I've been saying for a long time that the person
00:47:53> 00:47:56:	who manages your building has a bigger impact on your
00:47:56> 00:47:57:	health and your doctor,
00:47:57> 00:48:00:	and I think this is that is not an exaggeration,
00:48:00> 00:48:03:	and it's very clear and we're going to see buildings
00:48:03> 00:48:07:	increasingly be seen as a first line of defense against
00:48:07> 00:48:08:	all sorts of diseases.
00:48:08> 00:48:10:	Not so it's going to be to protect us and
00:48:11> 00:48:13:	also to promote our health and then let you know
00:48:13> 00:48:16:	I'll bring in something again for my coauthor,
00:48:16> 00:48:18:	John Mccumber. He likes to talk about.
00:48:18> 00:48:22:	Healthy buildings going from a subjective nice have to an
00:48:22> 00:48:24:	objective and competitive must have.
00:48:24> 00:48:27:	This is something everyone is going to have to be
00:48:27> 00:48:29:	doing and they need to be prepared.
00:48:29> 00:48:32:	My very last comment. I just want to repeat something
00:48:32> 00:48:34:	for it's a public health message.
00:48:34> 00:48:36:	This is an all in moment like we've never seen
00:48:36> 00:48:39:	an I'm going to encourage everyone to bring to bear
00:48:39> 00:48:42:	whatever skill or expertise you have to this problem where
00:48:42> 00:48:46:	we need every clever mind out there contributing whatever skill
00:48:46> 00:48:48:	you have in any way you think or any way
00:48:48> 00:48:49:	you can contribute.
00:48:49> 00:48:52:	We need everybody in this fight,
00:48:52> 00:48:55:	so thank you. Thank you,
00:48:55> 00:48:57:	Elizabeth. Thank you, professor Alan.
00:48:57> 00:49:02:	Thank you Joanna. I'll just invite everybody to join us
00:49:02> 00:49:03:	for upcoming webinars.
00:49:03> 00:49:08:	Our next one is on considerations for multifamily and affordable
00:49:08> 00:49:09:	housing,
00:49:09> 00:49:13:	and then the one after that is keeping businesses on
00:49:13> 00:49:17:	track in this age of disruption with rents and retail
00:49:17> 00:49:23:	will have on going links that you lie.org/COVID-19 you can
00:49:23> 00:49:27:	be in touch with us anytime at .
00:49:27> 00:49:31:	Thank you, stay healthy, stay safe and we will see
00:49:31> 00:49:32:	you next time.

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