COVID 19 What You Need to Know

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Yes and thanks I am we are I started recording this agent so don't forget.

And Laura you want to make sure that your mic, keep your mic muted for the WebEx. And only are you dialed on with your phone?

Okay we still have a lot of people joining just wanted to let you know we're going to be delivering this via webinar format, for those of you just now your mics will be muted so we can't hear them when you ask questions but we will be having you chat with us via the chat feature in WebEx which you can get to by kinda bubble icon when you move your mouse on to the web app screen. It's just lack of the dots. You can chat with us through that.

I'd like to welcome everybody to the first series of Faculty Senate sponsored
lectures we're calling this the SiP lecture (Audio loss due to connectivity)

international enrollment management at

Wright State University. He started in this (Audio loss due to connectivity)

connection excuse me overseas international (audio loss) Marlo is a proud

alumnus from Wright State. He graduated from the International Studies program with a

he later continued his education at

Franklin University in market (Audio loss due to connectivity)

... grew up in Italy where most of his family been fighting the crisis. His presentation which will be second this afternoon will be illustrating the changes that were...
recruitment and he will also reflect on the timeline when it happened based on Italy's (Audio loss due to connectivity)

Okay Thank You Laura. this is Dawn Wooley and I'm very pleased to be kicking off our shelter-in-place lectures hosted by the Wright State Faculty Senate. We chose coronavirus as the topic because it is the one that is dominating our lives at the current time. And everyone is affected by this currently with the pandemic. Today I would like to talk about what is a corona virus? Where did it come from? How do we get it? How do we know we have it? And do we need to take this seriously? Also how does it cause disease and what can we do about it?

Corona virus is actually a whole family of viruses and there are viruses in this
family that infect animals and humans. There are seven corona viruses that

infect humans, out of which simply cause a common cold. Three other ones cause

more serious disease. The virus that we're dealing with right now in the

current pandemic has been officially named SARS-CoV-2 due to its similarity

with the original SARS virus. The COVID-19 actually refers to the disease. It

just simply is an acronym for corona virus disease 2019 because that's when

it started. In the lower right hand corner of the screen you can see an

electron microscope picture of the corona virus. Corona stands for "crown" and

that's how these viruses originally got their family name. When you look at it

under the microscope it looks like a crown because there are large protein

spikes sticking out on the outside of it.
When a new microbe comes on the scene we want to know where it came from. And so generally what we do is we sequence the genome of the new organism and we compare it to other organisms that we have to sequence from. In this case the new virus is 88% related to bat coronaviruses. It is 79% related to the original SARS coronavirus and 50% related to the MERS virus which is the "Middle East Respiratory Syndrome" virus. So the current thinking is that the new virus originally came from bats. That would be the animal reservoir for the new virus and they also believe that for the SARS original virus and the MERS that the reservoir is also a bat species. But there are intermediary host animals that can transmit the disease to humans. For the 2019 outbreak we want to know how the virus got from the animal to the human. So there are two possible
sources for this. We believe that it came from Wuhan China is simply based on the epidemiology. When a new disease breaks out you look at where the initial cases occurred and then you're like a detective you're tracing every case back to the original source. So that's why we believe it came from Wuhan because the initial cases broke out there and then the spread could be traced back to Wuhan.

Now there's a couple possible ways that the virus could have gotten from the animal species to the human. There is a live animal market in this city and there are some very exotic animals there that may have been the source how it transmitted from animals to humans. There is also some suspicion about a biosafety level 4 lab in Wuhan. There is no evidence whatsoever that they synthesized this or intentionally
released it but this laboratory has been

68
00:08:30,500 --> 00:08:35,690
studying SARS viruses ever since the
original outbreak in 2002 and that would

69
00:08:35,690 --> 00:08:39,979
make sense because they want to learn
about it and study new SARS viruses

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00:08:39,979 --> 00:08:45,709
isolating them from different animals. So
it is possible, in theory, that it was

71
00:08:45,709 --> 00:08:50,540
from the lab by accident where made
laboratory worker got infected or there

72
00:08:50,540 --> 00:08:54,830
was some other type of release. And this
has happened before where there have

73
00:08:54,830 --> 00:08:58,210
been lab acquired infections for other
diseases.

74
00:08:58,210 --> 00:09:03,529
Now they do believe again that the
possible origin is bats and for the new

75
00:09:03,529 --> 00:09:08,990
SARS virus I'm showing on the right hand
side is a Pangolin which is like an

76
00:09:08,990 --> 00:09:13,100
exotic, scaly, ant eater type of an
animal and they think that may have been

77
00:09:13,100 --> 00:09:21,290
the intermediary host between the humans
and the bats. How do we get it? When

78
00:09:21,290 --> 00:09:26,450
someone sneezes you can see here that many droplets are expelled and toward

the bottom some of the droplets are very large and they're falling out very quickly to the ground. At the top some of the droplets seem to be flying up into the air and being carried by the air currents. The smaller droplets will become dried out before they hit the ground and then the virus would be left floating in the air. Whereas the larger droplets would fall to the ground before they dry and then they would dry on the ground and be mixed in with things like dust. Studies at the National Institutes of Health's showed that the virus could survive for up to three hours in the air. So we know that one source of transmission is respiratory droplets. Fomites are another. Now a Fomite is an inanimate object like dust or some object that can
transmit the disease indirectly. The virus has been found in respiratory secretions and saliva and there has been shedding noted in the stool but it is uncertain at this point what role that would play in the transmission. In the original SARS outbreak of 2002 they did find through investigation that that virus was spread in some high-rise apartment complexes through the sewer system. So there may have been some leakage from pipes that contributed to the transmission in one of those apartment complexes. How do we know we have it? So COVID-19 presents with a high fever. It would be over 100.4 degrees or greater than 99.4 degrees Fahrenheit if you're over 60. It would have a non-productive dry cough and the shortness of breath. Myalgia, muscle pain or fatigue. Now less common, someone
might have a pharyngitis, a headache, a productive cough, gastrointestinal symptoms, or hemoptysis. For a further diagnosis the preferred specimen would be an upper respiratory specimen. A nasopharyngeal specimen. So this is why when we're watching these drive-through testing sites and they're putting the swab up the nose that's what they're trying to obtain. So that's the preferred specimen. Also one could test blood specimen. The test that we're hearing about in these drive through sites that they're working on quickly are the real-time reverse transcriptase RT-PCR tests. This is a test that is trying to detect the genetic material of the virus and it would show an active infection. They did some whole genome sequencing initially to identify the virus in the beginning. Now serology shows the presence of antibodies. This
would indicate that someone has had an immune reaction against the virus and

this would detect someone who had previously been exposed or has recovered

from the infection and they can also provide some of these antibodies as

we'll talk about later in the treatment to help other infected people. And the

ELISA assay is an enzyme linked immunosorbent assay and these can be set up to detect either a protein from the virus or an antibody. And then lastly

you could try to culture the virus from the blood sample. Do we need to take it seriously? Absolutely yes. This disease is highly

contagious and deadly. As of late last night I was looking at the numbers and

they have probably already changed. So in just three months we have 1.5 million confirmed cases, over 88,000 deaths and
184 countries and regions affected. You may have heard the term in the news the "R0" and that's shown over here on the right. What this refers to is how many people get the infection from any given one person. Initially they estimated that for this new SARS virus this was a 2.5 so for every infected person 2.5 people would get infected. Some more recent estimates are showing a number possibly as high as 6. So it may be more contagious than we initially thought but that is one of the reasons why it is spreading so fast. And then lastly what we have learned at the bottom of the slide you can see that people who are asymptomatic, they have no idea they have the infection, no fever, no symptoms. They are shedding the virus and transmitting it during this time. So all of these factors make it very highly
contagious. How does it cause disease? So this virus grows in the lining of the respiratory tract and it kills cells. When cells die, they break open and release their contents and that causes a lot of inflammation. And in some cases we see a severe pneumonia form. And then cytokine production and inflammation cause cells and fluid to build up in the lung. And the cytokine is a very small protein produced by immune cells that helps the immune cells communicate with each other. Now in the news media they’re referring to the cytokine storm and that’s what they’re referring to is the release of these proteins. And also in some cases people can get a secondary bacterial infection.

The incubation time ranges from 2 to 12 days. The average is about 6 days. So this is why there is the 14-day quarantine period. We want to get just past the 12
day mark to make sure that if someone is
coming out of quarantine that they do
not have the infection. Death is the
result of progressive respiratory
failure in about 1 to 10 percent of
cases. Now this is a very wide range for
the case fatality and the reason for
that is that these are based on
estimates, and there may also be
gеогrарhіс dіfferеnсеѕ, tһеrе соuld bе
strain differences in different
countries. So the case fatality rate is
obtained by taking the number of deaths
and dividing it by the number of cases.

So the number of cases would be in the
denominator but we don't exactly know
that number so we just have an estimate.
We haven't tested everybody and as I
mentioned there are a lot of
asymptomatic cases. And then the
numerator which is the number of deaths
we still don't quite have a handle on
that because some of the deaths are not being counted accurately or they're not being reported. So what can we do about it?

So we could break the chain. So this is the chain of infection shown here. So one would have to have the agent which is the virus in an infected host. It has to have an exit point from that host, has to leave. It has to have a way to spread. It has to have an entry point for a new host and that new host has to be susceptible. So if you break any single link in this chain you can stop the infection. For example we can quarantine infected people. Exit point this is why they want someone infected to wear a mask so they don't expel those droplets.

Means of spread, social distancing watching objects that you're touching, the hand hygiene. Entry point this is why now there's a recommendation for a face
covering, we’ll talk about that later. And susceptible hosts. We know that age groups, in particular the elderly are very susceptible so we want to protect those people even more. Masks. This is very controversial and in fact even the experts really can’t agree and we’ve gotten many mixed messages from the media on this. And even myself I’m a little bit frustrated by some of those mixed messages. But the current recommendation is if possible, it's a recommendation, to cover your face in public. And on this slide I have a range of different types of options. Where at the top you could have a cloth face cover, or you could have a surgical mask shown in the top right, or you could then have a respirator. That's the N95 that we hear a lot about and that's shown in the middle picture
on the right. And then lastly you could

176
00:18:27,630 --> 00:18:32,909
have a powered air purifying respirator. As you go down this list you get an

177
00:18:32,909 --> 00:18:38,850
increasing protection, an increasing level of protection. When you start to

178
00:18:38,850 --> 00:18:42,630
get into the use of respirators and this is why there is some warning to the

179
00:18:42,630 --> 00:18:48,210
public, you have to know how to use them properly, you should be fit tested for it

180
00:18:48,210 --> 00:18:52,409
and be trained on how to use it, and in some cases people may have breathing

181
00:18:52,409 --> 00:18:55,919
problems so they should really have a medical clearance to wear them.

182
00:18:55,919 --> 00:18:59,940
Especially if they're wearing them for extended time periods. And there's also

183
00:18:59,940 --> 00:19:04,169
training on the use of them. If they're not used properly for example you could

184
00:19:04,169 --> 00:19:09,179
contaminate yourself. They're really not meant to be reused but since we already

185
00:19:09,179 --> 00:19:13,350
using them you have to be careful now that the outside is dirty and the inside

186
00:19:13,350 --> 00:19:19,470
is clean as you take it off and put it back on. So how can we protect ourselves?

Well we should stay at home until the order is lifted. The social distancing is set at 6 feet and this is for those droplets. If people are just talking and breathing the 6 foot distance should protect us from those droplets. Now if there's a really explosive sneeze or cough, it could go beyond that, but the social distancing is for the normal activities. We also now we're seeing extreme hand hygiene. More hand washing than ever, the hand sanitizer.

And you don't want to touch your face because if you're touching contaminated objects and then touching your face you're actually potentially inoculating yourself with the virus. As I mentioned the particles that are large that someone expels drop to the floor and fall into the dust. So it would be a good
idea to leave things like shoes at the door and also just to be careful with items entering the house. Like from the grocery store that you're buying, you would want to wipe things down if possible. And your mail for example. When you go to the mailbox or when you get boxes there's a lot of online ordering right now so people don't have to go to the store so you can leave the boxes outside for example.

There is no vaccine. We hope that they will have one but it takes a while to develop new vaccines and there is no approved treatment for any of the SARS viruses. So right now we have some experimental drugs and treatments. We're hearing a lot about the hydroxychloroquine plus the azithromycin. Now this is a drug that has been used for malaria and other diseases like
lupus that's an autoimmune disease and it has actually shown and I've given one reference and I have some additional references if you would like to send me an email I can mail those to you where there is some antiviral effect. So I mentioned that there's a lot of inflammation in the lung. So this drug may help to modulate that inflammation, inhibit the virus, and then the azithromycin may come in to inhibit the secondary bacterial infection. This drug has been used for many decades and it could be scaled up very quickly and it's cheap and it's accessible. There are some very promising new treatments like the remdesivir and that's a drug that would block the replication, block the virus's ability to copy itself. And that's very promising but it will still take a little bit longer to scale that one up. The convalescent plasma is
people who have recovered from the COVID-19 we can take
they're antibodies and give them to other people who are infected and that
seems to be working. There's another drug listed here the camostat mesylate
which is a possible entry blocker, that is an encephalitis drug that may block
that virus from entering the cell. And then second to the bottom there are two
tongue twisters right here and these are monoclonal antibodies that also help to
block that inflammation that I talked about. And then there are many other
drugs being tested and I've given a few references at the bottom and I have more
if you would like those. So I would like to thank you for listening and I'm going
to end my presentation with these two photos one from the 1918 influenza
outbreak and one from the SARS in 2003 which is very reminiscent of what we're
seeing now. So despite all of our technology we are still relatively helpless against these new viruses. When a new virus enters a species for the first time it can be very aggressive and we have no immunity against it. We will be taking questions after the second presentation but if you do not get one of your questions answered or you would like some additional information I have my email address at the bottom of this slide. At this time I will pass the presentation over to my colleague. Thank you very much Dr. Wooley. Well Giancarlo in order to submit questions for both Dawn and Giancarlo to be able to address (audio loss) bottom part of your screen and you'll see all of the I'm having issues here. Oh here it is. Can you hear me? I'm sorry. All right.
So my name is Giancarlo Mariani. I am the Associate Director for international enrollment management and the University Center of International Education. So my presentation is not going to be as technical, as scientific and great as Dawn was. I just wanted to give you guys a little bit of a perspective, a Wright State perspective on to what has happened in these past weeks and also to give you a little bit of a perspective from an Italian that has an enormous and a family that is being affected right now and actually has had issues for quite some weeks. So when we began our recruitment efforts for this upcoming spring season we had a very good plan. We actually were starting with, these are just a list of the things that we actually had. We were, not only the UCIE but also the partners abroad in Turkey and in India were going to
attend an enormous amount of different
tours and college visits and
and
one-on-one sessions and visits to agents.
If you think about it and you look over
here we started with China the having
are a little bit of a
worrisome especially towards in January
because that's where the crisis began/
But at this point everything was going
and it was seemed like everything was
going to be fine. Now once it's hit
towards the end of February, even if
everything was on the plate we had this
misconception that once the warm weather
was going to come in we would be fine
and we were attending all these
comforting webinars that we're
telling us how you know the COVID 19 is
not as lethal or as bad as
what we've had in the past. Influenza has
done much more damage than COVID 19. So
we don't need to worry about our trips

263
00:27:27,649 --> 00:27:31,969
we don't need to worry about our recruitment it should all be fine. Now I

264
00:27:31,969 --> 00:27:35,929
have a section over there that says family in Italy. This is where my family

265
00:27:35,929 --> 00:27:43,460
started giving me a little bit of a worry. There was the

266
00:27:43,460 --> 00:27:48,889
the North that started seeing it and they it just it was rapidly increasing

267
00:27:48,889 --> 00:27:53,509
and increasing and increasing and just it was just this unease sensation that

268
00:27:53,509 --> 00:27:58,070
you were getting from your family. And I have family from the top of the boot all

269
00:27:58,070 --> 00:28:04,460
the way down to the heel. So it just it was from north to south the message was

270
00:28:04,460 --> 00:28:10,609
the same. This does not seem like is gonna go away. I don't know if you should be

271
00:28:10,609 --> 00:28:20,509
traveling. So then March 5th rolls around and this is where Italy starts closing

272
00:28:20,509 --> 00:28:24,799
their schools. I get a message from my nephew that started his

273
00:28:24,799 --> 00:28:31,249
fresman year in college in Rome and he said "They sent us home. They told us

00:28:31,249 --> 00:28:36,259
that we have to do everything online." And Wright State was very good

00:28:36,259 --> 00:28:41,109
and very prepared to be making that transition from in person to online.

00:28:41,109 --> 00:28:47,029
However in Italy that was something that is not conventional. Not every school is

00:28:47,029 --> 00:28:55,190
capable or have the bandwidth to be able to have live virtual events. So it was a massive push and it was an overnight idea. Now this is starting, it just seemed

00:29:02,299 --> 00:29:06,309
like from that Italy closure of the schools it just became a chain reaction.

00:29:09,299 --> 00:29:12,919
So study abroad we had to make sure that our students were safe. Not only here in

00:29:12,919 --> 00:29:17,690
the States but also abroad. So we did everything that we

00:29:17,690 --> 00:29:22,399
could and the study abroad team did incredible to make sure to accommodate

00:29:22,399 --> 00:29:27,729
all of our students here and abroad. Then we had to create work from home
situation. We had to make sure that our admissions team was going through the same steps in that it could be as seamless as possible to create the environment that they needed to be able to process all the applications that we naturally normally process. So we have to figure out their gear but we also have to implement teams as a group to be able to communicate with each other when applications issues are starting but also we need to make sure that we talk to each other at least once a day or at least continuously, so that everything is just like if we were in the office. So right now essentially what we have is it's instead of having somebody coming up and coming into my office and asking me a question or going to another office to ask a question they will turn around in
shadowing teams. It's almost like a high-tech door how about that. We also started looking at surrogate solutions. So the surrogate solution was trying to find people that will go into the tours and to represent Sinclair, I'm sorry Wright State. So once we do have that option to go and talk to have somebody to go and talk for Wright State, we started looking at places. Shortly and very briefly these options drop down because the COVID-19 was starting to you becoming more and more and more and more like a pandemic. At this point March 15 comes around Italy is shut down and we are completely all of our recruitment is canceled. I'd like to mention just one tour that was cancelled and it was cancelled for Brazil and it was cancelled because the people just did not want to have these schools did not feel safe to having
people from other nations to come and talk to their kids. So it wasn't just the worry or the pandemic that came in, it's just as this is where people just started scrambling and trying to adapt and we adopted as well. We converted all of our recruitment a lot in admissions into an office in a home office. We became armchair recruiters an armchair became our and we converted our our fairs, our college fairs have become virtual fairs. Our one-on-ones with students have pretty much become webinars and now we are right now doing a ton of them. Our partner abroad has set up at least four of them for us and I believe we have another three for another for our one am based in Turkey. So we are definitely making sure that we make a social media presence and that we don't do that just on Facebook but
we're trying to do that on Twitter and a little bit on Instagram as well. This is not just by posting or just making visible or commenting or responding to people. We turn around and made our operation virtually OCIE essentially. Our programming is online. Our live events are online. We make sure I've personally have had one-on-ones with students online using WebEx. So everything has gone online. The virtual of admissions team is like I was saying. We can go ahead and use teams as to exchange of the thoughts and trying to strategize for our missions days or just what we're going to do in the near future. Now moving forward is where we are going to attempt different things. So we're going to try to make a close connection with all the college departments this is by inviting them to events and by pretty
much putting them on a stage to show the

328
00:33:20,690 --> 00:33:25,280
world what great faculty Wright State
has. We need to emerge from the noise.

329
00:33:25,280 --> 00:33:29,930
Obviously we are not the only school
that is actually pointing to recruit

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00:33:29,930 --> 00:33:34,430
international students and that it wants
to make an impression. So we need to do

331
00:33:34,430 --> 00:33:42,320
targeted posts. In the end point
essentially what the information as is

332
00:33:42,320 --> 00:33:48,230
going out and what actually students are
worried about right now. We need to be

333
00:33:48,230 --> 00:33:53,600
not only emotionally intelligent but
also digitally intelligent. We need to

334
00:33:53,600 --> 00:33:57,710
make sure to understand what the student
is needing and we need to make sure to

335
00:33:57,710 --> 00:34:02,470
answer it in a correct way.
You have to understand that right now we

336
00:34:02,470 --> 00:34:09,010
are in a stay at home order. We are, in
one way we are fortunate. But there are

337
00:34:09,010 --> 00:34:13,990
people that are stuck in their houses,
they have been there for weeks and we

338
00:34:13,990 --> 00:34:17,139
need to make sure to keep that in consideration in any communication that is going out. Just to get it in a happier note, I have had a Nepalese student that is contacted us through our whatsapp in and it was enough time and I just was like what time "What time is it back there? It's 4 o'clock in the morning." Yeah.

You're locked at home, there's not that much that you can do so you need to be able to understand that that situation is coming. So when even you're ready to log off you go to your family because your day is done you need to be able to make sure that that student is going to be fine with you leaving your desk.

Now live events are no longer live. We can't be in person. We can't see each other. It would be very weird if everybody's going to be in an arena and everybody's applying social distancing. We would be, I would really like to see
that. So everything is going live in using platforms like WebEx but also

Facebook live is going to be our friend. We want to make sure that our students are shown and are promoted around the world. We have a great student body and we need to show it to everybody and we need to make sure that those students abroad are able to make a connection with the ones here with us. Now I wanted to show you guys a little bit of what we've done so the picture will be here on the top the top left that is a webinar that Dr. Raymer has done for us in partnership with our partner abroad in India. This is the first one that we have done and as was very successful Dr. Raymer actually wanted to take this opportunity to thank him because this was actually it was awesome. You could just tell that the student professor was extremely
passionate about the topic. And this was helping not only Wright State students, it is putting the brand out there but it's for education USA and for education USA you're helping students not only for Wright State but for everyone that wants to come to the United States. And us as international educators we're very thankful debt Dr. Raymer actually stepped up and we hope that we can see so many more they come up and actually help us with these type of webinars. We also created and this is actually something that the student worker is that have collected this information for us.

So sorry if it cut out a little bit but over here on the left you will see a post that was on our page on our Facebook page our admissions page and this is where the student has essentially told us what the situation
is right now and how it is being able to Wright State for adjusting. It is important
to us to show students abroad debt although the COVID-19 is maybe closing
on campus it is not shutting us down. We are here and we are here to help and
we are here to help every single student. So it was important to me to into the
UCIE to promote our students and to show them what they are doing right now.
We have also done live events um this is an example for our pizza event. I was the
one that did it. We streamed it live on our UCIE page and we found that we find
out, and it wasn't the first one we actually have a student doing it and we
hope to do it more I'm not sure that we're going into it more, but
it was one of those things at the end of the week where at least you could have a
minute to sit on your phone and watch
somebody that is familiar that is giving

00:38:03,040 --> 00:38:07,060
you something that is not an amount of information. I mean

00:38:07,060 --> 00:38:11,319
just the fact of sitting there and being
able to watch me playing with doe

00:38:11,319 --> 00:38:16,710
messing up my pizza was fine. It turned
out good though I promise you that. Now

00:38:16,710 --> 00:38:21,550
also I wanted to point out this over
here and this is also made from one of

00:38:21,550 --> 00:38:26,960
our student workers. We thought that
making, it is not fair

00:38:26,960 --> 00:38:32,030
and it's not good to make fun of the
virus. It is not, but it is important that

00:38:32,030 --> 00:38:38,089
we show our students that laughter is
important. Again we need to think about

00:38:38,089 --> 00:38:43,250
students that are staying at home that
are close in their doors. If we can give

00:38:43,250 --> 00:38:48,920
them one smile, just one smile, we've made
a victory for that day. And if we do get

00:38:48,920 --> 00:38:53,240
that one smile in a perspective of
recruiting they will more likely to

00:38:53,240 --> 00:39:02,660
remember our our Wright State brand. So I
hope that this was official. I

gave you a little bit of a perspective. I
wanted to assure everybody that my

family back home is all fine. We were
lucky enough that my small town did not

get completely affected by the COVID-19.
But it's there so stay safe and stay

home. Now any questions I'm free to
answer.

This is Don Wooley I am seeing some
questions command and I will go ahead

and field a couple of questions in the
order that they came in. One question is,

if one recovers from COVID-19, what do we
know about their immunity and how would

that immunity compare to someone who has
received a vaccine when developed? So if

someone recovers from COVID-19 they have
some immunity. We don't know how long

that immunity will last but they would
have immunity at least in the short-term.
that's one of the things we have to study is the memory response. If someone is vaccinated they will also be protected and develop a memory response.

but we don't know how long that will last either. Now in general when someone recovers from a live infection, and even some vaccines that are live attenuated versions of the virus, that tends to be a stronger immune response than something like a kill vaccine. Which would generate enough immunity to protect but again that natural infection generally gives a stronger immune response. And if I have not fully answered that you can feel free to type in some follow-up questions and I think there was another one here is, are there good stats on how much more susceptible someone with the pre-existing condition like an elderly person or someone with COPD or diabetes would be relative to a healthy person.
like two or three whatever times more likely to die?

Well we're gathering that data right now so I don't have the numbers at my fingertips and I'm not sure anyone has accurate numbers right now but from what I'm seeing that people who are younger that end up in the hospital or the ICU or die, many of them do have pre-existing conditions. Not all of them, but some. I would predict that when the numbers are all in that we will see that people with pre-existing conditions have a statistically significant higher rate of complications and death.

I just don't know what the exact numbers will be yet. And Giancarlo would you like to take a question or two? Sure, I've seen a few.

Let me see there was one so the difference between how was the US
response COVID-19 crisis deferred from the response in Italy. The response was surprisingly slower.

The Prime Minister, there was obviously in Italy there was a little bit they could have done something, they could have done it sooner. But once they started seeing that there was much more cases coming in the Prime Minister actually acted very decisively and started slowly closing down. We are fortunate that Ohio has a governor, in my opinion at least, that has a governor that has stepped up and decided to follow the lead of the people that actually have the science behind them. I mean I I have to say that most of us, and like I'm going to make a generalization, that all of us kind of like undertook this. And I was trying to explain that in my presentation, we didn't really think of this as being
that big of a deal. I remember saying the same thing to my family in Italy. But once it was real and we needed to do something Italy stepped up and did it and I really wanted to say that our governor has done the same and I'm very grateful of it. Then there was large cultural differences that have been impacted by the COVID-19. Coming up Friday is Good Friday right and Sunday is Easter. We're Catholic it's kind of a big deal. So we are planning for example ourselves say through some apps I don't want to do any commercials here but through some apps were trying to make a family dinner. I have some family here that we're going to do it but we're going to do it also with Italy back home and it's strange. We're gonna make it work and one big
thing is the kissing and hugging. You know, Italians do two kisses one on each cheek. We hug everything. We hug our walls if we could. It's been a struggle I mean.

I think on March 5th when the schools were closed, the Prime Minister has made it clear that all college students should stay home and not to go see their grandparents. Now it's already hard for every grandparent but for an Italian grandparent it's like oh my god. So it definitely did crush a lot of souls there but it slowly became understood that it just it was needed. I don't see any. Go for it and I can go and find one. I see a question about what do we know about contamination on surfaces and what would you recommend we do with packages, items we purchase? So there can be surface contamination and it can spread that way as I mentioned. If you touch a contaminated surface and
then touch your face you can inoculate yourself. There are data coming out on different types of surfaces. So on cardboard some of the data says 24 hours and longer on plastic like three days, stainless steel, also maybe about three days. So when I recommend and what I'm doing is for example with my mail I use gloves to get my mail and I open up the envelopes and I throw the outside away and I leave the contents sitting in my garage for three days. And then from there I will bring it into the house if I need to pay certain bills. And another option for people is to just use the online billing to avoid the paper completely. Now for the groceries if it's perishable like a carton of milk I will have a disinfectant wipe and I will wipe that down before bringing it into the refrigerator and for like the canned
goods and things I can leave them set in

my garage for a few days or until I need
them and then I will start bringing them

into the house. It's hard to wipe down
everything especially all the the
cardboard boxes like cereal boxes and
things you can wipe them but it gets to
be quite a lot. So you might wipe down
two things that have to be brought in

right away and let the other one set
because the virus has a membrane on the
outside that's like the membrane of our
cells and it's a lipid bilayer, which is

a fatty layer, and it is susceptible to
drying and that's why in these tests the

virus will die over time. But it does
survive longer depending on the surface.

So also the packages because so many
people you know use things like Amazon

now and even more so because they don't
want to go into stores. Take the contents
out of the box and leave the boxes outside and then do as I recommended.

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with the contents. If you can wipe them down wipe them down or if you can let

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them set for a few days then do that and maybe then even still wipe them down

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depending on what the material is made out of. So again that will help to keep

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you a little bit safer and there was another question on did they use the

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chloroquine in the SARS 2002. They did not because SARS, the original SARS virus broke out in 2002 and that epidemic ended relatively quickly in 2003. So they

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did not really have time to explore all of the different drugs and the

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scientific paper that I found on chloroquine with the original SARS

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virus was published later like in 2005 and so I think after that original

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outbreak they were investigating many different drugs and then they probably
were following up on it but since the SARS virus didn't come back they probably maybe there was an issue with getting funding because people don't think it's going to be a problem. We never envisioned that we would have this other SARS virus. But we did learn that it worked and then they actually have tested the hydroxychloroquine against the new SARS virus the SARS CoV-2 and found that it inhibits that virus in the laboratory.

Giancarlo would you like to take another question or two?

I think you might be muted. I don't think see any questions for me okay. If I do... Okay I'll work on some more I haven't gone for it list another question is once we overcome the peak of the pandemic how do we return back to a new normal? Will there be why testing across
the U.S. to see if someone has immunity and will those tests be effective and keeping us safe? So yes I do think there will be testing and what we're hearing about in the news right now is a lot of excitement about the antibody tests and as I mentioned in my presentation once someone's been exposed they develop antibodies and so you can tell if someone has been exposed or has had a past infection. So they are presumably immune again we don't know for how long. Sometimes when we're vaccinated as children we have a lifelong immunity. So that remains to be seen but we know that there would be some immunity for a certain period of time certainly long enough to get back to work while we work on developing a vaccine and so I think that what we'll see though is more kind of elbow bumps and less handshakes. I think people may
still wear some face coverings. I think that's going to be a way of life and I

think that maybe the way people buy things so for example some of the
grocery stores are letting you put online orders in, where people don't have
to go into the store. Now that people are using those services they may continue
to use them because maybe they find they're actually saving time and
convenience so I think things will be different but I think that we will get
back to work and especially this new antibody testing will help a lot. Another
question is the zinc as a therapeutic. I think that the zinc from what I'm
reading may be a good adjunct to some of the other therapies for example I've
heard it discussed with regard to the hydroxychloroquine and azithromycin.

So the zinc may go into the cell as the virus is trying to enter and it
might block one of those early steps of the replication cycle. We don't know the
exact mechanism yet we suspect it's going to be early on in the virus replication cycle. So I think it could be a good adjunct but by itself it might not be enough. And now I'm just going to look further down the list here.

It's actually a question for Dr. Luehrmann on the impact, what impact does national leadership and government structure brought it home impact the country response? I think she was having some audio problems but I'm would you like to actually I'm gonna punt that one my colleagues from the School of Public and International Affairs Dr. Lee Hannah.

He's going be speaking to the political side of this but next Friday.

That's so wonderful people should tune in at
that time. Okay so another question is

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about the six-foot distance for standard activity any sense of how long the virus

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in mucus can travel while running and if you run what's a safe distance to be at?

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Now I've thought about that one because I like to run and I can't go to the gym

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right now and run on the treadmill and I actually took a run the other day and I

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actually just put a bandana in front of my face. I felt like I I did want that

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was after the recommendation to cover your face. It did make it hard to

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breathe. I think when people are exercising their expelling more and so a

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little more distance would maybe be prudent in that case. They haven't

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necessarily done exact Studies on that but you can imagine that sometimes when
little bit depending on their own condition their allergy season. I mean.

there there might be more. So you do need to think about outside activities. I know that it's been noted that even people because they think they're outside that they're safer but even going to parks they've been too close in groups and there's been some criticism about that. So I think that if you're doing some activity that's very creating an exertion, a little more distance may help. And then another question is about the masks, a lot of the items at the store out of stock are not being sold to the general public. Are there any suggestions for grocery shopping with out gloves and homemade masks to help prevent exposure? I actually have some scientific papers that detail studies where they looked at people making homemade masks out of various materials.
and some people are sewing masks that are multi-layered and there is some effectiveness. I mean as I showed on my slide, they're not going to be as effective as a medical mask, but if you're using them in conjunction with the other recommendations like the social distancing and using the wipes on the grocery cart, and and washing your hands and not touching your face. Which of course anything in front of your face would discourage you from touching your face so in that sense it works even that way aside from protecting your face from getting the droplets. So I think that I have some of those resources I didn't list them all and if you would like some of those on how to make a mask I could send you some of those links if you send me an email. But you can also search on the internet but there are some very valid recommendations even
from the CDC on that. But if you can't find them I can help you. Any data on risk factors for HIV patients? Certainly there in the vulnerable group. They're considered in the immunosuppressed group because the HIV virus is compromising their immune system. So they would be more vulnerable to the corona virus but I and I don't have any statistics on that yet but since I study HIV I will be very interested when those data are available. Another question is are there vaccines in development targeting multiple strains or are they only focusing on one? That's a good question, I don't know the answer to that. I had looked at some scientific data and I do know that there are different strains circulating. So if I was in the vaccine development business, I would be working with multiple strains at the same time and in some cases you might be able to
put, if there's like three or four predominant strains, you can put them in

the same vaccine just like we did with the flu virus. So

I haven't actually read exactly how many strains are focusing on, but my

professional opinion would be they certainly should be focusing on more

than one strain. So another question is are many people are recovering so why

don't we use the convalescent plasma extensively? I think we are and that's

why we're so excited about the the antibody test, the serology that they're

talking about, because then we can identify those patients and some of them

are coming forward if they actually knew they had the disease and had been tested

positive. But some people were sick, never tested, so I think the antibody tests

would be needed to to verify that. Next
Talking about thinking about things that we hadn't thought about before. So if the talking about animals weren't slaughtered, wild animal markets. So these live animal markets are a concern. They create a set of conditions where they're putting these different animal species in close proximity with humans. And so again this is a new virus we did not know it existed and there probably are many more viruses yet to come that we we have not identified yet so it is a concern regarding the conditions and so I have heard some discussion about whether some of those should be closed down for that reason but that also is is something that each country will have to decide and maybe even on a regional basis because you know those markets would be important
for people to obtain food in different geographic areas. The other aspect is you
know as humans populate the earth and spread out, you know we're taking up more
and more of the land where the animals used to live or are moving closer to
where the animals are. So it's aside from the live animal markets it's
placing us in closer proximity to these animal species so in that regard we may
be more likely to get these what are called "zoonotic" infections which are diseases of animals that spread to humans.

And another question is will this be seasonal? It's highly likely that it will.
The other corona viruses that cause colds,
they are seasonal. We see them in the winter and spring and so that's why
there's a concern that even if this new corona virus decreases in the summer it
may come back in the fall and when it comes back it made by that time have mutated and be a slightly different strain and that's what we see with the flu virus every year there's a different vaccine because there's a different strain. So I don't think we'll be staying at home under the severe restrictions throughout the fall. We may lift up on some of those restrictions but I think when we catch our breath during the low that we hope happens in the summer we can be prepared for the fall if it were to come back. Another question is the long-term effects on the lungs. I'm concerned about that as well so whenever there's an injury like if you cut your hand you know that there's a scar that would form. Well this virus is killing those cells and injuring the lung and so there is some concern that this will result in a
scarring of the lung and that may have some long-term effects. So some of the younger people who may not die from this need to consider the fact that they could have one of those outcomes where their lungs may not be the same as they were before so everybody really should do their best to protect against this infection for themselves and for the other people that surround them like their family members and the older people. Now I've been talking a lot so I don't know if Giancarlo wants to chime in. I was getting a lot of questions. We'll probably need to do since it is getting close to the end of our formal time and some people may need to log off, I'm hoping that everybody can join me in a virtual round of applause for our first two presenters in our series. I'm one to definitely think the faculty Senate executive team. I would
like to thank the executive committee for helping to plan this event and I'll put together a really exciting a series of speakers ever these next couple of weeks.

I also want to be sure to thank Craig Wooley, our chief information officer a Wright State University for helping us with all the technical as well as his team. They really helped pull this off. This is an innovative format it has a couple of glitches for some of us as we were working through but we really like that we can come together as an academic community even though we can't gather on our campus. We thank each one of you for joining us. Please come back next week on Friday which is April 17th, so a week from tomorrow and we have Dr. Lee Hannah the School of Public and International affairs. He's going to be talking about the impact of COVID-19 on the 2020 election. (audio loss)
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(audio loss)

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Thank you for joining us today.

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Thank you very much.