

Perspective on the Pandemic – Professor Knut Wittkowski April 1-2 '20 Interview NYC

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Interviewers [John Kirby, Libby Handros and Lee Davis: The Press and the Public Project]

If you could just tell us your name and a little bit about your background.

Knut Wittkowski

My name is Knut Wittkowski. I was at the Rockefeller University for 20 years; head of the department of biostatistics, epidemiology and research design. And before that, I worked for 15 years with Klaus Dietz, one of the leading epidemiologists in the world in the German town of Tübingen at the Eberhard Karls University.

Interviewers [John Kirby, Libby Handros and Lee Davis]

You gave recommendations for how best to deal with COVID-19. Could you just describe what you wrote?

Knut Wittkowski

As with every respiratory disease, we should protect the elderly and fragile because when they get pneumonia, they have a high risk of dying of the pneumonia. So that is one of the key issues that we should keep in mind. On the other hand, children do very well with these diseases, they're evolutionarily designed to be exposed to all sorts of viruses during their lifetime and so they should keep going to school and infecting each other, that contributes to herd immunity which means after about four weeks, at the most, the elderly people could start joining their family because then the virus would have been extinguished.

Interviewers [John Kirby, Libby Handros and Lee Davis]

You mentioned in a piece that in fact, you think containment would prolong the duration of the virus, can you talk about that?

Knut Wittkowski

Yes. With all respiratory diseases, the only thing that stops the disease is herd immunity. About 80% of the people need to have had contact with the virus and the majority of them won't even have recognized that they were infected or they had very, very mild symptoms especially if they're children. So it's very important to keep the schools open and kids mingling to spread the virus to get herd immunity as fast as possible and then the elderly people who should be separated and the nursing homes should be closed during that time can come back and meet their children and grandchildren after about four weeks when the virus has been exterminated.

Interviewers [John Kirby, Libby Handros and Lee Davis]

And so what do you make of the policy that was enacted in the United States and England and most places throughout the world, this policy of containment, shelter in place, etc.? What's your opinion of it?

Knut Wittkowski

Well, what people are trying to do is to flatten the curve. I don't really know why. But what happens if you flatten the curve you also prolong to widen it and that takes more time and I don't see a good reason for a respiratory disease to stay in the population longer than necessary.

Interviewers [John Kirby, Libby Handros and Lee Davis]

What do you say to people who say we just didn't know about the lethality of this virus and where the smartest thing to do is just to basically do what we did and contain everybody because we just didn't have the data.

Knut Wittkowski

We had two other SARS viruses before. So, corona virus is not the first corona virus that comes out and it won't be the last and for all respiratory diseases, we have the same type of an epidemic, if you leave it alone it comes for two weeks, it peaks and it goes for two weeks and it's gone.

Interviewers [John Kirby, Libby Handros and Lee Davis]

You were speaking to my producer the other day on the phone and you said the pandemic is over. What do you mean by that?

Knut Wittkowski

There are no more new cases in China and in South Korea. The number of new cases in Europe is already beginning to decline, the virus came later to the US so here we see a bit of a decline maybe and levelling off within the next couple of days. And if we see that the cases are not increasing dramatically, that means that the number of new infections has already declined substantially and peaked about a week ago.

Interviewers [John Kirby, Libby Handros and Lee Davis]

Do you believe the Chinese statistics? You think they lied to us? Do you believe the stats of coming out of China?

Knut Wittkowski

The epidemic has ended there, yes. Because otherwise we would see people emerging and even in China it's today very difficult to keep information under the hood. If there were lots of cases in hospitals, if the hospitals that they built, the temporary hospitals were still full we would hear that, this could not be suppressed.

Interviewers [John Kirby, Libby Handros and Lee Davis]

During a press briefing yesterday, Fauci and the President and the rest of the people assembled were saying that had they not done the containment strategy that they have done that upwards of 2 million people would have died in the United States. What do you think of that figure?

Knut Wittkowski

Well, I'm not paid by the government and so I am entitled to actually do science. If there had been no intervention the epidemic would have been over like every other respiratory disease epidemic.

Interviewers [John Kirby, Libby Handros and Lee Davis]

And how many in your estimation would have died? Would it have been that much?

Knut Wittkowski

Okay, we have arrived now let's take realistic numbers in the United States, we have about 25,000 cases every day. Our hospital system will have to deal with 2500 patients every day for a certain period of time, it could be about three or four weeks and then the number will dramatically decrease again and the whole epidemic will be over.

Interviewers [John Kirby, Libby Handros and Lee Davis]

And of those hospitalized cases, what in your estimation, how many would die?

Knut Wittkowski

2% will die.

Interviewers [John Kirby, Libby Handros and Lee Davis]

Of the hospitalized cases?

Knut Wittkowski

Of all cases.

Interviewers [John Kirby, Libby Handros and Lee Davis]

All symptomatic cases?

Knut Wittkowski

All symptomatic cases, 2% of all symptomatic cases will die i.e. 2% of the 25,000 a day. So that is 500 people a day and that will happen over four weeks. So that could be as high as 10,000 people. Now that compares to the normal numbers of flus during the flu season and we have in the United States about 35,000 deaths due to flu every year during the flu season. So it would be part of the normal situation during the flu season.

Interviewers [John Kirby, Libby Handros and Lee Davis]

Are they reporting flu deaths this year or is everything just Corona? Is there any statistic for flu death cases?

Knut Wittkowski

Yeah, the statistic for flu is currently at about 10,000 - 12,000. So together with the corona deaths it's about regular flu season.

Interviewers [John Kirby, Libby Handros and Lee Davis]

You're basing your estimate now on the latest available numbers.

Knut Wittkowski

Yes.

Interviewers [John Kirby, Libby Handros and Lee Davis]

So, what accounts then for the fact that hospitals are suddenly more overrun than they have in a previous flu season and for the world leaders and the news media just going crazy.

Knut Wittkowski

Funding for hospitals has as everybody knows not increased recently. So, hospitals had to cut down and therefore they now have to run their emergency plans, which is not terrible, that's what they have been planning for decades. So if I have to put up some tents in Central Park, that's not the end of the world. The tents are there, they're maintained very well and they will be there for a few weeks, three, four, maybe and then the crisis will be over. This is not a situation nobody has ever thought about.

Interviewers [John Kirby, Libby Handros and Lee Davis]

Do you really think that there is a major shortage of masks and things like this? Masks and PPE and all this? What do you think about that? Why should there be shortage of those things?

Knut Wittkowski

People are getting crazy, it's almost like the toilet paper shortage.

Interviewers [John Kirby, Libby Handros and Lee Davis]

I knew someone at a NICU who said two weeks ago in New York, at NYU, suddenly all the masks and all the hand sanitizer were gone. So, what do you think happened there?

Knut Wittkowski

Like the toilet paper. Shortages happen now and then all the time and if somebody's reporting what's happening that day in that hospital, it's possible.

Interviewers [John Kirby, Libby Handros and Lee Davis]

Yeah. Sure.

Knut Wittkowski

Does it reflect the state of the whole hospital system in New York? Not necessarily.

Interviewers [John Kirby, Libby Handros and Lee Davis]

Right. What do you think about their latest figure that because of, they claim that because of social distancing, that we've saved ourselves from the two million dead but that we are probably looking at 150,000 to 200,000 dead, though they said that it's possible that it could be lower if we are really, really good about social distancing, etc.? What do you think about their new estimate of death?

Knut Wittkowski

Social distancing definitely is good in that it prevents the sky from falling down.

Interviewers [John Kirby, Libby Handros and Lee Davis]

Are you being ironic?

Knut Wittkowski

Of course, I don't know where these numbers are coming from, they're totally unrealistic. There are no indications that this flu is fundamentally different from every other flu. We know what happened in China; we know what happened in Seoul in South Korea, we know what happened or is happening in Europe; there are no indications that anything is different from a regular flu. Maybe it's a bit worse than other flus, it could be. For a respiratory disease, the flu ends during springtime when people spend more time outdoors because outdoors the viruses cannot easily spread. That is a form of containment, spending more time outdoors.

Interviewers [John Kirby, Libby Handros and Lee Davis]

So we're now spending more time indoors, we've been told to go indoors, doesn't that help keep the virus going?

Knut Wittkowski

Healthy, it keeps the virus healthy.

Interviewers [John Kirby, Libby Handros and Lee Davis]

So, we should be told to go outdoors.

Knut Wittkowski

Yeah, going outdoors is what stops every respiratory disease.

Interviewers [John Kirby, Libby Handros and Lee Davis]

But people will say that the reason why China came out of this okay in the end is because they went into such severe lockdown. What do you say to that?

Knut Wittkowski

They (China) have an advantage that in the beginning they didn't know what they were dealing with. So, it took them a long time to start the containment or social distancing which in the course of the epidemic is good because there was enough time for the virus to reach herd immunity before the social distancing started.

Interviewers [John Kirby, Libby Handros and Lee Davis]

Now, it's interesting you say that because at Imperial College, Neil Ferguson has changed his estimate of the number of deaths in England from 500,000 to 20,000 or less and he says that is because of social distancing. Now, we also know that the way in which social distancing was implemented in England was

not very severe or extreme or efficient. So, this was after one day of lockdown he announced that, in fact, it would be 20,000 or less. Is there any possibility that that number would have changed that way because of the social distancing?

Knut Wittkowski

No. Actually, we have data for that. I looked into a claim that people make that in China and South Korea the social distancing had successfully helped to control the epidemic. I looked at the dates when people actually started social distancing in China, the epidemic peak on February 1 to February 5, in that period. But the schools were not closed until February the 20th, that was two weeks later. In South Korea, we have a similar pattern. In Daegu or however the city is being pronounced where the church of Shincheonji had that outbreak, the self-quarantine was ordered only on February 23rd when the peak in that city happened. The national distancing was not advised until February the 29th, so that's a week later when the national peak happened. So, both in China and South Korea, social distancing started only long after the number of infections had already started to decline and therefore had very little impact on the epidemic. That means they had already reached herd immunity or were about to reach herd immunity. They were very close. But by installing the social distancing they prevented it to actually getting to the final point and this is why we're still seeing new cases in South Korea several weeks after the peak.

Interviewers [John Kirby, Libby Handros and Lee Davis]

You said this is a sort of contagion because it's airborne that you can't deal with by doing tracing or by social distancing. Explain why that is.

Knut Wittkowski

One thing is, tracing with an airborne disease is even more difficult than tracing with a sexually transmitted disease which is difficult enough as we know from AIDS. Most people will know whom they had sexual contact with over the last two weeks. As a human being traveling the subway in New York and doing other things in New York that we just have to do in New York, I couldn't tell you who the 2, 3, 4 hundred thousand people are I came in contact with over the last two weeks. So, contact tracing for a respiratory disease is impossible.

Interviewers [John Kirby, Libby Handros and Lee Davis]

Why doesn't containment work for airborne disease?

Knut Wittkowski

You cannot stop the spread of respiratory disease within the family and you cannot stop it from spreading with neighbours, with people who are delivering, physicians, people are social and even in times of social distancing they have contacts and any of those contacts could spread the disease. It will go slowly and so it will not build up herd immunity but it will happen. And it will go on forever unless we let it go.

Interviewers [John Kirby, Libby Handros and Lee Davis]

Let me ask you, you don't feel this requires a vaccine?

Knut Wittkowski

We don't have a vaccine against the common cold, we have some vaccines against flu but they are not that effective. Would it be nice to have a vaccine SARS? Yeah, it would be nice. It would help to create herd immunity a bit faster because those who have the vaccine are already immune but those who don't they just need to be exposed to become immune.

Interviewers [John Kirby, Libby Handros and Lee Davis]

You could get this immunity naturally.

Knut Wittkowski

For some reason we haven't fully understood yet, humankind has survived all sorts of respiratory diseases. Nature has a way of making sure that we survive.

Interviewers [John Kirby, Libby Handros and Lee Davis]

This morning, all the TV doctors were on saying that, because obviously they're starting to read some of these pieces about the statistics being off etc., and so there you have Dr Jennifer Ashton on ABC and I forget the others saying this is more contagious than any seasonal flu, the H1N1 and this is why we have to take it so seriously because it's so much more contagious. Is that just ridiculous?

Knut Wittkowski

I don't know where that opinion comes from, the data that we have speaks against it.

Interviewers [John Kirby, Libby Handros and Lee Davis]

And what data do we have and where are you getting yours from?

Knut Wittkowski

Well, you can download the data from the European CDC every day, the data all over the world and you can analyse it and that's what I have done and probably other people have also done.

Interviewers [John Kirby, Libby Handros and Lee Davis]

Okay. What does this graph tell you in general?

Knut Wittkowski

It tells us that the number of cases in Europe are not increasing any more. The deaths follow it by about a week and that's normal because people die after they develop the disease but the important thing is that the number of infections peaked around a week ago [from April 1 2020] and is already on the decline. The European data includes the data in France where suddenly the number of cases doubled from one day to the next. This is somebody finding a box of reports in an office and sending them in and said, whoops, we forgot to report that over the last month. The epidemic in France is not increasing anymore even though somebody found a couple of reports in a shoe box.

Interviewers [John Kirby, Libby Handros and Lee Davis]

Won't governments just say that's because we practiced social distancing?

Knut Wittkowski

I'm not a psychiatrist, I don't know what other people think. I'm a scientist.

We can see that in China, in Korea [South] the epidemic went down and the epidemic did exactly what every other epidemic did and it's not that 400% of old people died. Maybe it's 3% rather than 1%, maybe. But nothing is fundamentally different from the flus that we have seen before. Every couple of years there is a flu that's a bit worse than the other flus were and it goes away in exactly the way the other flus went away. And this one behaves exactly the same way.

The epidemic has ended in China, at least in the provinces very worse, it has ended in South Korea. In Europe it's declining and will be ending anytime soon. It could be a bit longer than typically because of the containment which flattened and prolonged the epidemic and that's really good if we want to be affected by it as long as it gets. In the United States, we're doing the same thing, we are prolonging the epidemic to flatten the curve but eventually it will end.

Interviewers [John Kirby, Libby Handros and Lee Davis]

Speaking of the numbers, I noticed in your paper you said that in mid-March there was a change in the reporting system, what was that all about?

Knut Wittkowski

This is not the first time it happens. On March 20, Germany changed its reporting system and suddenly, a lot of cases that had not been reported before were reported. But this is not a sudden increase in cases. Overall, this had no impact on the dynamics of the German epidemic, it increased until about March 27 or so and has been stable or declining since.

The problem in this disease is that reporting and diagnosing are not separated and recorded differently. But in the AIDS epidemic, every case was reported with the day of diagnosis and the day of reporting. For whatever reason, this standard developed during the AIDS epidemic is not being employed here. So, we cannot deconvolute this data.

In Italy there was a spike on one day, there was a spike on one day in Norway but we have seen now so many of these spikes. They last for one day and then the numbers go back to where it was before. So, we are not really scared anymore if we see something changing very fast.

Nature doesn't jump. As people have known for a long time, the course of an epidemic is always smooth; there is never a ten-fold increase in number of cases from one day to the other.

There is nothing to be scared about. This is the flu epidemic like every other flu, maybe a bit more severe but nothing is fundamentally different from the flus that we see in other years.

Interviewers [John Kirby, Libby Handros and Lee Davis]

What do you think accounts for the difference in the response this time than say to the swine flu in 2009? Why are we suddenly so much more panicked and having shut the world down. What do you think's going on?

Knut Wittkowski

I think at least one factor is the internet. People are using the internet now much more often and so news, wrong or false, are spreading the globe within hours if not minutes. And so, let's say 50 years ago we would read in the paper that about a week ago there was an epidemic of flu in the United States or in China or somewhere else and at that time it was already over. So, people would say okay, that happens all the time. Now we read this, Oh, there were 785 cases in the Vatican for two days. Uh ... maybe not. And even if it was a reporting error these stories are circulating the world and contributing to chaos and to people being afraid of things they shouldn't be afraid of.

Interviewers [John Kirby, Libby Handros and Lee Davis]

And what do you think are the possible health risks of the policy that we are following now, the shelter in place?

Knut Wittkowski

We will see maybe a total of fewer cases, that is possible; however, we will see more cases among the elderly, because we have prevented the schoolchildren from creating herd immunity. And so, in the end, we will see more deaths because schoolchildren don't die and it's the elderly people who die; we will see more deaths because of this social distancing.

Interviewers [John Kirby, Libby Handros and Lee Davis]

So, we keep being told now about the second wave that will come in the fall. Now, tell us what your thoughts about the second wave are and how it seems like everything you're saying is that we will have a second wave because of social distancing?

Knut Wittkowski

Yes.

Interviewers [John Kirby, Libby Handros and Lee Davis]

Okay. So, could you say that in a sentence for me?

Knut Wittkowski

Okay. If we had herd immunity now, there couldn't be a second wave in Autumn. Herd immunity lasts for a couple of years, typically, and that's why the last SARS epidemic we had in 2003. It lasted 15 years for enough people to become susceptible again so that a new epidemic could spread of a related virus. Because typically, there's something that we call cross-immunity, so if you were exposed to one of the SARS viruses you are less likely to fall ill with another SARS virus. So, if we had herd immunity, we wouldn't have a second wave. However, if we are preventing herd immunity from developing, it is almost guaranteed that we have a second wave as soon as either we stopped the social distancing or that climate changes with winter coming, or something like that.

Interviewers [John Kirby, Libby Handros and Lee Davis]

But because this is an airborne illness, it sounds to me as though social distancing wouldn't even have prevented more people from getting it, right? I mean, it already spread because it's airborne because it lives on surfaces. By the time England or the US shut down it's probably already gotten all around, right?

Knut Wittkowski

Unfortunately, it seems that in western countries, where the story of China was already known, people started with social distancing as imperfect as it is before the epidemic could reach the level that is needed to develop herd immunity.

Interviewers [John Kirby, Libby Handros and Lee Davis]

So, to summarize, you were saying that's going to flatten and extend the epidemic and create the second wave that we are being told to fear.

Knut Wittkowski

Yes, the second wave is a direct consequence of social distancing.

Interviewers [John Kirby, Libby Handros and Lee Davis]

That's wonderful to hear.

Knut Wittkowski

We already know that the social distancing cost the US taxpayer \$2 trillion. In addition to everything else that it cost it also has severe consequences for our social life and depression is definitely something that will be surging. I can say from myself walking through New York City right now is depressing.

Interviewers [John Kirby, Libby Handros and Lee Davis]

So, what do you think? Should we tolerate this, should we stand for staying in shelter, in house arrest till April 30? I mean is that what we ought to do or should we perhaps be resisting?

Knut Wittkowski

We should be resisting and we should at least hold our politicians responsible. We should have a discussion with our politicians. One thing we definitely need to do and that would be safe and effective is opening schools. Let the children spread the virus among themselves which is a necessity to get herd immunity. That was probably one of the most destructive actions the government has done. We should focus on the elderly and separating them from the population while the virus circulates, we should not prevent the virus from circulating among schoolchildren, which is the fastest way to create herd immunity.

Interviewers [John Kirby, Libby Handros and Lee Davis]

And can you explain just one more time as clearly as you can, what's the concept with natural herd immunity? What happens to the virus when it's gone through the population in the way you're describing?

Knut Wittkowski

If 80% of people have had contact with the virus and are therefore immune and typically that contact is just a form of immunization. So, there is no disease, there's nothing happening and still there is immunity. If 80% of people are immune and somebody has a virus and is infectious, it will be very difficult for that infectious person to find somebody who is still susceptible, not immune. And therefore, this person will not infect anybody else and therefore we won't have the disease spreading, that is herd immunity.

Interviewers [John Kirby, Libby Handros and Lee Davis]

And what happens to the virus, what happens to the virus at that point?

Knut Wittkowski

Well, viruses don't live technically but the virus will eventually be destroyed unless, right now, my dry cleaner closed down because of COVID so I can't get my clothes cleaned and so, if there should be viruses on my clothes which is possible I cannot get them cleaned at the dry cleaner because the dry cleaner is a non-essential service and therefore closed down. We are experiencing all sorts of counterproductive consequences of not-well-thought-through policy.

Interviewers [John Kirby, Libby Handros and Lee Davis]

Should there be a major testing regime in place where the whole population is tested and should that be a prerequisite for us coming out?

Knut Wittkowski

Any answer with two letters will do: No.

Interviewers [John Kirby, Libby Handros and Lee Davis]

So. [Laughs] Can you describe why testing is not productive?

Knut Wittkowski

Testing doesn't stop anything by itself. Testing could give us, if we do antibody testing, not testing for the actual virus, if we do antibody testing, we would actually get an estimate of how close we are to herd immunity. That could be useful. But testing for people who are infectious means they probably have already been for two or three days, meaning for half of their infectious period. Now they are being tested positive, what are they supposed to do? We are already having social distancing. They can't do much more than what they're already doing. Testing for respiratory disease is neither necessary, nor effective.

Interviewers [John Kirby, Libby Handros and Lee Davis]

You mentioned earlier that you have asthma and I'm guessing you're over 40, are you at all nervous?

Knut Wittkowski

No.

Interviewers [John Kirby, Libby Handros and Lee Davis]

Why aren't you nervous?

Knut Wittkowski

Okay, we don't die of the virus, we die of pneumonia. So, if we have the virus, respiratory disease, once the body has created antibodies, the immune system has created antibodies, the antibodies or the immune system is killing all infected cells which destroys much of the mucosa, and bacteria can easily settle on that destroyed mucosa and then cause pneumonia. And it is the pneumonia that is killing people, if it's not treated. I had a virus, whatever it was, maybe it was ... who knows? ... about three weeks ago. And my physician gave me the antibiotics I should take if the disease gets better and then gets worse because that is a sign of pneumonia and then we have to treat the pneumonia.

Interviewers [John Kirby, Libby Handros and Lee Davis]

And pneumonia is what's treated with antibiotics.

Knut Wittkowski

Pneumonia is what's treated with antibiotics, not the viruses.

Interviewers [John Kirby, Libby Handros and Lee Davis]

Okay, so you feel that you may have already had COVID-19.

Knut Wittkowski

Okay, at the end of that experience, which reminds me of [Albert] Camus' [book] *The Plague*, if you ever read it, you will see lots of parallels, unfortunately. So no, I am not scared. I may have had it like many other people who had a mild flu like I had, or had no symptoms whatsoever. That is the normal thing happening to 70% of the people in the end, I mean, even 75%, and it is the remaining that get ill and need treatment. And they should seek treatment as early as possible, you shouldn't wait and it's definitely helpful if you have health insurance.

The problem in cities like New York is that too many people don't have health insurance. And if you don't have health insurance, you're hesitant to see your doctor. And if you're hesitant, you see the doctor too late. And if the pneumonia has already progressed and you see a doctor, it's too late too for antibiotics to be effective, and you may die. The best way is to isolate if you're old and fragile, and if you get the disease see your doctor as soon as possible.

Interviewers [John Kirby, Libby Handros and Lee Davis]

75% you say won't get any symptoms, maybe even 80%, or is it more? Do we know what that rate is right now?

Knut Wittkowski

We don't know what it is right now. For that we would need to do antibody testing and very wide antibody testing. However, we already see the epidemic declining and that is a sign that we have at least a substantial proportion of people who are immune. It may not be enough for herd immunity yet, we may not have reached the 80% that we need, but we may have 50%.

Interviewers [John Kirby, Libby Handros and Lee Davis]

And so, what do you think we should do at this point? Should we pivot to what you suggested earlier, or is it too late for what you suggested?

Knut Wittkowski

It's difficult to tell, it may be too late., it may not be too late. The problem is, if we are artificially keeping the number of infections low among low-risk people like schoolchildren and their parents, we may not have reached herd immunity yet. So, if we are stopping [contact], we may have an increase in the number of new infections. That is the downside of starting containment. We should not believe that we are more intelligent than Mother Nature was when we were evolving. Mother Nature was pretty good at making sure that we're a good match for the diseases that we happen to see virtually every year.

Interviewers [John Kirby, Libby Handros and Lee Davis]

But this is a pandemic.

Knut Wittkowski

It is a pandemic—like every flu, every year.

Interviewers [John Kirby, Libby Handros and Lee Davis]

Is there anything else you want to say about this? What's been aggravating you the most or what would you like people to know?

Knut Wittkowski

I think people in the United States and maybe other countries as well are more docile than they should be. People should talk with their politicians; question them, ask them to explain. Because if people don't stand up to their rights their rights will be forgotten.

I'm Knut Wittkowski, I was at the Rockefeller University. I have been an epidemiologist for 35 years and done modeling of epidemics for 35 years. It's a pleasure to have the ability to help people to understand, but it's a struggle to get heard.

Interviewers [John Kirby, Libby Handros and Lee Davis]

Great, wonderful. Thank you. Yeah, shake your hand.

Knut Wittkowski

Good work.