Dr. Saladino (00:00:23):

three two one. We're live and thanks for coming on the podcast my friend. It's good to have you back. You know, for everyone that that may not, this may be the first time they're hearing or seeing you on the podcast just so they all know. We did an amazing podcast primarily because you are an amazing individual, uh, on my show a couple of months ago, which in which we talked all about cholesterol and that certainly has implications for what we're going to talk about today. But if people want to hear that podcast, I would recommend they go back and listen to Iver's first podcast that we did together because that one is one of my favorite ones that we've ever done. I so have appreciated all of the work you've been doing throughout this coronavirus pandemic craziness because of your perspective as an engineer and the way you look at the numbers for people who aren't familiar with you, just tell us a little bit, a little bit about your background and how you like to think about things because I think that's so critical for, you know, really coherent, intelligent analysis of what's going on right now.

Dr. Saladino (00:01:22):

And I've, like I said, I've so appreciated your perspectives.

Ivor (00:01:25):

All right, thanks Paul for those kind words. Yeah. Well, just background without getting into the cholesterol and all that stuff, that's, as you say, it's already there, but I've spent around 30 years as a biochemical engineer. I was always highly technical, mathematical, and when I went into my career, I've spent 30 years in management and technical leadership positions in complex part manufacturer, high volume, various industries, medical device and electro fluidic devices. But the thing was I always led teams and problem solving, complex problem solving. I'm probably the biggest one I ever did was a few years ago. And interestingly, a lot of them are a little like Corona. They don't involve humans, but they involve many interacting causes, very complicated. And sometimes a six month lag between the factor that causes the problem and you've shipped all the product, maybe millions of products into the field, and then the field collapses.

Ivor (00:02:24):

But it starts slowly and then the collapse increases and you got to decode the whole thing. And the biggest one I've led, uh, ended up being around $200 million in cashflow was lost. So let's put things in perspective. This is not small stuff. And the interesting thing is Corona is very like this. It's highly complex. There's many factors. There's one virus or strains, but there's many, many factors that decide whether you are actually impacted or you're not really impacted at all. There's a lot of root causes for impact. There's lag times infection to symptoms, symptoms too death, sadly, if that occurs, and there's gone all exponential spread of issues throughout millions of units. So the funny thing is when this thing started happening, I, I intuitively but was reading it very quickly, but then I waited until I'd actually analyzed it reasonably before being spoken. But I got a lot of pushback and all I was doing was talking about the data. Hey guys, look at the trends, look at the shape, look at these inconsistencies, these distinctions between here and here. But I'm doing what I do naturally. But it appears 99.99% of people out there, and you've seen the media, it don't come natural to them.

Dr. Saladino (00:03:42):

There's certainly been a lot of pushback toward me and you and anyone who's questioning the status quo right now, which is what's so interesting and it's fascinating for me. The majority of the people that I have previously shared ideas with tended to think similarly to the way that I was thinking, which made

me feel good. I was like, okay, I'm not completely off base because a lot of the, when this whole thing started, I just felt strange about it. I thought, this doesn't make sense. Why are we doing this? And we're gonna get into all of this today. Two lock downs make sense? How do they compare with social distancing? What are we seeing with numbers across various countries? What do we think about the are not, what do we think about the infectivity? What do we think about the case fatality rate? Is it accurate?

Dr. Saladino (00:04:22):

And so I had to question myself thinking, my goodness, I'm a doctor. If I say something, people are going to interpret it as a doctor saying this is irresponsible and my harming people and my leading people astray. But I too had to really try and be authentic and honest with what I was feeling. And it's been a struggle the last eight weeks. But I think we're coming out of it. And I can say at the end of all of it that I really believe strongly that the things you are saying are very right and that that a lot of my suspicions were not completely wrong. And that makes me feel good. Not because I want to be right or because I didn't want to be wrong, but because I wanted to kind of trust my gut on this a little bit. So it's been an interesting experience for me too.

Dr. Saladino (00:05:07):

But the amount of vehement pushback has been enormous. And I think that there's a lot of people who don't like anyone questioning the status quo even when we are all just trying to help, you know, everyone lived a better life. Everyone live a more rich life and no one is advocating for deaths and no one is advocating for money over lives. We're all just trying to understand how to save the most lives or how to move forward in the most intelligent way. So crazy stuff. What, take us through this. I mean, what have you seen over the course of the infection? You have some amazing videos on your YouTube channel, which I would encourage everyone to check out. You've been doing these updates throughout the coronavirus thing, but give us your overall perspective on where we've come from and where we are now.

Ivor (00:05:52):

Yeah, well, full, big story. So really starting off, uh, I was looking firstly really at the Italian data and the initial kind of where Europe got hit because China was always questionable, you know, we weren't really sure and when at least started getting hit, I was looking at the numbers and it seemed to me that they hadn't prepared, I had been saying publicly that this is going to calm. Right. It leads seeing cases, so why aren't we protecting the most at risk? Like the care homes, the elderly, you know, using masks. Early on I was horrified when they said you don't use masks and that made no sense to me. An engineering friends of mine that went ahead and ordered masks early in February. Right. That's how far ahead they were looking. And I couldn't believe they were telling us not to use mass and then they were doing nothing.

Ivor (00:06:48):

Like they weren't doing anything really anywhere. So when Italy began to ramp up and Sydney began to look really bad, then they began to react and do stuff. But I figured if it's in Italy and the stories are coming out of it, the Alps and I knew in Dublin a lot of school kids and everything. I've been over in Italy, you know, and skiing and all. And there was initial stories of cases and symptoms and I said if it's got an R value of three or more way more than the flu, and there's a lot of asymptomatic, most likely because it's the groan of ours. It's pretty TOEFL and on older and people and sick people, but it's going to spread

like wildfire. So I had to watch it going right up to marriage where they didn't really do much and I figured it has to be all over the place.

Ivor (00:07:33):

Italy had gone right up. Older countries are reporting it. And for me what happened was rather than taking good distancing measures from early on, or they're effective and flattening the curve, they started very late and they began to think three, four week lags. So we're starting so late, we're going to see a home anyway, you know? And then of course, and just taking a bird's eye view when the deaths started really happening in each of the countries, then they began to do lockdowns and that's where I said, hold on a minute. You know, the distancing will make a difference. The lockdown because it's going to be so prevalent already, it's not going to make much extra difference and now you're going to get all the negative impacts with no payback. You know? So that was kind of a bird's eye level view of where I went through, it was in March, I interviewed, took our gold rich and he had done even deeper analysis than I had of the Italian figures and showed that there was a spike early on, which is the natural pattern for viruses in or zero or zero if you will, or, or, and then it curved down and it was right down the down slope.

Ivor (00:08:40):

And then they did a lockdown. But it didn't change much after the lockdown if you allowed for the lag periods, infection to symptom to death. So the numbers were telling us what we felt that the lockdown was too late and wouldn't add much more. And now the interesting thing now is, and I don't know if people realize this, so talk our sadness. I said and several other mathematician friends I have around the world, Satish, one guy pointed out that the rate of increase of infections correlates exactly with the rate of increase of doing tests, which kind of tells you right since then, what have we got? We've got the orthodoxy, the media and all of the experts telling us stuff lockdowns are great and we need to keep going. None of them that I can see have done any analysis of the data. It's just faith-based.

Ivor (00:09:35):

However, if you ignore me, ignore talker, ignore you, ignore all theirs. That's fine. A Oxford professor who's head of the center of evidence based medicine, right, that's not fringe. Him and his team two weeks ago analyzed the UK data and showed that the peak of deaths was the 8th of April and the peak of infections was earlier and that the lockdown didn't change the curve, which was already coming down from social distancing. A professor in Stanford who's a Nobel Laureate, saw this phenomenon in the Chinese data. Then you verified it in the Italy data and then verified it in the other days. So that's two professors including a Nobel Laureate. And then we have a professor of mathematics in Israel and he did the analysis and said, look, I don't know why because I'm not a virus guy, but mathematically the lockdown didn't add anything. And a week later, um, where was I saying it was Israel, the Israel prime minister, a week later, which is a few days ago, announced pretty much the end of the lockdown and kids can even see their grandparents and I presume they're going that they trust him because how can you have a lockdown which in Israel was very severe for five weeks, still have loads of prevalence of the virus and then stopped doing it.

Ivor (00:10:56):

I mean, what did the lockdown do? If you can just stop doing it and you're not worried about it going up. Exactly. So I'd say there's myriad points now, not proof, but Marriott points on many professors who are

saying what we're saying that the lockdown doesn't add to smart distancing, but no one wants to hear that.

Dr. Saladino (00:11:19):

And as I've heard you say eloquently, and as I've been trying to communicate as well from the beginning, both social distancing and the lockdown were intended to quote flatten the curve. And the point of flattening the curve is to not overwhelm the glass ceiling of healthcare resources. Now, health healthcare resources, we're not overwhelmed in the UK. They were not overwhelmed in Sweden. We're going to talk about Sweden today. They probably got kind of close to being overwhelmed in New York city, but I don't think they were overwhelmed in New York city. And so

Ivor (00:11:51):

as you said in one of your videos, the

Dr. Saladino (00:11:54):

ideas around this lockdown seem to have shifted into people thinking that somehow it's going to beat the virus or somehow the lockdown is going to change the absolute number of people who will eventually be exposed to the virus. So much of the media messaging right now seems to be so fear-based and the underlying message just appears to be that somehow the lockdown is going to prevent you and I and the people we know from getting the virus eventually, which I just don't think anyone reputable is claiming. I think everyone is accepting that the absolute number of people who will be exposed to the virus is almost unchangeable. But the point of the lockdown was to not overwhelm the health care system. And if we have not overwhelmed the healthcare system, if infections are declining or things have gone across the top of the peak, so to speak, or are declining, that now is the time to end the lockdown, which may not have made much sense in the first place.

Dr. Saladino (00:12:54):

Like you're saying, like Tucker saying like any mathematicians are saying, because we were probably already behind the peak of the curve and in that case I think everyone is just kind of living in a fairytale and everyone is confused about what we're trying to do right now with coronavirus and what the reality of a respiratory coronavirus is. The extent of the virus spread, I believe is much wider than we then were being told, and I think you've talked about this as well and in absolute terms, I can't see a situation in which the majority of humans on this planet, maybe not 90% but at least 60% in the next year, get exposed to this virus. Do you agree or disagree with that? Because the way that I think about this is that this global pandemic began with 20 cases in China when the world was open and everyone was traveling and moving a respiratory virus is very contagious and perhaps that speaks volumes about the are not about the transmissibility of this Corona virus, but if a global pandemic began with 20 cases, how can we believe that it's not going to continue to spread no matter what we do?

Dr. Saladino (00:14:03):

Certainly when the lockdowns end and when the social distancing ends there, there would, there's going to be more than 20 cases left in the world. How do we believe that this is going to change anything about the absolute numbers of people exposed to the virus? Do you think about this the same way that I am?

Ivor (00:14:19):

Yeah, essentially, and we're joined by many epidemiologists, but there are, they're not welcome on prime time and that's essentially it. Unless you're a scaremonger, you're not welcome, which is fascinating, but the Swedish guys, certainly that's the way they see it. There is no running away and hiding in the basement from the virus. You strive to protect the at risk, the healthy keep working because there are extremely low risk and it will inevitably go around anyway, but the key thing is how do you protect the at risk and was saying to six weeks ago over 65 medical conditions over 75 maybe without even overt medical conditions are the at risk group. What strategy would protect them until there's a better prophylactic or a better treatment? I think vaccines are so far out they don't, they don't change at all. Our our near term strategy anyway, so, Oh, the only argument you could make is if you flatten more, you might have people who get to a point where there is actually a really good treatment.

Ivor (00:15:27):

It's unlikely because we've been dealing with these types of viruses for 30 40 years and treatments are just really tough. What's more? Vaccines are really tough to, they've never been able to do one for a girl now, but you could say if you push it out then some people may benefit from a future treatment bullet. The problem is that social distancing would do that. You don't, you don't, like you said you, you, you, you do a lockdown. If there's an absolute catastrophe and your hospitals can't cope, but we know that even Sweden with no lockdown, do you know they only reached 60% approximately after ICU capacity, they had 600 beds. They jumped it up in a week or two to a thousand thinking it was going to be really bad. And they never really went over 600 I believe. And they've been coming down and usage for the last three weeks.

Ivor (00:16:20):

So, so social distancing would have done that and spread out and protecting the older and the at risk cohort for maybe a treatment that might come in the next few months. It would have been a reasonable measure. But, but I agree, this idea that you can hide from a virus. Now I will say one extra thing though of all I got papers and I checked this out. There have been many, many Corona viruses and they're calling this one the novel coronavirus and the word novel is made make you think, Oh, but the reality is it's just a different one. All the others were novel when they started. Right. But this is the latest, so it's not, yeah, but, Oh, it's novel. Uh, and I said to someone, it's only a novel cause it's the new one. But the others were, no, this one is much more transmissible about.

Ivor (00:17:10):

Yeah, I know, but it's just the latest one is more transmissible and it's more severe, but it's still a coronavirus. So, uh, I looked up the previous coronaviruses and without exception, the literature on the, uh, experiments on multi-year studies on humans. I have one with four coronaviruses and they're extremely seasonal. So the thing about them is more seasonal than the flu. There are tight from November to April in the North, in the Northern hemisphere, and they fade away in somewhere without exception. There's no particular reason to believe this would be different. And the only thing is if they fade a lot in the summer, well there's a couple of things, a inappropriately credit will be given to the lockdown for an apparent fade that's sustained, but a lockdown couldn't have done that, but they'll still give crab those. The other thing is if you held out with great distancing to summer, the virulence on everything would fall down and maybe give people a bit more time to get a treatment. But you know, it'll come back and winter anyway. If you take advantage of the summer and you don't let people get it now they're going to get in winter anyway. I dunno. It's,

Dr. Saladino (00:18:24):

it's a little crazy. So I want to screen share a couple of things. Um, this is an article from, uh, spiked, um, by a professor of, uh, I believe political science, someone else that likes to look at the data. There is no empirical evidence for these lockdowns people can read this online. Here's the link. I'll try and link to it in the show notes. And basically the conclusion it is as we've been saying, um, that if you look at the lockdowns and you look at the number of cases in the States that locked down quickly, you look at the number of deaths in the places that locked down quickly, um, that there really is not a clear difference. And there was an epidemiologist in New Zealand who got this data and created this model, which you can find at this website. And this looks fairly complex.

Dr. Saladino (00:19:20):

It's a, uh, basically I'll just let the watcher on YouTube or if you guys are listening to this on iTunes, if you want to watch this snippet on, uh, YouTube, you can see this model. But this model, uh, we'll look at the, um, the comparisons in coven, 19 deaths per million on the Y axis per density per square mile and state under lockdown is a, is a bullying measure here across the third axis. And you can see that basically the takeaway from this one is that there, there is no difference between, uh, the coven 19 deaths per million, whether there was lockdown or not. The real correlation comes from whether there was a, um, whether there was a difference in the population density of the state. And you see New York is out here. It's a real outlier because of the high population density. So density correlates with deaths per million.

Dr. Saladino (00:20:21):

And I think we're seeing that across the world. But being under lockdown or not has really no correlation. Um, with the coven 19 deaths really. And again, that is data from this article and spiked from this uh, professor who wrote this article and spiked and then it was made into that, that visual model by the other professor there. And I heard you talk about this with um, Sweden. I have that, um, that most of the deaths were in Stockholm, which is where there's the majority of the population and density. I think in the United States, the places where there was higher density, new Orleans, Chicago, New York city, New York city with the super spreaders, those are the places that were the hardest hit and that I've always kind of questioned the validity, the sensibility of doing a homogeneous lockdown across the country when there's a very heterogeneous spread of the virus. And I don't think we needed to do a lockdown now at this point it's water under the bridge. But I think these types of thinking help us, number one, know how to move forward from this. And number two, give us some indication of what to do as you're saying when this comes back in the fall and it probably will.

Ivor (00:21:33):

Yeah, I mean if it behaves like any curl Novaris in the past and epidemiologists have said this and virologists again, they're not popular in the media, um, for some reason, but the reality is that you would expect a proper crisis management situation would have geographical and local aspects to it. So based on the rate of spread, you would have more severe measures if that local areas hospitals were overloaded. Um, but otherwise you'd want an element of the normal curve to go through its normal, you know, progression as so you wouldn't have problems later in winter by over suppressing. You would think that will be logical. Like California has very little impact, but I'm hearing that they're still locked down like crazy. But why then New York did no measures allowed the Sobeys to run with fewer cars. So they actually got very packed. So you got a high viral load and probably a higher death rate for per person infected on average.

Ivor (00:22:36):

And they did nothing when it was spreading like wildfire and then when they blew up, they started locking down, but now Cuomo was saying 65% of all the cases in the last week or two are from people who are genuinely staying locked down at home. This, this, there's a barn door here. I said many, many weeks ago. It's a high transmissible virus that we know the early cases were in January and now they're saying December in UK, France and in Italy, maybe November. We knew weeks ago that it had been spreading like hell at lockdown is for very early on when you know there's only a few people and you track and trace and you get everyone to step back. If there's a really serious fires and maybe you actually control or some containers, that would be in a very bizarre situation with a, with a Bluebonnet plague for instance, you'd be doing that, but when it spread like wildfire and then you do social distancing and that changes the curve and keeps your hospitals under control, why do you add a lockdown?

Ivor (00:23:46):

Just because with a three week lag, now you're beginning to see people dying older and infirm. Mostly because you see them dying. You're now doing a different strategy because you're emotional. This is tough stuff, which you should be acting on the logic to help help the people not acting on fear and Oh my God, it's just not logical. It's not being run like what myself or Toker would see as proper crisis management. You need cool heads, you know, for the bathroom, for all of society to do it properly. That's what's killing me the last few weeks. It doesn't feel like that at all. So Ireland for instance, has come around the curve. Most of Europe has come around the curve. Sweden with no lockdown has come around the curve and they're coming down like three or four weeks. Their ICU is coming down and their debts are coming down and 12 European countries are releasing lockdown and they're not really seeing an increase.

Ivor (00:24:45):

Maybe cause we're coming into the summer. And um, an Ireland came out with a four month plan and the lockdown is being phased out over four months. That brings us right through the summer and I'm taking it into the right into the winter. Mmm. I'm just thinking, what am I missing here? Because with Ireland's place on the curve, having turned the curve Goodall like the others and Denmark having sending kids back to school a couple of weeks ago in Germany similarly and Israel I think I mentioned already, is completely taken away. Nearly all the lockdown and they're, they're putting in a formal plan. We're the lockdown really for the next month or two. Doesn't change a whole lot, like five kilometers or limits from your house and, and bars and restaurants don't really open until next September. And I'm thinking they must have some logic.

Ivor (00:25:41):

What is their logic? I honestly don't know. I'm one person told me who I trust as a, a great manager and a technical person, primarily a manager, but he's no slouch in the technical and engineering. And he said I ever, I think it's just that they were terrified by the models. Their terror was fueled by Italy. Their terror was stoked further when the death home did happen in their country, like in Ireland. And the, and, and every day the figures are coming out and the politicians are also, their ratings have soared on every evening when they go on television and say, Oh, we've saved lives and Pank you for locking yourself down. Everyone's supporting it and they look like leaders and they're probably a bit addicted to that aspect. So if you put it all together, the risk of something, infections going back up again and they'll be blamed versus the adulation for what they're doing by locking everyone down.

Ivor (00:26:43):

It's a heady mixture. It's all upside for a politician to play it safe and stay locked really slowly releasing. And the problem with that is it doesn't make sense, but it suits them and it keeps them safe. And you would say them. What about the economy? I know people in Ireland, artisan food producers, you know, making the most incredible meats, they're destroyed. They've run out of cash. Corporates will mop them up. We've got 200,000 unemployed. They're paying billions and unemployment to the lockdown. Well, the politician doesn't need to worry about that. And someone will say, what do you mean? How could a politician not be worried about the economy because they know he can blame it on a small piece of RNA. They've got the ultimate scapegoat in three months. If it's a mess on our data's true, the roof and we're beginning to recover, who's going to blame them? They were praised for locking down for saving lives. Uh, the economy wasn't our fault. It was the naughty virus. So do you see what, uh, what's that phrase, Paul? You might know it. It's not double jeopardy, but there's the thing about jeopardy where you're, you're perversely inversely incentivized. It's a,

Dr. Saladino (00:28:02):

I don't know. I don't know which one you're talking. Yeah,

Ivor (00:28:04):

it's an insurance site tank. Because like if you insure yourself, but it makes sense for you to crash your car cause you'll make out like abandoned it stuff kind of phenomenon. Right now, everything, everything driving them seems to be not the logical crisis management thing. It's fault we're seeing, but it's all upside for them. What all we're doing it wrong. It's, sorry that was around. But that, that's the phenomenon and the meat

Dr. Saladino (00:28:31):

and I, I agree with you. Yeah. It's a political issue rather than a medical issue at this point. It's not a scientific issue. It's not an epidemiologic issue. It's a, it's a political issue. Um, I'll just share a few more things on the screen. Uh, April 26th, uh, opinion in the wall street journal to lockdown save lives in many places. Data says no. Again, this is a little bit old. Uh, we are, um, recording this on may the eighth, just so people know, but this is a similar conversation from this uh, author saying, just as we said with those models that I showed earlier, there's really no, no change. Um, another New York times editorial. Again, I'm just sharing opinion columnists here, but I think it's valuable to know there are other people speaking out against this. This one is from April the 24th. The title is America shouldn't have to fly by play by New York rules.

Dr. Saladino (00:29:22):

National lockdown is bad medicine and worst politics. Look, there's politics. And then a couple of very interesting articles. So I don't know if you saw this one. The title of it is, yeah, full lockdown policies in Western Europe. Countries have no evident impacts on the coven 19 epidemic. This is done, uh, by some data scientists at woods hole oceanographic Institute and um, in British Columbia and people can find the paper, but basically they say here that extrapolating pre lockdown growth rate trends, we provide estimates of the death toll in the absence of any lockdown policies and show that these strategies might not have saved any life in Western Europe. We also show that neighboring countries applying less restrictive social distancing measures as opposed to police and forced home containment experience. A very similar time evolution of the epidemic. And as we've been talking about, I've, or this is pretty staggering when very smart people, very smart minds can come to the same conclusions from a mathematical perspective.

Dr. Saladino (00:30:35):

And this is not, this is not to say, Oh, lockdowns didn't work. Not a big deal. We won't do it next time. This is to say lock downs didn't work. And actually they were harmful because of suicide rates, because of the economic implications of, because of all of the people that will die because of those things in connection with lockdown. So this is really the blood that will never be on the politician's hands. It's very easy to, um, to just, this is invisible blood and it's just like you're saying, um, blood that is shed in a hospital if, if an ICU is overwhelmed, yes, if people are dying from coronavirus that is very deep, dark red blood that is going to be all over the hands of the politicians. But I believe, and I think you do as well, that there is more blood that will be shed in the longterm because of the policies that were made.

Dr. Saladino (00:31:23):

But it will be invisible blood. It will be transparent blood that these politicians will never be known to be connected with because who will be able to account for the thousands of deaths that are associated with suicide. I saw an article in Australia that the suicide deaths in Australia as a, as related to this current lockdown will outstrip, will, uh, will be greater than the coven 19 deaths and, and who will be able to even account for or attribute the deaths related to poverty, unemployment, substance abuse during this epidemic, during this pandemic. So there will be blood that is on the hands of the politicians and they're gonna, they're gonna come out looking like roses. And then there will be a mountain more or just voluminous volumes, more of invisible blood that will never be attributable to these people. And I think that that was the political decision that was made. If that's making me sound like a conspiracy theorist and so be it, I certainly don't. Don't mean to be,

Ivor (00:32:17):

well, well, no, Paul, I mean conspiracy theories, you can identify conspiracy theory quite easily if it's a logical, uh, Ockham's razor. So let's say the nine 11 attacks were done as an inside job by the CIA, right? So they got all explosives people to go in for moments and drill the columns and you know, you know it, while it doesn't make sense, but we use that isn't a conspiracy. It's just political reality in the modern world. Um, this happens all the time. It's just we're witnessing a once in a lifetime surreal example of it I think, and I don't know about suicides and I don't know about how many conservation items and there's heart attack victims, multiple deaths in Canada cause people are not going in because of the situation. If you integrate the area under the curve for the next six or 12 months as, as the Corona passes away and which is clearly doing at the moment, um, it's going to be a huge number and it almost certainly would seem to stand to reason it's going to be bigger than these debts.

Ivor (00:33:23):

Now I'll just say something, actually I might share something briefly because I realized I got look at all cause mortality in Europe now. Okay. So basically I was wondering, well all cause mortality is the only thing you control because there's a lot of talk on it. I think it's not conspiracy that there's been a lot of doctors saying they're being told, even if you think that might be Corona, call us. So look, I'm not making a judgment on that, but it's very hard to know. But we do have a spike in all cause mortality in Euro Momo, which has tracked for many years the overall mortality across 20 countries of Europe. So I was sent this because I didn't know it existed and I says, right. So what I looked at was I picked 2018 as an example. And what you've got here is under 60 fives on over 60 fives and they take the standard season in the leverage of 20 years, I think, where more people die in the winter, that's low vitamin D and you have more heart attacks and stuff in the winter and you know those stuff.

Ivor (00:34:29):

And in 2018 I integrated the area under the curve of the excess deaths relating to influenza and respiratory. So those around 20,000 for under 60 fours and around 140 pounds and for over 60 fives. So in Europe, those around 160,000 excess deaths in the flu season point [inaudible] in 2018 now you might ask, you know, how big, how big was that? Talked about? Well, I've checked with people and I had no idea. I know one, I know I can't find anyone who even knew that 2018 was the challenge. Now over here, I'm not going to try and integrate the area under the curve because these are emerging curves, so I ain't going to do a really harsh comparison and this is a little out of date. I'm going to count all of the Corona deaths as the access. And I know a lot of them might not really be Corona, but this is, this is a, I'm being very fair.

Ivor (00:35:35):

So it looks like around 105,000 further, 20 Euro Momo countries, 0.033% so right now we've got 160,000 excess in 18 which no one even noticed. And we have one 45 and from the look of the curves, I'm not making a prediction here, but it looks like we may get up to four 50 by the time the curves currently in European countries fade out. That's, I'm just making a guess. So maybe at Lando for this season being three times worse than 18 but I think we've done a little more than three times what we did in 18 I think that's fair. No conspiracy. I mean look around, we've locked down the whole of European economies, so that makes no mathematical sense. Now if this went on and on and on and Corona kept up the current rate or higher for 12 months, millennials say, wow, this is much bigger.

Ivor (00:36:41):

But like we said with the seasonality, and especially examples like Sweden, Sweden are in the middle of the pack of Europe in terms of impact and Sweden are not really locked down and they're accepting that everyone's going to broadly gaseous or 20 30% which kind of means everyone in a sense. So if it does end up being, you know what I mean? It's three times 2018 maybe. What's what's going on? These are just numbers. No one can accuse me of being undermining us are not caring. I have elderly relations. I've warned them about the key risk factors. But you know, my mother is 80. I've told her how this thing works, what the risks are locally. She's very slim insulin sensitive, a great metabolic markers. So I told her if I was a diabetic at 56 years of age, I'll be more worried than you. But I have people too and I've always cared and people know I care. I'm eight years fighting to save lives. Mark sees chronic disease, but equally I have to look at the numbers and say what exactly is the game plan here? I think that's fair.

Dr. Saladino (00:37:49):

I think it is too. And I, I think that it's interesting at this graph that you're sure you're showing to see that in 2017 there was a, uh, some sort of a deviation from the average is also in terms of all cause mortality. Every winter there's this, at least in 2017 and 2018 and 20, 19, not quite as much, but 2018 and 2017, there were deviations from all cause mortality. This, this season looks to be different and these curves do look steeper and will probably be bigger. And, but you bring up a fair question, which is how much bigger, and as I talked about in the podcast that I did with Kirk parsley, we won't know until next flu season whether this will sort of even out and he brought up this very good point if if more people uh, lose their lives to Corona virus this season, less people may next season because at any one point in the population of countries of the Western civilizations of the world civilization, there are people who are susceptible to respiratory viruses.

Dr. Saladino (00:38:52):

And what you and I are both asking and getting vilified for are these very hard questions, which is what is the appropriate reaction to this? People die every day. And this is not to be callous or insensitive. We all accept risks driving our cars. We all accept, I accept risk surfing, right? You accept risk walking across the street in, in anything. We all took risks and we, I just hope that you and I can add some sane voices to this and say, Hey look, let's remember that the media really is just a fear based message right now. I've heard you on your podcast. You did a great one with Paul Mason that I want to share some of the data that was talked about in that podcast as well, but he did a great one with Paul Mason and which you guys went into the the connections between coronavirus risk and obesity coronavirus risk and insulin resistance.

Dr. Saladino (00:39:42):

I did a podcast last week with a CML whole tra. We talked about that as well and that has never been talked about in the media. It's all this fear based messaging and what we're looking at here are just numbers and I want to get into some of these risk factors more and break it all down for people so that we can totally change this conversation so that it's not so fear and hysteria based because as you've said multiple times in your messaging throughout this, this pandemic, this is really a disease of people with comorbidities and people who are elderly. That's very, very clear at this point. Sure. There are a few outliers and the media is going to tell us more about the outliers because it wants to scare the heck out of us. But I heard you say this on your podcast with Paul, like you have not seen any messaging in the media about these dark connections between insulin resistance and coronavirus and I thought the same thing.

Dr. Saladino (00:40:33):

I was like, you know, I haven't seen anyone in the media talking about this, but it's a huge risk doctrine. So yes, there probably will be an increase in all cause mortality this year across the world from coronavirus. My suspicion, my hypothesis which could be wrong is that if there's a greater amount of deaths this year from respiratory illness, there will be a smaller amount of death next year because this is a little bit more of a very old virus that is, you know, making those who are just a little bit, you know, it's a little bit stronger. So it's going to take those who are susceptible away from us, which is tragic. But this is the way of life. And then the empowering conversation becomes like you're having with your parents like I'm having with my parents who are 69 years old, 70 this year.

Dr. Saladino (00:41:17):

How do you empower yourself? How do you become strong in the face of any illness? This isn't just like we've said from the beginning. This is not about hiding from a virus. This is not about cowering in your basement. Like you said, Cuomo is saying 65, 66% of new Yorkers who are new infections were in their homes doing social distancing. This is not the answer and it's going to have ramifications in terms of economic collapse, depression and substance abuse. This is not the answer. This is the wrong conversation. And you know what's crazy is, um, I, I tweeted something on uh, Twitter months ago and I said the conversation around coronavirus is all wrong and I got crucified for it. I should repost it. Now I got crucified for it. And I think that people want it to make me look silly and say, how can you not talk about social distancing?

Dr. Saladino (00:42:05):

How can you not talk about a lockdown? That's the key answer here. And I said the conversation about coronavirus is all wrong. I tweeted this probably in the end of February, maybe even in the middle of

February I tweeted it's all wrong. The conversation should be about obesity and metabolic disease and of course you will want to twist your words and make it sound like I'm saying the carnivore diet is going to cure coronavirus or some bologna like that. But now more than ever, I believe, as we're saying now, the conversation around criminal virus has been all wrong from the beginning. And not to say that social distancing can't be helpful. Not to say that we shouldn't understand who is most at risk for coronavirus and protect them. Your parents, my parents based on age, but let's think about comorbidities, but who has actually had the conversations in the media who has had the bravery, the courage and the media to talk about the real risk factors? I don't think anyone,

Ivor (00:42:56):

no, the uh, the occasional article touches on us. Oh, well, black and Asian minorities in the UK have 3.4 times the risk and then they try and blame it on impoverishment when of course it's insulin resistance, some vitamin D severe deficiency, but no, none of the media even covers the causes. They just mentioned the correlation and then dismiss it to talk to talk about deaths again and death and death and there's just talking to death all the time and it loses its currency. But you know you mentioned, yeah, it's mostly old. I mean Boston IO was used. Boston data is incredibly well presented on their government website. They got a couple of thousand debts, big deal, and they had 500 checked and the average age was 81 a 97.5% had one or more medical conditions and you can just see below 65 it faded to a few people out of 500 now if you've got millions of people affected, the tiny percentage who are younger will still be a sizable number.

Ivor (00:44:00):

You know, there'll be thousands around the country or the world, but you can't save everyone from a virus. It's absurd to think we can. And you know, one other thing I'll just say before, I forget, a really smart guy I know who's a relation to mine. He fought with me on cholesterol. He said, you can't be right on all the doctors on everyone is wrong about cholesterol and the same at five and the same at everything on meat. But butcher who says meat causes cancer? She's always fought with me and he's a cynic and he's also quite Orthodox. He rang me two days ago. I'm not joking, Paul. This is a true story. And he said to me, Oh yeah, yeah, yeah. And he said, is this thing kind of a load of crap? Now they're his words. I'm not saying this whole things. They're his words.

Ivor (00:44:45):

Oh, nice. Have you been watching my stall for my stats? No. I said, well, how did, how did you figure that out? Why do you figure that? And he as well. I noticed in the last couple of weeks, um, this is a pandemic and all, but I said, I don't know anyone who knows anyone or even probably knows anyone who's died or even got very sick. So I figured out, hold on, where is it, where is the pandemic? And I explained to him 60% in Ireland are nursing homes, so you're never going to see them. And the other is are mostly elderly. Ah. And I said, is that it though? And you know what he said to me that, and he said, no, no. There was another thing that clinched it for me. And he said something I knew that I brought up weeks ago, but he thought of us, he likes shopping and there's still food stores open obviously, but not many because we're locked down and he goes out a lot to them because he, he's still got home, you know, and he notice that there's even women in their sixties on all an older people working in a lot of our stores.

Ivor (00:45:42):

And he noticed over the last month or six weeks, none of them got sick in any of the stores, certainly not die, but none of them even got sick. And he asked a few of them and he said, how can we have a pandemic when the least lockdown people in the country by a country mile? Those people are eight hours a day with the great unwashed flowing through and we know loads of them are infected because look Cuomo 66% at home and he says, nothing happened them. So how can it be a big pandemic? And I says, well, you're right, it's an old person in from person are getting hit really hard and it's probably three times worse then 18 2018 and I showed them the stuff and I said, yeah, it's bad and it's tough. But he worked it out. And he's not scientific or technical, just logic.

Dr. Saladino (00:46:35):

And I think a lot of people are beginning to wake up to this pain. I think a lot of people are beginning to wake up to this now and again, it's not, it's not to be callous. It's not to be insensitive to those who are died because I know people who know people who have died, no one that I know has gotten coronavirus and suffered greatly from it. Uh, I did a podcast recently with my friend Kyle Kingsbury, and he knew people who had died from coronavirus, but I think that we're just trying to be honest about the risk and I think we should get into that. And I want to touch on a few of these pieces. Um, and I don't want to hold you too long.

Ivor (00:47:10):

Oh, no, no, that's fine. I just to clarify, yeah, I do know someone who knows someone who's in-laws had a parent die, but the person was in their eighties and they've been in the care home for a long time with many medical complications. So that's my network. But I've, you know, of course there's, there's a lot people suffering, but we have to keep in mind the figures I showed were 0.03% of people in Europe. And that's why you don't know, because they're older, they're generally got conditions and it's a tiny percentage. But anyway, yeah, yeah, yeah.

Dr. Saladino (00:47:44):

And that's what we saw in Sweden too. Um, and, and maybe we can get into some Sweden data as well in this podcast, but you've shown great stuff in some of your videos. And I've talked about this as well in my podcast and other podcasts that I've been on showing that the Sweden case fatality rate, or at least the Sweden death rate per million or per capita is in the middle of Europe. It's higher than Finland. It's higher than Denmark, but it's lower than it's France and Italy and Spain. And I believe it's your lower than the UK. I'd have to be checked that number plates on the only order of magnitude of all those things. So Sweden's death rate is not astronomically higher and they did not lock down. They did social distancing. So we can draw the distinction between what you call smart distancing, which I think is a great, a great adage or social distancing versus a full lockdown. I think at this point, most, uh, would agree or many, perhaps not all. I want to be open to all opinions. Many would agree that perhaps the lockdown is not something to continue and maybe it wasn't the right thing in general, but there are still people screaming at the top of their lungs on Twitter that if we stop this lockdown, we will lose millions of lives. And I just think, what are you talking like? I just don't think that that's the case, but that's crazy. And then there's even

Ivor (00:49:01):

grasp on, I don't want it to be patronizing, but they have no grasp. I mean a month or two a goal. If you set it cold, keep growing. It's fair enough. Fear it could grow. But what to be honest, the Italian days on the Chinese data, even uncertainty, the data we have now, it's showing that the same pattern almost

regardless of lockdown as exactly as you would expect for a virus. And that's it. I mean it's tough, but it is what it is. Which comes back to the other thing. What's that? Oh, I thought you wanted to share or you were going to share or some piece of data or,

Dr. Saladino (00:49:39):

well, maybe I can share some, I'll share something in a second. But that goes back to the other point that you can't hide from a virus. And I, I, I love what you're saying there. And I've seen the same thing, that the curve looks the same. The overall shape of the curve looks the same in, in many countries, regardless of their lockdown. And it's, it's just, it's quite striking. It's, it's very, um, you know, it's very eyeopening.

Ivor (00:50:06):

Yeah. People can talk about second waves and all, but the whole thing about people who got infected could get reinfected came out of Korea and Korea five or six days ago, came out with a worldwide announcement. They made a mistake. They had 260 people they thought were reinfected and they realized that they were dead virus fragments, which lasts the half life of the cells and the people is three months and they were looking at dead fragments. So they've actually stated now that that is not the case and people will not get reinfected because they will have antibodies. And this is like other, other diseases. Well, but that story is still circulating about reinfection and fears. But it doesn't seem to be true.

Dr. Saladino (00:50:47):

It's all fear-mongering. Yeah. The Korea Herald tests and recovered patients found false positives, not reinfection experts say, which isn't surprising at all because this is an RTPCR test, right? This is a test that is just looking for fragments of RNA in the posterior pharynx and is not going to tell us about the reinfection. But the media loves this story. They love it. So the other piece of data I wanted to share is this article. I don't know if you've seen this one. Uh, using ILA ILI is influenza like illness surveillance to estimate a state specific case detection rates and forecast SARS Coby to spread in the United States. Pretty interesting paper. Um, and what the conclusions are. Uh, here together these results suggest the conceptual model for the covert pandemic in the U S in which rapid spread across the U S are combined with a large population of infected patients with presumably mild to moderate clinical symptoms.

Dr. Saladino (00:51:50):

And so what they're saying here is that it's probably much more widely spread than we believe. And that, in my opinion, maybe a reason that number one lockdowns don't work. And number two that the curves all kind of look the same. That if we're seeing the spread much more wide than than we're being and we're expecting, then we'll see what happens in the fall. But if there are not for this virus is five or six for instance, then perhaps it's already moved through the majority of the population. Uh, I think many places are, uh, Sweden is estimating 25% of the population has already seen the virus, which will certainly slow the spread of the virus. I think the number could be the same in the U S as it is with influenza viruses. What's interesting to me, I'll just offer this piece. Uh, this question for you is, you know, I think, what do we think the influenza are not is between one and two, right? 1.4, 1.6

Ivor (00:52:46):

w I, I've seen figures of 1.3 actually pretty consistently. Well, it would be up to a little more, but this one are zero of course being the very start where where surges and I think this one is three but recently a

Korean or Chinese team of reassess and said three to possibly up to five point something and that's, that's at the very start when it first spreads out. But the chorus, what's happening is it's turning its curve and they are as falling down with within a month or two as it goes through its thing.

Dr. Saladino (00:53:19):

The art is always changing and there's been, there's been a lot of articles about that as well. Um, which I can share.

Ivor (00:53:27):

Well actually that's interesting because I've gathered, I won't try and share them. They're in a rough format, but guys, mathematicians have looked at Ireland's release staff from the government and it's clear that they are, came from three down to near one and leveled out before the lockdown. At the same applies in England, professor Carol Hennigan and the Oxford evidence-based medicine center. Same thing. Israel, same thing. The Koch Institute in Germany clearly shows the are coming from three down to near one, which is the Targus before they're locked down, kicked in. Um, Sweden have released that there are, are, is one now for around two weeks. So they've achieved an [inaudible] without a lockdown. Oh yes. This is the one I saw earlier today. Yeah.

Dr. Saladino (00:54:15):

Sweden teams. It's our number without lockdown. Some people are saying Sweden's our number is 0.8. Uh, so or they're, they're saying Sweden's is 0.85 with a smart smaller error margin of plus or minus 0.02 points. So they're estimating and they're estimating the UK is our number is 0.8 and Sweden's is point a five and the policies have been completely different across those two places. And you can actually find the published study, uh, Sweden estimate of the effective reproductive number on 29 April, 2020. Uh, I'll try and link to this in the show notes as well. It's the actual reproductive number of calculation that data that was released, um, from Sweden. But you've made such a good point. I've, or that the are not of a virus is, uh, is is going to change. It changes over the course of the infection when it's rising exponentially. That's one of the highest when it levels off, it's not being spread as much and now it's coming down.

Dr. Saladino (00:55:11):

So if the are not for these viruses, it's coming down. That's the most likely explanation I can hear. I can see for that is is that the virus has spread through the population to some significant extent. A social distancing could be involved in that. I think we've presented a lot of data that that makes it very difficult to argue that lockdowns were a significant factor in that and as you're saying is real. Other European countries are reopening. If the lockdowns had been a real factor in lowering the are not, we would have seen an increase in spread. We agreed it would have seen a re a recrudescence or a a rise of the virus again and we're not seeing that, which to me suggests the virus has moved through a lot of the population already. I love that you brought up earlier the fact that it will probably come back in the fall, but yeah, I mean Sweden has been able to lower to there or not.

Ivor (00:56:01):

Well will it really in Sweden though? I mean certainly it's actually, yeah, I mean the older countries may be who have suppressed enough, um, you know, may get through the summer, but it's not going away and uh, and may get a bump in the fall. Uh, you know, this is, there was one other professor in Germany and you know, the Germans, this is, he's the opposite of a conspiracy theorist. He's the professor who

was an expert in hygiene and viral spread. He was in charge of, um, units that sometimes have to put chips and quarantine, uh, in the ports. And they would come in and decide whether the ship could leave or people could leave, is an expert. And in March he began to say stuff like we're saying, and he was dismissed from his role as director in some safety Institute. And they said, we kind of, we're not a, he's speaking for himself.

Ivor (00:56:55):

And they let him go. And he said, okay, then. So that's what's happening. Experts who are bringing some sanity and calmness. And he also made the point and he spoke very authoritatively and he said, Corona viruses, generally when you hit 20 or 25%, the dynamic is 20 or 25% who have been infected. They tend to move on and fade away. He said, Reno viruses are 80% plus 80, 85. Now, I haven't looked into that science yet, but he was very definite. He said, basically Corona will hit 20 something. People who are sensitive, uh, exposed, you know, many will pass away. It's very sad and then it will move on and it'll move over to the other side of the world from April onwards or may, June onwards. You know, that's what he said. No, I haven't looked up that aspect of science, but these voices should be heard.

Ivor (00:57:48):

They should be on the panels of the people making these decisions. And if some expert wants to disagree with them, it should be open discussion. But I think that those people are being pushed aside without the conversation. And you know, an interesting thing Paul, and sorry, I'll let you get back to it then, but I find that when I make the most compelling arguments against cholesterol being a major calls like the catamarans of higher April B or LDL P, but the lowest heart disease in the world, the Americans have the highest. Um, people don't answer me. They stopped engaging. They're willing to argue. But when you give them facts that are difficult, they just walk away. I think I'm seeing that when all these professors, Oxford, Stanford, Israeli university, this older guy in Germany, no one's actually saying, come on up here on the stage now you're wrong. And here's why. Because the Orthodox side are not even doing the analysis. They're just making sure that their voices aren't inherits, but they're not even saying they're wrong. They're not even saying they're wrong and saying, look, they're wrong. That's really worrying. To me.

Dr. Saladino (00:59:00):

It's very worrying. And I mean, I was just going to show this, uh, why quarantines and social distancing might not matter. A video that I did with Tristen from prime allege health got taken down from YouTube for violating community policies. So anything that questions a quarantine or a uh, you know, and again, this is a 42 minute video that someone flagged on YouTube, uh, it got taken down for violating the community guidelines. And I, I fear, I mean we'll see, I'll have to be careful how I title this podcast, but if I titled this podcast lockdowns don't matter. I bet it would get taken down from YouTube or lockdowns kill more people than they save, which might be an accurate title for this video. It would get taken down from YouTube. Uh, and it's not, I mean, look like

Ivor (00:59:56):

I, I would name it more like, you know, lockdown efficacy, how more, how much more does it add over smart distancing. But the problem is the course you're now having to name it to avoid being censored. It's a tricky one.

Dr. Saladino (01:00:12):

It's a tricky one. It's tricky. Well before we wrap up, I just want to maybe end with the glimmers of hope that you and I both know are out there and the take home messages for people. You know, and I so appreciate your analysis of this and I think that hopefully what we've talked about so far has been helpful for people just sharing these perspectives on what the virus is doing, what the trends we've seen are looking like where we expect it to go, what we're seeing in other countries, how to compare the countries and to show that countries that didn't do severe lockdowns or States that didn't do severe lockdowns did not have catastrophe. And so the message in this podcast, I want to be a message of hope, uh, that way as we ease the lockdown, things will probably not go up in flames and we will probably not all die from Corona virus.

Dr. Saladino (01:00:59):

So that's the key. But we've, we've kind of been circling around the main message that both you and I are most interested in. You know, I think it's important for all of us to critically look at what is happening in our society. But the most important message that you and I are are bent upon, uh, sharing is the message that there is power in our own lives and we can affect our risk of this virus. So let's talk about that as we close this podcast. We've talked about the fact that it's elderly who are at most risk and like we said, the media has not talked about why that may be. Certainly we know people with comorbidities are at higher risk, but do you also think that the elderly are, are, maybe I should just ask you, why do you think the elderly are at so much risk?

Ivor (01:01:47):

Yeah. Okay. So no good one. And there is an infirmity with age anyway in a general sense. So I think in fairness, that's part of it. But I mentioned earlier an insulin sensitive leptin sensitivity here, old but reasonable muscle mass. I'd much prefer to be that person during this virus than a 58 year old with diabetes. So that kind of puts it in context. So I interviewed dr Ron Rosedale and everything he said agreed with everything. I thought I'd say you get older, you got more insulin, it's inevitable. You know, your mitochondrial function is poor, your immune system flags. But equally you could get older if you did all the right stuff with a meat, fish, eggs, nutrient dense diet, no vegetable oils, no refined carb doing a little bit of muscle work and you wouldn't, you wouldn't be at more risk at 80 so it's still a choice.

Ivor (01:02:41):

Yes, it's mostly I'd say our metabolic health and then you don't have to be old or have a target on your back at all. But most do. And let's be honest, people get to their sixties they get sedentary. Maybe even, I don't know, they get less careful about their health in a way because they're retire, they eat the stuff they showed them, they think, well, you know, I'm old anyway. So there's a lot of accelerators of aging, uh, that people choose to do. And then there are some that can't be helped, I guess. And so Ron talked a lot about leptin resistance and it goes hand in hand with insulin, but he just described that leptin itself partakes in many parts of the immune system. It is a cytokine in itself. When you become leptin resistant, which all insulin resistant people will be, your leptin is elevated and he described how your immune system in in both ways, one, the parents of your immune system that should uh, be quite aggressive, are not so much so, and the part that overflows the cytokine storm that actually kills people and that's also completely compromised by diabetes leptin resistance.

Ivor (01:03:57):

So I think that's the big one. The interesting one recently, but it's not, it's not unrelated, are the recent studies for vitamin D status is rural Flintoff after correction for age and comorbidity. So after correction

for age around 10 times more likely a severe outcome or death below 20 nanogram. And I did a talk on this. I didn't know if you saw it, but I made the point that you can't just take a few pills, get yourself a both 30 and be the person in the low risk group because that person got there by many routes, meat, fish, eggs, nutrient dense foods. You're going to have a higher D status, no matter how much do you get, because it's, it's a sign or a master Mark are off inflammatory problems. Inflammatory issues are insulin resistance issues or autoimmune issues. They're going to lower your di, so the person who is above 30 will strongly tend to be a person who has none of these problems and then above 30 person also very likely got good healthy Psalm with nitric oxide and all that stuff.

Ivor (01:05:03):

So it's not magic. D taken from a bottle gets you both 30 you're 10 times less risk. It's the people who got their true all the gold stuff, but he just shows you how powerful the good stuff is that if you within a or two, you could start fasting, go on a low carb keto diet with meat, fish and eggs and no junk food. You know, take magnesium. Selenium is coming up with a massive correlation with severity outcome in the Chinese study yesterday, massive correlation and selenium level in their hair. So they looked at the geographical diet selenium and they also measured all the people, the victims at true, they're a hair sample and you got the same straight line. So if you took key vitamins and minerals, um, and you did all the dietary changes, did some fasting, you know, a bit of muscle work and all that. If you did all that together within a week, I expect your risk of severe outcome, if you are going to catch it in the next three weeks, could be dropping by factors, factors. I mean not by 10%, maybe three times less likely to have a severe outcome within a couple of weeks.

Dr. Saladino (01:06:13):

And we've been in LA for saying that, but that's what the science says and we've been in lockdown for nine weeks. How many, how many thousands of lives could have been positively impacted if that was the mainstream messaging. So I love that. Yeah, if that was the focus and people at the beginning, you know, I got attacked on Twitter in the beginning of this pandemic saying obesity is the issue. Metabolic dysfunction is the issue. And people on Twitter said, you can't tell people to lose weight. It's not going to happen overnight. And you know what I say to them? You're wrong. You know, because you may not lose a ton of weight overnight, but in a week, in 14 days, you can significantly improve your metabolic health. And that's what you're saying. And it's sort of like if someone started exercising and changed their diet in less than two weeks. There are plenty of studies in the last week's podcast for the CML hotel. I talked about one done by Robert Lustig with obese children, improvements in all markers of insulin resistance with exclusion of only fructose fructose in their diet. They didn't even get out the vegetable oils. Imagine what had happened if they'd gotten out the vegetable oils in addition to the fructose and

Ivor (01:07:23):

[inaudible]. Wow. What a synergistic, explosive change in your metabolic health. And you know, I met a guy in Denver there, lovely guy, a doctor of Asian extraction, quite overweight Raj. And he came up and he tanked me. He said, I discovered your bull six, seven months ago. And he said, I lost 30 something pounds. He said, I used to be very heavy and I was type two diabetic, full blown for quite some time. But he said, I ever, you know how long it took me to become non-diabetic by glucose measures? And I said, Oh, you're going to tell me like couple of weeks, 10 days. I retest it. I was right down. And then he was like 10 days. He was technically non-diabetic by blood glucose measures. After years of type two diabetes. People don't realize how fast your fat may come off slowly, but your visceral fat is going to rock it down

Dr. Saladino (01:08:16):

within a week or two if you do it right. And so we have a powerful tool for Corona virus already and we could have been changing outcomes multifold many times over over the last nine weeks if this had been the the messaging. But I just don't know. It makes, it makes me sad that people on Twitter were pushing back and saying, you can't tell people to lose weight in the middle of a pandemic. That's just, to me, that's super sad and I love that you highlight the selenium and the other minerals because that's my suspicion is that that a lot of people who are elderly are at severe compromise from a nutritional standpoint that they have just underlying mineral deficiencies because the diet becomes poor, it becomes lower quality because they become kind of frail and they're not willing to go to the grocery store.

Dr. Saladino (01:08:59):

They get weak and it all kind of snowballs, right? They don't want to do as much. They're not as willing to cook for themselves. They're in care homes where they're fed nutrient poor food, full of vegetable oils. So is it any wonder that the elderly people who are living in cloistered care homes are hit hardest with this disease? That's essentially like a hospital. They're being served hospital food all the time. Is it any wonder that number one, they're kind of frail in general and then they're being fed the worst food in the podcast you did with Paul Mason? I just, I thought it was so great you guys made this point, which I've tried to make before in the past. How ironic is it that when we go to hospitals we are fed the things that make us all sick. I think you said it in response to one of Paul's comments, you go to a hospital and what three things are you fed with hospital food?

Dr. Saladino (01:09:46):

You're fed, processed carbohydrates, sugars and refined vegetable oils. And I have a friend right now, a very good friend whose father is on TPN on total parenteral nutrition. And um, you know, I sent him a copy of that podcast you did with Paul for that exact reason because what's TPN made of? It's made of vegetable oils and it's made of simple sugars. And here we are taking the people in hospitals who are the most vulnerable and those who have cancers or can't eat for some reason and essentially mainlining in the worst foods. Is it any wonder that these people are more susceptible? But this has never been the conversation around Corona virus. This is a virus that is exposing our unhealed as a people. And so just to highlight a few of the things you said, I want to show people a paper that, that you and Paul talked about on that podcast, which I think is, it's a fairly complex paper, a longitudinal multi Omix of host microdynamics and prediabetes.

Dr. Saladino (01:10:44):

Um, but if people want to dig into this paper, basically it shows the type of things that I've been talking about over the last few weeks, which is that when you have diabetes, when you have prediabetes, when you are insulin resistance, there is a significant impairment in immune function. Um, some of the graphics are a little bit, uh, require a little bit to interpret. But you can see in this graphic here that many of the uh, immunologic responses to help her to, uh, aisle eight, uh, to help her one pathway acute phase response, insulin receptor signaling, they are very different between those who are, uh, not having diabetes who are insulin sensitive and those who are prediabetic. And so it's just a paper that is really laying out at a molecular level the differences between those who are insulin sensitive here in the green column and those who are insulin resistant.

Dr. Saladino (01:11:39):

And you can see that there is clear difference in the way that the immune system is responding hand as Paul eloquently points out in the podcast that you guys did, there are clear differences in the way that the innate immune system responds to the infection. And this is relevant because of what we're seeing in these infections, namely the cytokine storm, which can be connected with innate immune system, uh, sort of problems with innate immune system signaling. And that can happen in diabetes and prediabetes as well. Just want to share a few more, a few more studies. Glycation interferes with natural killer cell function. Huh? Could this be a problem? I'd say that's probably not a guy that's not a good thing. Not a good thing. And then the last one I want to share is this one, which is perhaps the saddest one of all of them.

Dr. Saladino (01:12:28):

It's a 2020, uh, 2020 article April the 10th estimation of effects of nationwide lockdown for containing coronavirus infection on worsening by constellated hemoglobin and increase in diabetes related complications. It's a simulation model using multivariate regression analysis. But the conclusion from this author is that the directly, the duration of lockdown is directly proportional to the worsening of glycemic control and diabetes related complications. This is a big problem according to this model, such an increase in diabetes related complications will put additional load on the overburdened healthcare system and also increase Covin 19 infections in patients with uncontrolled glycemia. So what we're saying, if this model is correct, what this researcher is modeling is that a lockdown is going to worsen insulin resistance. And that's a variety of reasons people are less. Um, just in terms of what we're seeing, uh, you know, people are less active. They're eating more junk food.

Dr. Saladino (01:13:34):

This is a nightmare. This is a complete catastrophe of public health. And, and when I, again, not to sound like a broken record, but when I tweeted about this and I said, isn't it possible that a lockdown could have negative consequences on health of our population and more make them more susceptible to Corona virus? I had people pushing back at me on Twitter and saying, you're an idiot. That's irresponsible of position to say, and what are we seeing now? There's good evidence that that is in fact the case. And that by putting humans in cages, we are becoming less healthy individuals. As you said, the vitamin D data is very, very clear. Um, it's, it's very, um, that the vitamin D stuff is, is playing a huge role. Um, this is a paper that I shared previously. Vitamin D insufficiency is prevalent in severe Cobin 19 and the um, and you shared in one of your other, uh, YouTube videos that there's data now with vitamin D in India, Indonesia, the USA and the Philippines that show pretty much the exact same thing, which is that there's about a 10 X risk of severe Cove in 19 with a vitamin D level less than 30, uh, nanograms per ML.

Dr. Saladino (01:14:51):

So striking and,

Ivor (01:14:53):

and you should be over 40. I mean, uh, just for people to, I won't open those slides, but I will, I just have a slide I will open, but I won't open the vitamin D pack. But I showed the mass PSI. They have been tested at 45 and 50 for women. Nanogram is normal. Evolutionary. There are genetic causes. Pretty much the same. Who goes city, they dropped to 25, 26 on their authority. And it's, you know, it's diet, it's lifestyle, it's city life. And this is the difference. And I also had athletes in Wyoming, a studied on men, 45 women, 50. So natural living, humans out in the air and the sunlight. They should be anything.

Well 45 for men, 50 for women is nominal. And professor Holick who discovered D originally, he pointed out once in a paper and I could never find it afterwards, but it was a mechanistic paper and they did an experiment and they increased D and they saw that when your D gets up around mid forties, your body starts the reaction levels off.

Ivor (01:16:00):

So it's actually got a further proof point that that's where your body actually levels off and doesn't really try and make it go up on average. I know people can shove it up higher, but on average, so all the points say 45 is a nominal ancestral D. Um, what do we see down to 30? You're still doing fantastic but under authority and under 20, you're in the toilet ad. This is just, no one's talking about this Paul. I've been looking at all the media. It allows four to six weeks almost nothing on the, nothing on selenium, a little bit about obesity, kind of naming and shaming and then moving on quickly, there was no coverage. That's insane.

Dr. Saladino (01:16:42):

And I love that you said there about ancestral levels of vitamin D and I'd love to see the slide that you were going to share there because I love that you highlighted earlier that getting to 40 by taking a vitamin D supplement is probably not the same thing as being in real sunlight. And I've said this over and over in my messaging as well because of endorphins, because of nitric oxide in the skin, the listener can refer back to the podcast that I did with Malcolm Kendrick. We talked about the importance of oxide and endothelial function. Well, sun on your skin makes nitric oxide. Next week I'll do a podcast with Mark Bell in which I'll go into the vitamin D stuff in much more detail.

Ivor (01:17:21):

Oh yeah. I just show briefly seeing as a tear there, the studies and we showed the risk. Yeah, there's the own correct of 20 times risk corrected for age, sex and co-morbidity, which is quite unfair to correct for comorbidity cause it's kind of colinear. It's connected. But anyway, 10 X and then just the guys. Oh I go through that. That's the cause was fair. But I show, yeah, I just showed human. Here's the mass side. So there's the figures. There's the Bantu down at 25 and mass. I opened 42 median. And then you've got the athletes in Wyoming. Yeah. Laremy males, women. I mean this is just the normal healthy level in like 30 is probably okay, but not below 30 and the only last thing I'll just show is one last thing. Ah, this one's kind of full, but yeah, Italy, I was, I didn't know Italy was profoundly deficient.

Ivor (01:18:18):

Look at that when the worst D deficiency rates in Europe and they're all scratching our heads wondering why it these bad women, 60 to 80 lower than five nanogram in 27% of the women. This is 60 days in the community. Five, five and lower than 12 and as many as 76% of the women. These are basement levels. Right. And then hypo vitamin also C is below 1230 2% of healthy postmenopausal women. Beal, 1280 2% in people in care homes below 12 I mean like, you know, and then Japan, they know which is doing very well. They actually are doing great and vitamin day. So look, correlation isn't everything, but no, this stuff here's Colvin impact on. Of course the massive impact is in the Northern latitudes who've just come out of winter. And the reality is that Australia has just come out of a long hot summer. So of course they're not going to have as much with a Corona if it's anything like the previous Corona. You know what else? We'll start. Yeah, it was Brazil and Cyrus won in 2009 it was the 30 times severity increase for death rate, 20 to 30 times being down here in this lower UV latitude. Now look, there's

differences here with city density diet, but like you see this relationship all the time. I don't know. It's crazy isn't it? No one's talking about this. Even looking at it, no one cares. No one cares.

Dr. Saladino (01:19:52):

No one's talking about it. And in California, all of the parks are closed and they post beaches for days. So not to say, I mean you can still go out of your house, but in a lot of places in the world, you are not allowed to be out of your house

Ivor (01:20:07):

without

Dr. Saladino (01:20:08):

a pass to go to the grocery store. And so we were being limited from going outside and getting actual sunlight in California. Every single hiking trail is closed right now. I tried to go hiking the other day. I couldn't even go hiking. You can't go outside. All of the things that people usually do to get vitamin D are taken away from us in California. The beach has just reopened in San Diego. Uh, thankfully. But we are being told to avoid the things that could be most helpful and the junk food manufacturers are having a heyday. Yeah,

Ivor (01:20:43):

they've got a, they got a firehose of pure poison, like piped into every house where people are sitting cowering under their beds. Anyway, that was an image that just popped out of my head

Dr. Saladino (01:20:54):

and I mean junk food sales are up, cereal sales are up, alcohol sales are up. It's just, it's so, it's, I don't know. Anyway. That last one was probably mostly just me. I'm causing a bulb, but the CARF, it's so crazy.

Ivor (01:21:09):

It's a serious topic but we need to keep a sense of humor too. But we might circle back cause in a couple of weeks, you know, in the next week or two these curves are moving them. Maybe they're going to pop up again or something as they pull out. But you know, in a couple of weeks we really see if everything we said finally comes through like everything else we said before.

Dr. Saladino (01:21:27):

We'll see. And then you know, we will definitely have to circle back. I'd love to have you back on. Um, thank you so much for sharing this time. I know you're super busy. I've so appreciated all of your analysis and your engineering mindset for all of this. I wanna um, I want to make sure to share some other stuff that you've got going on. What do you want to tell people about IVR? Where can people find more of your stuff and what should they be looking at?

Ivor (01:21:53):

Well, actually, yeah, just say if you Google live our commons anyway that you got my YouTube. Well if you could share that, that'd be cool. What you just shared. Yeah, so this is the key thing at the moment at David [inaudible], our sponsor helped us make a movie. We scan 45 middle-age men who are sporting heroes and you can see the cardiology quote there. We had three cardiologists. They were all healthy in

their fifties no issues, but we discovered nine but really high disease, several have since had to have operations and one had an event. So the calcium scan is crucial. But the key thing in this movie is the latter half of vote. We followed the hero's journey, a high scoring guy who's no BS and he said, how do I take this on and stop my progression and go and fix this? And he did a lot of what you and I would completely agree with and he, he got an amazing result at the end of the year when we scanned them again. So extra time, movie.com and it really helped us with people's shares as well as downloading and watching it. You know, it's me and Dolan lo and, and the guys on William beat belly Davis's in there as well. And uh, but, but if he could share as unrecommended, you know, it'll help us, uh, supports the mission.

Dr. Saladino (01:23:11):

And the mission is, is one that's very important and it's this idea of calcium scoring and knowing what the burden of atherosclerosis is in your arteries with a simple scan. And uh, you know, I haven't seen the movie yet, but I want to check it out. I heard you talking about it on YouTube a couple of times, but my impression is that it's about these sports heroes who didn't even know that they had a massive coronary artery burden. And Hey, if you discover it, then you can make changes. I think we've, people should make changes in general, but we know that human behavior is powerfully motivated by something like this. So I'm, I'm so glad that you guys did this and thank you for all this work you've been doing. Or you've got a book too. That is excellent. Where can people find, you've got a YouTube channel, where can people find more of your other stuff too?

Ivor (01:23:54):

Oh yeah. Well if you Google either commons, just my name, I mean the YouTube will pop up on the first page on the fat, emperor.com a website, but also each rich live long is the book and it's in Amazon. It's out a year and a half now. So we're, we're averaging still five star reviews solid, um, nearly all five star. And I think we put a lot into it. So science, toner, recipes from a great chef and the first half goes true, an easy level. The middle is all the plans and recipes and everything. And then the third part is the science, little heavier, but we put a lot of work into making it understandable. And then the appendices of the back of the hardcore, you don't have to go there, but those 300 scientific references in the back as well, it fills quite a bit.

Dr. Saladino (01:24:41):

It's there. I love the appendices. I love the dependencies. You sent me a copy and I just spent all my time in the appendices. It was great. So I can, I can hardly endorse the book. It's very worth your time and money and supporting our stuff. It's a very, very well written book. So the last question, you know it man. What's the most radical thing you've done recently in the middle of the lockdown? Let

Ivor (01:25:04):

I let the world know what Corona virus was really about.

Dr. Saladino (01:25:08):

I appreciate that. Hey, this could be a similarity with the bowls radical league you been doing lately. I know, I know. I mean, the most radical thing I did recently was I got to go to Houston and I got to hang out with some friends there and I'm moving to Texas real soon. But I, I do think that this is an important conversation isn't an interesting that, but you and I have similar paths, right? That when we're talking about cholesterol and heart disease and cardiovascular risk, we're just not really satisfied with the

mainstream narrative. And how fascinating is it that coronavirus happens and we both say, wait, this mainstream narrative is still wrong. I mean, I'm a huge proponent of animal based diets and carnival diets as you know, and I was, you know, busy sort of bucking the norm there and bucking the status quo and writing my book the carnivores code and then coronavirus happens and I'm right back in the middle of the thick of it going.

Dr. Saladino (01:26:01):

I don't agree with this paradigm either. You think, wow, like maybe it's just all one in the same paradigm or one in the same way of thinking. And I think in a lot of ways it is, but, but I do think it is, it is fascinating that um, that a lot of the people that I respected that I found to be the most insightful in terms of dietary and overall health conversations and coronavirus conversations, you and Paul Mason and others are smack dab in the middle of, of the coronavirus conversation as well. So thanks for sharing this time with me, my brother.

Ivor (01:26:33):

Absolutely Paul. And you know, that's what leadership is about. And a lot of my pals who are equally minded, we're a bit scared to talk about it because they saw the kind of hysteria on and they were a little afraid and, and a lot of people have told me they've loads of messaging more than most other topics saying thank you so much for, for standing up and just saying it and sharing it. I'm bringing some calmness to this. But you know, I'd also say one last thing to the Americans particularly. So a lot of people from America attack me and does this kind of thing. Oh, people are going to, you're going to kill people with this advice. We need to lock down forever. Um, but just remember to those guys when you're talking about locking people up, especially when the data says it's not really necessary and we could do it much smarter, but you want to lock people up and have the government come in and lock you up. That's kind of sounds like communism to me. It does, doesn't it? So it's very reminiscent to communism, but there you go. Maybe it's just an association.

Dr. Saladino (01:27:36):

Oh my goodness. It's so, so crazy. Yeah. Yeah. Well, thank you so much for, for all of your work on this. I've appreciated it greatly and I think that hopefully we are all moving through this in the right way and we are all beginning to understand, uh, where the reality of all this is. And again, it's like that tweet I had from many, many weeks ago, the coroner of Iris conversation has been all wrong. Not to say that social distancing is the wrong conversation. Not to say that we shouldn't have overwhelmed the hospitals, but let's keep shifting the conversation away from fear and hysteria and toward, you know, the things that we can do because that's, that's the only way that we're going to move things forward in the longterm. And that's the only way that us as humans are going to increase the health of our population. And that can't be lost in this. I fear it will be. But what we're going to do our best to prevent that.

Ivor (01:28:30):

Yeah, we got to go on as a species that mate, we can't do everything we're going to need to do in the coming decades from under the bed, so yeah.

Dr. Saladino (01:28:38):

Yeah, absolutely. Thank you, Ivor.

Ivor (01:28:42):

Thanks for tuning in, guys. If you're watching on YouTube, you can see my subscribe button in the middle of the screen and go to extra time, movie.com to see our fascinating new documentary on stopping and reversing heart disease.