>> Good afternoon on this snowy day in Columbus Ohio 200 afternoon on this holy day. I think the weather across the ocean and Israel are similar so we share some things in common on this blustery day. Like the rest of the world we are watching Israel's success in vaccine rollout. One third of the country has been vaccinated or at least it was at the time that we announced this talk, Nadav will correct me if they have exceeded that. They haven't done it without addressing their own implementation challenges and ethical dilemmas. It is my pleasure today to introduce an old friend who has been central to Israel's success in vaccine rollout. Dr. Nadav Davidovitch is professor and director of the School of Public Health and the faculty of health sciences at Ben-Gurion University of Negev in Israel. He is essentially my counterpart in his country. He is one of the most accomplished people I know. He is a physician and social justice champion, a stellar historian and astute and influential public health practitioner who works not only on a regional and national scale but global scale. I will hand over the screen in just a second who will speak for about 20 minutes and then we will transition into discussion and audience Q&A. As he speaks, please submit your questions through the Q&A feature and with that I won't delay any longer, the business of learning from the kind of person who normally makes me feel woefully inadequate but thank goodness that Nadav is not only brilliant but routinely the cause of brilliance and others so he is always someone who leaves me feeling lifted up and I expect that he will do that with us today. Nadav, welcome to Columbus, Ohio, the Ohio State University and College of Public health.

>> NADAV DAVIDOVITCH: Amy, thank you so much, I am blushing. Just to tell you that I have family also in Columbus Ohio. The uncle was a professor and is now probably 84 so he retired. And also one of my cousins. It is kind of a hometown and Amy is such a close friend and don't believe her. Everything she said is actually about her and I learned from her so much. We were so glad to have Amy I told her before Corona in Israel we had a session about personalized medicine and the other issues and we share some common interests as well with immigration and health and of course vaccinations. Amy who believed our boring historical discussions would now be so relevant around the globe. I'm going to share with you some of the data, I hope you can see now so first of all I can give you the website later we have all the data really easily available on the website. It looks straightforward and easy but it took us several months and lots of chaos in the beginning.

Israel is now trying to get out of third lockdown. I am on the national advisory board of Covid-19. I'm also a member of the task force as well as was mentioned in the announcement for the Association of schools and public health in the European region.

It's unbelievable, we are being called from all over the world. Just had sessions with Italy, Ecuador, many different countries to understand what's going on in Israel and, indeed, here you can see it is February 14 and every day you need to change the data. Today we celebrated 4 millionth person vaccinated. Israel is about 9 million people so we are close to half of the country vaccinated. Of course talking about one dose and the second dose is about 25 percent. But the thing that is extremely impressive that you can see here, people that are above 70 you can see that many of them are already vaccinated with the second dose. Israel opened just last week and now everyone can be vaccinated from 16 and above. 16 because this is what Pfizer was doing with clinical trials and all the world is looking for the results of clinical trials with children and a major part of the problem that we cannot get the herd immunity without vaccinating children and since we had the new variance 80 percent of the new cases in Israel -- the UK variance, I know in the US this is still ongoing and the UK variance is much faster and now it includes children that were less of a factor in the first and second wave in Israel and now we have infection among them probably four times. You can see the comparison.

We see a few days ago the situation about the one vaccine dose and you can see Israel and even we are close to 50 percent almost now and you can see the rest of the world. You can see the US and maybe even more impressive you can see the second dose already close to one third of the country and you can see other countries like the US it's only about four percent.

Why Israel became such an example. I think it's important to remember that it is a multilayered story. What are the characteristics of the Israeli healthcare system I'm sure many of you are not aware. First small have a national health insurance law, it was enacted in 1994. Very close when Hillary Clinton failed to have a single-payer system and what's interesting is when it was voted it looks almost science-fiction, but both the right party, -- and the Labour Party that was the ruling power and now it is a small one unfortunately. Both of them, right and left voted and health of the national health insurance law. Health insurance in Israel and single-payer system is something we are very proud of both right and left many issues of private public mix in things. We are in a different situation than the states.

The system, the marking system done by health plans. These are nonprofits, national and competing and they cannot compete for the premium but they can compete for other things but that is a topic for another lecture. But what is important is they are responsible for provision of healthcare and they have some advantages like the national health system like in the UK the director employed nurses and nurses are the main factor in rolling the vaccination campaign. And they have the advantage above the private system because it's not -- [Indiscernible]

On the other hand Israel has eight national health expenditures that's about 7.5 percent of GDP and in the U.S. I think it is 17 or 18. In those countries it's about 9.5 or 10 percent. We have issues with funding and hospital bed population that are lower than the average.

On one hand we have a very important factor that we have the national health insurance law could be have the health plans that are covering all the citizens throughout the nation including in the periphery.

On the other hand we have problems with a shortage of nurses and this is explains a stunning success. Probably the main issue is availability. We see around the world and will get back to it by the end of the presentation about the Palestinian Authority and what we are doing. We will submit the Supreme Court submission. Israel had enough doses and is important to understand that Israel has an agreement, actually, the first agreement was signed with Madrona we are proud because the medical office of Madrona is a graduate of Nadav when school of medicine. And then signed an agreement with Pfizer and Pfizer decided that Israel will be like a model and asking questions such as what should be the herd immunity in Israel is an excellent candidate because we have universal coherent electronic medical records that are amazing and give us an opportunity to do lots of research including issues of big data and also we have, unfortunately, or fortunately, it depends what we get back to it discussing the ethical questions. Privacy that's a protection the probably more relaxed than in the U.S. the last time it was updated was the 90s. In this is something that I am very engaged related to issues of big data. Actually Prof. Fairchild visited Israel he had a national workshop a year and a half ago of that. So in many ways it is a kind of paradise for doing phase 4 surveillance. I'm very critical about it. This is not a human experimentation. Phase 4 is post marketing surveillance. Amy published a book on some of the colleagues about the public health surveillance and ethical issues in things that are relevant questions that are here. This is great but because we have these agreements based on the nationalism I'm sure you heard; everything is very secret. I am an advisor of the secrecy agreement it I think it's very bad for trust and many times there is no reason for the secrecy but it was even a secret how many doses Israel will get and you are probably aware there is a random report sink because the vaccine nationalism that finally, mainly countries are now vaccinating and don't have equal access around the globe this will cause more than $1 trillion because if you're trying to control the pandemic it is a very bad idea to have only some of the country’s problems within the country, inequalities related to vaccination access and availability and between countries.

Again, this is not enough. You must have as a prerequisite the vaccines available but we were very fast and doing the rollout and here we have a question of provision. And don't worry, we will get you to the problems, nothing is perfect. Israel decided to rely on the healthcare plans and this is not a trivial decision because in Israel children vaccination is done mostly by the government and administer self and by mother and child healthcare centers, historically called -- [Indiscernible] Drop of milk stations. It's an integral part of our history and pride. The decision was to rely on the healthcare plans and this was very important because they are very experience there they have the infrastructure and also I was taking part in many of these drills. In the last decade or so because of preparedness for emergencies we had many drills on mass vaccination. We were planning for pandemic but this is quite similar we were doing drills all over the country but decision-making drills about prioritization and ethical issues so that something that is being discussed and roundtables between the different stakeholders and actual drills in the field, usually in a certain area of the country, can be the stadium in Jerusalem or other places. These health plans they have the IT infrastructure that also easy to make appointments. At the beginning first few days there were problems but quickly they were solved. Also electronic medical records as I said. This made the whole question of prioritization very easy. I know in the U.S. this is a nightmare because the health plan they have electronic medical record they have your age, other high risk conditions such as chronic illnesses, etc. it and they can actually, doing very active intervention of calling people that are not vaccinated like they are doing. Now, the administer of health is giving incentives to the four competing nonprofit health funds for those who have higher rates of vaccination for the primary clinics are spread over the country including remote areas, University isn't negative as any presented me this is south of Israel. The other thing is relational because it is one hour from Tel Aviv but more on the periphery, one hour by train but in more remote areas that Israel is about the size of New Jersey, by the way. Nurses can vaccinate because authorized even without physician being present there should be a physician on call for people that suffered from previously major reaction they can go to a special allergic -- to be surveyed. And the deployment for the vaccination campaign was relatively easy. But of course it's not enough. You need to talk about compliance because if you have the vaccine and this is very quickly but people are not compliant you are in a big problem what's happening now in France and other countries. Here this is also very interesting to see both talked down by the eight Ministry of health and the Israeli medical Association and also the chair of the Israeli public health physician Association. So there was awareness campaigns different public figures from all different parts and other cultures. Political figures actually were taken the -- [Indiscernible] May be even more important I will explain the moment why the bottom up. Many times unplanned initiatives. So together with civic societies we have -- [Indiscernible] It means informed. Doing lots of work with three fruiting -- refuting news and leftovers because logistics when you get the Pfizer vaccine out of the refrigerator you have a certain amounts of time and especially in the beginning there was a sense with the vaccine it becomes very popular and it reduces as you can see just a few months before people were asked and many were kind of hesitant but the question of compliance is still ongoing. You saw that those were 17 and above the vaccination rate is very high but we now want to move to those that are 14, 15 and about because the high vaccination rates in those that are among the elderly we see that we have more cases and those that are 14 -- 14 and 15. These bottom-up issues are an intervention of very important. You can also see your asking about one of the major challenges the question of minorities or migrants. In Israel we are talking about Orthodox Jews and Arabs could be invested lots of thoughts and collaboration negative south of Israel we are working with the Arab physicians and medical Association. I just visited last Saturday in -- [Indiscernible] Shalom and they are going house to house, engaging the community, municipality, sometimes some municipalities are doing lotteries. Sometimes bringing in food. You know how familiar you are with Jewish food but in the Orthodox communities they were bringing a Jewish dish – Veterans Day or other things.

Just to conclude, there are several factors that are very important. We are talking about availability, the early procurement from Pfizer, and also the IT and electronic medical records. Many ethical questions here. Maybe going too far with privacy and data collection. Today there was a bill suggested that we will object the Israeli physician Association about giving the data to a municipality in order to put pressure on citizens but we don't think it's a good idea. This kind of similar questions Amy, if you remember, you were dealing with a discussion about diabetes. We have the question of nurses deployed and working too much on vaccinations what about other things that are not corona related and this is a major question all over that there may be too much focusing on corona and living -- leaving aside other things. And with compliance and to reduce hesitancy will it be enough? And what is the line are we crossing the line for persuasion and moving maybe to some kind of compulsion? I guess compulsion but should we give only positive incentives what about other incentives, that something that's very important? And just to finish I want to bring the question of the Palestinians though I was part of this reports, statement about the right of vaccination, must be extended to Palestinians not only for moral reasons but for humanitarian reasons. Lots of exchange between the borders and this is probably a very bad idea not to vaccinate Palestinians. All the public health community is supporting this but lots of political issues. We have Arab and Palestinian citizens and also Palestinians and jails that were vaccinated this was also an issue. And the question of what should be the relationship between Israel and the Palestinian Authority and the responsibility of Israel after occupying the West Bank and Gaza that's a major question. You can read the blog that we published on the British medical Journal is questionable for the long run and in some parts what I was presenting here. Thank you so much. This is in Hebrew, and I will be happy to answer some questions.

>> AMY FAIRCHILD: Thank you Nadav. I'm glad we have some time to go over questions. We got some good questions already and some ahead of the talk today. Many of them will give you an opportunity to elaborate a little more on some themes you touched on. One of the things that is on our mind at OSU but in the country more broadly as we talk about the things we know and don't know about what vaccine protects against it we know it protects against severe disease but don't know if it prevents transmission. What has been Israel's experience with the public willingness to wear masks after vaccination?

>> NADAV DAVIDOVITCH: I will start with the first part of the question, we have now some data involved with some studies so we have several major studies and it is clear first of all that phase 4, post marketing, in the fields and not in the clinical trial. The efficacy is 94, 95 percent across all ages. And it is not on just getting personal but it affecting other people and this is a major issue.

It is not clear if it is 50 percent reduction in affecting -- infecting others or 60 to 80 percent but this is the range, I promise, Amy, to give you before it's published some hints. All the world is waiting to hear from us because it has major consequences for policy and for medical perspective. It's very different if you just protect yourself or prevented from infecting others and also the ethical question is different.

In terms of people wearing masks we went into different phases, first of all wearing masks in Israel is not as political as in the U.S. It was very objective at the beginning but lately I participated in a nether study including the social and ethical issue but it is another maybe you should invite me to do the presentation about masks. It is fascinating just thinking about such a simple thing as masks, so much emotion is created. People are complying and wearing masks even if vaccinated. I was vaccinated my second dose five weeks ago, almost now. I'm turning green. I didn't speak about – but we don't like to call it green passports, green standard is another question and lots of issues shows that to have the green passports because of inequalities because many people don't have but within the country we have access for everyone to be vaccinated so the green standard would be those that are vaccinated and those that recovered for now vaccinated for six months, maybe to be extended depends on the data, probably to be extended and for those should be covered for nine months same thing maybe to be extended. And we insisted, this is still an ongoing debate because the green standard would operate next week, after we can have it now on our cell phone we can have an app, doesn't matter what health plan you are you can get it.

We insist that there be an option for people to have a rapid test if they want to enter into sporting events or some other events because otherwise we think it is a kind of burden for those who are maybe refusing and think to ask to do the test maybe would be enough for those who are hesitant maybe to vaccinate and those who are refusing so we give you the option to do the task. Some people are wearing masks. I'm not saying it is perfect but there is a much better compliance than it used to be. Problems are not what the masks, the especially weddings especially Orthodox communities but it's a different story and this is what we want the green standard because you cannot go with the pandemic fatigue and anger saying everything is forbidden why are you doing the vaccination campaign? We are saying let's give some options amicably did a lot of work on reduction so maybe let's do something that is more balanced because if you say nothing is allowed people will go and do whatever they like finally. There be an option to have weddings but under certain standards may be up to 100 people in a certain space. Only people that were vaccinated recovered and taking the rapid test.

>> AMY FAIRCHILD: How extensive is the uptake of the vaccine passports?. Has there been discussions on where it's not required? How do you see being used when everyone has two photos is had the opportunity for two full doses?

>> NADAV DAVIDOVITCH: The green passport or standard is still under debate and it will be implemented only next week. It is a big issue right now. And in different committees I'm in discussing this. But I would say first of all for now the only thing you get being vaccinated for example if I'm exposed to someone in Israel I don't need to be in quarantine. My daughter, unfortunately was can -- expose and was mostly get -- she was not priority until several days ago. It was open to young people only maybe a week ago, something like that. So she decided to do the vaccine and was exposed to a friend about a week ago so you can do to tests that's another story, but for now if I am exposed I don't need to do quarantine and off – but if I'm returning from abroad but the airport is closed so it's kind of impossible but let's say I was abroad and if I'm doing the tests I don't need to do a quarantine. Other people need to do the test and the quarantine and the fact that you need to do the test even if you are with the green passport is because of the new variance. For next week, there is the debate, things are to be for more pleasure, let's say a cultural event and things like that. You need the green standard. Things like public transportation, going into a grocery store to buy something, this – but nobody can ask you for the green Senate because it's perceived as something that isn't necessary. That's kind of the line. But we are having Parliament discussion that I'm participating in and it's not decided yet. You know what's horrible, Amy, this is similar with Obama care will be have people commit kind of marginal, people that are taking pictures and showing the minister and health saying that what you are doing with all the incentives and it's not compulsory, only doing the green standard, etc. some people are saying this is likely are turning into a Nazi state, and Nazi state because we want people to be vaccinated and knocks compulsion, it is very marginal but I found it on the personal level crazy. From a research level it's fascinating but it's quite horrible.

>> AMY FAIRCHILD: And one of our questions, I will jump ahead, they specifically want to know whether Israel has an anti-factual group like we do in the US and how have you handled that vaccine rollout backlash? It sounds like some of this is not necessarily coming from an anti-vaccination perspective that maybe surveillance state perspective. Can you talk about whether those two intersect, are they distinct?

>> NADAV DAVIDOVITCH: You know very about the history of the anti-factors. Of course we have the Israeli version. We don't have an anti-vaccination so strong as in the U.S. As part of our culture. And we can use the term solidarity and feel very good about it. In the US we are talking about solidarity you are attached that you are a communist or something like that. You prefer social justice or something we discussed in the past Amy; I think. It is a minor phenomenon. I would say five percent are really hard-core anti-factors from different kinds. And many people are hesitant and those are hesitant many times when I'm doing lots of webinars and against this kind of bottom up initiatives are good with convincing people and there are lots of behavioral and economic tricks to do that it looks look at the site of the anti-factors are divided into those who are kind of new age that can be secular, religious people that are also new age. Some religious people, Orthodox and are against the state and view the vaccination as being Zionist something. People that are against net and now you -- although there can be somewhat similar maybe people are offended, lines which, now you a strong believer in science. He was for lockdowns. But, with him being so heavily involved because we are having the fourth election in two years I just want to say that I wish different parts of pandemic control and interventions were so successful like vaccinations. And other things we had our own issues and that's another topic for discussion but with vaccination it is quite successful with the problem I mentioned that many people recognize vaccination they think it's like a political trick I they are blinded by their hate with him. It's a phenomenon, very strange because you can find it on the far right and far left. Sometimes you have very strange allies here and some indeed maybe not so much against vaccination, maybe they are going to be vaccinated but they are strongly against the whole issue of privacy and surveillance. But privacy issues and Israel are not so central as in the U.S. It's a bit different.

>> AMY FAIRCHILD: You alluded to this a little bit. Can you talk about the kinds of fake news. Has fake news been an issue? What about the specific challenges uncritically one of our viewers want to know how did you combat the challenges of fake news?

>> NADAV DAVIDOVITCH: Of course we had the fake news. I think the major one that was about fertility and this is very powerful among the Orthodox and Arabic community. So you are bringing the information certificate. Also need to be empathetic for does not present exactly what you know about the vaccine and what we don't know it and especially presenting what is the risk of being infected with Covid even if you are young and the long Covid systems and things like that and what are the theoretical issues about having a vaccine. Other fake news related you probably heard about ADE, even logical storms and things that happened.

We are refuting for the other things maybe not so much fake news but are being repeatedly mentioned like the CEO of Pfizer didn't vaccinate and why is he doing so? I was asked today in the media maybe you have a better answer. I said he is very noble and didn't want to go ahead of the prioritization but I think it's a bit strange. I think it's better to be vaccinated right now. It will refutes many of the fake news about it and lots of fake people that are against the anti-Fama and have a lot of good reasons to do so but I don't think it should impede you -- I can tell a lot of things about Coca-Cola and other things. And here we are talking about an amazing vaccine that will revolutionize all of our vaccine programs for other cancer treatments and telling many people if I have it on the table, I was vaccinated but in Israel only maternal and Pfizer are approved. If I have them on the table and previous generation vaccine I producer does not prefer. And lots of images like the Nazi images. You remember with Obama care that Obama was presented as a Nazi figure. It is all about the involvement of the states. -- There are chips in the vaccine -- just kidding.

>> AMY FAIRCHILD: Thank you so much. [Laughing]

>> NADAV DAVIDOVITCH: Lots of jokes about it. And the fertility issue is larger. It's about Bill Gates and all people. But of course, Amy we need – not just dismissing it as rubbish is problematic because there is a history of colonialism and giving shots for fertility issues including in Israel with the Jews. I can sometimes imagine where this is coming from. So you need to present the problem in the history of public health but saying this is not the case, this is for your benefit and the harm reduction thing and there is benefit.

>> AMY FAIRCHILD: That's another question that has come up. Can you talk more about some groups that are hard -- harder to reach. What groups are those? Is the vaccination uptake rate lowered? Is that the result of lack of access? Lack of trust?

>> NADAV DAVIDOVITCH: These are part of the major challenges I mention we wrote about it in the piece in the Journal. The main two groups the ultra-Orthodox community in the Arab community and both of them are not normally think in the situation is improving quite rapidly. With the Arab community especially in the periphery with access. It takes time to open, I think 1 to 2 weeks delay but you saw how rapid the role that was in the like a crazy gap so it is improving. It was a question initially of access that was improved and then fake news. We were working with rabbis and religious leaders in the Islamic leaders to write letters, -- [Indiscernible] It's like a religious group supporting vaccinations. It is so dynamic that every week if we have another challenge, now I think the main challenge, the younger population. And not talking necessarily desperate those who are 20, 30, 40 there's lots of amazing improvised interventions like different municipalities that are taking initiatives and there's lots of wonderful things. Covid is a kind of merit reflecting many of the problems with our society but it is up to us and there's lots of solutions, sometimes like good practices being developed in certain places that we can learn and have them after this will be over. I problems all of you this will be overcome I promise you. I want to mention Amy, maybe, a really nice piece by -- [Indiscernible] Was made on the epidemic and -- [Indiscernible] Was interviewed we need to be -- we need to have the humility that not epidemiologist will decide him it's probably a much broader issue, social and political and economic process. And of course we must say he didn't mention it, always mentioning it that vaccines are not going to solve all of our problems, it's not a magic bullet they won't sell the underfunded healthcare systems fear they will not solve --'s all the inequalities. And in many ways sometimes it's easier to have a vaccine as a solution. I'm supporting vaccination but I always want to remind people that it can be only something that is much broader and you will enter -- already there, all the economic hurdles in the inequalities and what's going on in the states and the issue of race. We are going to these communities and doing -- involving family physician sometimes it's much better than getting a message from some vague person from the Ministry of health. Working on social media and tech talk and some things. You like those things, I remember. I see you on Twitter all the time. Don't know how you have the nerve to do it but we must.

>> AMY FAIRCHILD: That's right. Sometimes it takes a little nerve.

Let me go back because you clearly get the question all the time like I do. Give audience members are interested. Has there been any discussion of when will the airport reopen? And what levels of vaccination are you looking to achieve in order to begin saying we can open up more of society? Open up tourism?

>> NADAV DAVIDOVITCH: Unfortunately we are not going to get into herd immunity student because we don't have vaccines for children. All of us are waiting for Pfizer and Seneca and for the approval.

Probably we need to get, it's almost like cooking I guess. I have all the formula but believe me it's more complicated especially because of the UK variance remember at the beginning talking about 70 percent now it's 80 percent, felt she said more than 90 percent.

Somewhere above 85, 90 percent because we don't have vaccines for children is a problem but from next week we are going to open some parts according to green standard meaning it is not just about those who are vaccinated or recovered but also things that are outdoors would be more permissive than things that are indoors. And we are going to introduce rapid testing. I think we need to develop a multilayer strategy in order to get as quick as we can but in a careful manner to the new normal as we call it right now. I think probably by the summer we will have vaccines for children and then it will be something different but it will become a diseases where we have other Corona viruses with us every winter we recognize in the 60s. And probably I'm not sure but there is a good chance that this would be introduced into the routine vaccination program.

>> AMY FAIRCHILD: Thank you. You anticipated as we talked love the questions that were coming up in the chat so thank you for that. One of the specific questions in terms of the rollout has been was the rollout and is the rollout strictly by age or has consideration been given to comorbidities that put somebody at a higher risk? How have you balanced age and other factors?

>> NADAV DAVIDOVITCH: Were very lucky because we had enough vaccines from the beginning we started with healthcare workers and people above 60 and then the next stage were people with chronic illnesses below 60 and then we opened it gradually, people 40 and above and then 35 and above and then for everybody.

I am not sure that this part is relevant for many countries because we are very fortunate that we have enough vaccines. I know in Italy for example they are doing healthcare workers and people that are above 80 and my sister lives in Italy, as you know and they are going to be vaccinated so maybe even my sister will come to Israel to be vaccinated because she is an Israeli citizen. When there's the option she can come here and get the vaccine.

There people that started to develop ideas about medical tourism.

>> AMY FAIRCHILD: And other specific question how is Israel handling individuals who tested positive for Covid prior? Where do they fall in the vaccination queue? Do they have to wait a particular amount of time?

>> NADAV DAVIDOVITCH: This is a major debate right now and there is no clear answer outside for now people that are recovered that were positive and recovered they are not vaccinating now. At the beginning it was a question of priority and now it's a question of understanding exactly all of the immunity. My opinion reading all the literature and studies is that probably we will have people that recovered that were positive to have one dose. But right now maybe three months after they were positive but it is not settled yet. There's lots of discussion, just had a three hour discussion just yesterday about this question. Because you know it's not just about prioritization but about immune system and the fear that there may be people who have adverse effects.

According to Pfizer it's on a contraindication to be vaccinated but I can tell you many people in Israel got the vaccine in different ways. Israelis know from the weight. But this is not a formal policy and we are still waiting. For now they are not on the list for vaccinations.

>> AMY FAIRCHILD: Thank you. We cut someone asked about how NDA stations were utilized in the vaccine rollout and maybe you can start describing those?

>> NADAV DAVIDOVITCH: It's very important. Another component of the success. MDA is equivalent of the Red Cross, the Star of David, the red Star of David. Part of the red international Red Cross Association and they were extremely helpful and vaccinating all the people in elderly homes, people that were debilitated and couldn't go to the clinics. It was a major campaign that I won't get into the logistics. It is not so simple especially with Pfizer with all the co-chain, etc. They vaccinated very quickly. They were first priority people in elderly homes. We all know that around the world it is a major risk and that we have almost all the elderly homes vaccinated. And that is an amazing success story by itself. Another question how they should behave. Can they have, many elderly homes you have cultural events or just playing cards and probably for next week places that more than 95 percent of them are vaccinated can go to almost regular activities within the elderly home.

>> AMY FAIRCHILD: Thank you. One of the challenges we face in the United States is not only the absence of a strong surveillance system and variations state-by-state but also basically zero, almost no genomic sequencing. The kind of effort is Israel putting forward? What kind of genomic sequencing from a public health perspective? Not just for the sake of knowing what's out there but understanding what the prevalence of some of the different variance of concern is and how is the public health system using that data to direct public health interventions either increasing vaccination uptake areas and efforts in some areas? What is the state of genomic sequencing surveillance?

>> NADAV DAVIDOVITCH: I was working for maybe 18 years to bring genomic sequences because as a major public health system not with just Covid and it's a frustrating story. Already in February we call the government to invest in now we have a good system because finally after 18 years because of Covid like many other things finally the state invested all the money needed to do it properly. So now it is said because we think that we can prevent quite a lot of what happened in the rapid entrance of the UK variance that probably started already in September especially during the high holidays in Israel. Many people came. It's a very frustrating story and I was just shouting yesterday in the parliament about it because it was crazy. Because of what we need to buy, and by the way because at the beginning we didn't want to offend Donald Trump 's rent was open to the US it is something similar not due to the variance but we only have one major international airport so it was easy to control and it was a shame.

So wait introduce the genetic sequences -- sequencing and now it's an integral parts including, by the way, also about tracing super spreaders and doing investigation and a much more sophisticated way than it was before. I wish we didn't need Covid 19 pandemic to do so because this whole system it's important for antimicrobial resistance and so many other things. And by the way all over the world as a major problem and probably the UK. It's not clear at all same thing in Denmark.

Denmark they also have a very strong genetic sequencing so this is why they discovered now of course all over the world it's different and that's another important thing. Amy, I think I have two minutes because I need to enter into a minister of health.

>> AMY FAIRCHILD: I know and I am watching our clock. I love that you ended on a note, you began on a note talking about vaccine being not a magic bullet in you and I both have connections to Alan Brandt who made that a famous phrase. It's not a magic bullet but part of a comprehensive strategy to go that has to make us think about systems that go beyond Covid for both the sake of our national health and global health. Nadav, thank you for taking your time at a time in which I know you have not a lot of time I do hope I can bring you back into talk about vaccine passports and the green standard at some point when you have more breathing room and experience with the show thank you.

>> NADAV DAVIDOVITCH: Thank you so much. Such a pleasure.

>> AMY FAIRCHILD: Thank you all for attending.