

Masters of Scale: Rapid Response Transcript – Karen DeSalvo

“Inside Google’s Pandemic Safety Squad”

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What technology companies have gotten quite good at is forecasting this is how the world might look into the future. And marrying up the data integrity and scientific expertise of, say, the public health infrastructure with the methodologic and data expertise of the technology sector has been pretty exciting throughout the pandemic.

In places like the U.S., we have access to highly effective vaccines. We are on a great pathway to getting back to some sense of normalcy by this summer. You look at India, because it’s such a stark reminder that it’s a global pandemic and as the world goes, all of us go.

BOB SAFIAN: That’s Dr. Karen DeSalvo, chief health officer at Google. Throughout the pandemic, she’s been on the frontlines of disseminating health information to Googlers, to medical professionals, and to all of us, all around the world.

I’m Bob Safian, former editor of Fast Company, founder of The Flux Group, and host of Masters of Scale: Rapid Response.

I wanted to talk to Karen because Google is arguably the world’s most powerful public health platform. And even as vaccinations expand across the United States, questions about health safety remain as murky as ever.

So, how comfortable we should all be in resuming activities as individuals and as businesses?

Karen’s answers are both clinical and personal.

She hasn’t been out to eat at a restaurant in over a year, she admits, but she stresses that we each need to make our own risk assessments. And that’s just as true for businesses.

One thing Covid has clearly demonstrated, she says, is the positive impact that technology can have in improving public health, today and into the future.

Her message is one of opportunity, caution, and hope.

[THEME MUSIC]

SAFIAN: I'm Bob Safian, and I'm here with Dr. Karen DeSalvo, Chief Health Officer at Google. Dr. DeSalvo is joining us from her home in Menlo Park, California as I ask my questions from my home in Brooklyn, New York. Karen, thanks for joining us.

DESALVO: Bob, thank you for having me.

SAFIAN: I am eager to talk about your efforts at Google and vaccines and back to work questions and the fires you're putting out, but first, I want to start with this. It's May, 2021. New York City, where I live, is lifting its Covid restrictions, vaccines are being extended to younger people, infection rates in the U.S. are coming down. Is the pandemic finally coming toward an end, or are we still in a danger zone as events in India and elsewhere might indicate?

DESALVO: Well, as you say, on the good, in places like the U.S. where we have access to highly effective vaccines, we are on a great pathway to getting back to some sense of normalcy by this summer. Though I'm glad you mentioned India, because it's such a stark reminder that it's a global pandemic and as the world goes, all of us go.

So, we have got to make sure we're not only taking care of ourselves, our neighbors, but we're also thinking about the fact that this is a highly infectious virus. And when people let up their guard, it has a real opportunity not only to spread, but also to cause a lot of suffering, and then, also mutate. So, there's lots of reason that we have to be thinking globally, but I don't want to take away from people's sense of relief that if, in their geo, things are good, that's great. And we want to keep that optimism so everybody can get to that place.

SAFIAN: You joined Google in late 2019 as Chief Health Officer. On the eve of the pandemic, though nobody knew that, what was the job supposed to be and when did you realize that it was going to shift?

DESALVO: My background, Bob, is practice medicine, taught medicine, did research. You know, a very traditional academic career in medicine. But I also had a career in public health, including being as Health Commissioner in New Orleans and then in the federal government.

So, the chance to come to a place like Google, which has this platform of incredible technology and people talented at applying AI to solve the world's big problems, and marry my background in medicine and public health with that, was going to be very

exciting. We were thinking a lot about two big paths: one, how do we build tools that give clinicians superpowers to do their work better, smarter, faster, cheaper; and how do we give consumers superpowers so that when they're looking for information, it's super high quality and helps them navigate as they're thinking about next best steps.

The pandemic accelerated that work quite honestly. I knew that things were going to be serious when I was in London in January. And I was ready to come back to the U.S. And I saw a report that the CDC and the public health service were setting up screening for Covid in the airports in the U.S.

During Ebola, that was my team's role. I ran the public health service. So, we had to stand up screening in airports. I knew how serious of a decision that is on the part of the U.S. government to stand up a screening like that. From there, we began to really think about how we could be helpful.

SAFIAN: One of your colleagues mentioned being in a meeting early on in the pandemic and brainstorming about how to deal with employee safety and work from home questions globally. And someone said, "Hey, wait, we have a Chief Health Officer. Maybe she can help." Do you remember being drawn into things in a different way that had to do with Covid 19 than maybe you had expected at first?

DESALVO: Definitely. I came in to do this externally-facing product stewardship work for consumers and clinicians. And the role that has been added is this role of employee health and safety all around the world.

It's more than I thought I was coming to do. I absolutely love it. And I love the way the company thinks about, as the community goes, we go. So, it's a very balanced perspective of the information we want to share with the public is just what we want to share with employees. Our expectations about data and science, et cetera, are very aligned.

SAFIAN: In the beginning, on both of those fronts, there wasn't a lot of information, or it wasn't clear, I guess, what information you could trust or not. We didn't even know about masks. How did you deal with the information gap? Where did you go to try to close that gap, and has that shifted over time?

DESALVO: Well, so when I saw the news report about standing up screening at the airports in the U.S., I went to the search bar and I searched on coronavirus and CDC and what popped up were the old coronavirus sites from the CDC. That led me to reaching out to the search team and saying, "Is this on your radar? What are we doing to get better information, and how can we help the CDC know that they need to get a new page because this is not SARS or MERS, or any of the other coronaviruses that affect the world. We need to push this information front and center."

As a person who didn't work at Google, I didn't think much about it. And now, I understand that, first of all, we're this amplifier of public health information. And so, we have this huge responsibility to help get the right information forward and that it takes a lot of intentionality. And now, a lot of my team, in partnership with engineers and others, to see that when the CDC has new information, or the national health service, that we're able to put that on the landing page, in what we call an OSERP, a way that we can create a knowledge area or how we can work with Tony Fauci to create good content for YouTube and partnership with Trevor Noah or others. There's, I think, the reality for me that we have a responsibility, but also a lot of opportunity. And it takes a lot of intentionality to get there.

SAFIAN: But effectively, you're running a global public health campaign all the time, and sometimes, you're running it and you don't even necessarily know that you're running it. People are using Google that way, right?

DESALVO: They are. I mentioned that I was Health Commissioner in New Orleans, and I had this contrasting sense of when you're a local public health official, you're trying to get good information out to the public. "The water's unsafe to drink. The water's safe to drink. There's a fire. So, if you have asthma, be careful today." And so, you're on local news and radio. Honestly, hardly anyone's paying attention to you.

It's so hard to push information out to the public, and then contrast that with being at Google, where everybody's coming to you to look for information all over the world. And so, marrying the pull from the public with the push from public health is a great joy for me actually, because I have a lot of friends and colleagues in public health, and the more we can do to be their megaphone to get that great authoritative information out, the better it is.

I also have learned a lot about the talent of our creative people here at Google. And there's a few doodles, for example, that we've created. I don't know if everyone knows what a doodle is, but a doodle is when you go to google.com and you see the letters there, the Google letters, we can make them into things that are educational. We had one that was celebrating public health and physicians and a bunch of other essential frontline workers. This was last year. We just had one last weekend on vaccines. We have one on masking.

As a public health person, again, I'll be honest, we're terrible at messaging and creatives. It's like notoriously, "Eat your vegetables, walk further." And it doesn't really resonate. You can talk to these creative folks who make the doodle as an example, and they'll take that idea and turn it into an engaging, entertaining cartoon that still gives you all the message about mask and distance and how we're all in this together.

SAFIAN: As you're talking, I'm thinking about how, as someone in public health in a crisis like this, you don't want it, but it's what you've trained for. Does that make 2020 for you, I don't want

to say a good year, but a gratifying year? You're shaking your head, no, no, no, but this is the moment you're trained for, right?

DESALVO: I guess, yes, my life experiences and my training are a good match for what we needed to do here, but no, I would not want this to happen ever again. There's all this other underlying health and financial and social challenge that have been brought forward by this pandemic, so I would have much preferred that we all just figured out on our own how important equity is and having anti-racist systems and how valuable public health is and how much community matters and we should help each other – without having to go through all this suffering, honestly.

SAFIAN: Yeah. You prepare for the worst hoping you never have to deal with it.

DESALVO: Hoping you never have to deal with it, that's exactly right.

SAFIAN: A lot of businesses made shifts during this year, during all of this. You built out a team of nurses and doctors and health clinicians to provide health expertise across the organization. Can you describe that function, where the idea came from, and how it got pulled together?

DESALVO: Well, full on credit to people who were here standing up this idea that Google has many ways that it can apply its technologies to improve healthcare and health globally. That led to the formation of Google Health, which David Feinberg was recruited to run, and then David in turn recruited me. And there are already some clinicians here at Google. I think the reality of the talent here, just to give you a sense, I mean, we have people who were former FDA Commissioners, people who are experts in clinical trials or they're physicians that are also AI scientists or nurses who have been at the bedside, but also led big health systems.

So when we have a challenge to face, and I say, "Can anyone raise their hand if ..." We already have in-house a lot of talent. We've built on that team where we knew that we needed to grow. I'm going to give you a very specific example.

We were thinking about vaccine hesitancy. We need to maybe contract with some talent who can really help us realize that we have somebody on our team already who's basically a world's expert in vaccine hesitancy, but now they're doing something else. I was brought in to execute on this vision, it's really gotten to be bigger in scope than we had originally imagined.

SAFIAN: I know the interchange between the health information and the technology has also been part of what you're doing. I know you created a virtual agent part of this Intelligent Vaccine Impact Solution. Can you explain what that IVI is about and how those things come together?

DESALVO: Yes. This is a tool that supports public health and governments so that they can not only help their populations find and access vaccines, but then it creates a

virtuous loop so that those governments, those public health agencies, and in some cases, healthcare systems, can see what the demand signals look like on the ground as people are signing up, to see what kinds of languages they need to be ready to offer at the vaccine sites, to understand what are some of the kinds of questions people are asking, to be prepared to give the right information to help those that might be still a little hesitant or need more information in order to get to full confidence.

It's a snapshot for those systems, be they public or private, to know how to forecast the next few days or weeks of meeting the needs around vaccination. And it's a great example of how, between our public health teams and our cloud teams and our government affairs teams, people can come together and say, "Well, here's a problem that we're hearing about that we need to solve."

SAFIAN: So you're anticipating a range of questions based on maybe the way people are interacting digitally but so that people can call into this virtual agent and get answers in lots of languages. And then based on how that's being used, that can then be fed back to or through the systems to say, "This is what we need on the ground to mirror what the patient's needs are that we're seeing through this facility."

DESALVO: Yes, it leverages the opportunity of learning, and in the health IT world, we talk a lot about learning health systems. This is an example of that. So technology is helping to accelerate and augment what a call system or assistant might see in the data. It also helps to visualize it, to triage it, and to amplify the kinds of next steps that need to be taken to make sure that you're meeting the population's needs.

SAFIAN: And so, serving the population is helping you figure out ways to serve them better in the future?

DESALVO: Oh, definitely. This is one of the big lessons we've learned in the pandemic, is that we as a world, we're pretty good at looking in the rear view mirror and saying, "Wow, two years ago, a lot of people were dying." That's the state of public health information. What technology companies have gotten quite good at is forecasting this is how the world might look into the future. And to marry up the data integrity and scientific expertise of, say, the public health infrastructure with the methodologic and data expertise of the technology sector has been pretty exciting throughout the pandemic.

As a public health person, communication's job one, I'm pretty sure still. Job two, data, because you've got to make evidence-based decisions, but we can't do it on data that's two years old.

SAFIAN: So the listeners here are predominantly business people and entrepreneurs, and everyone remains uncertain about where and how people can go back to work. And I wonder if you could give us some guidance about how each organization can best think about those questions and try to answer them for themselves?

DESALVO: I mean, for us, as a company, by and large, we can work from home, so we have. That was an early decision that we made, and we're proud of it. And we have maintained a pretty, I'd call it, conservative posture about that throughout the pandemic, really cautiously watching. And some of that is because we certainly have offices in parts of Asia and so we have a little bit of a forecasting or a future tense view there where we have a workforce and offices and can see how the pandemic is volatile. It isn't until recently where there's more vaccination availability that we're seeing that start to stabilize in some places.

Now, we also have people go into the office. We have data centers. We have content moderation sites. We have places all around the world where thousands and thousands of Googlers and contractors have been working. And so we've also learned, like many places, how to add layers of safety. People might have seen that Swiss cheese model that's running around the internet a lot. Basically, we think about this as what are all the places that we want to interrupt transmission, right? And so as we're thinking of bringing them back in places like the U.S., it's those layers that are really about reducing harm over time.

And every workforce is going to be a little different. My husband's still actively practicing medicine, and he's an ER doc, so he's in the mix for the whole pandemic, and he's had a completely different work experience. I've been in my living room by myself staring at a screen. He's been masked up and in many parts of this, wearing full PPE to go to work. The reason I share that as even in my own family, there's not a single answer to what RTO looks like. I think all of us just have to be thinking about harm reduction, personal risk, and I would hope that companies are thinking like we are about, what is the thing we can do to not be a link in the chain of transmission?

SAFIAN: I mean, as vaccine penetration increases, I feel like the questions I start hearing – you mentioned the word risk – are about gauging risk. It's like how much is about scientific safety, and how much is emotional? I mean, we could always have caught something, right? We just didn't think about it. We're never going to get to zero risk. Now we've become conditioned to think about it constantly. How do you think about calibrating that, yes, keep your risk low, but allowing people to start living more normal lives, if they are taking the proper precautions or are vaccinated the right way?

DESALVO: Yeah. This is such an interesting question for me. The thing about COVID is it hit the whole world really hard, and it didn't just hit us medically. It hit us financially and socially. Every second of every day, every second of every day, there's a visual, a data point, a story that you can see on social media or on a 24 hour news channel. We didn't have that in 1918, right? It's in our consciousness all the time, and so of course it's created a lot of anxiety and fear, which sometimes in the pandemic caused people to be incredibly helpful in flattening the curve, right, and/or being part of the solution.

But people can't live in fear all the time, right? So then I think it's just clear that people are going to want to start to adjust their own risk. Everybody's going through that experience, starting to step out a little bit. I mean, I haven't been to a restaurant since February of 2020. That's my sense of risk, but I know lots of people are different on the spectrum, so it will continue to evolve.

And I think a lot about my experience after Hurricane Katrina, when in the beginning, I'd say it probably lasted about five years, nobody was rebuilding their basements. They were just going to leave it as cement because it was going to flood again. People were raising or tearing down houses that were flush to the ground so they could build up. There's all this fear and concern from the flooding that people didn't want to experience that again. But boy, 15 years later, people are building flat on the ground. They're building out those basements. We're humans, right?

I know people are going to back off from their sense of fear, but what I would hope is that some part of us take a really hard look at this other thing that happened last year, Bob, which is that hardly anybody got influenza or died from it. Normally, as many as 50,000 people in the U.S. could die from influenza in a year, and we had less than a couple of hundred people that ended up getting documented influenza. That's a lot of lives saved because we washed our hands, and we wore masks, and we distanced. I'm not saying that we should live like this all the time in a bubble. On the other hand, it's a good reminder that boy, if we could get more people to get a flu shot, if we could stay home when we're sick, if we could follow some of these things, we could actually save a lot of people's and babies' lives in the future.

SAFIAN: I'm going to ask you about vaccine passports or indication that ... extra benefits for who've been vaccinated or extra access. Some people think it creates a two-tier society. Some people think, "Oh, it helps encourage people who are hesitant to get more involved." Where do you stand?

DESALVO: Vaccine credentials, and—

SAFIAN: Vaccine credentials, as opposed to vaccination passports? You like that term better?

DESALVO: I prefer actually just a record of your vaccination, to be honest. I mean, I'm just a doctor at heart, and I just want to know if you got your vaccine, and I want to know if you got your flu shot and when was your last tetanus vaccine. I mean, I'm a primary care doc and that's our bread and butter as part of your preventive care. And Covid may turn out to be another one that I have to make sure that you're getting regularly.

People should be able to keep a record. And I spent a lot of my career making sure people had access to their personal health information. You could imagine it feeds right in. I want people to be able to very easily view, download, store, share their health information, including if they got a vaccine.

The worries about equity and discrimination are real. And I think until we have much more widespread availability of vaccines – not just in rich, western countries, but globally – until we understand or have taken the efforts to really go that very last mile to give people who are unsure, unclear, or need more information, all of the answers that they need, I think it's a little early to start to tier up the society.

Though, I think the reality is that to travel to countries in some parts of the world, you do need to show proof of vaccination. Ethics and privacy and legal aside, there's a public health reality that I think some countries will get to where they need to know that just as they'll want to know you had your yellow fever vaccination, right, they're going to want to know that you had your COVID vaccination.

SAFIAN: You know for my kids to go to school or some schools, you have to show that they've been vaccinated for certain things before they can go to school. When you talk about reopening Google's offices, will there be a hope or a requirement that people are vaccinated before they can come back in the office?

DESALVO: We are strongly encouraging people to get vaccinated and doing everything we can to make it easy, setting up sites right now in the U.S. But we already have been doing this in Europe and in other parts of the world where we can have as frictionless as possible access to vaccines and a lot of internal campaigning, meaning education about them.

But right now we're not mandating. And so encouragement is still our posture. We have a lot of good uptake, actually. A lot of employees are pretty interested in getting vaccinated. That's a good demand.

SAFIAN: Yeah. Well, and if you want people back in the office, they may be more comfortable knowing that everyone else in the office is vaccinated, but it does raise questions for those folks who choose not to or can't get vaccinated for a variety of reasons.

DESALVO: Yes. It's an important and complex area. And I don't say that lightly. This is an area that we've been doing an awful lot of thinking about, and as a public health person, when I was in the Obama administration, it happened to be the time of the measles outbreaks. And so vaccine hesitancy was pretty high on our list of things. And in that kind of vaccine hesitancy or lack of herd immunity, there's a set of strategies to normalize vaccines and vaccination.

In this context, we've learned we have to do something different. We have to be very outspoken and encourage the vaccination and have campaigns and really push people too, which is not typically how you handle hesitancy. You try to normalize people not getting vaccinated. This is the flip side, basically.

And I think the reality so far is that looking at the numbers and almost any geography around the world, about three quarters of the population wants to get vaccinated. And then if you add children to the mix, we'll get towards herd immunity. And the reason I keep raising the herd immunity piece is for two big reasons. One, what we got to do is not worry about individuals. We got to figure out the population level rate. Because that ultimately is going to protect those people who can't or won't get vaccinated, just like we do with measles, which is an incredibly infectious and deadly disease.

The other piece of this is though de minimis, it is still known that you can catch Covid if you've been vaccinated. And I need for a while people to keep that in their head, yes, you may catch Covid, but because you're vaccinated not get sick or end up in the hospital – but there's still the chance that you could catch it and transmit it to someone who's immunocompromised or has another reason that it actually might kill them. That's the cautious piece of public health right now that you're feeling where we're saying, "Look, we're getting there, but we're not there." We don't want any links in the chain. We don't want anyone to transmit to someone else. We don't want to give any more opportunity for variants to form that might be resistant to the vaccine. Everybody just take a breath. We're so close. In some geographies like the U.S., let's get us closer to 75% so that no matter what happens with that last 25%, as many people are protected as possible.

SAFIAN: You've mentioned a couple of times, the situation, other geographies around the world, how is that part of the effort moving now? You're saying you're in a lot of meetings, a lot of fires about India of late. And what is that response like?

DESALVO: It's heavy, if I could be honest, it's really heavy. I live a little bit in the future. And what I mean by that is I'm constantly thinking about where the epi curves are going to be. And then what we need to be doing four to six weeks or more down the road. That sometimes means that when people that are experiencing waning of some part of the pandemic, I sort of went through it emotionally and intellectually already. And I'm already onto the next piece.

The situation in India, though, I think well it's just devastating. It was hard to be prepared for that, even as you see the numbers going up and you sort of think, "Well, X, Y, and Z will happen." People thought, "Well, there'll be public health measures that the peak won't look just quite like this." But it has been an incredible rise in cases and a collapse of the systems there in the way that we saw in some other countries already.

And there are other parts of the world where Covid has much damage still to do. And there's probably parts of Latin America and Sub-Saharan Africa, and who knows what else. And I'm not trying to create a negative frame. I just think, for me, this is an example where I'm kind of very in the moment in places like India, but then also trying to get my head about what might come next.

I had this ... I keep talking about Hurricane Katrina, and that was my imprint moment when I had a huge crisis that my community suffered through in New Orleans. And what was, for us, everything was like chaos and devastation. Everything collapsed, all of our systems, but people could come help us, eventually. It took them too long.

And that's, I think a little bit of our challenge right now, even globally, is ... If you think about deploying assets to a place like India, people think, "Well, if we deploy all of our assets to India, then how do we get ahead of protecting other parts of the world?" So it's complicated. People are leaning in, they want to help. There are ways that we can be helpful and certainly at Google, because we have a lot of Googlers in India. We have a lot of Googler families in India. We're paying a lot of attention, but it's also just because it's such a humanitarian crisis.

SAFIAN: When you look at the big picture right now, what's at stake in this moment?

DESALVO: That's a big question. I'm going to acknowledge that I've got a Western lens on the world. I think what's at stake is that we become inured, selfish, forgetful of what's happening in other parts of the world, from this scourge that is Covid because we'll be protected. There are examples of other diseases where that's happened, but there's also really good examples where the U.S. didn't give up. Take HIV and what we did with PEPFAR and how committed we have been as a country to be a part of a world set of solutions to end that pandemic. And so I think what's at stake is I don't want people to get comfortable again and not remember that we have to help people all around the world.

And it feels a little bit selfish to say it, I guess, but what I do hope comes out of this is this ongoing recognition and respect of, and love for public health, the public health infrastructure, and that we have to strengthen it, that we have to help it be better at forecasting and tracking because there are significant, not only health, but also social and financial consequences if we don't. And we neglected public health for decades, not just in the U.S. but around the world. And this is a moment when we can restore that critical piece of infrastructure for the whole health ecosystem and make sure that it can be a strong partner to medicine, to the scientific apparatus and to all other sectors.

SAFIAN: Thank you for taking the time out to have this conversation with all of us. I really appreciate it.

DESALVO: Oh, thank you so much. I really enjoyed it.