

Module 3: Interview with Jessica Malaty Rivera

[00:00:09] **Maryn McKenna** Hello, and welcome back to our MOOC, Covering the COVID-19 Vaccines: What Journalists Need to Know. We're now in module three about countering misinformation and disinformation, and today I'm speaking to Jessica Malaty Rivera, who is an infectious disease epidemiologist and the science communicator, and she works at the COVID Tracking Project.

[00:00:33] **Maryn McKenna** Jessica, thank you for coming to our MOOC.

[00:00:35] **Jessica Malaty Rivera** Thanks for having me. I'm thrilled to be here.

[00:00:38] **Maryn McKenna** So, particularly for folks outside the US, I think it would be really useful if everyone could hear exactly what the COVID Tracking Project is.

[00:00:47] **Jessica Malaty Rivera** Yes, so for those who are not familiar with our work and even for those who are, the COVID Tracking Project, for 365 days from March 7th of last year to March 7th of this year, collected and analyzed data related to COVID hospitalization, testing, deaths, et cetera, from all 56 states and jurisdictions.

[00:01:06] **Jessica Malaty Rivera** We did that manually, we contacted and reached out to every state local health department and used public dashboards to aggregate our data. We did a lot of the work that you would probably expect from the CDC. In the absence of regular communication and regular data releases and analysis from the CDC, we functionally did that for them.

[00:01:29] **Jessica Malaty Rivera** And so, we also did a lot of reporting on trends that we saw. We had a very active blog, I think we had over 100 posts in the year that we were there that involved a lot of line-by-line analysis and a seven-day analysis, and also, giving a few best practices on how to report on this very complicated data.

[00:01:49] **Maryn McKenna** So people who are outside the US may not appreciate that in the United States response to COVID, a lot of our federal leadership was kind of functionally absent. And, it was just extraordinary volunteer efforts like the COVID Tracking Project that really filled the gap and just made it possible for the U.S. to have a COVID response when it looked for a while like we weren't going to. So thank you.

[00:02:16] **Jessica Malaty Rivera** With the volunteer effort, you are absolutely correct. It was volunteers from all over the world. We had a few international folks that were doing it and they joyfully did it. It was quite remarkable.

[00:02:26] **Maryn McKenna** So, you had a unique perch to see not just how COVID was rolling out across the United States, but also to see this wave of misinformation and disinformation coming after it. What did you observe?

[00:02:40] **Jessica Malaty Rivera** Yeah, so I was the science communication -- I am the science communication lead at the COVID Tracking Project. And, we were always kind of watching for how people were interpreting or misinterpreting the data and that kind of informed ways that we would either solicit best practices or warnings and caveats.

[00:02:57] **Jessica Malaty Rivera** And so many of the errors, whether intentional or not, had to do with very basic misunderstandings of data. And so, if you read our blog, you'll

notice that it's just posts full of caveats and disclaimers and reminding people where it's necessary to provide extra context for certain figures and certain charts. So we've seen everything from not labeling historical data --which can artificially inflate trend lines -- to just getting numbers completely wrong.

[00:03:28] **Maryn McKenna** So were there -- the way you described the way that you framed those blog posts, were there explicit policies that you put in place in order to combat misinformation and disinformation?

[00:03:41] **Jessica Malaty Rivera** So it's interesting you say the word policy, because the first thing that comes to mind is we kind of had an informal but pretty strict policy on reporting on test positivity. So test positivity is a figure that felt very, very desirable by a lot of even government officials, not to mention journalists, that in its most pure form should be as simple as the total number of tests that are positive out of the total number of tests that have been taken.

[00:04:09] **Jessica Malaty Rivera** And that ratio, that fraction, should give you what is referred to as test positivity. However, like I mentioned, we are collecting data from 56 states and jurisdictions. These 56 states and jurisdictions often defined and/or used these metrics or units differently. So if you remember from basic math, your units have to match in a fraction for that to actually work correctly. So, we were always urging caution on the use of test positivity and we in fact stopped calculating and publishing test positivity because we felt like it was being used in one specific way that was problematic.

[00:04:41] **Jessica Malaty Rivera** States were using it to compare each other to themselves. So they were saying, "This state's test positivity is X, this is why," and they were actually changing policies and whether people could enter different states. And it was just fraught with so many errors. The actual calculation that we opted to say -- "These are all the caveats and considerations you need if you want to calculate test positivity, but we will not be doing that anymore."

[00:05:06] **Maryn McKenna** So in addition to that, are there common themes, or most common types of misinformation and disinformation that you perceived?

[00:05:14] **Jessica Malaty Rivera** So, with regard to COVID as the disease and as the pandemic, yes, there were always and sadly, some of these themes were coming even from the federal government, that we were often labeled as people who were being dramatic and people who were causing fear and people who were looking at this with such doom and gloom. But that's the farthest thing from the truth.

[00:05:37] **Jessica Malaty Rivera** We were very delighted to share positive trend lines and encouraging shifts that we were seeing in the data, but a lot of times we were seeing people say that these things were not as severe. And I will say that especially is the case when we were calculating things like testing. People thought that the tests were flawed or too sensitive. People had opinions about hospitalizations and deaths.

[00:06:01] **Jessica Malaty Rivera** They were saying that people who are not categorized properly as COVID-19 patients were being lumped into those numbers, and that's just the farthest thing from the truth. You know, we weren't getting our sources from, you know, random anecdotes. We were getting them from official sources, from actual hospital dashboards, from public health departments. And, that was really -- it feels a bit

gaslighting, to be completely honest, when you're this close to this traumatic data and people say it's hyperbolic.

[00:06:27] **Maryn McKenna** So, you were in a unique position because you were providing data that journalists were using. Did you see any sort of common mistakes or things or traps the journalists kept falling into with regard to falling for misinfo or disinfo?

[00:06:43] **Jessica Malaty Rivera** Yeah, so I would say that the most problematic fallacy is when headlines will cause a reader to draw a correlation to causation conclusion. When they'll see two events, sometimes completely unrelated, but somehow connect the two because of the word limit of the headline or because of the intention of the headline.

[00:07:02] **Jessica Malaty Rivera** And there are some best practices when it comes to how to read and write data so that you can avoid those fallacies, like remembering that time should always be considered, right? So if we're talking about events -- two historical events, two political events that happened at the same time, remembering that all those things have affects on the numbers, right? So cases and deaths all have lags, that seven-day averages work better.

[00:07:30] **Jessica Malaty Rivera** We were often seeing very incorrect correlations between things like holidays and weekends and even natural disasters, which all affect the data, but they don't affect them in some of the ways that you would maybe see in the headlines, and that's unfortunately still happening. I think it's especially happening now that the vaccines are out, because vaccine misinformation and disinformation is on a whole nother level of complexity and problems.

[00:08:00] **Maryn McKenna** I really want to ask about that, tell me a little bit more about what you're seeing for misinformation and disinformation, pitfalls about the vaccines?

[00:08:09] **Jessica Malaty Rivera** Yeah. I mean, full disclosure, so much of the misinformation surrounding the COVID-19 vaccine is a bit tired in the sense that it's a straight copy-paste from the anti-vax playbook, right? There are many of the claims that you could just look directly at the last 10 to 15 years, especially on social media, direct copy-paste from those. And I would say probably most recently, especially connected to the anti-HPV vaccine sentiment, that has driven the claims of infertility related to the COVID-19 vaccine, or potential autoimmune/cancer-causing complications from the vaccine.

[00:08:46] **Jessica Malaty Rivera** So it's not really that new, but because pandemics are scary, because there is so much misinformation and information to parse through, it creates a -- it has refueled everything from anti-vax sentiment to the very, sometimes legitimate, vaccine hesitancy. So we're seeing journalists make the very unfortunate claims of "X person was vaccinated and then died" without considering, like I mentioned at the top, time.

[00:09:17] **Jessica Malaty Rivera** Time of the two events, or even all the other factors of the two events and how that, you know, remembering every single death is investigated. Not a single death has been correlated. It's such a missed opportunity to provide extra detail and to actually dissuade people from making false correlations, that I think journalists are still learning that.

[00:09:41] **Maryn McKenna** In addition to your work in the COVID Tracking Project, I noticed that you actually function as a sort of solo science communicator, and you do a lot of this on different social media platforms. The journalists who are taking this course are going to be looking for all kinds of different ways to tell the stories that they still have to tell about vaccination and COVID. So, could you talk a bit about your use of Twitter and Instagram and so forth?

[00:10:02] **Jessica Malaty Rivera** Yeah. So early in the pandemic, I guess it was about March, my friends who knew the work that I did -- so my background is that I studied pandemics and I have been sitting pandemics for the past 15 years. I actually got my master's in emerging infectious diseases and worked on a pandemic biosurveillance project at Georgetown for a number of years.

[00:10:19] **Jessica Malaty Rivera** So friends who knew that about me were sending me a lot of questions and texts and forwarding headlines and asked me to make sense of it. So I thought, I'll make a couple of Instagram stories to kind of do some basic science and epidemiology 101's. And it's turned into a whole thing. And it's complicated, it's a wonderful and a terrible medium at the same time.

[00:10:38] **Jessica Malaty Rivera** My intention or expectation was not that it would turn into this enormous opportunity, but I was doing this extra science communication for the purpose of helping friends and family. And then I quickly realized there's this insatiable hunger for science and data and to increase literacy in both. And I'm legitimately honored to do it. There are, of course, some opportunistic folks on every medium, and I'm sure you are familiar with them, Maryn too, that have flexed their armchair expertise on Twitter and on Instagram.

[00:11:10] **Jessica Malaty Rivera** And I'll be honest, those people, those actors are probably as frustrating as the misinformation sources, too, because we're trying to ensure that people have trust in the right sources. We're trying to direct people to credible evidence-based data and not make this about kind of the negative part of social media, which is like the influencer culture, right? So, I do a lot of debunking on myths on social media. I also do a lot of crossposting of the work that I do, and it's forced me to get into the habit of knowing how to answer questions in 14 seconds or less, because that's the duration of a story. And I've really loved doing it. It's been a kind of pleasant surprise in this whole thing.

[00:11:54] **Maryn McKenna** We'll make sure, participants, that you have all the links to Jessica's work. This really is amazing. So last question. You know, the journalists who are watching the segment are going to be continuing to cover the pandemic and cover the vaccination campaign for some months, maybe the rest of this year. Do you have any advice for them or any things that you'd like to see them do or try as they do that?

[00:12:18] **Jessica Malaty Rivera** Yeah, so, you know, there is a science to science communication, right? And sometimes we can unnecessarily breathe more life and add more oxygen to things like conspiracies or bad takes if we're not careful. So I would say to always consider caveats, even if it makes that style of your writing more clunky or less, you know, outside of your normal tone.

[00:12:42] **Jessica Malaty Rivera** Disclaimers and caveats actually protect your work from scrutiny. They protect your work from fallacies. They also build trust. I would also say that there's a lot of emotional intelligence that's required in a lot of this communication, and to

choose empathy. To know that this work requires a lot of patience and repetition and empathy is going to help you build that trust, because pandemics are scary and there's a lot of information that people have to go through. To help people act out of facts and not fear requires trust being built.

[00:13:14] **Jessica Malaty Rivera** I have, we've written a piece in the Atlantic and even on our blog on some best practices on trying not to make the mistake of missing historical data, and making sure that you're using seven day averages and not single day snapshots, because that's going to provide that context. All of those things kind of fall into the category of, the more caveats and disclaimers you can provide to contextualize the data, the better people are going to understand the situation.

[00:13:40] **Maryn McKenna** That was great advice, thank you so much. And thanks for joining our MOOC to speak to these journalists from around the world.

[00:13:46] **Maryn McKenna** So, everyone, that was Jessica Malaty Rivera, science communication lead at the COVID Tracking Project here in the United States. I'm Maryn McKenna, your chief instructor, we'll see you online.