

Courtney Joyce:

Hello and welcome to today's webinar hosted by the International Lactation Consultant Association. My name is Courtney Joyce and I will be your host for today's session. Today's session is COVID-19 and Lactation, Translating Knowledge in a Pandemic with Cecilia Tomori.

Courtney Joyce:

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Courtney Joyce:

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Courtney Joyce:

Welcome again to COVID-19 and Lactation, Translating Knowledge in a Pandemic. Cecilia Tomori is a Hungarian-American anthropologist and public health scholar who currently serves as director of global public health and community health at the Johns Hopkins University School of Nursing.

Courtney Joyce:

Dr. Tomori's research combines anthropological and public health approaches to investigate and address the structural and socio-cultural drivers that shape health inequities in maternal and child health, as well as sexual and reproductive health. This work centers on deep engagement with the lived experiences of local and global communities to face numerous health challenges due to stigmatization and discrimination.

Courtney Joyce:

Dr. Tomori has demonstrated a track record of successful collaboration with colleagues at Johns Hopkins and beyond on breastfeeding, infant sleep and HIV prevention. She has authored two books that explore social and biocultural aspects of breastfeeding and numerous publications on a range of public health issues. Thank you so much for being with us today.

Cecilia Tomori:

Thank you so much for having me. It's a pleasure, and although it's a pleasure to be with you, of course the topic is not, it's much more somber. But thank you very much for the opportunity to share some of the work that's being done around COVID-19 and translating that to lactation work.

Cecilia Tomori:

One of the first things that I wanted to share is just why I chose this title, Translating Knowledge in a Pandemic. I think one of the key roles that we have as scholars working in these various areas is to bring together different streams of knowledge. So today I'm hoping that you will find those intersections interesting and useful ways to think about how to conceptualize and navigate some of the complexities in the pandemic, because we do actually really need interdisciplinary conversations for us to be able to tackle some of the complexities and some of the uncertainties that we face with this pandemic. So that's

just a little bit of background to why I'm doing something maybe a little bit different from some of the other folks are working in particular one single field. I'm bringing together a few different streams for you that I'm hoping will be useful.

Cecilia Tomori:

Today the main goals that we have is to present to some of the key public health evidence about COVID-19 and those of you who have been reading along as the pandemic unfolds, you may be familiar with this. But I'm hoping that some of it will be a little bit different from what you have heard or useful to you in new ways.

Cecilia Tomori:

Then I'm going to spend some time describing the core tenants of the WHO guidance and COVID-19 in relation to lactation because I think it's foundational to what we need to be thinking about. We will also look at some other guidance and look at some of the underlying cultural assumptions that are reflected in the diversity of COVID-19 guidance in different settings.

Cecilia Tomori:

Here I think you're going to see that my own training is interdisciplinary. So as an anthropologist, I'm also looking at some of the cultural foundations of some of the issues that we're dealing with and as a person working in public health and at the school of nursing, I'm also bringing too some of the public health work together.

Cecilia Tomori:

When we think through those things, we can also locate some of the relevant emergent evidence and guidance on COVID-19 and think about it in a critical manner that I think will be useful. Then finally, hopefully all of this will come together for you and you will be able to translate this knowledge into action and supporting lactating families in your own practice.

Cecilia Tomori:

So this is a very brief overview. Obviously I'm not going to go into the details of this and that could be of course another talk, for example, a virologist. But just to give you a little bit of overview of what we're dealing with, this novel coronavirus, which is called SARS COVID-19 is a respiratory virus and the likely origin of the virus comes from bats, although we will have final evidence on this emerging in the next few months. But that is the current thinking.

Cecilia Tomori:

It was first detected in Wuhan, China. But the timing of that did not become clear until later. So as we were looking at some of the virology studies and some of the infectious disease detective work, the timeline for actually when it probably jumped over to humans and first started moving was probably earlier than we realized. It was probably around November is the current estimate. But it was not reported until significantly later, which has to do partly with the lack of recognition and partly because of various political concern in China at the time.

Cecilia Tomori:

By the time it started getting reported, it became very quickly spread all over via various routes of travel within China and then ultimately outside of China quite quickly through multiple routes. Virologists spend a lot of time actually mapping some of those travels through the genomic studies so they can actually map and see where the virus is moving at given times, which is fascinating to watch. You can really see that the movement was extremely rapid and really quite global, quite fast.

Cecilia Tomori:

So as a result, the transmission was no longer just happening in one location. It was happening all over and it wasn't just happening via the people who were traveling themselves, but it was established within communities which is called community transmission. The virus was multiplying and spreading within those communities but without capacity for us to detect it in most settings. So most settings did not have the testing capacity to detect community transmission.

Cecilia Tomori:

So when the first serious illnesses started happening, by that time, in most cases there was a very well established community transmission. That is what partly made it so difficult to contain the virus later on.

Cecilia Tomori:

So the primary mode of transmission, which is going to be important for us later, is through respiratory droplets. This matters because different kinds of viruses travel via different means. For most respiratory viruses, they're not necessarily found in breast milk. Therefore it was not a particularly surprising finding that so far, in the tested samples, the virus has not been detected in breast milk.

Cecilia Tomori:

Now does that mean that it cannot possibly be found in a future time? At this time, we cannot say with 100 percent certainty. But it is thus far, based on what we know, is not found in breast milk. That is important.

Cecilia Tomori:

Now in terms of other kinds of transmission, for example, vertical transmission, in utero transmission, there's some suggestive data that was published recently just a couple of weeks ago in the Journal of American Medical Association and there were some suggestions that maybe there is vertical transmission, although previously there was none reported. The data were suggested but they were not confirmed. So the editorial that accompanied some of these early suggestions because people were finding early kind of infection that they thought might've occurred before delivery.

Cecilia Tomori:

Basically right now we do not have the data to confirm that. So that is something that may change in the coming weeks. But as of today, we do not have any evidence of that.

Cecilia Tomori:

What we do have lots of evidence of is that the virus is highly infectious, and I think everyone now is quite aware of this, especially with the changing guidance that has made people aware of just how infectious really this virus is. But it's a little bit tricky because the context of transmission matters, and we will talk about the social conditions that may make something more transmissible or not.

Cecilia Tomori:

But the current sort of number that people generally tend to cite is 2.5, which really means that a single case, a person that they know has the virus called the index case, on average infects about two-and-a-half people. But remember these are averages and you probably have heard in some of the journalistic reporting that there were some people who infected many people.

Cecilia Tomori:

So again, this is a little bit tricky and there was other kind of modeling and other suggestions that this is the higher number. But again that may be dependent on the context of those transmissions. So right now the majority of evidence is converging around 2.5 but we may see some of that adjustment as we get more data.

Cecilia Tomori:

One of the biggest findings, I think, that has been coming out in the modeling data early on, but that we have much, much more evidence of including in some very significant papers in the last 24 hours that I have in the references, is how substantial the role of presymptomatic transmission is. Now I said potential asymptomatic transmission, because in fact we don't really know how many of those cases actually stay symptom free over time. What seems to be the case is that most of the non-symptomatic transmission is occurring not in the asymptomatic group, but rather these people become symptomatic over time. They may just not be symptomatic at the moment of transmission.

Cecilia Tomori:

So that stage where someone does not know that they're sick, but they are shedding the virus and they are transmitting it, is very, very important. Because as of today's paper, it is possible based on very sophisticated work that up to 44 percent of the transmission is occurring during the presymptomatic stage. That would explain some of the reasons why it has been so difficult to contain. If we are not aware that we are transmitting, if we're not actually manifesting those symptoms that make it more obvious, than it is difficult to know when someone's transmitting.

Cecilia Tomori:

Of course if we do not have sufficient testing capacity, there's no way for anyone to know whether they are indeed already shedding the virus or not. So this I think is a really important piece that again, if you're reading the epidemiological literature, has been reported from quite early on. But the evidence behind this has been accumulating rapidly and there is work that is emerging and that is literally published just today that support a very, very high ratio. So I think this is a very important finding to include here.

Cecilia Tomori:

Now the next important piece is what to do with this epidemiological background. So what are the tools that we have to limit transmission? One of the basics that I think people tended to overlook perhaps because they feel that it's too simple, cannot actually be underestimated.

Cecilia Tomori:

Hand washing is really an excellent strategy, and really hand washing with soap and warm water and there's some excellent tutorials on the WHO website, including videos about how to wash hands

thoroughly. So I think even though we sometimes feel like there's not a lot that we can do, this is really a very powerful strategy.

Cecilia Tomori:

The big issues that we have around this that we'll talk about later is that of course around the world, not everybody access to either soap or warm water to be able to, or really water at all to be able to wash hands. So that is a huge issue around the inequities around COVID that we'll talk about. But in terms of those who are able to access those resources, it is a very, very powerful tool.

Cecilia Tomori:

The second big tool is to train ourselves, which is very hard to do as humans, to avoid touching our face and our eyes. It's something that we all do sort of unconsciously in regular everyday practice, but it is something that we had to train ourselves not to do because it's another great way for that virus to spread through those routes. So touching our face our eyes our mouth, not a good idea.

Cecilia Tomori:

Now the other piece is of course the clean surfaces with which we come into contact with, especially those hands. That may be the primary ways in which those respiratory droplets travel outside of things like coughing and sneezing. We can of course cough and sneeze into elbows and limit the distance if we are sneezing and coughing. But there're limitations to that. So washing surfaces that we come into frequent contact with would be a very useful thing.

Cecilia Tomori:

Then of course there is a lot of confusion and mixed messaging that has surrounded the use of masks to limit those droplets. Part of the reason why this was a controversial issue is because the evidence, the scientific evidence on masks, is much more complicated than it may look on the surface.

Cecilia Tomori:

They were not recommended early on because the kind of masks that most people use are not the kind of medical masks that healthcare workers need in the work. Most people would not have access to those masks anyway. We need to prioritize healthcare workers here.

Cecilia Tomori:

So the kind of masks that everyday people would have access to would be largely homemade, which you're of course seeing now roll out all over. Those masks of course do not work as effectively as the medical masks.

Cecilia Tomori:

What they do do though is if somebody is shedding that virus, they may limit those droplets to another person. So while they do not filter viral particles particularly well, they may still breathe in some of those viral particles, it does limit to a degree the droplets as somebody might be exhaling. That is the rationale behind the use of masks, especially in context where people cannot be too far apart from one another.

Cecilia Tomori:

Now moving onto that next piece, is the very confusing terminology, and as you can see, this is part of the issue about this talk is there's so much mixed messaging and confusion going on. The technical term that's used in public health is social distancing, but it's confusing because it makes it seem like we don't want people to connect to one another socially, and we are of course fundamentally social creatures as humans.

Cecilia Tomori:

So many of us have started using the term physical distancing instead to clarify exactly what we mean. So really what this is, is to establish distance, physical distance, not social distance. Because we can still talk to each other remotely, via phone and via video and all those other ways, but not in a physical form. So distancing, that kind of physical distancing, which experts will continue to call social distancing because they're used to it but it's important to understand what it is, is there to limits and ultimately to try to eliminate the chains of transmission that we just talked about.

Cecilia Tomori:

So remember how infectious this virus is. By establishing physical distance between people, we are limiting that number of people that each person can infect. Ultimately, the longer we do it, we can slow down and possibly stop those chains of transmission.

Cecilia Tomori:

Now these kinds of measures though, they really are extreme measures. For example, when we tell people that they need to shelter in place, they're no longer just doing some physical distancing some of the time. We're asking people to stay at home, basically.

Cecilia Tomori:

Those measures come into play when we run out of other kinds of public health measures. They occurred in most settings around the world, because we were unprepared. This has to do with things like not ramping up testing capacity, having tests that did not function in many cases and ultimately continuing to be lacking adequate testing. This is of course happening in the United States, in the United Kingdom.

Cecilia Tomori:

Earlier on the epidemic, of course, when the epidemic started in China, people did not have the benefit of time to be able to really prepare. They've rammed up some of those capacities very, very quickly. Some settings have done that very well. Other settings simply did not prepare or waited.

Cecilia Tomori:

As a result, we had that huge amount of community transmission that I talked about, and then these extreme measures were needed in order for us to be able to slow down the epidemic just so that we can actually manage all the cases of people who are getting sick. Because if you run out of health facilities, then you cannot ...

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Cecilia Tomori:

... You run out of health facilities, then you cannot manage this and then you actually have much, much higher mortality from the virus than you would if you actually had adequate health capacity. And so that's why it's important to recognize that these tools are really... They were not meant as sort of the primary way that we tackle epidemics, we had to resort to them because we did not have any other options at the time. We could not continue the way we were because then we ended up with enormous numbers of cases. And of course you're seeing that in many different parts of the world right now. Make sure that... I think I just ended up at... Apologies. I'm having a little bit of a hard time navigating. Here we are.

Cecilia Tomori:

Okay, the next part is really to give you a little bit of an overview of the clinical course of the illness and mortality and really not put numbers on this because I want to give you some context about why these numbers are really complicated. Clinical course of the illness varies and it varies across different kinds of populations. Even the case fatality rate is difficult to determine. And the reason for that of course growth factor, some of the issues that I talked about before, the fact that we do not have adequate testing, so we don't necessarily know how many cases there are. And the other context that I talked about just now, which is the health systems capacity. The kinds of things that we want to know, we know that some of the cases will become severe, but the number of people who will die really depends on again, health system capacity, the ability to deal with that illness and to care for people when they need help.

Cecilia Tomori:

If we do not have that capacity, then we have much, much, much higher mortality. This for the same reason, aggregate numbers on severity and mortality are not particularly informative because they are contextual like I talked about. The other contexts that they depend on of course, is who the person is. One of the reasons why the illness was initially dismissed was because those aggregate numbers were cited very frequently. So people would say, "Oh, it only has whatever percent mortality." And they would pick whichever number they decided to pick at the time. Well, first of all only is only if you are not or somebody that you love is not one of the only people who die. So that's a really problematic statement to begin with. And second of all, of course it is not the same for everyone.

Cecilia Tomori:

Let's take a look at some of the ways in which all of this varies. What we have been seeing from early on in the epidemic is a very strong age gradient with older people being at much greater risk of developing more severe symptoms, needing to be hospitalized and having much higher mortality. Now, some of that may be having to do with aging and some of it has to do with some of these other factors, some of the underlying illnesses that people may have, which of course accumulate over time. Those comorbidities are a piece of it.

Cecilia Tomori:

And of course that means that younger people too, who may have other kinds of illnesses may be more at risk. And then there are some other kinds of risks which may have to do with some sex specific factors which have to do with some of the biological factors that may make people vulnerable. Although again, that's a little bit hard to tell at this point, partly because those sex specific risks may also be interacting with gender specific risks that has to do more with social roles that make people vulnerable and social kind of practices rather than underlying biological factors, so it already gets very complicated.

Cecilia Tomori:

And then we're going to get completely into those social risks because I think that's another big piece that has been missing. What I want to point out when people talk about these numbers again and the way that the discourse has been shaped that's really, really problematic is this sense that we simply just don't care about people who are older or that they may have underlying illnesses. So this or anyone who may be facing chronic illness or disabilities was initially just completely neglected in these kinds of conversations and the dismissive kind of conversations that neglected to address some of the concerns that people had been kind of dismissed the severity of the virus in the first place were really, really problematic.

Cecilia Tomori:

And I just wanted to draw attention to that, that we really need to think about what we are saying when we say, "Oh, this only affects X, Y, Z population or only makes these people vulnerable." Those are really reflecting social stereotypes about who we care about in the first place. And I really want to argue against that and think carefully about who the people are that we're talking about. Every single person who is suffering and every single person who may die matters.

Cecilia Tomori:

Bringing together the different parts of my training, Public Health is one piece that I'm bringing to. And the other piece of that is the social part of Public Health. There's sort of more clinical aspects of Public Health and then there's of course, why is it that people get sick in the first place? And within Public Health, that is called the Social Determinants of Health. The reasons underlying structural and social reasons why we see particular distribution of health and illness, those things have to do with underlying social inequities. And as a trained social scientist, of course those two things for me are kind of at the core of these issues.

Cecilia Tomori:

Let's talk a little bit about why we see what we're seeing right now and the patterns of illness. Health and illness, these are sort of classic medical and topological concepts and of course also in sociology and other fields. They are always shaped by structural and social inequities. These are some of the foundational tenants of the work that we do. While it may seem various sectors only have to do with quote unquote biology, biology does not exist without the social context, it's informed. Our bodies are immersed in the context that we live, and of course our bodies reflect all of that. We are embodied beings and all those inequities are mirrored in the way that we become sick or remain well and healthy.

Cecilia Tomori:

Therefore none of this is distributed equally. What the media often calls lifestyle factors, which I put in quotes because it really is not a very good way to talk about things, really has to do with the ways in which we live, which really has very little to do with what we might think of as choices. Free choices that are sometime made out of thin air. They're driven by underlying inequities that make us more vulnerable to particular risks or not. One of the other discourses that I would like to take down in this talk is the idea that epidemics are somehow equalizers. Just because viruses of course are not aware of social inequities, the way in which they move and the way in which they cause damage directly builds upon those inequities. Therefore, epidemics are not actually great equalizers. All of our vulnerabilities and all of our outcomes in any kind of health and illness, and that includes, of course, this particular

pandemic is shaped by underlying inequities. Epidemics heighten those social divisions that we already have and they reveal those profound inequities and they do so both globally and locally.

Cecilia Tomori:

The main driver of these inequities really goes back to some of the same points that we always talk about in pretty much every one of these kinds of talks because they really are sort of the underlying factors that drive some of these issues. They really have to do with the legacies of colonialism, structural racism and resulting discrimination and poverty. Those are the sort of underlying things that make particular outcomes better or worse.

Cecilia Tomori:

Let's look at some of these issues in greater depth. These issues influence our baseline health. How we are at any given moment, the kind of comorbidities, the kind of underlying conditions that we have are directly related to these experiences. Those people who have been systematically dispossessed, removed from land and slaved, exploited in various ways are going to be facing underlying challenges in health because of usually hundreds of years or depending on the particular context, at least decades of systematic oppression, which is of course built into the entire environment, including things like where people live, their housing conditions, the opportunities for work. All of those things influence our baseline health.

Cecilia Tomori:

So then when we think about this kind of infectious disease, we really have a whole nother layer due to these underlying conditions because your exposure is going to vary. If those of us who have this privilege of being able to work at home. I am giving this webinar from the upstairs room where I'm currently at, versus I could be working as an essential worker at the grocery store, my exposure is going to be completely different. Similarly, living conditions really matter. Can I, for example, socially distance or not? If I am living in a crowded housing condition, which of course has to do with poverty and the reason why much of that occurs has to do again with these same legacies, then those vulnerabilities going to be enhanced.

Cecilia Tomori:

People's ability to follow public health guidance is not equal, it's completely contextual. And that also means that everything else is going to be experienced in unequal ways. The effect of those extreme public health measures that I talked about are going to have completely different effect on people because if they are able to follow some of those measures, of course they will receive much more of the benefits of protection while other people have to put themselves constantly at risk because of the work that they do. For example, people who are bus drivers, people who are low wage workers who are doing delivery work, these are going to be affecting people who are already marginalized.

Cecilia Tomori:

Our ability to access testing is not equal either, especially in most of the settings where I said, testing has not been adequately ramped up, so access is going to vary with the resources that are locally available. Once we get to the medical system, if we get there at all, then people experience unequal treatment. They may not be listened to, they may have other kinds of encounters with the medical system, which we already have documented previous to this pandemic that produce much, much worse outcomes. All of these are cumulative ways in which these social inequities are compounding risk and compounding

those worse outcomes. And we are starting to see the data on that and I've included some of that in my references as well.

Cecilia Tomori:

Okay. Going back to some of these fundamental issues that we draw from social science literature, epidemics reveal social inequalities, the response that epidemics also build on existing systems and all of their inequities, so you can really see how the different kinds of responses in different settings matter based on the kinds of resources and infrastructure that they already have. The existing health systems that people have are of course product of political system. To be able to have a well-resourced public health system, a well resource critical and acute care system, all of those things are shaped by things like funding for example, and various policies and access to care. Those are of course completely interwoven with all the inequities that we have. And then finally, another piece that I work on, if you've heard me talk about some of the other work that I've done in the past is that cultural assumptions also shaped people's responses, the health system and even scientific work itself. And we'll come back to that in just a minute.

Cecilia Tomori:

Now, taking all these insights and kind of thinking things through, we have some additional challenges. I'm going to switch back a little bit towards some of the epidemiological concerns before we bring it all back together. The clinical course of the infection in infants presents a particular challenge. One of the challenges has to do with the fact that so far children have been underrepresented in the reported confirmed cases and I use that confirmed with caution because of course as I told you, we have limited testing to begin with in most settings and because some of the cases that are reported do not actually have laboratory confirmation which makes things extra confusing. In China we have some cases that are suspected and confirmed, but in the confirmed cases we are seeing an under-representation actually in both Italy where there was also not adequate testing, we're also seeing relatively low percentage. We'll talk about that in a bit.

Cecilia Tomori:

US we're seeing a major under-representation, which we're not sure about yet. Iceland has the most extensive testing and there's a brand new paper out just today that I put in the references as well that suggests that once again children are underrepresented and in that particular case it's a little bit hard to tell what is going on. But the argument may be that they are actually not as susceptible to the virus, but that's not entirely clear. We don't entirely know whether it's because they're exposed less because in Iceland actually elementary school stayed open unlike in some of these other settings. Are they still interacting differently and they're exposed less? Or is it the fact that they are just not as susceptible? So there have been debates about this and these debates are currently unresolved as of April 15th.

Cecilia Tomori:

What we do know is that when children are tested, some of them present with no symptoms or mild symptoms. I think this is one of the key points that we have seen in the aggregate literature is that on the whole we are seeing a milder course. While that's great overall, there is potential for some severe cases among infants. The concerns there have to do with the physiological immaturity of the infant, in particular it would be the immature immune system that makes them particularly vulnerable and we'll talk about why breastfeeding is of course particularly important in that regard.

Cecilia Tomori:

Taking a closer look at what we do have on epidemiological data, the website that I will recommend at the end in the resources part of the talk that produces beautiful, very rapid reviews of pediatric literature is called Don't Forget The Bubbles and I am providing you with that resource at the end and you can take a look at each of the papers that we're going to talk about. I'm spending a little bit of time on this particular paper, which was first published in mid-March and then finally published with some supplementary material just a little while ago, a few days ago, and I'm spending time on it for two reasons. One, because it is the largest study right now that we have on children and it comes from China. And the second reason has to do with the fact that it has been used and much of the guidance that has been developed so it's worth spending a little bit of time on this.

Cecilia Tomori:

They had over 2000 cases under 18 which is great for us to be able to look at. However, the challenge of this paper was that two thirds of the cases were actually suspected cases, we do not actually have laboratory confirmation on it. Only one third was laboratory confirmed, just a little bit over one third. And to make things a little bit more complicated, there were more severe cases among the suspected group than among the group that was confirmed. Now the authors make statements that are based on an aggregate of those two and some including me and others have questioned whether this is a good idea. We were hoping that the data would be dis-aggregated and they did eventually publish a table which is in the supplementary materials and we learned that the total number of confirmed positive infants is actually 85 and out of those, the majority had very mild or moderate or no symptoms. But there were some severe cases, five and two critical cases and they constitute together about 8% of the sample.

Cecilia Tomori:

Again, there is potential for that severity among the infants, but we have to be very cautious to not extrapolate too much from a sample that's this large because we would need a larger dataset to be able to have a better understanding. And I already talked about that there's some other contextual variables as well and I'll mention what they might be that we might need. Another example of not so great reporting from this paper is they included someone who very sadly died, who's a 14 year old, but we don't really have any details on that case, so unfortunately we don't really know what was going on.

Cecilia Tomori:

There were also some other reports of deaths, and again, this is very challenging because it's not clear what the cause of death was. There are other factors that may have been at play. We do not have really good data on other cases from China where we can say this death was due to COVID-19 and we have all the clinical evidence that we need to say that. Now, the other setting that has the most cases that have been reported, and again, there are many other cases elsewhere, but we need to have them report it to-

PART 2 OF 4 ENDS [00:42:04]

Cecilia Tomori:

And there are many other cases elsewhere, but we need to have them reported to be able to analyze them, comes from Italy. Italy produces the nicest infographics that one can have and they are in English and I have included the link to them. Every day they are updated so you can take a look at what they're doing. Remember Italy is another setting where they did not have adequate number of testing, so we do

not know the full extent of the infections here. It's not Iceland but out of about 150,000 cases, there were a large number of deaths so far, 18,000 over. However, the course of illness does seem to be quite different for younger populations. Only about 1.6% of those cases were between zero and 18 and that is pretty close. They have a pretty old population so it's pretty close to their population. But in the grand scheme of the number of cases that we have seen, it's a pretty low percentage. There was one death reported, we do not have any clinical details of that yet. But what we're seeing is there is a pattern that's holding across different settings here.

Cecilia Tomori:

Now the US data comes from the CDC. They had collected some of the pediatric data and as you can see, unfortunately the US has had a huge number of cases already and that has to do with that lack of action early on to contain the epidemic. And we have a growing number of deaths, and if you are following the news, you already know that between April 2nd and April 15th which is where we are today, we have a lot more cases and a lot more deaths, but this is where they were at the time when they publish these data. Interestingly, in a population that is much younger, so this is very different from Italy, the population under 18 is 22% we still have a relatively low number of cases. Now why this is though is not clear because this may be due to again, not having enough tests. This may be because people who have milder course of illness may not be taking their kids to get care.

Cecilia Tomori:

We don't really know and this may change as reporting becomes better and we hope that reporting becomes better. Now if you're following media reports, you will be seeing that infant deaths have been reported and deaths who are older than infants as well. But in the case of those infants that we have, we don't really know what the cause of death actually was. Someone can die and have tested positive with the virus and the reason why they died, may not be this virus. It could be some underlying issues that they were having. It could be another pathogen, it could be co-infection, it can be any of those number of things. And of course it can also be deaths from COVID-19 but we do not know and we do not have that data yet. And so the missing data really makes the inferences for the US very, very challenging. It's very, very fragmented right now.

Cecilia Tomori:

Taking a look overall at where we are, our ability to determine the clinical course in infants is really hindered by missing data, including laboratory testing, we really need the confirmation that the child is actually infected with this virus. I mean that's [a step one 00:03:47]. Otherwise, we might be dealing with another respiratory virus that they might have, which also has severe outcomes. We need data on the hospitalizations, which we don't really have in many cases. We need data on severity, we need data on comorbidities and we also need some of the other data. For example, how were these babies fed and what were the policies in the hospital? Are they experiencing proximity or separation? Those issues of course also has an influence on physiological stability. And we are also dealing with profound differences in local context. Remember all those inequities that we talked about earlier on. Across the world the context of children and infants varies hugely.

Cecilia Tomori:

And so if you're thinking about some of the contexts where people already are suffering from acute malnutrition, they might be dealing with other infectious illness. That is a very different set of conditions from some of the very wealthy places where some of the high quality data might come from. It's

important to think about that. And the clinical course may also of course vary according to those conditions. Taken together what we can say is generally milder course of illness in children overall with the caution that there's possibility of severe disease, especially perhaps among infants.

Cecilia Tomori:

How did we respond to this situation in terms of the guidance that was issued at different points? Well the WHO issued technical guidance mid-March and that technical guidance continues to be effect, and the reason why has to do with the enormous amount of expertise that it brings together. It really integrates a wide range of knowledge from decades of work on maternal child health, on infant and young child feeding, both overall as a strategy, and specifically focusing on emergencies, and of course how to deal with any of these issues in relation to infectious diseases. The reason why the guidance hasn't really changed that much is because the principles apply and have been tested and work in the kinds of setting that we need it to work, which is in this case a very acute pandemic.

Cecilia Tomori:

The WHO guidance has really been very strong and consistent on the rights of the birthing mother regardless of COVID-19 status. And that includes support for labor, the rights of the person to have that kind of support emphasizes mother infant contact, advocate for immediate skin-to-skin contact, kangaroo care and breastfeeding with skilled lactation support, which is very important for us of course and proximity, [Grooming 00:49:01] in day and night as well as psychosocial support. And then the precautions that it takes really focuses on respiratory hygiene, so remember because this is a respiratory virus, the use of masks that may be helpful during breastfeeding, hand hygiene, washing those hands before contact with an infant and again, disinfection of surfaces. The same advice that we talked about in terms of those tools, still applies but you're treating the mother and infant as sort of a unit that goes together and that context that needs to be facilitated.

Cecilia Tomori:

Now in that guidance, the only time separation occurs is if the mother is too ill to directly breastfeed and may require special care. And in that case there's still supports for breastfeeding in different ways. For example, breast milk expression that should be encouraged and supported. Other ways of dealing with the situation, exploring relaxation, wet nursing, donor human milk, or appropriate breast milk substitutes depending on the context. And the WHO is very good about integrating all the lessons that we learned about marketing because emergencies of course offer opportunities for breast milk substitute industries to move in and undermine breastfeeding in context where actually the impact would be even worse than normally. And so they insist on no promotion of breast milk substitutes, feeding bottles, teats, pacifiers and dummies. A review of the code is always useful in relation to these issues.

Cecilia Tomori:

Again, if separation occurs, which is really because of the need to care for the mother and the baby separately, not because this is an advice based on infectious disease control. Then sacrificial social support needs to be provided and again, supporting breastfeeding in some way, whatever way is possible is the imperative from the WHO. The WHO also produces some wonderful public facing materials, including a Q&A and a Twitter feed push out of this guidance and they have been very consistently moving that forward.

Cecilia Tomori:

Now the guidance from China of course precedes some of this work but kind of stayed in a different context, so the Chinese expert consensus statement is quite different from WHO in the fact that they recommended automatic separations for persons who are under investigation for COVID-19 and those for confirmed positive. And they recommended separate care and no physical contact for 14 days and no breastfeeding, and these kinds of measures were completely inconsistent as you can tell with the WHO guidance, some of these experts continue to advocate for this type of guidance even after the WHO has repeatedly reinforced their message. You can really see that there's some different takes on what is supposed to be the guidance here.

Cecilia Tomori:

Now just a few days ago, the Italian Society of Neonatology, which is also endorsed by the European Neonatal and Perinatal Societies published their guidelines and here you're seeing a very different take. Whenever possible the preferred option is the joint management of the mother and her infant in order to facilitate their interaction and the beginning of breastfeeding, and you're seeing the statements of the WHO echoed and this choice is defined by the good health status of both the mother and her neonates. Usually the mother is asymptomatic or paucisymptomatic, so does not have many symptoms and previously identified as positive to COVID-19 or under investigation for COVID-19 and again separate care only when the mother is too ill.

Cecilia Tomori:

The UK guidance, which is a joint guidance by the Royal College of Midwives and the Royal College of Obstetrics and Gynecology issued a very similar statement to the WHO, where they really think about routine precautionary separation of a woman and a healthy baby as something that should not be undertaken lightly given the potential detrimental effects on feeding and bonding. Given the current limited evidence, we advise that women and healthy babies not otherwise requiring neonatal care are kept together in the immediate postpartum period. And like we talked about earlier, the main risk of breastfeeding, which is really not about breastfeeding itself, that's a little bit of a phrasing issue here, is the close contact between the baby and the woman who's likely to share infective droplets, remember those respiratory droplets and that light of the current evidence and we advise that the benefits of breastfeeding outweigh any potential risk of transmission of the virus through breast milk.

Cecilia Tomori:

The risks and benefits of feeding choices including the risk of holding the baby in close proximity where women may be infected should be discussed with the parents, so this is an informed decision making model, but separation is certainly something that actually needs to be discussed and thought through rather than an automatic recommendation, which is what the Chinese guidelines were. Now I'm not going to get into all the details of the evolution of the US guidance, but the early CDC guidance has some contradictory language and some things that different people interpreted in different ways. But under the most recent guidelines which were updated on April 4th. Again, we're talking about just a few days ago under the mother baby context section. Now we have an updated statement that talks about the many benefits of mother-infant skin-to-skin contact, which are well understood for bonding increased likelihood of breastfeeding, stabilization of glucose levels and maintaining infant body temperature.

Cecilia Tomori:

And the issue here that while there is concern about transmission after birth via contact with infectious respiratory secretions, this is the same as you heard in the UK guidelines. The risk of transmission and the clinical severity of SARS-CoV-2 infection in infants are not clear. There's acknowledgement of some of the limitations of the evidence. And so here we have a little bit of a different take from the UK guidelines and the Italian guidance, but an informed decision making model. The determination of whether or not to separate a mother with known or suspected COVID-19 and her infant should be made on a case by case basis using shared decision making between the mother and the clinical team. And hear this the CDC really clarified the language while shared decision making was part of the previous language that was not entirely clear and the case by case basis was not highlighted either before.

Cecilia Tomori:

The entire emphasis on maintaining proximity, on having some decision making here has really changed quite a bit in this updated guidance. The consideration about whether mother and infant is to be separated includes the clinical condition of the mother and the infant, the results of the mother and infants if they're both positive then there's no need of course to separate, the desire to feed at the breast. Again, maternal desire is a factor here. The facility capacity to accommodate separation or co-location because we know many facilities do not have that kind of capacity in the first place. The ability to maintain separation upon discharge, which again is very contextual and other risks and benefits of temporary separation of a mother with known or suspected COVID-19 and her infant. This is a very contextual kind of guidance. The challenge in the US is that the professional society guidance tended to be issued before this most recent update.

Cecilia Tomori:

And intended to follow a much stronger set of recommendations which came in part from some of the challenges around the CDC language. And so there's various versions of guidance currently out including from the American Academy of Pediatrics that argues for separation without this kind of contextual shared decision making model, it's a really a much, much stronger separation recommendation. ACOG also has a stronger take on separation. The Academy of Breastfeeding Medicine emphasizes maternal decision making and shared decision making, which you saw in the previous slide. There's a lot to talk about there and we could do a whole talk on this, but I think that the framework here is laid out nicely and clarified at least in the CDC updated guidelines and in terms of how to analyze the guidelines, I think we have the framework well established for the next part of the presentation.

Cecilia Tomori:

What we've noticed so far is that there's a lot of confusion and contradictory messaging. Guidance varies across settings from national to local levels. And of course I could choose other examples, these are just some of the ones that we've highlighted. Some follow the WHO, while some others impose mandatory or strong recommendations for mother infant separation. Some of them do not allow breastfeeding at all, only express breast milk. And then even when they do quote unquote permit it, there's insufficient support built in for breastfeeding and the expression of breast milk. And so the real question here to me, and this really is something that is the training that I bring as an anthropologist is why, why is this the case? Why do we have so much discrepancy in these guidelines. Accounting for the fact that the evidence is rapidly accumulating, so of course guidance is going to be adjusted based on what we have, but still is that really sufficient explanation.

Cecilia Tomori:

And what I would like to propose is that really these are having to do with the social factors that we're seeing. Guidance is built and all health responses like I talked about on existing systems and existing cultural assumptions really matter in how guidance is shaped. The key issues that present separation as the sort of recommendation, the main recommendation presents separation as a neutral default kind of setting. The cultural assumptions behind that really are that the neonates and the mother are two completely separate individual, and independent unit. And what I would like to suggest is that these kinds of assumptions about separation really have a lot to do with the socio historical changes that we have seen in the last couple of hundred years. They have to do with the changes, these very profound changes that the rise of industrial capitalism and colonialism, the rise of scientific and mechanistic kind of thinking, that intersection between capitalism and science, and of course right alongside that medicalization, and increasingly an understanding of the body as machine.

Cecilia Tomori:

When separation is presented as this default, it really relies on all of these historical enormous changes. We're seeing over the last 150, 200 years, enormous changes in childbirth and infant care, profound changes with the medicalization of hospitals and ultimately the result of hospital birth, the elimination of midwifery, the rise of obstetrics and pediatrics, and that resulting enormous fragmentation in care that we see so that we have different kinds of specialists looking after different bodies but also even body parts.

Cecilia Tomori:

The rise of scientific parenting, which really starts taking off in the early 20th century. Some of these changes are late 19th century and some of them really start taking off in the early part of the 20th century. And they come with a whole series of other assumptions that if you've heard me talk about breastfeeding and infant sleep, you'll be familiar with these assumptions because they're the same. They have to do with ideas about independence, which are very much rooted in sort of Western cultural expectations for how infants are supposed to be. And they were profoundly reinforced by these practices in hospitals where mothers and infants were separated, usually by the middle of the 20th century and most what we call Western settings, these practices were well established and they became absolutely normative, so the idea of this fragmentation was very well established. And this is of course during the same time when breastfeeding nearly went extinct and was-

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Cecilia Tomori:

Time when breastfeeding nearly went extinct and was completely undermined and in most of those settings. So these are huge, enormous changes.

Cecilia Tomori:

Now, since that time we have come a long way, and this idea of interdependence, the relationality between mother and infant and other beings and other communities, including breastfeeding, was sort of rediscovered. But the way that it was rediscovered and now promoted under public health as well is much more medicalized. It's a very different way of thinking about breastfeeding than it was previously, as a default sort of cultural practice that people did without really reflecting upon it in great detail.

Cecilia Tomori:

Medical training is rooted in a previous paradigm. It's often still quite mechanistic and we all know that there's very little attention to these kinds of aspects of relationality and inter-related dynamics, including, of course, breastfeeding. And in that kind of a paradigm, proximity is not considered something that's a default, but rather, as a potential threat. When we think about infectious disease in particular, it is viewed as a potential vector of transmission, it is not really thought about as something normative or something that is the default for human beings.

Cecilia Tomori:

But of course if we look more broadly and look deep historically in our evolutionary context, the default state of the infant is actually in relation to the mother. It is part of a dyad, and of course nested within entire communities and much larger networks of caregiving.

Cecilia Tomori:

Human infants are born in a particularly vulnerable state compared to many other animals and they cannot do some of the things that other primates can do. They cannot cling, they cannot maintain a stable temperature, they cannot maintain really, fully, a stable physiology. The mother co-regulates the infant and breastfeeding of course has a huge role in that.

Cecilia Tomori:

Of course you're all familiar with breastfeeding so I don't need to spend as much time on it, but breastfeeding is of course dependent on proximity, and at the same time, ensures that proximity. So it's kind of a feedback loop there.

Cecilia Tomori:

Frequent feeding is necessary. A part of the way in which human infants survive is by frequent feeding, and this occurs of course during the day and night. And the role of proximate arm's reach sleep and frequent feeding of course is well-documented in, for example, SIDS. And it of course delivers nutrition to the infant, but another major area that breastfeeding offers is protection from infectious disease. Remember, breastfeeding is an adaptation. It is shared by mammals, and in the human context, one of the evolutionary advantages of being able to have this very unique kind of frequent feeding relationship with this very immature infant is the protection that it offers from infectious disease. So this is one of the primary concerns that we have when we think about a pandemic.

Cecilia Tomori:

Breast milk has anti-microbial properties, and specifically antiviral properties. Some of these properties have been documented in previous diseases, but some of them of course are still being uncovered. There's always a lag time between a particular new illness that's emerging and the ways in which breast milk interacts with that.

Cecilia Tomori:

And of course through the process of breastfeeding, there's a tailored immune response because of the feedback mechanism between the baby and the mother. And so, these are really, really important for when we think about the harms of separation. Undermining that proximity has a profound effect on breastfeeding. And of course we know this from the literature that everybody who ever works in supporting families needs to learn about why supporting breastfeeding is so important and why proximity is so important.

Cecilia Tomori:

So the harms of separation are actually very extensive. We have the separation, taking the infant completely out of its normal niche, it prevents the co-regulation, it disrupts breastfeeding, which is the only form of immunological protection that we have against a new illness, we have nothing else, and of course it causes enormous stress for moms, infants, and the entire family.

Cecilia Tomori:

And we also need to think about the harms of separation in a cultural and historical context. Remember that proximity is actually the dominant model of infant care cross-culturally, and that the whole idea about separation really started among European and American elite, which then trickled down into middle classes and usually it was forced upon everyone else, and it spread via colonialism. So colonial dynamics are key to spreading these kinds of cultural ideals. They're involved in quote unquote civilizing efforts, they're involved in forced labor, they're involved in practices of enslavement and separating families. So these sort of dynamics about separation were often enforced in very violent ways across the world and they have enormous legacies.

Cecilia Tomori:

So on the one hand, we have, remember, all those inequities that exist as a result of some of these processes that we already talked about, and so these separation policies have inequitable effects that compounds that, but they're also compounding historical trauma where families were separated forcibly across all sorts of contexts, both of course in the United States, but all over the world, in Canada, in Australia, in Africa, wherever colonizers have gone or wherever people transported people and ripped them apart from their family. So these are practices that have significant cultural, historical contexts.

Cecilia Tomori:

And then looking back at the implications for infectious disease, the assumption which has to do, I believe, with this cultural ideal that they have set up about separation, is that the infant who's separated is in a neutral environment without any viral exposure. But in fact, if we think about that very carefully, there's also quite a significant possible exposure to the infant from new and other kinds of sources. So every healthcare worker or anyone else who's handling that infant presents a potential new exposure.

Cecilia Tomori:

Remember that we talked about that enormous number of presymptomatic transmission, and again, potential asymptomatic, but probably less so transmissions. That means that people who may appear to be healthy may very well be transmitting the virus, and then put that together with all the work that's being done on the very, very high rates of exposure in hospital settings, where we don't have enough personal protective equipment and healthcare workers are very, very highly exposed. So they may very well become, inadvertent of course, vectors of infection, and that's already being documented in several different kinds of settings. We've had reports of that in China, in Italy, and now in the United States.

Cecilia Tomori:

There's of course the other piece, which is that many people will undergo rapid discharge. So after discharge, the infant might also, A, become of course exposed to the same person that they were separated from, but they're also returning to the same environment in which that person, the mother, acquired the virus. And there might be other people who are transmitting who may or may not be

infectious at that particular moment. So there's a whole series of other exposures here that are not being mapped out.

Cecilia Tomori:

The result of some of these policies may be that the infant has high likelihood of exposure, but actually less opportunity to benefit from the protective effects of proximity and breastfeeding. Because if we're interfering with proximity, then we are reducing the likelihood of success in breastfeeding. And so, we're really kind of tilting the balance towards some of these concerns.

Cecilia Tomori:

So there's a lot to think about when we think about implications for practice. And really, this talk is to help you navigate that. So what are some of these implications? I think one of the key ones is that we really need to be following emerging evidence, and I will give you some good resources on this at the end, but definitely the World Health Organization provides excellent resources and they're a great starting place. And there's of course other resources that I will point you to, but following that emerging evidence is going to be crucial.

Cecilia Tomori:

To be able to navigate the guidance, we can't just read it, whatever it is, locally, nationally, we can't read it uncritically. In a time of uncertainty, in a time of limited evidence, and in the kind of complexities that I laid out for you, we really need to think very carefully and that means examining our own default assumption. And of course, these are going to be deeply embedded and related to the cultural context that we come from. So this is going to take some deconstructing, and then really, really needs to think carefully about what the implications of each of those steps are for equity.

Cecilia Tomori:

Some of the ways that we can help map out what to do is to think through the routes of exposures that we talked about, and then to think through some of the trade-offs of each of the steps along the way. Whenever we think through and whenever we're critical of whatever policy is being enacted, we do also always need to acknowledge that we are operating under circumstances of uncertainty and that we have limitations of knowledge. None of us know everything, and tomorrow, there may be new evidence that may change our minds about some of the things that we have said before.

Cecilia Tomori:

So it's very important to be humble and to listen to the experts. Get that information from really credible sources and translate that knowledge and reach out to the people who can translate that knowledge.

Cecilia Tomori:

So along the way, as we're thinking about how to translate this knowledge, I think it's really important to look for opportunities to support parents' and infants' rights. As you can see, the ability to have shared decision-making at all may be limited depending on the context where you are working and living. So some of those guidelines are going to leave very little decision-making to those parents, and others we'll provide a little bit more, but they may not, in practice, be implemented that way. So to be able to allow people to make those decisions is really, really important, and to facilitate that from an ethical

perspective and a human rights perspective. So anything that we can do to facilitate that would be the ideal.

Cecilia Tomori:

And of course, along the way, every step we have to think critically. Again, humility is key here, and changing of minds is altogether possible when we examine the evidence critically.

Cecilia Tomori:

The other important opportunity here is to look for support and not just think through these things alone. So it's a great opportunity to talk to colleagues, to talk to other people, maybe reach out to people, reach out to the experts, ask for some information. Many of them are very involved in science communication, and of course I am more than happy to support you in anything that you are working on. And it's a great opportunity for collaboration, to look for organizing opportunities to work together so that we can actually support families as best as we can.

Cecilia Tomori:

So the conclusions really are about action. So when we feel like it's just overwhelming despair, I think it's always best to move towards action. The opportunities here for working together and collaborating are excellent. It's essential that we communicate with one another to address concerns, to raise questions, to relay these to colleagues, to leadership of our organizations, and leadership in the work environments where we may be operating.

Cecilia Tomori:

And again, and I think this is crucial, we need to consistently pay attention to those inequities, the underlying inequities that are being compounded, and work to address them, speak up, and find out what people's experiences are and support them along the way.

Cecilia Tomori:

Okay, so now, I'm just going to run through a few resources for you. So the first step that I usually direct people to is that technical report that I mentioned from the WHO that came out of mid-March remains excellent. There's a wonderful public-facing question and answer from the WHO as well that came out of mid-March.

Cecilia Tomori:

UNICEF UK Baby Friendly has been doing a wonderful job of putting out guidance, including on infant feeding during COVID, neonatal settings, maximizing breast milk production and relaxation, which is a great resource.

Cecilia Tomori:

UNICEF IYCF guidance came out at the end of March. Also excellent.

Cecilia Tomori:

Of course ILCA has been curating a collection of resources that you can access.

Cecilia Tomori:

CGBI is an excellent resource for various, both of the guidance and the emergency resources on the website.

Cecilia Tomori:

In terms of reviewing evidence, it's important to look at some of the reviews that are coming out so that if you're reading individual literature, you don't want to be missing something that might be crucial. This pediatric rapid review has been really the best resource where almost everything is captured, and if it's not captured, you can email them and direct them to a particular piece. It's by the Don't Forget the Bubbles team, which is a group of clinicians and they're very thorough and thoughtful. So take a look at that website.

Cecilia Tomori:

And for sort of general other resources, oops, I almost skipped over one. At Johns Hopkins at the Bloomberg School of Public Health Center for Humanitarian Health, there's another really great collection of COVID-19 maternal child health and nutrition resources. So that specific focus is just another excellent [inaudible 01:19:31] review.

Cecilia Tomori:

For human milk banking, we also have some statements from HMBANA.

Cecilia Tomori:

And then there's some general resources that I like to direct people to. One of them is from Johns Hopkins, the coronavirus portal. Many of you have seen of course the coronavirus map, which is now getting even more elaborated so you have even more detailed data. You can also access expert advice and there's a wonderful podcast called Public Health on Call that I highly recommend listening to, something that you can just start the day with if you want to catch up on the news. Excellent. Very well done and very understandable for people who are not necessarily specialists.

Cecilia Tomori:

At the School of Nursing, we made a little video on breastfeeding a little while back. Of course things are changing in terms of guidance, but I participated in making that video and most of the focus really was not just on inpatient settings, but also in community settings where there's a little bit less of the debate on how to navigate the pandemic. But there's a little bit of discussion about inpatient settings as well.

Cecilia Tomori:

And I also like to use the Harvard Chan School of Public Health Center for Communicable Disease Dynamics because they have done an excellent job, not just of leading some of the modeling work, but actually communicating some of the modeling work that I think will be really helpful.

Cecilia Tomori:

And really the key takeaway from this talk is that we are in this for the long haul. So we really need to be thinking very carefully about how we support families because while it is an emergency and many of us are dealing with extremely acute circumstances, we're going to be dealing with some of these issues for many, many months to come. And so we need to be thinking about how to build the best kind of support that we can possibly have for families around the world.

Cecilia Tomori:

And with that, I'm just going to show you that I've also put together a bibliography of some of the things that I specifically talked about. So you can take a look at some of these brand new papers that I mentioned. Some of them are earlier collections that might be relevant. Some of them have to do with lessons from social science, some of them have to do with modeling. So you have a good set of resources that would be hopefully helpful to you. So you can take a look at that and this will be available to you.

Cecilia Tomori:

And that is the end of our talk. Thank you so much for having me.

Speaker 1:

[inaudible 01:22:35] participant. Thank you for taking the time to learn up on this ever changing topic. And please feel free to visit our website, as Cecilia mentioned, www.ilca.org. We have some resources there for you all as well. So thank you and I hope everyone has a wonderful day.

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