WEBINAR VIDEO TRANSCRIPT

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Understanding and Addressing ACEs During and Beyond the COVID-19 Pandemic

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INA RAMOS: Good afternoon, everyone. My name is Ina Ramos, and I'd like to welcome you to the Minority Fellowship Program webinar on understanding and addressing adverse childhood experiences during and beyond the COVID-19 pandemic. This webinar is brought to you by the SAMHSA Minority Fellowship Program Coordinating Center.

Disclaimer-- the views, opinions, and content expressed in this presentation do not necessarily reflect the views, opinions, or policies of the Center for Mental Health Services, the Substance Abuse and Mental Health Services Administration, or the US Department of Health and Human Services. And now I'd like to introduce today's presenter. Dr. April Joy Damian is an epidemiologist, health services researcher, and classically trained public health professional with expertise in health equity, social determinants of health, psychiatric epidemiology, and mixed methods.

She currently serves as the associate director of the Weitzman Institute, a research, education, and policy center dedicated to quality improvement and primary care transition, with a particular focus on vulnerable populations. Dr. Damian is also the immediate past chair of the Academy Health Public Health Systems Research IG Advisory Board, and concurrently holds faculty appointments at Johns Hopkins Bloomberg School of Public Health and Wesleyan University.

Dr. Damian previously served as the director of quality information at the National Quality Forum, or NQF. In this role, Dr. Damian spearheaded the expansion of NQF's portfolio on social determinants of health quality measures, and co-lead into NQF Measure Incubator, and innovative effort that facilitates efficient measure development and testing through collaboration and partnership, and addresses important aspects of care for which quality measures are underdeveloped or nonexistent.

Dr. Damian completed her PhD in the Department of Mental Health at Johns Hopkins Bloomberg School of Public Health, and master's in medical sciences at Harvard Medical School. She graduated Phi Beta Kappa from the University of California Berkeley, with a bachelor of arts in ethnic studies, highest honors. She has worked with several reputable governing bodies, including the US Department of Veteran Affairs, Veterans' Health Administration in Washington DC, International Organization for Migration in Geneva, Switzerland, as well as local health

departments on policy and programs relating to improving health care access and quality for medically underserved communities.

She has received numerous recognitions in honor of her role as a social change agent, including the Harry S Truman Scholarship, the Robert Wood Johnson Foundation funded Community Well-being Warrior Award, and an honorarium from the University of Delaware. Dr. Damian, the floor is now yours.

APRIL JOY DAMIAN: So thanks, Ina. Thanks to the staff at SAMHSA, and thank you all for being able to join on this rainy Wednesday-- at least if you're like me, and are based in Washington, DC. So hopefully I make this next hour and a half or 85 minutes with all of these meaningful. So I'm not going to go into accolades or exactly what I do, because I think Ina did a great job with that.

I think it's important to level set though, with all of you in terms of how I got into this field of childhood trauma-- or as we're going to refer to as adverse childhood experiences which really stems from me having grown up in San Francisco in California, and now based in DC-- traveled to different places and worked both internationally and domestically, and really feeling that my purpose is really to improve people's health and to bring healing.

I saw a lot of mental health challenges young adults-- all kinds of health conditions, from diabetes to heart disease-- and then realizing that a lot of these health conditions in adulthood-- a lot of them related to things that happened in their childhood-- and in knowing that patients, and families, and communities I've interacted with-- that it wasn't just them, but it was their relatives and it was children-- so this intergenerational trauma-- and then understanding childhood trauma within childhood, and understanding how it influences not only how they do in school their health, their overall well-being, how they interact with others in their circles.

So understanding the short and long-term consequences and impacts across the life course of adverse childhood experience is really what drove me to pursue this topic. And then there's the flipside of resiliency. Trauma and experiencing a traumatic event or having traumatic experiences does not have to be the end of the story. There are ways that we as a field can respond. There are ways to build resiliency and build stronger communities, stronger families, and stronger children. So I hope that, even in the midst of a very challenging public health topic to address-- very meaningful one-- that we come away knowing that there is hope and there's a way that we're able to address these issues.

So there are three objectives to my talk today. First is to understand the epidemiology of ACEs, and its short and long-term impact on health outcomes over the life course; to examine ACEs in the context of COVID-19, because we're all trying to relate our topics of interest to the current public health crisis; and then to explore recommendations and opportunities for addressing ACEs through research policy and practice, because I imagine many of you wear multiple hats-- maybe are clinical researchers or clinicians interested in health policy. So I hope you walk away

with some ways to apply lessons learned from this talk-- or if not, to reaffirm what you might already know and build on it.

This is a word cloud to really provide an overview of the first objective of-- that I mentioned in the last slides. So I'm going to ask Steve at this point to cue the video, which provides a great overview of ACEs-- particularly a summary of the original ACEs study led by Felitti and Anda and some key terms and concepts. So basically, the takeaway from the video is there are three types of ACEs, or there's a way to classify the types of ACEs-- so abuse, neglect, and household dysfunction. And there's images there.

As the video noted, there were 10 ACEs identified by the Kaiser study-- so physical, emotional and sexual abuse; two types of neglect-- physical and emotional; and then household dysfunction, which includes mental illness, mother treated violently, divorce, having an incarcerated relative, or substance abuse in the house-- which are not all-encompassing.

For many of you, you are clinicians, or practitioners, or researchers, policymakers. You know that you 10 ACEs done in this study close to almost 30 years ago is not all-- doesn't fully capture all adverse experiences. So often, when we refer to these particular adverse childhood experiences, we say the capital ACEs, the capital A-C-E-S.

We also recognize the shortcomings of the study. For those of us on the school who work in the health equity and health disparity spaces, we recognize that the study was done on a predominantly upper middle class white population with at least a college education, which is not necessarily representative of the populations that many of us aim to serve through our work.

So as I'll go through this presentation knowing that this is a seminal study and knowing that there are limitations, but there is still a lot we can take away from it, I wanted to make sure that we also talked about other conditions not necessarily covered, but definitely associated with ACEs, such as poverty, police and community violence, food insecurity, and discrimination-- which have yet to be included as part of these original 10 ACEs.

There's also population adverse experiences. So if we look at the year 2020, a year that will go down in history in terms of national disasters, public health challenges, national economic instability, war if we're thinking more globally-- wanting to understand these new adverse experiences, including the COVID-19 pandemic, are still to be discussed and to be examined further-- so just wanted to recognize, while a seminal study, there are still many knowledge implementation gaps which our field aims to address.

I just wanted to give a high-level summary of key findings from the ACEs study, which I think the video did succinctly and beautifully, as well as subsequent body of research. I know Ina provided, as an attachment, the different references, so feel free to look those up on your own time. And you can always reach out to me as well. So basically, three things-- one, that ACEs are highly prevalent, as you see here.

They're strongly associated in a dose-response fashion with some of the most common and serious health conditions. So by dose-response, the higher the ACE score, the higher the likelihood of having many of these highly common medical and behavioral conditions-- and that ACEs affect all communities. That's what it noted in the video. While affecting all communities, I also recognize that there are disparities in terms of prevalence, which I'll go into the next few slides.

So many states are collecting information about ACEs through the Behavioral Risk Factor Surveillance System, which are commonly referred to as BRFSS. So this is an annual state-based random digit dial telephone survey that collects data from non-institutionalized US adults regarding health conditions and risk factors. So since 2009, 48 states, plus the District of Columbia, have included ACE questions for at least one year on their survey.

The BRFSS ACEs model specifically was adapted from the original CDC Kaiser ACE study, and is used to collect information on child abuse and neglect and household challenges. The module's available in both English and Spanish. It is not copyrighted. There are no fee for the use of the questionnaires. ACEs are categorized into groups in this module-- abuse and household challenges. Neglect was not added until more recently in 2019.

So states have added a module using their own resources. They're not necessarily required to report back their data to CDC's BRFSS, but you can definitely look up on the BRFSS webinar page for a list of state coordinators wherever you are in the country. This study by Giano and colleagues looked at ACEs data using BRFSS for over 200,000 adults, and looked at prevalence of different ACEs as well as different ACE scores-- so just wanted to show the frequencies in terms of different ACEs.

I think what's more interesting, though, if you are like me, and are-- have a commitment to health equities, understanding that, yes, while the video did note that ACEs affect all people of different backgrounds and communities, that there are, in fact, disparities in terms of who is more likely to experience ACEs. So I note here, particular vulnerabilities to ACEs include females, younger adults, sexual minorities, and multiracial individuals-- so understanding that, although groups of all different social demographics are impacted, some are more highly susceptible and more impacted than others.

I know this is a stressful time for everyone, but I wanted to give an overview of stress. There is such thing as positive stress, tolerable stress, and toxic stress-- and that not all stress is bad-- so understanding that those of us who are particularly interested in the earlier stages of the life course, that sometimes stressful situations can contribute to your growth, and you're able to get through it.

So what does it mean to understand that not all stress necessarily leads to doom? So children, for example, who have supportive relationships experience tolerable stress, not toxic stress. So the stress that comes with studying for an exam-- we've all been there, study for exams-- but when you have study groups, a teacher, or a professor who's providing the right type of

instruction and support, it's tolerable stress-- it's helping us build our knowledge-- not necessarily toxic stress.

The key difference between tolerable and toxic stress is how it affects the body's stress response. So tolerable stress is temporary-- that exam-- eventually, you take it, and it's over-- where toxic stress is prolonged activation of the autonomic nervous system. So it's this fight-or-flight response, with tolerable stress being short-term and toxic being more long-term-- so knowing that the difference that having a supportive family, friend, teacher, clinician, provider-- that positive support in one's life can make the difference between toxic and tolerable stress and response to trauma.

So Newman and Blackburn argued that children may be able to overcome and grow from single episodes of maltreatment, but to recognize that, as risk factors accumulate-- so this cumulative trauma-- a child's capacity to endure them diminishes. So it's like this revved up car that it's OK keep your car running, for those of you-- us who drive, but after a while, the car will give.

So what does this mean when there's this prolonged exposure to trauma, and the accumulation of risk and harm? Research to date has shown that this is far more predictive and far more valuable in informing practice than viewing isolated incidences of adversity and violations. So what does it mean to look not necessarily at a single episode of child abuse or single episode of neglect, but understanding the whole picture, whole child approach when we're looking at toxic stress?

A prolonged period in which risks are already acknowledged as increasing vulnerability in children as this is happening-- understanding how environmental factors-- so conditions outside of the household-- can enforce the risk factors that have been happening in the household. So what does it mean for us to look at the child-- if you're thinking of the Bronfenbrenner model-- not only within the context of their family or the household, but also, what is going on in the larger community-- so just wanting to understand the long-term consequences of toxic stress physiologically, but also how different stressors, both within the household as well as external to the household, can interact with each other to have this prolonged effects on a child.

I had mentioned earlier about the dose-response relationship between ACEs and negative health outcomes, so I just wanted to show here different examples. As the ACE score goes up, there is an increased risk, and this has been supported time and time again with different studies in terms of negative influences of behavior-- whether that be lack of physical activity, drug use, smoking, physical and mental health challenges, everything from diabetes and depression to stroke, and cancer, and injury.

So as I noted in the beginning, my interest in the latter topics is what drew me to is recognizing that-- what are the root causes? Can we go earlier in one's life to understand how they got to where they are? I wanted to take the next few slides to really walk through the implications of ACEs-- at least the negative consequences of ACEs-- over the life course. There's the short-term effects of ACEs, looking at aces within childhood, but also into adulthood, so that it doesn't just stop in childhood.

But let's start first with pediatric health. So the effects of toxic stress can be detected as early as infancy. So in babies, high dose of adversity has been associated with failure to thrive, growth delay, sleep disruption, and developmental delay. In school-age children, studies have found increased risk for viral infections, pneumonia, asthma, and other atopic diseases, as well as difficulties with learning and behavior.

And among adolescents with high ACEs, somatic complaints, including headaches, abdominal pain; increased engagement in high-risk behaviors-- teen pregnancy, teen paternity; transmission of STIs, mental health disorders, and substance use are all common. When we're looking at adult health, this is one study by Hughes and colleagues-- but other studies have found consistent results in terms of higher ACE score having a greater likelihood to experience mental health disorders, such as depression, PTSD, anxiety, sleep disorders; and to engage in risky behaviors, such as early and high-risk sexual behaviors and substance use. So the higher the ACE score, the greater risk for ACE-associated health conditions.

This sums up the last three slides in terms of looking at the impact of ACEs across the life course-- so looking at that generational trauma, how it impacts different social conditions, the root cause of ACEs leading to different mental, behavioral, emotional health challenges across the life course, and eventually early death-- so understanding the impact of ACEs across the continuum.

As I noted in the beginning, there is hope. I don't want to focus on the doom of ACEs, but as the video highlighted, when we can predict something, we can prevent it from happening. And if we're able to understand ACEs, and the magnitude of ACEs, and different challenges, then we can do something about it, and potentially reduce not only ACEs, but negative outcomes associated with-- so this slide shows how a decrease in ACEs can lead to a 44% drop in depressive disorders. It can lead to 33% decrease in smoking.

It can address different socioeconomic challenges, such as unemployment. So you can imagine loss of work productivity, sick days associated with ACEs-- so understanding that, if we're able to do something with ACEs and address it in the patients and the communities that we work with, then it can have multiple positive implications in improving health outcomes as well as social outcomes.

So because I come from a public health training background and always want to understand these health issues in the greater context of society, so the next objective of this presentation is really to examine ACEs using the socio-ecological model that I know for many of you-- probably interested in ACEs in the context of COVID-19. So ACEs-- while they exist pre-COVID, they are still happening, and they have gotten worse during COVID, so I think it's important to think through this public health issue of is in the context of the current crisis that we're in.

So for those of you who might be less familiar with the socio-ecological model developed by Urie Bronfenbrenner, it's really been used to inform preventive approaches for several decades. It's a way of organizing the web of factors into nested systems that interact and transect to influence the experiences of the child in the world-- so understanding that ecological systems

which contribute to child maltreatment are highly influential in the context of the current pandemic-- knowing that there-- the pandemic has influences on cultural norms, on society, on community, and on family, and of course, on the child.

I love this image, because I mentioned in the beginning that, while Felitti and Anda study on ACEs was groundbreaking and really set the foundation for the work I've done, the work that others have done in the field of ACEs, we recognize that there are limitations to it. So there is this other part of describing ACEs where we look beyond the household, where we look at community-level adverse experiences, where we look at environmental conditions-- so understanding that, while ACEs-- again, capital A, capital C, capital E-- looks mostly at conditions within the household, that there are these external factors that also need to be taken into consideration.

So if we're looking at the pandemic, for example, we know that the impact and the experience that people are having with the pandemic-- it is not this great equalizer-- rather, that it's more of exacerbating or bringing to light existing disparities, particularly in communities of color. So we know that COVID death rates is six times higher for those who live in areas that are predominantly not white, as opposed to their predominantly white counterparts.

We know that the impact of the pandemic extends beyond being infected by the virus. So if we look at the violent events that happened in Atlanta and understanding these anti-Asian hate crimes, they're not necessarily direct infections, but nonetheless have affected the physical and mental health of populations of Asian descent during this pandemic. So what does it mean to look at the pandemic through those eyes and understand how the pandemic's impact on communities and families may be multiplied by historical and past trauma?

So another image that I really enjoy, because I think it helps to be able to see the relationship and the connection between adverse child experiences-- which I'm referring to as ACEs-- and adverse community environments-- so understanding that, when we're preventing and responding to ACEs-- adverse childhood experiences, because I know they both have the acronym ACEs-- it requires integrated, system-wide, and multisectorial approaches to effectively prevent and mitigate the negative impact of ACEs-- so understanding, what are the underlying social determinants of health?

So socioeconomic adversity, unemployment, poor and unsafe housing and living conditions could have the largest populational impact on ACEs. So what does it mean to get to the root cause of some of the ACEs that we're seeing in the leaves or the branches of the tree? So what does it mean to create community-- comprehensive community-wide programs, which have been shown to reduce child maltreatment, and build community-wide resilience?

What does it mean to make sure that resources are available to address the negative impacts of COVID-19? So I'll be going through that in the next few slides. So I wanted to summarize what the literature has shown. And this applies to both the global and domestic contexts. Although my work has tended to focus domestically, I just wanted to recognize that my definition of a

pandemic-- it is affecting the whole world, and that ACEs are not-- as you all probably figured out, is not limited to the US, but occurs in other countries.

So there are direct and indirect pathways linking pandemics to ACEs, and I'll go through each of these in the next few slides. But the first is ACEs as relates to economic insecurity and poverty-related stress. So there is a large body of literature, both domestically and globally, that points to the link between economic insecurity and ACEs, including violence against women and children. While much of this is correlational, they've been able to see that economically insecure populations tend to live in locations with weaker access to health and legal services. There are higher rates of crime.

On a household and individual level, economic insecurity has been linked to poor coping strategies, such as substance use disorder, taking on debts, transactional sex, and other risky behaviors. Economic insecurity and negative coping strategies have also resulted in acute and chronic stress, which is a trigger for conflict, arguments, and intimate partner violence.

Research from sociology on family stress models confirms this as an important pathway linking economic stress intrafamilial violence. That suggests that increasing economic security via social safety nets-- IE, cash and complimentary services-- particularly for poor households, can reduce ACEs at meaningful levels. So these shocks that we're experiencing could be large in terms of the economic implications of COVID.

Households might be facing increased unemployment or reduced ability to work due to location or nature of economic activities. Women in particular may be disproportionately affected by additional unpaid care, such as caretaking or caregiver work, which maybe further decreased their ability to undertake paid work. And then, lastly, even without direct shocks to earning levels, pandemics, as I'll show in the next slide, may incite temporary food insecurity and increase stress due to uncertainty about the future economic security and general well-being-- which, in turn, can lead to higher incidence and frequency of ACEs.

So I think it's also important to understand the current pandemic in the context of other pandemics and prior public health emergencies. So prior pandemics and health emergencies, including SARS, swine flu, influenza, have been associated with problematic coping behaviors-- anxiety, suicide attempts, and mental health disorders. So we know that we have this converging pandemic of a mental health crisis.

PTSD-- all of this associated with quarantines and social isolation, the limitations on freedom. So what are the different ramifications that this-- all of this is having on mental health? Quarantines, though, can be particularly challenging for parenting, with existing vulnerabilities and abuse magnified for children, due to closures of school, stress, fear, uncertainty. And while quarantines may be implemented right now in the short run, there could be adverse effects on mental health for years post-pandemic.

For those of you who are clinicians on the call or work in direct services with youth and families will need to address mental health challenges once we've gone beyond our current-- the

current pandemic. And poor mental health, mental disorders, and related factors have been shown to increased risk for ACEs, which-- understanding also that being in a forced quarantine and social isolation measures-- and different research has shown this-- can be analogous to settings where forcibly displaced persons are relocated to camps, temporary centers.

The act of being quarantined or socially isolated can also increase exposure to perpetrators. What does this mean to-- as a person who's dependent on a perpetrator living in confinement with decreased freedom, decreased privacy, under circumstances of greater physical and psychological stress? There may be parents or individuals who exhibit controlling behaviors or further acts of violence as an adverse way of coping with the current challenge.

So what does this mean for that to be projected to children, or to women in case of intimate partner violence, or to men in the household-- different forms of violence manifesting because of lack of poor coping mechanisms? So numerous forms of isolation as a control tactic have been documented, including social isolation-- so that's from family and friends-- functional isolation-- when peers or support systems appear to exist, but are unreliable or have alliances with the perpetrator.

There's also physical or geographical isolation, where one doesn't have any means for talking or communicating with others. They live remotely-- so just understanding that there's different forms of isolation, and even where a person might have a lot of friends and family around-- if they have existing relationships with the perpetrator or they have no way of communicating with them, then it becomes even a greater challenge.

Another pathway linking the pandemic to ACEs is this notion of disaster and conflict-related unrest/instability. Going back to the socio-ecological model, it's affecting our society at large. This is not just a one community, one city, one family. Our whole infrastructure has been tested by COVID.

So what does this mean for our-- systems have been tested in terms of transportation, food, sanitation, our legal systems, our security, governance structures, different entities having to pivot and change the way they handle operations. So what happens when our whole infrastructure as a society is put to the test by COVID?

So knowing this unrest and this instability in our infrastructure may lead to an increased exposure of children and their parents to unsafe and risky settings-- there might be increased exposure, for example, to sexual violence and harassment during acts of procurement for basic goods, such as food, water. There might be a lack of access for paid workers in some areas due to insecurity or constraint, breakdown in formal support roles.

There could be a breakdown in general services that are available where, for example, a child who usually goes to school in person-- so for those of you who are in the education sector or who work in school-based health centers, you might be able to-- usually rely on being able to see that child or that pediatric patient in the school. But what happens when that is taken away and the mandatory reporters, so to speak, that are in a child's life are not able to see the child

on a day-to-day basis? So there's a limited capacity to have that engagement with a system which is usually known to be a system of support for a child.

So during this time, there's also increased exposure to exploitative relationships due to changing demographics. We know that more people are dying, more people are getting sick-- that there's greater exposure to exploitative relationships, especially for those facing economic vulnerability. So we've seen this dynamic play out with the HIV/AIDS pandemic, where an estimated 32 million people have died from AIDS-related illnesses, and an estimated 17 million children have lost one or both parents.

So this increased mortality and morbidity-- I'm sure, if you read the news or at least follow the increased deaths and hospitalizations related to COVID-- can put additional constraints on family networks who are supporting the children whose parents and caregivers have died or have become very ill because of the virus. So what happens to these extended family networks and the stressors that are put on them, the increased barriers for children, as I mentioned, to consistent access sufficient and healthy food, and medical care, schooling?

What happens with the short-term school closures that impact children's long-term opportunities? And in many settings, what happens when there's a greater reliance than on sexual transactions to be able to obtain the financial or the type of support for basic needs, such as food and clothing, because of these changing demographics-- so that the person that one might usually rely on are no longer present because-- due to illness, or worst case scenario, death.

So recognizing that many of you are in the health care field and are first responders-- so of course, thank you for your service-- but knowing that many of you, including on this call-- health providers, emergency first responders are often the first point of contact for women experiencing violence, for children experiencing ACEs. And an obvious outcome of any pandemic is an increased burden on the health services and first responders.

I know here at the community health center [INAUDIBLE] which [INAUDIBLE] is a part of, there's increased focus on COVID testing, and obviously vaccine distribution. So what does this mean for routine health services and the contraction of those services because of the pressing needs of the current pandemic? So what does it mean when there's a reduced supply of essential services for survivors of violence?

What does it mean when referral pathways may change, because health care systems or staff have to redirect different staff or resources to address the more time-sensitive challenges of the pandemic-- or post-emergency? So there might be shortages in services in terms of health and legal services to address the immediate needs of family and children.

Survivors who face difficulties accessing medical facilities may further be impaired in seeking justice-- so understanding that there are also legal implications. Anecdotally, there have-- you might read in the New York Times or here on NPR that they're looking at decrease reports of

domestic violence, but that doesn't necessarily mean that the decreased calling in is actually leading to a decrease in actual intimate partner violence that is happening.

There might be less willingness to seek help, less visits to the emergency room because of perceived risk of contracting viruses. So this has played out in prior public health emergencies, so that is another pathway that could be related to ACEs in the current pandemic.

So I know many of you are also familiar with the importance of information, and health literacy, and knowing, as we're understanding more about the virus, as we're understanding more as this is-- the timeliness of how things are changing in terms of safety precautions, in terms of the vaccine-- anything related to the pandemic. It's been a multitude of uncertainty and constantly changing information.

So what happens when a child or a caregiver doesn't have easy access to that information? So when we talk about knowledge is power-- so if a pandemic is novel or survivors have limited information regarding the nature of transmission, perpetrators of violence may use misinformation or scare tactics to control or blame them-- so understanding that perpetrators might not only withhold information, but also withhold safety items, such as hand sanitizers, disinfectants, and protective masks.

And finally, linking with mechanisms around economic and security, perpetrators might also withhold health insurance or economic support, which becomes even more crucial during this current pandemic-- so understanding the social and economic repercussions of the virus, so understanding that there is this greater dependence or way of controlling and way of demonstrating power over persons by withholding knowledge, by withholding different resources.

This is continuing on the prior slide that I showed, and this one really focuses on the inability of women to temporarily escape violent partners. And I am mindful that, again, we're talking about capital A-C-E-- capital ACEs-- and one of them is about intimate partner violence, but I do recognize that violence can happen to anyone, regardless of gender but. In this case, women may opt to stay with abusive partners for a host of reasons, ranging from emotional attachment, psychological distress, financial dependence, fear that separation will elevate harm to their safety or the safety of their children.

So each of these that I noted can be compounded in a pandemic. During a pandemic, women may worry about their physical safety or experience additional mental and emotional distress, making it more difficult to create necessary space in the relationship and mitigate immediate risk for violence. Outside of personal familial constraints, women's access to legal systems and safety support services can be limited during a time of crisis.

We know that court officials across different countries around the world have advised to stay at home. Here in the US, hearings have been postponed. Some court systems have carved out exceptions for family law proceedings through reduced staffing at courts, which risk delays in the issuance of court-ordered restraining orders, separation and divorce proceedings, and child

custody hearings. Related support services, including screenings at medical facilities and crisis support services, may also be impacted.

And pandemics may also have effects on law enforcement operations. So in the context of COVID, they've observed through the-- reported by the ACLU that police officers may be less likely to assess cases of intimate partner violence as high priority for arrest and detainment, because they want to drastically reduce the number of people who are arrested and detained because of the challenges of COVID outbreaks in existing prison systems, which are already overcrowded.

We know that this dynamic also played out in-- during the Ebola outbreak, where police officers were hesitant to enter homes and conduct thorough investigations at a risk of disease exposure. So what happens when the entities that we've enlisted to protect and serve also have their own constraints?

And then first responders, crisis hotlines, and different organizations have also noted that-- really, the importance of making sure that their operations are still up and running, but understanding that there might be constraints on different non-profit organizations, which have also suffered during the pandemic. So they're suffering, and being able to stay afloat, as financial constraints have been put on these different social service systems, might limit their capacity to be able to support women and children in need.

I also want to recognize violence perpetrated against health care workers-- that health care workers are, in fact, disproportionately at higher risk for workplace violence. Globally, women are estimated to account for approximately 70% of the health care workforce, and the majority of those in informal caretaking roles in health. So violence against female health workers and sexual harassment is endemic in the health and social sector, with female health workers experiencing violence at the hands of male colleagues, male patients, and members of the community.

So I wanted to go over the different social determinants of health. Pre-COVID, our field was finally coming to terms with the importance of social determinants of health and influencing health care access and outcomes-- so understanding that, although the risk of COVID-19 to children is low, the risk of exposure to ACEs has substantially increased due to the social, financial, and psychological consequences of the ongoing pandemic.

So the San Francisco District Attorney's Office had increased domestic violence reports and calls in the initial weeks of the shelter-in-place order, and then dropped off. But as I said before, that doesn't mean domestic violence has decreased. Other states, like Missouri, have also reported drops, for example, in child abuse reports, but that doesn't necessarily mean that, because there was a drop in reported child abuse, that there's actually-- children are actually safer at home.

And it might actually be the opposite, that the abuse is likely increasing with rising family stress. So I note here the increase in food insecurity, the increase in housing insecurity, the increase in

violence because of poor coping mechanisms-- knowing that vulnerable children may experience COVID-19 very differently, given the additional burdens that come with the pandemic, on top of the infection aspect of COVID.

So we know that mass unemployment has an adverse impact on the health, financial, and social circumstances of workers, families, and communities. Globally, people reporting depression and anxiety symptoms have spiked. Since the lockdown, there's financial hardship and stress from confinement, increase in risk for suicide, challenge with alcohol and substance use disorder, negative parenting practices, loss of social support network.

So as these social and economic stressors and household adversity accumulate during the pandemic, the risk of maltreatment experienced by children residing in an already volatile and risky home environment can escalate exponentially. So imagine children who are already exposed to ACEs pre-COVID, and what happens when you add this other-- this additional stressor of COVID exacerbating the current conditions and stressors that they experience in the household. We go back to that toxic stress, that cumulative stress-- as stressors builds in frequency, duration, and severity, really understanding that these are key indicators of cumulative harm on a child's health, both in the current as well as long-term.

So I wanted to recognize that there are converging public health challenges. So in my home state of California, we had natural wildfires that happened that devastated many parts of my home state-- so that on top of the pandemic. Our country had a moral reckoning that, yes, racism is still here. It is alive and very much present. And the killing of George Floyd and of other black, and brown, and indigenous populations only served to remind communities of color of the ongoing challenges of racism in this country-- so understanding that there are ACEs, and there are also these adverse communal experiences that are adding to the stress of the pandemic-- natural disasters-- reminder and ongoing existence of racism structurally, interpersonally, and on different levels.

So what happens when we have this cumulative experience of disadvantage and adversity? What happens to-- especially for children of color children low-income populations-- so relatively more vulnerable children-- what happens when you have these different stressors happening simultaneously-- so the converging pandemics that we were talking about earlier in this presentation.

As I started out in the beginning, I went into this work because I really feel that part of my calling is to bring hope and healing, that-- the challenge of heart disease, diabetes, depression, anxiety in adulthood, intergenerational trauma and it being passed down to children. But the story doesn't have to end there.

Many of us chose to be in the public health or health care professions because we didn't want that to be the end story for family members, for patients, community members. So as it said in the video, if it is predictable, it is preventable, so there are ways that we can address this. And my hope in the next few slides is to explore recommendations and opportunities for addressing ACEs through research, policy, and practice.

I spend most of my time in research, so I consider myself, as Ina pointed out, as a health services researcher. The field, to date, has pointed out there are three ways of grouping priority research questions. So first, I want to go over understanding the magnitude of the problem. So a basic way that we can address ACEs is to understand, how big is the problem? Our ways of surveilling the magnitude of ACEs is still wanting, is still a work in progress. We don't completely understand the magnitude of ACEs particularly in the context of the pandemic, because of the challenges of collecting this data with the challenges of providing the supports-- children and families to report on this data.

But having this data can help us make decisions of how to allocate resources that can help us understand the different types of ACEs, because not all ACEs are equal. So intervention that addresses emotional abuse or neglect might be different from being able to create an intervention that addresses substance abuse problems-- might be different from addressing issues of intimate partner violence. So we want to understand, what's the composition of ACEs that's being experienced for individuals and populations during the pandemic?

Are there certain populations that are more at risk for increases in ACEs? And then, do these vulnerabilities map out along different economic and social inequity, including by sex, race/ethnicity, economic status, among others? So the challenge, as I noted earlier, is understanding that one of the first things you learn about in epidemiology-- that association does not mean causation. Would the rates of ACEs-- the prevalence of ACEs still be trending upward or downward, even in the absence or presence of the pandemic?

Is it necessarily because of the pandemic we are seeing the prevalence of ACEs that we are seeing? And I already noted the challenge of having reliable data, because without having the true numbers, so to speak-- so there's more likely of underreporting of ACEs-- we don't have a true understanding of the true burden of ACEs that is existing right now.

So a second research area is to elucidate mechanisms and linkages with other social and economic factors. What are the potential mechanisms of understanding that different populations might be at increased risk for ACEs? And knowing that, because there are shortcomings to our current surveillance systems, what does it mean for us to not solely rely on quantitative data, but also leverage the lived experiences the voices of women, men, and children during this time-- so ethnographic or qualitative work to explore, are there different pathways to ACEs for different populations?

Are there different social norms and collective behaviors that influence these different pathways? And then understanding, when you incorporate for those-- like myself engaged in community-based participatory research-- when you engage the voices and the lived experiences of the people you to serve through your research, then it helps you better understand how interventions can be tailored to specific communities, families, and children, because you have a better and more nuanced understanding of the context.

And in the third research area is informing intervention and response options. So I very much consider myself as an applied researcher. There is research for research sake. There's also

research to make sure that knowledge is being produced that will inform change-- and hopefully positive change, and much sooner and a more immediate term.

So some priority research questions in this areas are, are there policies and programs, such as emergency cash transfers or unemployment insurance, that can help mitigate against increase in ACEs? How does the timing, duration, and intensity of intervention affect short, medium, and long-term experiences of ACEs and future well-being? Is it enough to have one stimulus check as one engagement-- How much should our interventions be in play, and the support systems be in play to ensure that adequate support is being provided in order to mitigate the impact of ACEs?

So before I go into-- I wanted to point out also-- and I'm probably a minority on this call, but there's also the role of philanthropy because of understanding that, as I'm pointing out here, supporting child development-- and although we're talking about the different support systems, a lot of this takes funding, whether it be public funding or private funding-- so understanding that philanthropy-- government systems that-- and policies that dictate how much funding can go into different social supports is also important to point out.

So on the other spectrum of ACEs is PCEs, or positive childhood experiences. So I talked about the importance of having a trusted adult in one's life, whether it be a teacher, a parent, a family member, a sibling. Nurturing factors, such as access to health needs, experiences that boost a child's confidence and sense of security-- by having these experiences, it makes the difference between tolerable and toxic stress.

Research has shown that children have been reported to have less concerns related to their mental health and relationships into their adult lives by having these positive childhood experiences. So what does it mean to understand that, yes, we are all in this pandemic, but we all have to experience this pandemic alone. The looming reality and uncertainty that children face with us on this pandemic.

So what is the need to build resilience into children by talking to-- talking with them about their fears, how to cope with those fears, and the fact that it's OK to have those emotions? Planting the seeds-- these positive childhood experiences, or PCEs-- early in one's life can have positive ramifications across their lifetime. So I want to quickly run through different policies and program responses because of those of you who are interested in health policy are in the more programmatic side, which complements research well. So I just wanted to point out different policy and program responses.

Concrete program and policy responses could include bolstering violence-related first response systems. So what does this mean? Means increasing staff or temporary operations for existing violence prevention and response hotlines, outreach centers; finding ways to share information virtually, when not everyone is able to receive information or support in person. What does this need to make sure that information can be shared and secure in private ways so that users can quickly exit, and no trace is left behind in their research history?

What does it need to make sure that training of police and legal personnel are also offered, so that we recognize more importance of trauma-informed care and trauma-informed services-- so the importance of allocating funding to make sure that our first responders are adequately trained and supported to be able to provide the support that children and their families may need during this time?

So the second is ensuring violence against women and children. And these services are integrated into the health systems response. So what does it mean for health care providers to be able to identify persons who are at risk for violence-- so maybe, in areas where COVID testing and screening is being done, in areas where vaccines are being distributed, that there's this awareness of being able to identify persons who might be experiencing violence at home.

And what does it mean for our systems to be set up to be able to provide that high-quality survivor-centered service, so that it's not necessarily the responsibility of those who are focused on women's health or pediatric health, but that we equip different members of our workforce to be able to provide this kind of support and referrals as needed because of the shortage in workers who are able to provide such services? So there's this need to expand and reinforce social safety nets.

So I talked about stimulus checks, but also, what does it mean to increase employment benefits? What does it mean for employers to expand paid sick leave? What does it mean to expand availability of food voucher payments-- so our SNAP and WIC programs? What does it need to make sure that there's-- these different social support systems are in place and are readily accessible to mitigate the impacts of the pandemic-- so mitigate the impact of food insecurity, housing insecurity so that children and their families have the financial and social support they need to make it through the pandemic?

So we know that temporary shelter and transitional housing for survivors of violence is likely to be reduced during the pandemic and be used for other purposes-- sheltering the sick and other vulnerable populations. There might be also high risk for contracting the virus in these spaces. So there's a need for surge housing to be available during this time, and to ensure that this housing also ensures access to critical services, like counseling, legal advocates. So what does it mean to assist children and their families in the short term, but also start preparing them more comprehensively in the long term?

Research shows that informal networks, such as family, friends, coworkers, are likely to be the first source of informal disclosure for survivors across all ages, across diverse settings. So what does this mean to make sure that we are mindful of the existence of these informal networks, and leverage these networks? What does it mean to leverage online support networks, as all of us are increasingly reliant on virtual platforms? So these different mechanisms may help women and children feel connected and supported, and can also serve as an alert or mitigation mechanism for women and children.

So the importance of clear communication and support during quarantine mandates-- when we talk about trauma, we recognize that we can inadvertently cause trauma or re-traumatized

populations. So what does this mean to make sure we're mindful of how we communicate about safety precautions, about quarantines, about social isolation, so that-- it's not just the messages that we're conveying and the good intentions, but the wording of it-- framing it in a way that reduces adverse mental health impacts-- so the importance of the language that we use.

Recognizing, as we're becoming more aware of the need to look at health equity, that this, again, is not something that we look at as a one-size-fits-all, because we know that certain populations are disproportionately impacted by ACEs-- so what does it mean to incorporate a race, gender, and age lens through our preparedness efforts, through the ways that we deal with ACEs, and recognize that the voices of those who are most directly impacted by ACEs are incorporated in policies and decision making?

Lastly, I wanted to point out the need to invest in flexible funding mechanisms. So what does this mean? It means, again, donors and implementers allowing for flexible funding-- to make sure that non-profit organizations, those who are in the social safety nets and are providing for vulnerable populations don't have to worry about the constraints that are put on with how to use funds-- that they are able to have the flexibility to use funds quickly and efficiently.

So I just wanted to point you all to this website that points out the different state-level efforts that are happening across the country to address adverse child experiences during COVID. There's a lot of work going on in California, in North Carolina, Oregon. And you can read all about it on this website. And if Ina wants to share this afterwards-- or you can email me afterwards. I'm happy to talk through more, but this is constantly being updated to recognize that state-level government are taking measures to be able to address ACEs during this time.

I wanted to point out, ACEs Aware shows a variety of clinical screening tools. And then, Steve, you can quickly just go through the different-- the next couple of slides. And I just wanted to show that there are examples of clinical screening tools that are available. So this is one example, and another, and then a third that shows that there are different ACE questionnaires that are available, both for adults and pediatric populations, that are available in English, Spanish, additional languages for your use, should your practice-- if you are in a practice-- decide to incorporate ACEs screening where you are.

Four Rs of trauma-informed care-- so you are probably already familiar with the four Rs of trauma-informed care, but-- just wanted to point out that this is another area in terms of understanding, how can we better respond to ACEs? What does it mean to train ourselves, our colleagues, our staff in trauma-informed care? The first step before you can be trauma-responsive is being trauma-informed-- so the importance of educating ourselves on being able to screen for trauma, to identify trauma, to be able to respond appropriately, and to hopefully not re traumatize the populations that we aim to serve.

So I just wanted to recognize the work that SAMHSA has done in terms of the core principles of the trauma-informed approach. So this can be found on the SAMHSA website-- do great work in trauma-informed care-- so just wanted to point out these core principles of trauma-informed

approach, which can-- and are still applicable to the current pandemic. But I also wanted to point out that-- the importance of strength-based approaches.

Oftentimes, our health care systems rely on a deficit-based approach of, what is wrong with the child? What is all this abuse, neglect, this household dysfunction? But what does it mean for us to look at it differently and understand that there are strengths in a child's household, a child's parents, and to approach a situation-- approach a child from that mind set so that we're looking more at expanding the good, as opposed to fully focusing on the negative?

And while it was not the focus of today's presentation, I do want to acknowledge the importance of recognizing and addressing secondary traumatic stress. If you are a health care professional or working directly with young people who might be experiencing ACEs, if you're in the direct service professions, secondary traumatic stress is real. I didn't have to tell you about that.

Understanding that being able to connect with children, their families, with communities can be harder when we are dealing with our own fear, and trauma, and uncertainty-- so what does this mean to also come to terms with our own challenges so that we can, in turn, become better providers, better clinicians, better servant leaders in our communities that we serve?

So this can be done on the CDC website, but I just really-- I've gone over all these different components throughout my presentation, but just really wanted to highlight that we all have a role in being able to address and mitigate the impact of ACEs. So it's not just one entity or one sector that is solely responsible for addressing ACEs and reducing its negative impact, but we all play a role.

So my hope that you all walk away of knowing that, yes, ACEs are highly prevalent, yes, ACEs disproportionately impacts different communities, and yes, the pandemic has brought to light and exacerbated the public health challenges it faces-- but we all have a responsibility, and hopefully have the resources to make changes in policy, research, and practice so we can build stronger and more resilience children in communities. I want to open it up for questions.

INA RAMOS: Yes. Thank you so much, Dr. Damian. So we'll have time just for a couple questions. The first will be, what is the role of epigenetics in the multi-generational transmission of childhood trauma?

APRIL JOY DAMIAN: That's a great question. So it's always that-- the nurture and nature question. I am not a geneticist by training, but recognizing that environmental factors put stressors on our DNA, and that can be passed down through generations-- but it's the interaction between our DNA and the environment. So it's not solely transmitting the trauma gene, for example.

But then certain injuries where DNA do get transmitted generationally-- but it is not the sole cause, so to speak, of ACEs, but can certainly make us predisposed because of-- as we've seen, in terms of different behavioral health challenges.

INA RAMOS: Thank you so much. The next question is, I've heard of new frameworks, such as racing ACEs. Has further research been done concerning the role of racism and discrimination on ACEs?

APRIL JOY DAMIAN: That's a great question. This is definitely an area where I focused my protection in terms of-- when I looked at that initial study of ACEs in the population, and knowing the different communities I've worked with, that it was very much lacking. We know that there is a lot of research on stress, discrimination, racism, stigma. That's why I brought up that it's important to also take in consideration of adverse communal environments, the other ACEs that aren't talked about as much.

So I think this is a growing area of understanding, that the 10-item ACEs was a starting point, but cannot be where we stop as a field, because it does not take into consideration these additional stressors, which have an impact on the same health outcomes I brought up earlier-- whether it be medical or behavioral health outcomes. So I know that there are a lot of researchers, like myself. And feel free to reach out, who are invested in this area of understanding that, because ACEs disproportionately impacts different patient populations-- such as communities of color, low-income populations-- that it is not enough to stop at the original 10-items ACEs, but we need to look at it in the context of other public health challenges-- IE racism, discrimination.

INA RAMOS: Thank you. You And I think we have time for one more question. Would it be helpful to implement some sort of ACE screening for all students who enter elementary, middle, and high school as a way to provide early intervention and refer to therapy, if needed? Most reports do not happen until after the person is over the age of 18, and early intervention is key.

APRIL JOY DAMIAN: I completely agree with the participant who provided that question/comment. The field has largely focused, as the participant noted, on ACEs screening in adulthood. And for me, who has my own bias and I focus on childhood, I feel like adulthood is too late as well. The challenge with some of the screeners that exist before 18 is sometimes they've asked-- or screen for ACEs asking the parent. And what happens when the parent is actually the perpetrator of the abuse, or neglect, or is experiencing the violence?

They might be underreporting. So I think our field needs to find ways of being able to, as the participant noted, implement the screeners in critical developmental periods-- so whether that the elementary, middle, or high school-- and being able to do-- complete it in spaces where they can be honest with their responses. So if they're going to-- for their well child visit or they're going for their annual check-up, and their parent is in the room, they might not be more open to being candid with their responses, so being mindful of settings in which these screeners are administered is also crucial.

INA RAMOS: Thank you. So that will conclude our question and answer period. We'd like to thank Dr. Damian and you, the participants, for a great question and answer period, and for

joining us on this webinar today. We hope that you will be able to utilize the information presented today to strengthen your work. Thank you, and this concludes our webinar.