# ***Mental Health: Mind Matters Event – April 2019 recap***

*Mental Health: Mind Matters* aims to build greater understanding of the importance of mental health and create a safe space for meaningful conversations about mental illness. This hands-on exhibit experiences bring an attendee closer to facts, feelings and issues surrounding this significant topic.

The Science Center of Iowa, in partnership with Capital Crossroads, supports the exhibit by will hosting a series of events to continue the dialogue around mental illness, provide a better understanding of mental health within our community and create a path for continued conversation to address the needs.

*Early Childhood Brain Science: Nurturing Strong Mental Health* was a topic for the in April 2019 discussion. Our community was fortunate to have Dr. Dayna Long, the Medical Director for the Department of Community Health and Engagement at USCF Benioff Children's Hospital Oakland, as the Keynote Speaker for this event. Dr. Long guided the attendees through the current science and best practices for addressing adverse childhood experiences (ACEs) and reducing toxic stress to improve the health of all children.

Immediately following Dr. Long's presentation, a discussion panel consisting of five community leaders within the ACEs movement, shared with the audience how ACEs has defined their work over the years and provided helpful resources for attendees to consider as we move forward in the ACEs work in Iowa.

So, why bring Dr. Long to Iowa? The answer is simple. She is doing something really big in Oakland. She is challenging the process and connecting the dots to what providers and those working in the human services field knew was happening – we have a public health crisis, and we can change the trajectory.

Dr. Long began with the notion of everyone having a safe space in order to thrive. She focused on two main objectives with this: To understand how determinants of health impact child health outcomes; and, to explore how we can support resiliency in all children and families. She shared that 92% of her clinic's families live at or below the poverty level, and 90% of families are families of color. Her primary care clinical practice is a safety net in her community – the largest safety net in her region.

Knowing her a bit about her clinic family's demographics, she questioned how providers can actually support our caregivers to be buffers, and how they can support children when they are experiencing adversity. She spoke about the public health crisis - what we are seeing is that 7 out of 10 of the leading causes of death are linked to early childhood trauma. We know that early childhood trauma impacts brain development, it influences the way that our DNA is read and transcribed, it triples the lifetime risk of heart disease and lung cancer, and it reduces our life expectancy by about 20 years.

Dr. Long shared with the audience that there is a very well documented link between stress, trauma and public health issues. "We know is that stress is linked to heart disease, cancer, lung ailments, increased accidental injuries, cirrhosis of the liver, and suicidal attempts. We also know that trauma has a ripple effect across communities, and that low income communities and communities of color are disproportionately affected by trauma. There is also intergenerational transmission. This is all systemic

and often times driven by policy," said Dr. Long. But the most important part about all if this that she shared with us is that it's preventable.

Next Dr. Long explored the statistic that 80% of health is determined by social and economic factors that are beyond the healthcare system. Their goal is to irradiate health disparities that are led by inequity so that they can improve everyone's optimal trajectory of health. So, how would her team work toward this goal? Through the work of two randomized control trials to see how they could move the needle.

First, they randomly approached over 700 families, asking questions to families on an iPad that had both audio and visual questions in English and Spanish, and delivered it themselves verses a community health worker deliver the study. "What we found was that within our community, at any given time, almost 60% of our kids are food insecure, over half are concerned about their safety in their neighborhood homes and schools, a little less than half are concerned of the health of the primary caregiver of the children in the home, and 44% are concerned about their housing," stated Dr. Long. Prior to this study, they had no systematic way of documenting these factors, but knew these factors were impacting the health outcomes of the children they saw every day.

Second, not only did they screen families, but they wanted to see how they could actually move the needle. They then asked if the families had ever been asked about determinants of health before when coming into your organization (healthcare), finding less than 17% of families reported ever being asked about their unmet basic needs and of that 17%, less than half are given a referral to resolve that unmet need. They found that when they asked, their top three needs were: trouble paying the utilities, food, and housing, and when they were able to resolve that need; they were able to improve child health.

In 2014, her team started thinking more about ACEs. They learned that children who experience 4 or more ACEs were 32 times more likely to have learning and behavioral problems; were at a 4.5 times increased risk for depression; were 2-3 more times likely to develop asthma, heart disease and cancer; were 3.5 times more likely to suffer from pulmonary disease; and were 10-12 times at a greater risk for intravenous drug use and attempted suicide. So they decided to think much more deeply about the question, "What is stress?" There are three types of stress: positive stress, tolerable stress, and toxic stress. Toxic stress is the prolonged activation of our neuroendocrine system that cascades without the safe, stable and nurturing adult in the family to help buffer that stress.

Dr. Long then moved to question how stress actually gets underneath our skin. She shared that our experiences have a profound affect in our biology in a multi-systemic fashion. We have central affects and peripheral affects. These experiences have systemic affects into our immune system and endocrine system, and our epigenetics. What we are now learning is that our DNA is now affected by our experiences, and this is epigenetic changes or switches. We also know that ACEs affect the architecture of the brain.

The first 1,000 days are critical for brain development – for our ability to actually learn. Babies are born with about 8 billion brain cells. The more nurtured, the more safe and stable a baby feels, the more they are able to make connections within their brain that allow for the ability to share, the ability to connect, the ability to have cognitive function, that helps with kindergarten readiness. This is called

neuroplasticity. Adversity can actually dampen that neuroplasticity, but resilience can actually help to sharpen it. There is research to suggest that ACEs affect early learning and behavior, and ACEs that accumulate before the age of five, lead to higher rates of diagnosis of ADHD by the age of nine. We are learning that kids that have learning and behavioral problems often have higher ACEs scores. The health outcomes of ACEs affect us over our life course, and the cost to society is huge.

"The fascinating thing about ACEs is that there is such variability in how we respond. A child can be exposed to ACEs and not show any symptoms and actually be quite healthy. This is where the notion of resiliency comes in. Then there are children who are exposed to ACEs and may not show any outward symptomatology, but as they grow into adulthood, they have the same amount mental health concerns and physical health limitations. And then there are children exposed to ACEs that have disruption of that neuroendocrine circuitry, that have social, emotional, or cognitive impairments, and that adopt high-risk behavior lifestyles that ultimately do go on to develop diseases or engage in other high-risk activities. There is a need for universal screening – we do not know who will show symptoms or who will not. But if we can really promote community mental health and universal screening, then we can actually reach all these kids whether or not they are symptomatic early and not wait until they show signs," Dr. Long commented.

She shared that there are key areas where we have gaps in our scientific knowledge. First, we need a prospective pediatric screening tool that we can use in order to risk stratify kids so that we can identify early on who's at risk for learning issues, mental health issues, and physical health issues. What they found was that emotional abuse really needed to be expanded to include emotional neglect as well as physical neglect. They wanted to question more about the issue of divorce as well because in a lot of our communities, families are co-parenting and unmarried, so her team questioned if the issue was really separation from a biologic parent, or is it truly about divorce itself? They also wanted to look at household dysfunction and what does this really mean if you have a caregiver at home with a physical disability?

Second, they added a domain for the social determinants of health to their study because evidence demonstrates that lack of food and lack of housing can cause the same type of biologic dysregulation of the neuroendocrine system as abuse does. They also learned some lessons about cultural humility. They learned that mental health is not talked about as diagnostic criteria. After all of this, they collected the data in their community.

What they found is that 92% of adults they surveyed had at least one ACE, and almost half had 4 or more. Knowing this, national statistics demonstrate that 64% of adults have at least one ACE, and 12.2% have 4 or more. So her results were higher than the national averages. Dr. Long spoke about how there is a minute of "profound silence" when you ask a caregiver to take an assessment for them, and then have them take the ACEs questionnaire for their child. The children's ACEs scores essentially parallel their parents ACEs. When this happens, they finally see that what happened to them is now happening to their child, and they get it.

Within the data that they've collected they've already seen that children that have high ACE scores have a higher odds ratio of having asthma and obesity. They've also seen that higher ACE scores within children are related to higher scores of perceived stress, and threats by their caregivers.

So Dr. Long questioned what does this has to do with resilience. She stated, "Resilience is informed both by our environment as well as by our biology. The exciting opportunity here is that there are so many places where we can build resiliency. Whether it's through educating our families about the science, educating our law enforcement, educating our juvenile justice, teachers, or pediatricians, that we can target interventions based on the type of adversity children are experiencing. That we can lead families to resources and that we can use data to generate evidence-based policies that we can use to support families and children. We need to pull our entire communities up by their bootstraps."

Next, her clinic decided that for every eligible family that comes into their clinic will get screened. They created FIND (family information navigation desk) where they are screened for unmet needs and then referred to those who can support their unmet need. They are also screening more and more for ACEs. They do this by leveraging technology to make this screening easy and effective. Then they use community health workers that do the screening and referral to case management, looping back to the health providers the status of these families.

The next step for her team was considering how they promote mindfulness, self-regulation and co-regulation between parents and children. One way to do this is hosting group sessions called "resiliency clinics". They talk with parents about how there is nothing wrong with their child, but something is happening on a biologic level. They work on breathing, and make glitter jars to use them in their meetings. They discuss the concept of "upstairs and downstairs brain", helping a child recognize what is happening when they experience "downstairs brain" and how to center themselves. They are working with their pediatric staff on how to talk to families about stress and ACEs, and are partnering with an organization called Toolbox to promote social and emotional development. Everyone is getting trained on how all kids have a full toolbox of tools to help children.

The goal of all of their work is to become more trauma transformed - to become a healing organization. What that requires is that they take a hard look at themselves and this notion requires them to look at their hiring practices and workforce development asking questions like: Why is it that their C-Suite executives don't look like the clients that they serve?; To recognize that within her institution, that 90% of her patients are families of color and yet African-American physicians only make up 0.8% of our workforce; To look at structural inequity with things like parking spaces at their facility between providers and staff; To recognize that staff themselves have experienced trauma, and question how they can creating a work environment that support staff to do this hard work.

There is also a victory to celebrate. Dr. Nadine Burke Harris, who is now the Surgeon General of California, and Dr. Long were able to use all the data that they generated in these studies to create legislation, passing a bill that mandates that trauma screening is mandatory for all Medicaid serving agencies across the state. Clinics currently have to use the tool they created. Their hope is that although this work is hard, this can be replicated in every state - that we can create sustainable practices across

all states. We can continue to be a hub for innovation and change. “We are never going to be able to make all the bad things go away. What we can do is we can create buffers for our children. We can create buffers that allow our children to reach healthy trajectories as adults. We can redefine possible for children and adults,” Dr. Long shared as she gave us a vision for the future.

So what are we doing to support children and families in Iowa? After Dr. Long concluded her keynote, five panelists shared their insights in order to give the audience an idea of the work happening in the state, but also to share resources so everyone could take back ideas and work towards their own successes around ACEs.

The panel consisted of: Amber Schelling, 1st Five Manager with EveryStep; Dawn Cogan, Executive Director with St. Mark Youth Enrichment; Suzanne Mineck, President of Mid-Iowa Health Foundation; Shanell Wagler, Administrator with Early Childhood Iowa; and Lisa Cushatt, Program Manager with Central Iowa ACEs 360. The panel was moderated by Becky Miles-Polka with the Campaign for Grade-Level Reading.

The panel began by answering a question around resources, and specifically, what resources they find helpful to support their work.

“To make systemic change and change of public policy, elected officials and leaders in our state have to know what we are talking about, and using some of the terminology and the language that’s not only in what we report related to Iowa ACEs data, but in the mental health realm overall,” Lisa Cushatt commented when talking about the work that is happening with the Central Iowa ACEs movement. “It doesn’t always make sense when we use words that don’t generate to the wider community and to elected officials.” She spoke about how the coalition has partnered with several others in the community to bring in a communications consultant to reshape about how we talk about mental health, particularly at the Capitol, in terms that make sense to everyone. She shared that it’s important for us to think about the language we use to help effect policy change, especially for kids mental health. She then shared, “If we don’t shape that message, then they are hearing could be inaccurate or based off of a stigma they’ve heard over generations, so unless we are really thinking about the words we are using, we are never going to create the community movement to make the difference that we want.”

Suzanne Mineck spent a few minutes sharing how important the iowaaces360.org website is to our state, and how if people haven’t checked it out yet, there is a wonderful depth of resources available. It also includes all the research and data, as well as sector-specific talking points. She shared another resource called Aces Connection as well as Harvard Center for the Developing Child as great tools at the audience’s disposal.

Amber Schelling spoke in depth about how important relationships have been for the work of First Five. “Relationships are number one. You have to have relationships with your medical providers and those working directly with your families. You have to have relationships with those within the community so you have sound and credible places to connect the families that you are working with.” Another resource she finds helpful is the Ages and Stages Questionnaire and the

supplemental piece that comes along with it (social / emotional piece). She shared that it's really about leveraging those relationships that they have, and if those relationships can't provide the help that a family needs, that they can use those relationships to find the next best thing.

The Infant and Early Childhood Mental Health Association (promotingmentalhealthiowa.com) was a resource that Shanell Wagler brought up when handed the microphone. She was excited about a mental health endorsement that's available, where Early Childhood Iowa is a partner in the effort. Shanell shared that the Early Childhood PBIS (positive behavior intervention support) strategies are building a system for all settings (in the home, in childcare centers, and more) to make sure we are all learning and building awareness, and how we can help when we see things.

When asked about the results that the panel has seen, along with some of the challenges that they are facing, Shanell Wagler shared that the strength is also the challenge with all of the panelists. There is a children's mental health board being legislated this year, and she is very excited about it. It's not a matter of "if" but rather "when" it will get signed. "It's not perfect, but it's a start and it's way more than we had previously," she commented. She shared that challenges are that it's still going to take a lot of time, a lot of effort, and we need to think about how we train and help people understand the issues.

Amber said that a big result she's seen is the idea of buy-in. "When we are able to get a clinic and medical providers to buy-in, to believe in our program, and to see that we are able to be an extension of their practice – to connect their families (which they typically don't have time for) – knowing that we can provide more to their patients is huge," she commented. It was shared that when her program started, the typical referral into the program was for speech concerns. Now a typical referral is hard to define. They are now able to work with families and connect them to resources for other developmental delays, and other social determinants of health, fill in areas where there are waitlists so they can supplement and receive services they are on the waitlist for. The challenge is the buy-in as the changes to the workflow for providers and concerns about reimbursement are big. Their program does a great job looping back to the providers to let them know the status of the families that they are working with, which has been helpful. She shared, "One of our champion providers said she would no longer practice medicine in Iowa if she did not have first five in her clinic. She calls us '21$^{st}$ century medicine'."

Suzanne shared that toxic experiences do not discriminate. "Many of us, if not all of us in this room have had some level of experiences that we take with us in life, and so that's a humbling part of this work," she said. "But the beautiful part of this work is that it crosses every single one of our lives and every one of our spaces of work." Regardless of the work you do, this affects how we all do our work. It affects whether we are talking about an individual, a family, a neighborhood, a community, an organization or a system. She shared that it's humbling, but there is no wrong door. "We need to do a much better job understanding how we set up, and how we do that in partnership with those around us in the most humbling and authentic way."

Lisa updated the audience about how last year the Iowa Legislature approved requiring educators to have training in suicide prevention and post-vention. That legislation also required them to have training in ACEs and toxic stress. The legislators were the ones who wanted specific language of adverse childhood experiences. “I want to rewind eight years when we first started talking about ACEs in Iowa,” she states. “I very clearly remember that I was sitting in a sub-committee meeting and one of the senators turned around and asked one of the advocates in the room ‘What are ACEs?’, and we looked at each other thinking about who was going to pick up that ball and answer because we weren’t even sure ourselves how exactly we wanted to frame it.” She was proud of how far we’ve progressed in eight years, and how this has been a big movement. She’s excited about the partnerships that have come out of it across the state, how they’ve secured funding to support the work, and how they’ve worked with national experts on curriculum, develop a Train the Trainer program to build capacity and support schools, and get people signed up to move this information into parts of our state who have never heard of ACEs before. She shared that although the language of cultural humility didn’t make it into the final legislation this year, they are intentional about how that weaves into their train the trainer curriculum and making it a part of every single conversation they have now to lead by example. She hopes that if we use the language of cultural humility now as much as we’ve used the adverse childhood experiences language, that we will start to see leaders make it a part of their language and a part of everything that they do.

Dawn Cogan shared with the audience that the greatest work they’ve seen is around the culture they’ve been able to create at St. Mark’s Enrichment. It has led to them having growth and capacity in many ways. “Within our own agency, we first start from within, so whatever we want to be outside the four walls, we have to be that first as individuals and first as an agency, or it’s not going to be consistent,” she stated. They were able to reduce significant staff turnover from a revolving door to no self-selected turnover in four years. They are growing as well, from serving from 250 kids each year to over 550 kids each year. It is who they are as an agency and it is integrated into everything that they do. They are reducing the amount of children that need to be removed from their programs, and connecting with partners for those children they do not have capacity to serve so they can get the assistance they need. They went from removing 30 children a year in their programs to a handful or less. The challenge continues to be consistency and sustainability of knowledge.

The last question was around advice for others to include these models into their initiatives. Suzanne summed the conversation up by sharing that it’s important to listen to the voice of those we are striving to serve and walk alongside, as that is where we have the greatest potential as a community. “I think for me, what I carry with is a relentless passion to stop letting our kids down,” commented Mineck. “We all have a role in that – it doesn’t matter if it’s my child or someone else’s child – we all have a role and I think we need to stop letting them down.”