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>> Katie: Good afternoon everyone and welcome to the SAMHSA-HRSA Center for integrated health solutions webcast titled Real-world Strategies: Assessing for ACE's and brief interventions in an integrated care environment. A little bit about the Center for integrative health solutions. Who we are, the SAMHSA-HRSA Center for integrated health solutions CIHS is a national training and technical assistance Center dedicated to the planning and development of integration of primary and behavioral healthcare for those with mental illness and/or substance abuse disorders and physical health conditions. Whether seen in specialty mental health or primary care safety net provider settings across the country. My name is Katie Scott and I am a CIHS Associate and I will be moderating today's webinar along with Andrew Philips, Deputy Director of CIHS. A couple of housekeeping items before we begin. During today's presentation your slides will be automatically synchronized with the audio, you will not need to flip any slides to follow along. You will listen to audio through your computer speaker so please ensure that they are on and the volume is up. You can also ensure your system is prepared to host this webinar by clicking on the question mark button in the upper right corner of your player and clicking "test my system now". You may submit a question to the speaker at any time during the presentation by typing a question into the "Ask a Question" box in the lower left portion of your player. If you need technical assistance click on the question mark button in the upper right corner of your player to see a list of frequently asked questions and contact info for tech support if needed. If you require further assistance you can contact the technical support center, you'll see the two numbers below. 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 (CMHS), the Substance Abuse and Mental Health Services Administration (SAMHSA), the Health Resources and Services Administration (HRSA), or the U.S. Department of Health and Human Services (HHS). Now I will turn it over to Doctor Philip.

>> Andrew: Thanks Katie. Welcome everybody to this national webinar on ACE's and integrated primary behavioral healthcare. Also joining me today I have Doctor Neftali Serrano
the executive director of family the collaborative healthcare Association and we are
cosponsoring this webinar because of interest to really everyone we all work with and we're
close friends with organizations. If you have been working or following the webinars and the
work of the SAMHSA-HRSA Center for integrated health solutions for some time now, you
know that ACEs has been on our mind because there's a big push for care nationally and we are
aware that childhood experiences, early trauma and experiences don't just stop there, that they
seep into all different aspects of life and are really all around us. As one of the conferences over
the last year was essentially we all have a story to tell and it's critical that we all recognize this
and bring this into the work that we do as healthcare providers. Neftali, you're on here. Why is
it so important particularly in primary care and how does this fit in with CFHA's work?

>> Neftali: Hello everybody out there, thank you for joining us today, this is a great opportunity
to cosponsor this with the center for integrated healthcare solutions, our work really does
correlate so well. When we started talking about the webinar this is one of the topics that was on
the form because it is so sort of pervasive across varied topics that we all deal with, clinics and as
clinicians. When you think of ACE's you think of ACE's in the terms of sort of a more
traditional trauma perspective and think of PTSD for example. But actually what ACE's really
教 us and what we often have seen in primary care, is that ACE's are connected to all sorts of
different sort of patient presentations and concerns. We may see a patient and behind that are the
trauma, we might see a diabetic. Behind that we have trauma. We may see an individual with
some sort of formal mental health condition, anxiety, etc. So the pervasive nature of this issue I
think makes it really important to talk about from the perspective of primary care, when you see
all these sorts of different patient presentation. But they are all sort of tied at least on some level
to the impact of the adverse childhood experience. We lumped onto this topic pretty quickly.
Recognizing that it is of importance. But beyond that I think what we also are interested in is not
to say conversation about ACE's related to what they are, but a lot of sort of talk really what can we do about it. Continuing with an adult population, how do we help these folks who have
chronic pain, managing chronic conditions. With formal mental health conditions that present to
us in primary care. What are our options, what can we think about. Although we know the
research is not super developed, we note the folks you will listen to today have really started to
not just think about it but begin to test some of their ideas and stats is what got us excited about
this today.
>> Andrew: Tell us a little bit about the work you do and the work the Association does.

>> Neftali: In brief, CFHA is about three C’s we provide community and disciplinary community with clinicians, health conditions, social work, psychology, PA. Really the gamut of modern care team including peers, researchers foundation etc. We come together to form a community and promote integrated care as a standard care nationally. The community is really the core piece of what we do. Then we also produce a whole lot of education content, I just got finished producing a podcast this morning for example on opioids. Providing education that pushes integrated care forward nationally is a big part of our mission and we also do provide consultation services to folks who need some assistance with integrating behavioral health and the primary care resources. There is national overlap with CFHA does and the website, so often so many great resources, a lot of overlapping in areas of integrated care. CIHS is interested in promoting this and so obviously you can see where Andrew and I struck a friendship.

>> Andrew: Thank you. That is kind of how this all came to be and we thought it would be helpful to context for everyone joining us today. What are we doing, there is three real objectives we are going to accomplish today and really the first one is first talking about what our adverse childhood experiences and how are they relevant to integrated care settings and Neftali gave us a hint about that. With this presentation, immediately it is useful for people so when we are talking about ACE's or adverse childhood experience is, we are going to be talking about what are the actual tools that use to briefly effect these and integrated primary care and behavioral health settings. Then how do you actually intervene in a practical way here so this will be an overall kind of ovary, we are going to get integrated care and that's what people are here for. Then of course we will be talking about how he actually implements this from a system or organizational level or even those of you who are in government have a number of questions today. One of the keynotes to know to make sure that this is taking up in your settings. We will switch over to our presenters now. There is three folks who will be presenting today, three national actually international subject matter experts. From the center for integrated health solutions and the National Council for behavioral health we will be hearing from Linda Ligenza she is the clinical director. But first we will be hearing from two individuals, Doctor Keith Dobson a professor of clinical psychology at University of Calgary. His focus is on areas of depression, cognitive therapy across cultural aspects of psychology and mental health training. Stigma reduction in work settings. Currently, he is the president of the Canadian Association of
cognitive and behavioral health therapies. He is also an investigator with the mental health commission of Canada. Along with his colleague, Doctor Dennis Pusch who we will hear about in a moment is a principal investigator of the embrACE program which we will be hearing about. So he's been examining the effects of childhood adversity, adult mental health and also the developmental program for adults with chronic health problems and history of ACE. As I mentioned his colleague, Doctor Dennis Pusch is a psychologist who has spent 18 years working in integrated primary care settings. He's been involved in different forms of training and supervision, a large team of behavioral health consultants out in Calgary, Alberta in Canada. Dennis has served as the coinvestigator along with Keith and embracing the city that I mentioned. He's been an advocate for long-term care really throughout history and is also a author of a number of publications in this area. He's the owner of practice in Southport and enjoys a number of activities in research and medical practice. With that, I will turn it over to Keith and Dennis to give you an overview of their work, Keith and Dennis.

>> Keith: Thank you for that, introduction and also thank you to SAMHSA for sponsoring this webinar. We are really pleased here today to be able to present information about the work that we have done and also where we are now and maybe discuss also where we want to go in the future. I'm going to present the first few slides. I am Keith, and Dennis is going to take over for me. When I finish my presentation there will be a little shuffle here as we change chairs but we are both in the same room.

>> Dennis: I will just say "Hi" as well, I look forward to spending the next hour or hour and ½ and hopefully we have a great discussion together.

>> Keith: With that, I'm going to talk about the embrACE program. Some of the background about why we developed the embrACE program and Dennis like I said, is really going to get into more of the details of the current work. This has been a collaboration from the beginning with Alberta health services and in Canada, most of you probably know we have a publicly funded healthcare system so this has been a partnership between that program and some of the primary care network switches networks of primary care physicians in the Calgary region and the University of Calgary. Also, in technology we have a long-standing patient advisory group and I would encourage anybody who's moving in this direction to have that kind of input. All of our ideas and programs through the advisory group and we found their feedback useful. We have had a consistent funder called the Norlien Foundation who has changed their name to the Palix
foundation. But they've been a consistent funder of work that we have been doing which has been wonderful. In general, the embrACE program is we have developed a four-phase program of research and our general goal is to identify and treat adults and with primary care who have a ACE history, we have done four phases of research. The first is looking at the measurement of ACE is in primary care whether the ACE measures up there and we are trying to figure out which works best in the particular context. Second was a large-scale replication of the first ACE's studies done in the United States with many of you are probably aware of. I will talk about it briefly. More than that though we weren't just interested in looking at the relationship between ACE and adult health but also some of the moderators and mediators of those relationships and again I will talk a bit about that. Then we will talk a lot about the intervention that we have developed which we are now calling the embrACE program. We will talk about the results from an open trial that we have conducted.

>> Keith: This references for the original ACE studied the landmark ACE study. The colleagues did it in California and the context of the Kaiser Permanente program. It's still the largest study of its type ever done looking at the relationship between adverse childhood experiences or ACE's and long-term health and social benefits or outcomes rather. It was done in the late 1990s, but the publications for many of these articles came out in the 2000s and in fact you still see from time to time articles popping up from the data set because it was a very large and rich data looking at these relationships. What they did is they looked in a nutshell at 10 different types of ACE's or adverse childhood experiences and the relationships between these and adult health outcomes. These are generally not divided into areas of abuse, neglect, household dysfunction. This slide lists the common ways that these are assessed. The numbers in the parentheses if you are curious about that are the percentages of the people that endorse this in the California study. Again, I should say that was a study that was done in the context again, of an HMO, health maintenance organization so these are reasonably well-functioning, reasonably high income, high SES patients. These percentages of different kinds of ACE's we are seeing is quite surprising. What was even perhaps more surprising is when you look at the total numbers. What they found in fact is that ACE's are very common in our population. This slide shows you the distribution of people ACE scores. What you find is approximately ⅓ of the population, their population had ACE score of zero. None of those items, the 10 items that we just saw. But about ¼ had one ace, then the rest of the population you can see the distribution there.
you look at people with scores of four and above it was in the 10 to 20 percent range of people. Fairly significant numbers of adverse childhood experiences. One of the things that we have done then is similar kind of study in Alberta, Canada. Our population wasn't quite as large it was about 4,000 patients, 4,007 to be precise. But we basically try to replicate those kind of pattern that was reported. Again we were interested in relationship between ACE's and adult health outcome. This is the distribution of scores that we found in our patient population. It is a surprisingly close to the report from California. What you can see again is that about one third of the population had a score of zero, approximately ¼ had a score of one and the range of scores going off to the right being skewed to the right one of the things you'll see here if you look carefully is that women have a slightly higher average ACE score than males partly again because they have the higher likelihood of having more ACE history. But again, the overall mean is not significantly different. For some of this it actually is. But again very similar distribution and again if you look at the demographic characteristics of our sample you find they are fairly close to those of the Kaiser Permanente study. Reasonably high SES, reasonably high education levels. Again, in some respect to the population it looks very similar and similar results. ACE's are common, again I think this is the take-home message from these two slides. The second thing then that they look that is the relationship again between ACE and risk for various kinds of adult health problems. One of the things that and that Anda & Felitti demonstrated in their example is that there is kind of a dose-response relationship as we think about it. Between ACE's and various negative health outcomes. This slide tries to represent that with the idea being that as the dose and in this case the number of ACE increases. You also see an increase in the number of health outcomes, get of health outcomes. Anda & Felitti have demonstrated that now for a wide range of various health outcomes including I should mention early death which is one of the papers they have done. We have done the same thing, we looked at these associations and the next several slides show you some of the relationships that we have seen. This slide and the next several slides are all odds ratios. What we have done in our research is we use zero as the reference group. So they haven't odds as zero obviously given that they are the reference group. Then we look at the relative risk of various disorders compared to the group with zero ACE. What this slide shows is the relative risk of irritable bowel syndrome and stomach or intestinal ulcers for people with one, two, three or four or more ACE compared to a group of zero. You can see the orange bars represent the irritable bowel syndrome group
and even for ¼ the relative risk goes up and it continues to increase for patients with four or more ACE’s up to a relative risk of about 3 ½ times that for people with zero ACE. The other set of bars, the green on my slide shows the relative risk of ulcers. Again, the stars above the three and four plus show you that a significant increase from a relative risk of zero. In that particular case for one or two ACE’s we don’t have a significant increase, there is an increase but it’s not statistically significant. But by the time we get to three and 4+, it becomes statistically significant so we see the same kind of relationship again between increased numbers of these two health outcomes and ACE. This slide shows the outcomes for headaches and fatigue. Some reported fatigue. You can see again that there is generally speaking and increased risk associated with the number of ACE’s it’s significant for fatigue even after one ACE and it rose dramatically after about 4 ½ times with people for four or plus ACE. The curve is not quite as dramatic for frequent headaches but it’s statistically significant for all except the one plus ACE. These are the outcomes for substance abuse and generalized anxiety disorder. Again, you can see that same kind of increase that those response relationships. I will note for substance related disorders, that it’s almost a 10 times risk ratio or increased risk or odds of having a reported substance abuse problem with four or more ACE. A highly significant relationship there. Then finally, looking at depression and suicidal ideation. You can see again the significant increase with again depression for four or plus ACE’s at about five times that with people for zero. Right across the whole wide range of various kinds of clinical outcomes we are seeing the same kind of function that has been reported in the Anda & Felitti studies and other studies that are trying to replicate that relationship. But in a large urban relatively high population, primary care I should mention that all of our patients were seen in primary care. We still see that same kind of care and relationship. It was pretty pronounced. What this has led to is the development of a model, part of which has been validated through research part of which is a bit more speculative. But it tries to look at again the relationship between adverse childhood experiences and various kinds of health outcomes across the lifespan. In the model that has been developed suggests that average childhood experiences lead to disrupted near development including things like distress response and various aspects related to acute and chronic stress reactions. Certainly leads to social, emotional and cognitive impairment in various areas. You could well expect for example impaired social relationships for people that have chronic ACE histories which then leads to changes in adaptation of health risk behaviors. But we know for example that people are more
likely to engage in substance use and ways to engage in emotion regulation using substances for 
example. Which then leads to chronic disease and disabilities and potentially even than the risk of early death. A lot of the work has been done in the area looking of course at reducing the risk of childhood adversities or reducing risks of abused and neglected children which makes perfect sense. Our healthcare systems are excellent at working with people that already have disease and disability. Where we think that a lot of the myths so to speak in the system is in the middle area. Looking at potentially some of the risk factors that are impacted by ACE's and lead to later health and health problems. One of the things that we have done also, that the Anda & Felitti group haven't reported on, we don't have any publication but again we were hardly able to do this in Alberta because we have a publicly funded healthcare system as we were able to look at the relationship between ACE's and healthcare utilization. We asked our patients and our particular study not just to simply report on their healthcare, but also to give us access if they went to their healthcare records. About three quarters of our sample did that so we have a good sample to look at that relationship. We were able to look at this issue of health ACE's father and healthcare utilization. This is not published data but a study we have in progress now. We know again, if you look at the triangle, the pyramid diagram that I just showed you we know that there is a relationship between ACE's and healthcare problems. You highly suspect obviously that there is a relationship also with healthcare utilization and healthcare costs. We know again that chronic disease, depression and addictions are extremely expensive to the healthcare system. We know from the research that there is a relationship between ACE, depression and addiction. Again, you might anticipate that there is a relationship and in fact in our data, we found it. It's not as striking as we actually had predicted, but what this slide shows you is the total healthcare costs for our patients over a one-year period. By patients, as a function of ACE and again using zero as the baseline and looking at patients with one, two, three and 4+ ACE. What we see is a modest increase in healthcare costs. Associated with ACE's, such that patients with a score of 4+ have about a 25 percent higher healthcare cost than patients with a score of zero. Again, there is that kind of relationship. We are able and haven't done all of the analysis yet on these results, but we are able to look at various kinds of costs like emergency costs, inpatient versus outpatient healthcare costs and so on. I can tell you that it looks like this relationship largely is driven by outpatient healthcare visits and it doesn't look like it is so much a function of inpatient or emergency visits. But again we don't have that slide here today. Overall, the implications is that
ACE's are common and they have implications for healthcare and healthcare costs. We need to do something about this. If ACE's are a significant predictor of these health problems, then we should try to do something about the long-term impact of ACE. What can we really do. Again, there's various strategies I think that we could all sort of anticipate and think about to approach ACE. Some of which have been tried and some which I think are the next wave or the cutting edge so to speak. Some of the possible approaches that we could engage in, is screening. Screening certainly has been talked about a lot, there are a number of healthcare settings that are looking at screening. Understanding a patient's ACE score and their ACE history is important. We certainly do endorse that as a first step but then the question is of course what you do with that information. We would argue that screening alone is probably not enough. We need to then have effective kinds of strategies to work with patients who indicate they do have a significant ACE history. Primary prevention, certainly makes good sense. Trying to reduce the number of ACE's before they ever occur and again, there's a whole wide range of social economic kind of strategies that can be developed. I know that they are actually recommendations, and no in fact the CDC Center for disease control in the U.S. in 2016 came out with a very nice document on the prevention of ACE. Which is certainly worth looking at. The other strategy is to basically wait for people to have chronic disease and health problems and to treat them there. Certainly in Canada our healthcare system is very well set up to manage these kind of issues. In fact a lot of our work is spent in the surgery care world either doing primary care treatment and or referral to specialist care but of course in order to do that you have to wait for the healthcare consequences to occur. What our work has really tried to do is try to fill in the middle gap. Looking for ways to help people with ACE histories and to help them recognize they are at risk to reduce that risk and to potentially reduce the long-term health impact of ACE. That is the work we've been trying to do. One of the studies we have done and in fact, has been published already in the Journal of Child abuse and neglect is looking at the mediators and moderators of the relationship between ACE and adult health problems. Again, we can't change ACE's once they have occurred. But we know again that ACE's are related to a number of various other health impacts and have health impacts. We think that maybe we could actually potentially have an impact on those. One of the studies we did for example was to look at how ACE's predict depression in adulthood and some of the potential mechanisms responsible for that Association. We developed a model. That's again suggested that there is a potential moderator variable in our city we looked
at resilience or coping strategies if you want to think about it like that but personal resilience. We used the Connor Davidson resiliency scale but if you're interested in the actual measure. We looked at various mediators of that relationship including emotion regulation, then again we use a scale for that and an inventory of interpersonal problems. This became sort of three of the moderator mediator factors that we were interested in looking at. Because those are potentially factors that can be changed with intervention. Then the relationship with depression. We found in fact that all three of those factors either as moderators or mediators were significant and did modify that relationship with depression. What that suggested to us in fact, is that these variables, the emotional regulation and interpersonal problems and resilience are potentially modifiable treatment factors that we could target in a program and we could then help patients with an ACE history to help change these kind of issues and to hopefully then improve their healthcare outcomes. That is my background and what I'm going to do now is turn it over to Dennis and we are going to shuffle feet here. He will tell you a bit about the treatment development program that we went through.

>> Dennis: Thank you, Keith. Hi again to everybody. I'm hoping that by now, the logic of what we are doing and what we have done is kind of clear. We are looking at ways of finding people at risk and offering them, there's lots of them, something that helps in a timely and effective way and that's actually a pretty big task when you think about it. We have a lot of thought that went into this, we knew we had to start with going after things like resilience, interpersonal problems and emotional regulation. But from there it was really kind of scratching our heads like what is the best way to do that, how do we engage in the people and find them. I would like to talk to you through that process and actually get a little bit into a clinical work itself. I am guessing that the majority of us online here today are probably clinicians and are probably curious about some of the actual clinical interventions so I will drill down a little bit on some of that. Unfortunately I won't be able to do all of it just because that probably would take three days rather than 20 minutes or so. We will be happy to entertain questions. One other thing I would like to say about background, one of the reasons that we decided to work on this project was because we have a great situation in Calgary where we have a very robust integrated behavioral healthcare system. Currently we have almost 1000 doctors in Calgary who have mental health clinician in their office on at least a weekly basis if not more. We do have a tradition here over the last 20 years, almost of having really good integrated care. We have thought over the years how can we
best leverage that and Keith and I actually worked on depression pathways projects. But in recent years we thought we could really potentially make a difference if we start going after ACE's and we have the system in place that would allow us to do that. I think a lot of you are in similar situations and would really encourage you to think about how this might work for you. Our treatment development group, this was not a thing done by one or two people, we brought a bunch of clinicians to the table with various levels of expertise either working with primary care populations or specifically in the area of trauma. These clinicians chewed on a bunch of issues that will talk about in a moment. We came up with recommendations that they then forwarded and sort of iterative process where we have a number of really good challenging discussions over and over and kind of paired down the final project or the final program. It took us about a year to do that. As part of the process we review the literature and in fact we published our own review of the literature of treatments for trauma looking for even if it's not related to ACE's, even the PTSD literature like what is out there. What are people recommending for other types of trauma. We also consulted with some experts, Rob Anda from the general ACE's study came out and spent time with us along with John Briere and Eileen Cloitre. I'm sure some of you know their work in trauma, and for those of you new in integrated care, you know Kirk Strosahl and Patty Robinson and they spent time with us. We have a long relationship with them and between all of those experts we had a number of great ideas to help sharpen our thinking. And we had the patient advisory group giving us their perspective and the ACE's Alberta research groups meeting on a regular basis to come up with this final project. Some of the principles that we use in developing the embrACE treatment, as I said we wanted to be informed by the existing literature and so if you want to read rather if you have insomnia you might want to read that paper is longer than it needs to be. We wanted the trauma informed process and the reality is, that our working group as well as our audience here listening today most of us and the majority will have had ACE and we wanted a trauma informed process throughout even as we are making the treatment. I won't say much more about that because I know this will come and speak in a much more informed way about what trauma informed care looks like in a moment. We also wanted the treatment to be close to the point of care and wanted to embedded in primary care, we are well aware that if we start screening in primary care than making referrals out to other centralized services that a lot of people just won't follow through with those recommendations. We wanted it to be a multidisciplinary effort as well. Here is some of the real tricky questions
that we had to deal with as a group. I am sure if we all had a chance to debate this right now, we would come up with a longer list and some great alternative perspectives. Compared to what we came up with. Number one, do you offer treatment to individuals or groups. A lot of pros and cons their people might feel more safe as individuals but might feel more normalized in a group. It came down to us to a matter of pragmatics if we are talking 10 to 20 percent of people who have three or four ACE's or more we probably need to do group treatment as an initial step towards increasing health. Secondly, should we work on skill building sort of here and now coping strategies and so on versus what we call processing the trauma. I'm sure you're aware that there are a lot of excellent and proven therapies out there. That actually go into the trauma prolonged exposure, EMDR, so one. So there's a lot of models like that available and we decided in order to again contain the experience for people at least at the initial stages of intervention we decided to stick with the skill building approach short-term again makes more sense in terms of logistics. Then we really saw this fitting into an overall step care approach so this is not supposed to be an isolated expense for people, rather based on existing relationship with a physician and potentially a mental health clinician at the clinic. We can identify people, have them get a ACE score that becomes a vital sign for them under the EMR and offer as many people as possible a little bit of help. That's proven to be useful. From there, at the end of that process, if people need more help than they can be encouraged to move deeper into the system if you will and receive appropriate referrals for whatever needs remain at that point. Also, to take a self-care plan and I will talk about that in a moment and be able to take that back to the family doctor and say here's what I come up with and hoping we can talk about that over the next weeks and months even years. It was really meant to be part of the continuity of care. This little slide is what we came up with. It feels like a small slide for a year of work. Essentially this slide represents the successions that took place in the ACE treatment. I will go through them one by one in a moment, the process that we used was simply patients were initially screened by their family physician and asked if they would fill out the basic ACE questionnaire. For those who met criteria, that is a score of three or more they met with a physician and a clinician and there was a discussion about inclusion, exclusion criteria. Are they good candidates to fit into this program. Then they were invited if they fit to joined the skill base group and we did some pre and post measures that we will talk about in a moment and we also did follow up at three and six months to make sure the effect was lasting. The format of each of the six meetings was
essentially the same. It started with an overview of what we are talking about today. Then a quick discussion about the homework from last week, there was a homework component to each of the six sessions. There was always a relaxation exercise that took place that took the form of a basic mindfulness exercise. The same one that was presented near the beginning just to help people kind of put some of the hectic of the day and the stress of the day or whatever else might be going on behind them to sort of settled down and the experience of being present for the treatment. They were also encouraged to practice that same exercise during the week at home. Then we actually went into some specific skill building, discussion. Discussion ended up being an important part of this, we'll talk a little bit more about that. Practicing of skills and then making personal commitments or talking about the homework. How that was going to look over the course of the next week. A core piece of all of this was that we encouraged each person in the group to work on developing a self-care plan over the course of the six sessions. Essentially, we tried to give a basket full of potential skills or strategies and give people the invitation to try a bunch of things and to notice what worked a little bit better, with a preferred, what seemed to bring comfort or help. Some positivity or whatever it might be. Then to start kicking off on an overall self-care plan, the things that they liked and the things that maybe they didn't like so much so by the end of it they can turn that into a self-care plan going forward. It was really meant to bridge the skills from one session to the next. We ran this program in about 12 different clinics. We had two clinicians leading each group of six sessions. We spent time in training to make sure that the sessions actually looked the same as much as possible from group to group. We developed a manual or manuals we had the facilitator manuals and patient manuals because we wanted to make sure that everyone was getting pretty much the same intervention from clinic to clinic. The goal of all of this was to develop "Proof of Concept" to have enough people go through the group and to track the outcomes to say I think there is something here this actually might be worth developing further. So we completed that process now and received feedback from the participants and the smaller subset of us have created the sort of next model the 2.0. And are looking for it to start trialing that hopefully sometime in the near future here. In terms of the exclusion criteria you'll probably be interested in that. A lot of programs hopefully less and less are saying there is access to mental health care problems if you want to deal with those things first. We didn't have a standard like that. We thought that goes against totally what we are trying to do. But if someone was in an active addiction process and clearly seem to
require rehab that that person would not be invited to participate in the group 1st. If somebody was actively psychotic or if the person or personality factors were judged in the group then the clinician and the physician went together to find other options for those people otherwise it was pretty broad, 18 or over and the score was three or more. Here's what we did in session number one, basically the point of session number one was to first and foremost create an environment where people felt safe and where people felt like they could be among people who also have been through difficult things and that was okay to talk about but there was actually no requirement for anyone to open up their past and talk about their personal experiences. As part of session number one we started with a presentation so it was like a guided PowerPoint that talks about some of the things that Keith talked about earlier like what are ACE's and how are they related to adult health and how they affect us and so on. Some people found that quite moving, some people found elevating and some people found it challenging. We began with a relaxation exercise and ended the presentation with a containment exercise basically a guided visualization of how people put away difficult things and lock them up not to avoid them but so that they can be open when the person felt ready to do it. We also worked in the first session on something called the bulls eye exercise. I believe it is from Lundgren but was introduced to us by Kirk Stossel and Patty Robinson and a way of people thinking about their values in four areas of life. As you can imagine that every patient came with a similar presentation about whether they have symptoms or not or what the symptoms look like weathers mental health or physical health so we wanted to get away from symptom focus and have people think about the values and what's important in life. This exercise help them to indicate where they are in certain core domains and this is something we would invite them to do again at the end of the program to see our day closer to living by their values, are they more meaningfully engaged in their life regardless of what might have happened in the past. That was an exercise that people seemed to like quite a bit. Session 2 taking care of my body. You see this language at the top there is taking care of my body, taking care of my thoughts, emotions, relationships, past and so on. It's kind of a way that we use to kind of tie the concepts together. Taking care of the body, as you can imagine people who have gone through difficult backgrounds might have a pretty conflicted set of beliefs and behaviors. In some of the areas you see on the slide in front of you. It might not be easy to sleep if you are associating sleep as a time when you were vulnerable and in danger. You might not care about eating well if you think that why take care of myself I've
always been treated like I am garbage so why should I do anything else now. Why should I exercise and so on. There is a fair bit of psychoed in this section. Some give handouts in the end of the key areas but it was more the discussion of helping people realize how their ACE's may have impacted their behaviors in these areas. Then encouraging everyone to come up with at least one specific smart goal. I'm sure you've heard of the smart goals specific measurable tangible and so on. That they would do as homework so they felt like they were getting ahead of things or moving forward. In a meaningful way in one of these areas. That was that session, taking care of my thoughts. An interesting quote by Abraham Lincoln there, we can complain because rose bushes have thorns or rejoice because thorn bushes have roses. I love that saying. Aaron Beck is usually thought of as the founder of CBT but I think Abraham Lincoln might have a bit of a claim after reading that quote. Anyway, this is probably the most traditionally cognitive therapy ACE session of the six. Again, as in the case of Filetti, people have developed ways of thinking about themselves and the world around them as they have been exposed to one or more ACE's in all likelihood thoughts like I am unlovable or the world is a dangerous place so I always have to be on guard, I can't trust anybody so on and so forth. So in this session, we start with relaxation and move into dyadic discussions about what kind of thinking has gotten in your way of what sort of thinking comes up again and again and how does that relate to ACE's. We do some actual teaching about thinking traps that I'm sure most of you are aware of. Cognitive distortions and so on. Then have people practice in session not only identifying but also practicing challenging the distorted thought. That becomes the homework and because there's a lot of people who get that for eight, 12 or 20 sessions in the full cognitive behavioral therapy we are only doing a little bit of it here but this homework is repeated over the next three weeks so people keep practicing core skills in this area. Taking care of my emotions. There's a little bit of logic to why we set these things the way we did. In some ways talking about the body, nutrition and sleep is in some ways a bit safer we felt as we moved into thoughts. Emotions and becoming a bit more challenging. A little bit more emotion comes into the room. We wanted to make sure that some relationship trust had formed by the time we got to these kind of topics. We spent a lot of time talking again about the kind of feelings that can be associated with ACE's. For a lot of people it's I can't find my feelings, I have learned to shut things down inside of myself that I'm not even really sure how I feel anymore. So we have lists of feelings and talk about different types and categories of feelings and that sort of thing. For some people it's about I need to
contain my feelings that they are bubbling up all over the place and I need help with that. We also fundamentally got back to our discussion about values and that work comes up a number of times and you can hear the acceptance and commitment therapy components of the treatment coming through here. Helping people to reflect on the fact that we can't necessarily control our feelings and what kind of shows up. But if we start living on the base of those feelings as a primary guide in life, we are likely to start making mistakes and you know talking about moving towards a more value-based approach to making decisions and living life. We introduce specific techniques for coping with unpleasant emotions, just simple like take 10 breaths, teaching people that are riding the wave technique for sitting within emotion and observing it. Through sort of until it dissipates. Practicing some of those skills and again encouraging everyone to go home and try out one of those skills. Taking care of my relationships, not hard to imagine again the implications for relationships in terms of ACE's. It is tough to trust people, it is tough to get close. For many people it's tough to recognize who is a safe person and who isn't. This was a really hard one to pare down, we started with about three sessions worth and try to work it down and down and down and we got some core material related to what is a supportive nurturing relationship, what does it look like, water boundaries, how can boundaries be set. What is the difference between passive and aggressive and assertive communication. Then having people practice little scenarios again and trying some of those things at home. I'm rushing here but it's just kind of a big topic with not much time. Finally, I will say quickly at the end of the six or the fifth session we also set up an expressive writing exercise in which we as people to write a letter to their younger self as homework in preparation. If that was too difficult we invited people to give it some thought but not actually do the exercise until session number six. But there is some really good data out there saying expressive writing can be especially helpful in working through traumatic experiences. The basic instruction was write a letter to the younger self who was being exposed to the trauma and let yourself know that you understand what that was like and how his or her needs weren't met at that time of life. How you intend or perhaps step in to help meet some of those needs now as an adult in ways that are positive and moving forward in life. It ended up being appointed some discussion afterwards, some people found it very challenging and some found it very helpful. Then some again we worked on a little bit for the final session. The last session, taking care of my past, that's when people have a chance to finish working on that letter and to actually talk as a group about how I look back on those things. Not to disclose
them but to talk about how they choose to think about themselves and what they didn't get and what their intention is now moving forward in life. It's also a chance for us to talk about unmet needs so people who haven't or are may be having over symptoms of PTSD. Or want to go further and do a piece of desensitization or EMDR, something like that and that's what we review with the next steps could look like. Also in this session ask people to review all of their skills that they have learned over the six and indicate on a sheet which ones are most meaningful to them or most helpful and to share that with their family doctor and we actually make an appointment with them for their family doctor at the time of the last session. That is the six sessions. I'm sure you have a lot of questions. Here's an example of the self-care plan, this is one tiny bit about 40 items longer than that but you would go down, pick the ones that they like the most and say here's my resolution related to that specific strategy. Keith was speaking earlier about this pyramid. At the bottom, adverse childhood experiences primary prevention if we can take that out, problem solved but that's a really big task. As he mentioned the tertiary prevention is at the top of the pyramid. Once people have developed symptoms and illnesses, addictions and so on. Our program again was designed to address these three areas the disruptive neurodevelopment, the mindfulness component. This great literature showing the neurodevelopment that can be changed by through mindfulness practice. The cognitive emotional social skills are directly designed to address the social emotional and cognitive impairments. That's also associated with ACE. The self-care plan, to counteract some of the adoption of harmful behaviors. Again, I hope you see the logic of that there. Here is our little embrACE logo. Very quickly, here are our results I'm sure you want to see these. The four bars represent before people were involved in the treatment, immediately after, three months and six months post. These are anxiety scores as measured by what we see. Not only is it significant improvement from pre to post treatment, but an increased and maintained level of improvement in these areas over the three and six months. So we are so happy to see that. And we are super impressed to see that happen with depression scores as well these were measured by the PHQ nine patient questionnaire which is often used in primary care settings again significant changes and maintaining improvements. And here is emotional regulation and we see this tendency as people are we are trying to understand why it gets better 3 to 6 months and we are hoping because people are continuing to improve their skills but we see significant improvement in emotional their ability to emotionally regulate. Here changes over time and mindfulness and in
this case the scoring is on the other way from pre to post and afterwards people reporting improved mindfulness skills, perceived social support. Again, higher scores are associated with improvement. It's interesting we address social support in session number five so one week later, we are hypothesizing maybe it's because we are talking about relationships and what are healthy or unhealthy relationships. Encouraging people to go out and start practicing some boundaries or finding new relationships or ending ones that are unhealthy or so on. But it does seem that three and six months we see some nice results there. Again, we are seeing significant and sustained results in terms of improved resilience over the six months. Finally, with a minute to read a brief testimonial. This is a letter that was sent to us by one of the members of the group. Let me begin with an introduction, I am a retired teacher married for many years. I have two adult children filled with immense pride and our daily caregivers for our precious granddaughter. Two years ago I was suffering a deep depression. I found myself struggling to manage day-to-day activities including the care of our grandchild. There was a sense of overwhelming sadness and hopelessness. I have recurring thoughts of suicide but I was scared I would fail any attempt to become more of a burden to my family. The encouragement of my husband I went to my family doctor, I was so disappointed in myself for not being able to manage my emotions. Only weak people need meds and allow drama to control their lives. As the meds kicked in and I began to think more clearly and enrolled in a mental wellness class. One day it was mentioned that I would be interested in checking out my ACE score. Finally I was offered a chance to participate in the embrACE course. You see as a child I used to live in a constant state of fear and anxiety. I experienced verbal, physical and emotional abuse from my mother. It was awareness that she didn't really love me and it was my fault that her life was as miserable that she projected it to be. As a result I sabotaged every good thing that happened to me. If I lost weight, I binged. If my husband said he loved me I doubted. If somebody gave me a compliment I dismissed it. I told myself I was an ugly fat stupid person and that he deserved every bad thing that ever happened to me. However, each week as I returned to the class there were some tears but there were more stories and more suggestions. There was also a clear understanding of how ACE's had a long-term effect on my reactions and responses in every part of my life. I also realized I had the power to change the story and I knew I needed to heal my own heart. I am so grateful for a new beginning and I take joy in the touch of my granddaughters hand, I am more present, I take risks, when my husband says he loves me I know it's the truth. I still fall back into old patterns, but
I've been able to deal with my thoughts, eyepatch, check and change my thinking. My thoughts are thoughts and my feelings are just feelings. When I put my memories in a lockbox they stay locked until I'm ready to deal with them. I'm going to end that there but I hope you found that testimonial as meaningful as I found it. Everybody speaks to the continuity of care a person was doing work before she came to the group. But clearly found dealing with her ACE's ended up allowing her to kind of move forward and I guess that was our whole overall. Thank you so much Linda, over to you.

>> Andrew: Thank you Dennis and Keith. Just another touching testimony and really ties this all together in terms of the angle and why we are even having this discussion so I appreciate that. Now joining us is Linda Ligenza, she is the clinical service director for the National Council for behavioral health and works with us here at SAMHSA-HRSA Center for integrated health solutions. She is a clinical social worker with over 30 years of experience in clinical administrative and policy work. Background working for years in the offices of mental health and later HHS through SAMHSA and a significant background in trauma and expert in ACE’s. Linda, I will turn it over to you.

>> Linda: Thank you so much Andrew, good afternoon everyone. I am sure you join me in thinking our two other presenters who shared some really amazing work. What we just heard really was two really important areas of trauma work. Screening and assessing the trauma, also using evidence-based approaches to promote healing and recovery. In this case, I think our colleagues have come up with a really impressive set of interventions. At the National Council, we have been doing this work around trauma informed care over the past eight years. What we believe is that talking about these two although extremely important areas is just part of the bigger picture. You know, we really feel that these clinical practices are best delivered in an organizational culture to ensure safe, secure relationships, environment and not only for patients but staff as well. For the entire workforce and the impact and prevalence of trauma and what policies and procedures support of trauma informed cultures. These are the kinds of things that I will be talking about as we move ahead. What do we mean by trauma informed culture and how can we implement a culture like that. We certainly heard that ACE's are prevalent and are impactful and as a matter of fact the impact can be quite profound. And an example we know that people we are serving, particularly people we are serving probably have higher ACE scores than the general population. That they are at high risk for pre-traumatization. We also know that
there is comorbid stressors such as poverty, racism, community violence. We also know that
people are really struggling with the effects of the climate change, increasing disasters, human
cause as well as natural disasters. We also have to remember that our healthcare settings can
also be stressful environments. We need to really take a look at those environments as a way of
minimizing the risk for re-traumatization and that's what we will be talking about. Certainly, we
believe that people are able to heal and recover from trauma. Some of these items I will just go
through very quickly. You know, one of the important reasons for healthcare settings is to take a
look at these processes because most often people showing up to their primary care provider as a
first point of contact. We have really amazing opportunity to engage people. To not just treat
the symptoms of the condition such as pain, or irritable bowel syndrome but you really look at
the underlying issue that may be present and that we might be able to address. The other thing
about trauma care is that it not only benefits the patient but it benefits the staff, patients families
as well. One of the important opportunities as I mentioned a couple of slides ago is that we have
a chance to really minimize the reaction to triggers. For example, someone who has experienced
sexual trauma may be very sensitive to experiences that involve dental or oral procedures
because those procedures may remind the person of the early experience. Taking a look at our
environment, our practices is going to be really importa

the beginning of the healing process. We also certainly have the opportunity to connect with
intervention either externally or internally in our organizations. I see my picture didn't come up.
When we talk about trauma informed care, we are really talking about a paradigm shift, a shift in
our culture. Where we begin to ask what happened to you, rather than what is wrong with you.
We begin to focus on a person's strengths asking what's strong rather than what's wrong. It's also
important to see symptoms not as symptoms of an illness but rather adaptations to extremely
stressful events. Again, recognizing a person's strengths rather than their weaknesses. It's really
about a shift in attitude, beliefs, language, behaviors and I'm talking about a part of the health
organization and staff. We know looking at the environment, looking at the policies, procedures and practices doing what we always do but better. It's absolutely a lot of trauma informed care in integration and primary care services and also guided by a set of principles that we are going to talk about in a moment. But first I wanted to help us understand a really helpful definition of what we mean by trauma informed care. Our use trauma informed care that is interchangeable with trauma care or trauma informed approaches. SAMHSA which is mental health services agency is a part of the U.S. Health and Human Services comedy brought together a panel of experts to come up with this definition. Which they categorize as a trauma informed program, organization or system it's really all about these four R's and I think it's a helpful way to remember these four R's. It's all about realizing the prevalence and profound impact of trauma throughout the lifespan. A belief that everyone has the potential to recover through various and individualized care. It's also about recognizing the trauma, patients, families as well as our own staff. We know the trauma is prevalent so it's not just the patients we serve but it's also the staff who work beside us who are impacted by trauma. And also recognizing the behavioral signs and symptoms. Because they don't show up, we can't say there's really like typical signs of trauma, we know that it's different from signs of PTSD. Often times we are looking for behavioral signs like not showing up for appointments, not showing up to frequently. It's also trauma care is also about responding by ensuring policies, our procedures and processes. What we know about trauma and healing. That we see everything we do as trauma informed or trauma sensitive lens. The last R is resisting re-traumatization. That I mentioned a few minutes ago. About looking actively at the relationships, environment and policies, procedures and practices. I'm not sure what is happening here. One of the really important aspects of this work, really begins once we understand the definition of trauma informed care. It's also really important to look at the principles that guide this work. The experience of trauma typically characterized by fear, feeling unsafe and often times betrayed by someone as authority, a person you've been able to trust. So, these principles are really born out of that character relation and are really important to all of the work that we do. When we are using these principles to guide our work, we are really beginning that process of healing, creating the environment of healing and recovery. So safety of course, we are talking about physical, emotional, psychological safety. That has to do with the interpersonal relationships that exist within an organization as well as looking at the environment. Ensuring that our environment feels safe, looking at things like signage, what our
waiting room sounds like and feels like. The chairs to close together, do we want to create a space that is more quiet or more comfortable. For patients who really need that. Safety is of course a really really important aspect of the work that we are doing. Another aspect is trustworthiness and function. We are talking about an organization, organization looking at decisions, operations, to ensure that there is transparency. Are we looking at the relationship. Instead of quickly going to perhaps changing the patient's medication which may be appropriate, is it more important to wait until there is a little bit of a trusting relationship there. Where the patient then will be more able and willing to engage in the treatment plan. They will be more likely than to follow up with treatment. Peer support, people who are recipients of services such as peer wellness coaching, can be really critical to establishing safety, building trusting relationships and enhancing collaboration. They are excellent role models for our patients and can tell their stories. Collaboration and mutuality is really all about that and again building that trusting relationship. Partnering, using motivational techniques. Empowerment, extremely important for the person who has been traumatized to not feel empowered and this is important to find ways to give people a voice. Choices and of course paying attention to cultural, historical trauma as well as gender issues. At the National Council we have come up with these five domains areas of trauma informed care. We just heard a lot about screening, the importance of screening and comprehensive assessments of trauma and of course that involves the workflow, educating staff and looking at the tools, resources we need in order to carry out that process. As I mentioned patient's voice choice and collaboration is another important area and finding ways that we can engage patients and really hear what they have to say about these organizational practices as well as giving them a voice and their own care. Workforce development and best practices is really kind of the hallmark area that is most important in trauma informed care because we really need to help our workforce understand as we mentioned earlier in the definition the impact of trauma and what role they can play in promoting a trauma informed or trauma sensitive environment. For example, front desk staff really important. They are the first person that you know often greets a patient. Are they welcoming or do they dismiss it. Again, safe and secure relationships and environment with our language, the kind of language we use in front of patients or not in front of patients. The other area is very important that is data collection and performance improvement. I'm not going to go through each of these areas, but I just talked a little bit about each one of them. I would mention that in terms of educating patients
and staff actually and highlighting their awareness about trauma we can use trauma posters that help to educate them about the connection between trauma and various health conditions. It also prompts staff to ask about trauma. Patient voice choice is collaboration, we can have informational brochures available again, posters can be very helpful. Workforce development and best practices you will see at the end of the presentation, there are resources such as SAMHSA, tip 57, concept paper around, and trauma informed care. We also have on our website a training survey that helps to check in about staff, how usefulness training and education is to staff. We also have a set of slides available on our website that can be useful. Using environmental surveys to check in with patients as well as their staff can be very helpful. Then of course, using that information to make changes. One example of an organization I was working with recently heard from patients and staff that the outside of the door or the entrance to their organization had too much shrubbery around it and found it covering up the injury to making it feel unsafe and dark. That was one of the first things through the learning community that we were involved in. I mentioned data collection and performance improvement, certainly looking at those five domains is really important, how you are doing in each of those areas. Also a number of other areas that we are always concerned about and I know Keith and Dennis mentioned some of these things. You can be looking at decreases in emergency departments, hospitalization. Improvements in health outcomes with increase engagement, we openly accept improvements to the health outcomes and tracking those data and sharing them with everyone in the organization, particularly leadership is really important. The big question on everybody's mind is, how do we do this, where do we begin. So we based the work that we have done on implementation, science like stages of change as well as the experiences that we have had with the lessons we have learned from working with organizations across the country. I will not go through each one of these in the interest of time. But I really want to highlight some of the stages or the critical components of presentation. It really starts with getting the leadership buy in, leadership support. You need to have this to move ahead. What is most critical to any implementation process is forming an implementation team that will really look at the domain areas, understand and educate themselves about it. Create a vision, create a consensus about where they want to go and develop a plan of action. Part of this involves educating all staff, looking at your various communication systems. It's not just about using all staff meetings, to educate staff but it's about how do we keep the conversations going over time. Supervision, all
staff meetings adding TIC to all staff meeting agendas. Assessing the organization looking at your domain, developing an action plan and data system. There is not enough to just look at implementation, one of the ways that we help organizations is through eight or nine month learning communities or innovation communities. Once the time is up, we really are looking to legalization to sustain those changes over time. Again, it really involves leadership, commitment, maintaining the momentum that you started through your team meeting. Meeting on a regular basis, looking at your agenda, your plan that's going to be really most important. Continuing staff training and communication systems. Looking at your resource of issues like performance reviews, including those in trauma informed care and confidence of performance reviews making sure your staff are oriented to trauma informed care and approaches of the organization. Absolutely looking at policies, procedures, practices. Including questions, the ACE questionnaire or whatever questionnaire you use into your electronic health system is going to help you sustain this work overtime. Certainly, looking at your data on a regular basis to share that with leadership and everyone is really important. In summary, what's really most important and what kind of characterizes a trauma informed environment has so much to do with the importance of creating trust in your relationships. Also, creating physically, emotionally safe and respectful relationships and environments for everyone. Staff as well as patients. Routinely identifying past as well as post trauma experiences. Educating staff as well as patients about how to make the connection between trauma and the condition. Creating opportunities to engage patients in meaningful ways, giving them a voice. Certainly, an organization that thinks about whether or not this person has a trauma history at these times when a patient frequently misses appointments has difficulty adhering to treatment, is not getting any better by all of the approaches that we have been using shows up often or without appointments or frequently visits the emergency room department. You will find here a number of resources that relate to implementation as well as a new resource coming up for the National Council. Which will be posted to our website when that's available or primary care settings around fostering resilience and recovery. Here again is a list of more resources that I just mentioned to you. Sorry if I had to go fast but we are certainly looking forward to your questions. Andrew?

>> Andrew: Thanks Linda. Thanks for the review and again, really solidifying how these points apply to the organizational level. We have a few minutes left and folks questions have been pouring in. Unfortunately we have more questions than we have time to answer but it's great
because there's so much interest or so before we get to the questions, I want to remind folks we offer free consultation on ACE and other topic integration through our website at Integration.SAMHSA.gov and email at integration@thenationalcouncil.org. It's free consultations on any topics we have talked about today along with anything else related to integrations of your question wasn't answered today send it to our email and we will be happy to offer a consultation. A few questions that have come up already. Dennis and Keith, there's a lot of questions that are before we begin certainly we asked the presenters to try to be brief with the responses. We will answer a few questions but Dennis and Keith another question asked was specifics about your study asking about the group size, what the different instruments used were exactly and where to find them. Where can folks find out more information about this research study and stay up-to-date on results and your findings.

>> The sample site was 107, the measures I could name them now if you want or if you want I'm happy to have my email shared with people and people can email me. If that's possible.

>> Andrew: Yes, if you want to say your email now and we will type it in later.

>> Keith: ksdobson@ucalgary.ca.

>> Andrew: Great, thank you.

>> Keith: If you want a list, I can send them a table of all of our measures.

>> Andrew: We will follow up with the audience on that information from Dennis and Keith later. Related to this question there is a number of organizations and government folks who are on who are asking about how they might go about doing similar kind of protocols in their own clinics and they ask specific questions about what kind of training to the people who are doing this in need and where in the workflow to use it on the ACE's assessment and I think we can answer those.

>> A couple of thoughts on that, a good ACE's assessment we typically on ACE scores theatrically should not change over time so it doesn't have to be administered more than once. We would often recommend that at some point a person's annual physical if people are still doing those that might be a time to do it in the waiting room and then bring their finished result. Sometimes on a tablet or something so it is already scored. By the time they go into talk to their family physician. Of course that implies the physician would have to know what or how to address it once they look. There's a little bit of training involved in that. What was the other question again, I'm sorry.
>> Andrew: About the training of the folks who are doing the screening and intervention for ACE's as well as the workflow.

>> Thanks very much, everyone that was involved in the groups we always had two people in case one person in the group was struggling with a certain part or having some kind of triggering reaction if they needed to step out there would be a lead issue that would go out with them and help work through whatever is going on and relieve someone else to continue on with the group. Everyone had at least a masters level of preparation. It is an open question for us whether that could be done with a different level of training. But certainly it would come down to some pretty solid training at that point.

>> Andrew: Thank you. I think this one, Linda would be able to answer. It's a question about buy-in. Not only at the questions about how do we get to the agency level but also they mentioned feeling particularly with medical providers it's not a priority because they are so overwhelmed and every provider in a clinical setting folks are already overwhelmed with productivity levels being monitored and there is a strong emphasis on data collection right now. Being compliant with insurance companies and the administration. Any suggestions how this as much of a priority as others.

>> Linda: I will say a few words and would certainly like to turn over to Keith and Dennis. But I think it really starts with education. There are many talks actually Nadine Burke Harris has a Ted talk that she is a pediatrician. Physicians would be hearing from another physician just how important the information about ACE's were to her. Really sharing the kind of information that Dennis and Keith shared with us today around you know that the brain changes that are taking place. The serious impact and prevalence of the trauma that people who are coming into service exhibit. It's really all about helping them to do their job better. You know, once you have an understanding of the underlying trauma, you can better treat the underlying issues as well as the symptoms that that person is experiencing. A lot of education using some information from the ACE study. There's also videos that Robert and celerity have online. Some of these things are available on our website. I'm going to turn it over to Keith and Dennis if they want to answer on this.

>> I would add, something similar that we need a physician champions for sure. We have a number of physicians working as part of our treatment development group and so we have some champions here in town and they are, come around with us to conferences to talk about these
things and we want to make sure we don't just go to the mental health conference is, we go to the medical conferences. I think that sort of helps spread the word.

>> Andrew: I'm going to steal one more minute and the audience can step up if they can but it's an important question. I will combine 20 different questions into one here but folks are looking at the sociological factor and asking about to what degree do ACE's are they impacting in communities based on habitual ongoing race related discrimination or violence. Then also, there's another group asking about ACE and the criminal justice environment if there is evidence that suggests that also impacts the trajectory of individuals. Any thoughts on that?

>> Keith: Keith here, I would say that these are excellent questions. I know we don't know as much about these issues as we should but there is a measure that's been developed by the World Health Organization which manages trauma and adverse childhood expenses from a broader lens. It looks at things like socialized violence and it looks at the effects of war, displacement and so on. There is an association between those kinds of adverse childhood experiences and adverse health problems. There is a link. Is there a link to criminality, almost certainly I would guess but I don't know of any data that I can say that I think is very good opportunity that there would be. There's an excellent book I will just mention two of people are interested, called the hillbilly elegy written by a lawyer out in California. He grew up in the hills of Kentucky I believe. He talked about systematic violence and issues and he went into there. He said he couldn't make sense of the experience until he actually understood it and talked about criminality is one of the features growing up. I think there's an association but again it's not as well established yet as it could be or should be.

>> Linda: Certainly, I would just add that we are starting to find people within our jails and prisons who have high ACE scores. You know if you have connections, partnerships with jails or local jails certainly it would be wonderful to share your knowledge, experiences around ACE's. Encourage them to check in with folks about that. You know, certainly being able to provide services that are going to be helpful in healing and recovery could be really really beneficial.

>> Andrew: Alright, thanks. That will wrap us up there and again, folks can find this recording of this webinar and the slides including others that we did about criminal justice in the community of behavioral health integration, many others that are on our website at Integration.SAMHSA.gov. Thank you Keith and Dennis, Linda, Neftali Serrano and the CFHA.
Most importantly to our audience for joining us on this webinar. Obviously there's so much here, it's a critical topic and we continue this conversation well beyond today. Thanks everyone.

>> Keith: Thank you.
>> Dennis: Thanks.
>> Linda: Thank you.