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CONFRONTING MENTAL HEALTH CHALLENGES IN OUR EFFORTS TO END THE HIV EPIDEMIC

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04/10/2018

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[video transcript]

[00:00:01] Welcome to Physicians Research Network. I'm Jim Braun the course director of the monthly meetings of PRN in New York City. Since our beginning in 1990, PRN has been committed to enhancing the skills of our members in the diagnosis, management, and prevention of HIV disease as well as its infections and coinfections. We hope this recording of Robert Remien's presentation 'Confronting Mental Health Challenges in Our Efforts to End the HIV Epidemic' will be helpful to you and your daily practice. And invite you to join us in New York City for our live meetings in the future. PRN is a not for profit organization dedicated to peer support and education for physicians, nurse practitioners, and physician assistants and membership is open to all interested clinicians nationwide at our website PRN.org. Now allow me to introduce Robert Remien Professor of Clinical Psychology in the Department of Psychiatry, Director of the HIV Center for Clinical and Behavioral Studies and Associate Director of the Division of Gender Sexuality and Health at the New York State Psychiatric Institute and Columbia University in New York City.

[00:01:06] Pleasure to be here. Good evening everyone. I'll probably assume that I'm speaking to the choir and I hope that I leave you with the message, if I were to summarize this talk in a few words it's mental health matters. And particularly in the context of HIV and all of our efforts to end the HIV epidemic globally, locally, domestically, I think you'll agree that mental health matters. So why focus on mental health in the context of HIV prevention and care? We've made significant gains along the way of our care continuum, but there are also significant gaps. I think most of you are familiar with the UNAIDS' effort to end the epidemic globally, the 90-90-90 that everyone refers to. 90 percent of people diagnosed with HIV who are living with HIV, 90 percent on treatment, 90 percent achieving viral suppression. We know and there's clear evidence that mental health influences every step in this treatment cascade. People living with HIV have significantly higher rates of mental health disorders. I would posit that if we don't address more seriously than we're doing, the mental health gap, we're unlikely to achieve these 90-90-90 goals or to end the epidemic.

[00:02:22] I think most of you know that Governor Cuomo put in place a task force several years ago, we have a blueprint. I was part of that task force and it's very ambitious in terms of ending the epidemic within a couple more years. Initially we said 2020. So we'll see how well we're doing. But a lot of my talk is really about if we don't address mental health more than we're doing, we won't get there. Plus I think the bottom line is the human right to health means that everyone has the right to the highest attainable standard of physical, as well as mental health.

[00:02:59] So here's just a little bit of what I'll be talking about. The challenges of global burden of mental health disease. Mental health and HIV prevention, its impact of mental health conditions on HIV

health outcomes. And the challenges we face in addressing mental health, but there are opportunities. There are strategic points for mental health interventions in the HIV context. We have a toolbox. We have evidenced based mental health interventions for people living with HIV AIDS. And I'll talk a little about the role of integrated care and the question of intervention intensity. Who needs what kind of intervention at what level of intensity.

[00:03:35] In terms of just general terms and you're all medical providers for the most part, I think people understand this, so often these terms are used synonymously in terms of psychiatric conditions, mental disorders, behavioral disorders. These are all clinically diagnosed usually by clinical evaluation. Alcohol and substance use are part of the DSM, part of the mental health disorders. Of course people talk about symptoms of specific disorders, depression, anxiety, PTSD. People can have symptoms without having a full blown syndrome. We have rating scales for psychiatric distress, the psychological distress. You can rate this as a provider and see if your patient is suffering with some level of distress. But often in research, but even in clinical care, there are self rating, self forms that people can fill out and indicate levels of distress that they're experiencing. And of course people talking about any mental illness and serious mental illness, any mental illness is at least one mental illness condition. It can be a range of severity including severity of the disorder, but we talk about severe mental illness we're talking about significant impairment in daily functioning.

[00:04:46] So I want to talk a little bit about the global burden of mental illness, I know everyone's working here locally in New York, but I think looking at the big picture is often helpful. And this is outside the context of HIV. So here you have and I hope people can read the Global Burden of Disease, this is 2016 global ranking. Number of years lived with disability, and you'll see that number one at the top of global burden is mental and substance use disorders. And this is compared to other communicable and non-communicable and nutritional diseases, for example we see cardiovascular disease at number eight and HIV/AIDS tuberculosis is at number 15.

[00:05:27] And here's another way of looking at this in terms of disability life years, adjusted life years. And notice how the rise and the peak in mental, neurological, and substance use disorders is rising significantly in adolescence and peaking in young adulthood. And also these lead to excess deaths among people living with any of these disorders, lifespan of often being 15 to 20 years shorter. What's interesting in the context of HIV disease is the similarity in age burden relative to the age burden for HIV. We talk about the age bulge particularly when you look at the entire globe and where HIV is most prevalent, and it's really in young people in late adolescence and young adulthood where we're seeing this. So it also points to this relationship of mental health problems, disorders along with HIV infection. Among adolescents and young adults, young adults living with HIV more than 60 percent have some type of mental health disorder.

[00:06:32] So I am going to talk a little bit about HIV prevention. HIV acquisition. Mental illness is a risk factor for HIV acquisition. It contributes to 4 to 10 times the increased risk for acquiring HIV. One way of looking at this is looking at prevalence among people with SMIs, serious mental illness, being on the order of 2 to 6 percent HIV prevalence compared to the general population which is less than 1 percent or actually half of a percent, 0.5 percent. And then when we look at a combination of disorders or conditions, mood disorders along with alcohol and substance use and other conditions, they contribute to even a higher risk of acquiring HIV.

[00:07:12] Here you see a graph on, this is looking at men who have sex with men from six U.S. cities, over 4000 men. And what you see in this graph is from zero conditions to 1, 2, 3, or 4 of these conditions you see on the right such as depression, alcohol use, stimulant use, poly drug use, or things like childhood sexual abuse being in someone's history in their experience, that the probability of staying HIV negative goes significantly down with these comorbid conditions. Some people refer to this as syndemic conditions. So this is on the HIV prevention side.

[00:07:51] Similarly on the prevention side, we all have PrEP. I think you all know how effective PrEP is of reducing one's risk of acquiring HIV. But here we're seeing that in the iPrEx and iPrEx OLE trials, higher depression scores associated with lower drug detection, meaning less adherence, as well as risky sexual behavior, condomless receptive anal intercourse. So as providers I think we have to think that depression screening as well as treatment is going to be key to maximizing the efficacy of PrEP.

[00:08:26] Let's talk about people actually living with HIV/AIDS. Here you see a couple of large studies with like with HCSUS data and whatnot, and you see the differences between people living with HIV and the general population. And so you'll see like major depression 36 versus 7 or 8 percent. And you can read down all of these with generalized anxiety disorder, panic attack, any of the substance use, drug use, dependence. Similarly on the right this is on sexual minority men at Urban Health Centers, a smaller sample, but with just using screenings like the PHQ, SPEN, or the SPAN these are screening tools for mental health disorders or specifically PTSD or anxiety disorders. And you see the elevated rates among people living with HIV.

[00:09:19] Just looking at it another way, we have rates of selected psychiatric disorders in the United States in the general population versus people living with HIV. And I'll just draw your attention to the ones that are even the most dramatic, such as substance use disorders and depression, current depression, lifetime PTSD. Significantly higher among people living with HIV compared to the general population. And just to bring it back to the global perspective these rates are, it's hard to look from country to country or area of the worlds to area of the world because of the way these data are collected, but what the bottom line is across the board people living with HIV no matter where they are living in the world, are more vulnerable to mental health conditions than we see in the general

population. And that as I mentioned before all of these rates consistently are higher among adolescents and young adults.

[00:10:14] So why the burden of mental health and HIV? I would assume actually everyone in this room probably knows this because the populations you work with. People living with HIV, people vulnerable to acquiring HIV, HIV is not the only thing they're dealing with. And even for many people it's not top of the list for them in terms of what they're most concerned about. They're dealing with a lot of intersecting kind of conditions and issues that can affect this comorbidity of mental health and HIV physical health outcomes. Including demographic factors, I'm going to talk a little bit about the biological factors in a couple of minutes, but things like housing and food insecurity in parts of the world war and conflict, even here neighborhoods people live in, violence in neighborhoods they live in, unsafe homes, unsafe streets. Psychosocial things like psychosocial support, bereavement, trauma, gender based violence, fear of advancing illness. All of these things are what's facing the populations that you all work with. And I want to particularly point out the intersecting stigmas. Unfortunately there's still a great deal of HIV stigma and we hope that it's going to go away, but I don't know it will ever go away. And I see a relatively young audience but some of us have been around for a long time. A lot of us have worked in the field of HIV treatment and AIDS in what we call the early days, late 70s 80s into the 90s, when there wasn't effective therapy. And there was a lot more blatant stigma that you'd see in hospitals in orderlies and people were refusing to deliver food or people refusing to visit or enter a room if someone had HIV. Dentists refusing to treat people with HIV. Some of that overt stigma may have gone away, but it's still there. In fact sometimes I would say it's more sinister in it's covertness. But the populations again that we work with again it's not just HIV, it's the stigma of mental health, mental illness, the stigma of being a gender or sexual minority, or someone who uses substances or someone who engages in sex work. And many people have intersecting stigmas so that they're living where their experience is more than one stigma.

[00:12:32] Now depression is the most prevalent mental health condition in HIV and also it's the most studied, there's the most research around this. I want to focus a little bit on depression right now specifically about depression and mortality among people living with HIV and AIDS. Here you see a few studies among 1487 women followed for 20 months, for two years in Tanzania. Mortality was 6.6 percent among women with depressive symptoms versus 3.7 without. Among 765 HIV positive women in four U.S. cities, New York City was one of these cities, they were followed for up to seven years. Women with chronic depressive symptoms were twice as likely to die as women with limited or no depressive symptoms, even after adjusting for what we would think of as typical predictors of mortality such as CD4 level, the duration of being on ART, or one's age. And in the large WIHS cohort study, many of you may know this study it's the largest ongoing prospective cohort study of HIV women in the U.S., we see that depressive symptoms was associated with more than three times the hazard of mortality among women who were on on ART, more than seven times the hazard of mortality when women were not on ART, compared to women on the ART with no depression.

[00:13:57] Here we see a more recent study that just came out in JAMA about a dose relationship between depression length and HIV outcomes. This is almost 6000 U.S. individuals living with HIV. With each 25 percent increase, and that's what you're seeing on the chart on the right, 25 percent increase in the days living with depression is associated with increased 93 percent risk of mortality.

[00:14:21] So what are these potential pathways between mental illness and HIV health outcomes? I think most people would probably very quickly point to the behavioral pathway. Someone who is depressed or using substances they may engage in riskier behaviors, including sexual risk behavior. They may not show up for medical appointments, they may not want to take treatment. They may not adhere to their treatment. But there is evidence for there being a direct biological pathways as well. So I want to talk about that for just a few minutes. So in terms of potential direct biological mechanisms, there are direct effects of depression on the immune system. We have a chronic immune activation and HPA dysregulation. We all know that HIV crosses the blood brain barrier and therefore there's immune activation in the brain and central nervous system. These inflammatory proteins can lead to oxidative stress and neuronal injury. And the chronic inflammatory response to HIV infection, we have an elevation in level of cytokines such as IL-6 and TNF alpha. This in turn triggers a chain reaction involving tryptophan depletion through the activation of IDO enzyme. Tryptophan depletion reduces serotonin levels and increases kynurenine and its metabolites, some are neurotoxic. And there's evidence that these are associated with depression suicide and anxiety. So we see there are biological pathways. This is not an area of expertise of mine. I work with colleagues who work in this area. I think it's a very exciting area of the psychoimmunology and understanding these factors and what's happening at the level of biology, interaction again of depression and immune function, that can lead to mortality.

[00:16:14] The behavioral pathway is quite clear as I was just mentioning a moment ago. The mental health impairment contributes to increased risk behaviors for acquiring HIV. Delayed or lack of getting tested for HIV or initiating care, entering care setting. Poor retention in care, I think all of you probably do see your patients who enter the care system and then they disappear for a while. What's usually going on with them, there can be a lot of things there can be unstable housing and things like that, but often associated with some kind of mental health problem or often comorbid several problems. Similarly on lack of or delaying ART initiation or adhering to ART. All of these conditions lead to non optimal HIV treatment, poor health outcomes for self and of course for the others. We're all aware of treatment as prevention. We know that viral load is suppressed, person is less likely, in fact some would say unlikely, to be able to transmit HIV. So it's for personal health, it's also for the public health. And whatever the pathway biological pathway, behavioral pathway, combination I think it's clear that we need to address mental health problems if we want to improve health outcomes along both the HIV prevention and HIV treatment care continuum.

[00:17:35] And then just drilling down into the one part of the cascade around adherence, there's just clear overwhelming research evidence with very large samples. On the left you see a publication, these

are meta-analyses and review papers. 95 independent samples of depression significantly being associated with non-adherence to ART. On the right you see 111 independent samples in this meta-analysis. The likelihood of achieving good adherence, 42 percent lower among those with depressive symptoms than those without. This was consistent across the countries, income groups, study design, and adherence rates. It's probably hard to read all of these but I'll point to the ones that I think are most relevant here. This is if you look at patients self reported reasons for having trouble with adherence to their antiretroviral therapy. This is looking at over 19000 patients across 38 countries, 125 studies are represented here, and you see depression being a barrier for 15 percent of adults, 25 percent of adolescents, as well as secrecy and stigma as well as alcohol and substance misuse. So patients themselves are aware of these things affecting their adherence.

[00:18:54] Talking a lot about depression, as I said it's the most studied and the most common disorder among people living with HIV. But in the context of comorbid vulnerabilities that I've been talking about such as unstable housing, food insecurity, domestic violence, trauma, stigma, discrimination. We see a wide range of psychiatric problems among people dealing with HIV. Depressive disorder clearly, but also we're seeing good numbers of anxiety disorders, alcohol and other substance use disorders, stress disorders particularly PTSD. And these kinds of somatic problems that are common among our patients living with HIV including insomnia, pain, fatigue, sexual dysfunction and non somatic problems such as hopelessness and shame. There's a spectrum, people may have these kinds of symptoms may have these kinds of problems, they may not have a diagnosable disorder. So there's a wide range. I think the symptoms from all the way up to having a diagnosable mental health disorder or several comorbid disorders.

[00:19:57] What about screening and treatment for these? So we have efficacious mental health interventions. We have good psychopharmacology, psychotropic medications. We have a range of psychotherapies, psychodynamic, cognitive behavioral, motivational enhancing therapy, interpersonal therapy. These all have efficacy among the general population and among people living with HIV. One of my messages to you throughout these next few slides is that the effective treatments we have for the general population work just as well in people living with HIV for the most part. It's not like someone has HIV therefore these things are not going to work for them, that's not true. They do work if they're effectively implemented.

[00:20:47] Including stress reduction and mindfulness interventions, harm reduction for substance use and abstinence treatments. All of these, range of all these interventions pretty much their manualizedm they are tailored across languages and cultures, capable of being scaled up. More and more I see that research, I don't know how much you see in clinical practice, people using technology, internet based or app based assistance in administering some of these therapies.

[00:21:18] Similarly for our screening tools, this is not even a comprehensive list, but there's a wide range of screening tools that are available for screening for these mental health disorders. These are effective and maybe in the discussion I want to hear from you in terms of in your setting, private practice, community based clinics, hospital based clinics wherever you are working.

[00:21:41] Who can best administer these kinds of things? Who's going to take the time and do the screenings? These are validated screening tools, they've been validated particularly among people living with HIV. Who's the best person to do these, when and where, and how often should they be done is a little bit part of the discussion I'd like to have.

[00:22:02] We have valid mental health screening tools and we have a wide array of effective mental health treatments. How are we doing in ongoing clinical care diagnosing these conditions and treating them? Not particularly well. This is a recent study by Brian Pence and his team. This just came out in Psychiatry in Primary Care. And you see here depression, this is modeled after the HIV treatment cascade, so if we're looking at the fall off from people living with depression how many are diagnosed with it that's recognized clinically? How many receive any treatment? Is the treatment adequate enough? How many are achieving remission? This is a very well done study using a lot of data and modeling and the estimation is that 6 percent of people living with depression in the United States are achieving remission for their condition. I think that's something for us to really ponder. And this also came out just very recently, as many as 2 in 3 youth with depression are not identified by their primary care clinicians and do not receive the kind of care that they need. I think we're all challenged by these findings, by these facts.

[00:23:23] Part of it is if we look at the mental health budgets that are significantly underfunded, I do this in part to show the disparity from high resource countries like the United States and low and middle income to show those disparities, but it's not just those disparities. If we compare these dollar amounts of what is used per capita for mental health budgets compared to overall health budget. In resource rich countries, look at the disparity between what's spent on mental health versus all health care costs. And so this disparity again is true across the world, but even in a country like the United States very little, relatively very little, is spent on mental health compared to all other health conditions.

[00:24:12] Similarly we can look at the availability of mental health care providers and say that it's inadequate. I don't know what you think, this is estimated by the World Bank, number of mental health workers per 100000 people. 52.3 per 100000 in the U.S. I don't know what the number is for you know primary care or cardiac care or whatnot. And then look at look in the other country other parts of the world, how how just limited mental health care is. Look in South Africa, 1 psychiatrist/psychologist per one point five million people. In Zimbabwe, 12 psychiatrists 16 psychologists per 13 million people. How are we going to get mental health treatment in countries like that where the HIV prevalence is so high?

[00:25:05] So we have a mental health treatment gap. The majority of people, I'd say 70 to 85 percent with mental disorders across all country settings do not receive care. Contributors to this include human resource shortages, fragmented service delivery models, lack of capacity for implementation, and policy change. And unfortunately just to bring up again stigma, the stigma of mental illness exists at all levels. It exists among our patients, among health policy makers, healthcare providers, and policy makers. And I say maybe the HIV field can lead the way because I think, and I'm assuming and guessing that a lot of the people in the room because the populations who work with, you are aware of this need. And I think at least it's been my experience seeing that in some settings where a lot of people with HIV are being treated compared to other general medical care settings, that I think a lot more attention is paid to mental health and substance use problems because it's so prevalent in our population.

[00:26:09] There are opportunities. There are opportunities for intervention and doing screening. So again I'm just using the cascade as a framework. I think when people are accessing STI treatment, when they're being diagnosed and treated for STIs, and then maybe being evaluated for eligibility for PrEP, I think there should always be an evaluation of their mental health. Distress levels when people are testing for HIV and upon diagnosis certainly. When first accessing care. Throughout care when initiating ART and ongoing. The message I want to give here is that mental health status is not a static phenomenon. It can change at any point in time or it can reoccur at any point in time. So to think that OK I've got this patient that was diagnosed with HIV and we do the mental health evaluation and he or she is doing okay. That doesn't mean six months later they're going to be doing okay after they initiate therapy and they're on therapy or a year later into therapy. I would say that if we look at these steps in the cascade and we want to improve each one of these steps and bring the numbers up, we just have to continually screen, assess, and treat mental health, substance use disorders as needed.

[00:27:36] In terms of do we have effective treatments, we do. And now I'm looking at systematic reviews and meta-analyses of mental and behavioral health interventions for people living with HIV. So this is a very large, this is actually several reviews looking at 181 studies across the world. High and low income countries, over 20000 participants representing all populations, and a range of types of studies actual RCTs or quasi-experimental studies. You see a wide range of duration of these interventions. Some can be relatively short 1 to 30 hours, 1 to 54 weeks. Very few are a lot of sessions, and includes pharmacological interventions, system oriented interventions, supportive and meditation interventions. When you look at these reviews and some of these are very very lengthy papers there's lots to distill.But my take home message on this was we see small to moderate positive effects on mental health. Bottom line moderate effects, which if you look at the general population, that's the level of efficacy we see. Small to moderate effects for treating chronic mental health conditions. The larger effects are with lengthier and multilevel interventions. Better when they're integrated in community based health care and contextualized around HIV/AIDS and mental health within family interactions and also including peer support. Interventions generally do better when they're focused on the mental health condition and not just behaviors, but actually the mental health condition and delivered by mental health care

professionals. They're most effective. I don't know how much you're seeing in your settings but certainly when we go around, we do work globally, the lack of trained mental health care providers a lot of task shifting going on and other people administering these services. We see the best effects when people are actually mental health care professionals. So that challenges our task-shifting approach.

[00:29:45] Psychological interventions particularly with CBT, cognitive behavioral therapy, components are consistently effective and psychotropic and HIV specific health psychology interventions are generally effective, of course there is always mixed findings.

[00:30:01] So back looking again at the various opportunities and highlighting some efficacy in the treatments that we're seeing. When a system or in a setting when there is attention paid to mental health screening and treatment being provided and integrating that into HIV care, we do see that in this whole model that leads to actually reducing HIV risk behavior, improving adherence to care and treatment, improved linkage and retention. All of that leading to reduced viral load which of course from a public health perspective leads to reduction in HIV ongoing transmission.

[00:30:44] So I've already brought up this topic, the scale up challenge. So task shifting or task sharing is simply training non-specialists to administer mental health interventions. That's why I made reference to them being often manualized in places and can be delivered. And there's shown efficacy for people who are non-mental health care providers to be able to effectively administer some of the therapies that we have. But I also said little while ago in large meta-reviews and analyses that outcomes are better when mental health specialists are the ones delivering the care. In terms of integrated care models, we know that if it's just a referral a consultative model is the least effective. I mean too often, more often than not, if you tell someone I can offer you services, here's a referral. Go. Whether it's down the block or go to a different neighborhood or go to some other setting. More often than not that's not going to happen. Co-location is better when you have diverse services under one roof, but under one roof doesn't mean that it's really integrated. Eeven if you tell someone they have to go two floors down or down the hallway, unless it's a really warm handoff and there's ongoing communication between the person making the referral and the mental health care provider, it's really not going to be effective. So of course the advocacy is for a truly integrated model which means providers are talking with each other.There's warm handoffs, they are talking with each other, they're not letting the patient fall through the cracks.

[00:32:22] I put this study in there I want to focus on the little bit even though it's not local it does take place in Uganda, but this is basically showing that there's an evidence base for depression care being feasible with existing HIV clinical staff in low middle income settings. And I would say this can be applied to wherever you're working, Manhattan, Harlem, South Bronx, Brooklyn or wherever. What they did is they compared training nurses and training primary care physicians. So nowhere here are there mental

healthcare providers being trained. They are doing the training and they're there for support. But basically what this study is showing that there's efficacy in training both nurses and providers to do appropriate screening and to deliver antidepressants to their patients. What this study found that the staff of nurses and doctors can provide quality depression care. The authors claim there's limited funding needed for this training and ongoing supervision. Both models were widely accepted by providers and depression care reached most of the depressed clients in the setting. When you see a little bit more efficacy for the trained nurses that's because they follow a structured protocol. But they were also studying here in this trial was the trained providers, the medical providers, were left to their own what they call clinical acumen, their own discerning whether or not there should be a full evaluation after the screening or whether or not they should give psychotropic medication. Whereas the nurses were trained a little bit more to follow a structured protocol. So it showed better outcomes, but still outcomes were good in both settings.

[00:34:11] And this is, I'm not showing it just because it's my work, but it comes from my team's work and what I wanted to show you is that in South Africa where we're doing this work there are just thousands and thousands of patients coming into care and being put on treatment. And there's really very little resources or capabilities of monitoring or following people to give them adherence counseling, that they understand what therapy is all about. So lay counselors are trained, we've developed something with a laptop based, it is tablet based. It's interactive it has videos. These are low literacy patients where we're working. And so we have a lot of videos, we have visuals helping people understand what their barriers to their adherence. This picture on the bottom is it's a metaphor they came up with it locally of what does adherence mean and how does it affect viral load and CD4 count and opportunistic infections. And so if someone's adherent they don't drown in the water. What happens is the person gains weight versus gets gets thin if they don't adhere. It's just a metaphor that has worked for some of the patients there. And whenever I talk about this in settings, often I have people say we need something like that in my clinic. Can we culturally adapt that here for my patients, again in whatever kind of neighborhoods people are working in. But my main point of this of this slide actually is what we've built into it for these lay counselors was an automatic screening tool where it just came up on the computer where they asked the patients these symptoms and this is the standardized PHQ screener and what also happens is it automatically scores for the counselor and gives them a script depending on the level of severity of what the score was for that patient. So that right there in that session they can say to the patient, 'you seem mildly bothered by depressed feelings and this and that you can talk with someone if you want' but if it's more severe they're trained to say something more strongly like 'I see that you're suffering from significant distress. I'm going to bring you to I'm going to make the referral to you are going to bring you to whatever they have in that setting' and they do have a psychologist or a social worker or someone that they can do a warm handoff to. So we're seeing that this is acceptable, it's increasing lay counselors ability for successfully screening and making the referrals. And for people, it is helping people initiate and increasing their viral suppression through these tools.

[00:36:51] So I just want to talk a little bit before wrapping up about the challenge of long versus short term. There's an increased focus in this kind of a demand for brief interventions. And I hear this so often, give me first of all give me the brief screener I just want a few questions I don't have time to ask a lot of questions, and also what can we do in just a few sessions because that's all we can do with our patients. Well I think there's efficacy for brief interventions but it depends on the level of need for the patient. And I think this is probably pretty obvious. We know that longer level multilevel and longer interventions are more successful, but I think it just needs to vary depending on the severity of the problem and the level of need for that patient. And here I'm going to go into a little detail of one study that was done here locally. If you read the details of this, I'm not going to read it all to you, but this is the adaptive treatment designed through an intervention cascade. And basically this is working with SMI patients, severe mentally ill patients, comorbidities of mood disorder and substance use disorders. These are the patients that most providers they throw up their hands and say 'I've tried with this patient. They keep going out and using drugs or they don't show up, they show up one day and they don't show up for two months.' And it's the kind of population and patients that are difficult and challenging to work with in terms of keeping them in care, keeping them on treatment, keeping them adherent to their treatment. So you see an elaborate kind of thing here depending on the level of need where you're bringing in a multidisciplinary team and you're giving a lot of effort to these patients. To the point where if this doesn't work, we do more of that, we give them toolboxes we give them pillboxes, we give them watches, we'll be in touch with them, where often we will make visits. A lot of resources required including if nothing else is working we will do directly observed therapy for these patients. But there are good outcomes for reducing viral load for over 24 months and improving quality of life.

[00:38:56] My question to you or my thought to you about this is we don't need to do this with everyone. I mean most people, briefer interventions are going to be helpful for a majority of people, but for the people who really really are dealing with comorbidities and have a high level of need. What level of intensity are we willing to put in to achieve the kind of health outcomes that we're all seeking? So given the resource reality, how do we meet the challenge of addressing mental health in the context of expanding scale up of ART? It's going to look different in different regions depending on political will, advocacy, local policy. There's a spectrum of mental health impairment thus a level of a different level of need. A spectrum of level of need in our populations, most need minimal intervention while something greater intensity of intervention. I would say what the field needs, both in terms of research and clinical care, is understanding more about these stepped interventions, about the algorithms for really knowing when someone needs a higher level of need, to be able to do that and having easily accessible and usable tools for doing that.

[00:40:09] I want to just talk a little bit about undetectable equals untransmittable. The reason I bring it up is because I talked a lot about stigma and I talked about the range of mental distress where people can be upset and bothered or they can have significant mental health disorders. I think that U=U, I am a researcher as well as a clinician and I run a research center and I'm encouraging some of my post-

doctoral fellows right now to actually develop some research projects around this, because I think I would call U=U a community based intervention. It came about from the community from people living with HIV and really the hope is that it will reduce stigma and increase hope. That's that's the hope. That's what people think it will do.

[00:40:53] Does it do that? And I think we have some anecdotal evidence that shows it's doing that if you read some of these here. 'HIV made me feel unattractive, made me afraid to have sex with my husband who was HIV negative since I learned about U=U, I have lost 20 pounds. I feel sexy and my husband and I are making up for all the times we missed.' It's sounds like an intervention to me. 'It was only when I learned about U=U that I realized that I had been living for all of these years carrying this heavy weight because I took my meds I kept on living but inside I felt like I was dying and that made me afraid to get close to anyone else. The night I heard about U=U I couldn't stop crying. It was like that burden I didn't even realize I was carrying just fell away.' Sounds like an alleviation of some internalized stigma and distress. Last one 'when I learned that I was HIV positive I became isolated and depressed. I went on medication but knowing I had the virus made me feel dirty and ashamed. I stayed that way for seven years stigmatizing myself. U=U has given me my life back knowing that I can't infect anyone else has allowed me to forgive myself.' So I think this is a campaign that is worthy and I think it's also worthy for those of us who are researchers to actually study the outcome.

[00:42:13] I throw this up because a colleague of mine, Claude Mellins, and I wrote this paper back in 2007 and I just think it's still relevant to the theme of my talk. And what we're talking about is that in our efforts to scale up and to get everyone on treatment and even now, get a lot of people on PrEP, we can't forget the individual and everything else that's going on their life and what they're dealing with. And we do have to take the time to ask people about their their mood, about their well-being, about their substance use, about the alcohol use. And we have to pay attention to it. And of course you know there's diversity and tailoring needed for whether we're dealing with adolescents, across gender, women and men. I said that all the standardized therapies work. But the way we tailor our therapies and deliver our therapies, there's differences. And there is tailoring for an HIV positive mother of three in sub-Saharan Africa suffering from PTSD. A young HIV black man in the southern United States or in the South Bronx kicked out of his home due to his homosexual orientation suffering from depression. Forty year old transgender woman recently diagnosed with HIV suffering from an acute anxiety disorder. Twenty eight year old heterosexual men in Central Asia coping with opioid addiction. Central Asia or Lower East Side wherever they are of unknown HIV status, we do need to tailor and be culturally sensitive to the populations we're working with.

[00:43:37] So my take home message is mental health problems ranging from distress be it mild or severe to serious mental illness are elevated among people at risk for HIV and those living with HIV. Mental health problems contribute to HIV acquisition as well as poor outcomes along the HIV treatment continuum or cascade of care. We have the necessary assessment and screening tools as well as

efficacious treatments, however we need to prioritize mental health treatment with appropriate resources to address this gap. In the HIV context promising advances have been made integrating mental health care into primary care. Again I think I've seen more of this in the HIV field than some other medical fields, including task shifting and stepped care interventions. Integrating mental health assessment and treatment into HIV care should be routine and essential to achieving 90-90-90 and ending the epidemic goals. ART is a lifelong treatment, we have to keep checking viral load. I would say why do we not have to keep checking peoples mental health? Stronger advocacy for the human right to the highest attainable standard of mental health is urgently needed. I would hope that we can all be advocates for that in our own way, and I'm hoping that HIV providers can be the people leading the way.

[00:44:55] There are a lot of people to acknowledge who contributed to gathering these data into this talk.

[00:45:02] But before closing, I just want to give a message to all of you. No health without mental health. For you all, you work in challenging settings. You work hard. You work late. I know this about you. You work into the night. You work weekends. You're filling out reports after hours. We're working harder for often less money. Take care of yourself. Exercise preferably in the outdoors whenever possible. Spring is coming. Good to run outside when you can. Eat well, I don't mind sounding like your mother. Eat well, get good sleep as best you can. Don't forget to stop and smell the roses. Relax your mind. Stretch your body, but most of all support each other in the work that we do and as you go forward in this challenging work that we do. Thank you for your time and attention.

[End]