Dr. Fields: [recording starts mid-sentence] people what to do. It means acknowledging the central role that they play in their own care and empowering them to manage their own health, and that is from the website for improving chronic illness care. Those guys are the ones that came up with chronic care model. Empowerment for people with chronic disease means increased freedom from the limitation of the disease, which I think is nicely symbolized here by the broken rope. So, the objectives of this webinar are that you will learn and by that, I mean that you will change your behavior in order to more effectively assess participants plan and implement sessions and evaluate programs as they relate to asthma self-management education. And as you'll see, these objectives mirror the four steps of asthma self-management education or any self-management education for that matter. And I will say this I did a little dry run earlier today and I didn't quite make it to evaluation but you know what, that's okay because of the of the four that's the one I need least need to get to and you know if I don't get to it you guys can always invite me back!

So, just as a heads up also I will be emphasizing some aspects of asthma self-management education over others, in particular I will be emphasizing process over content. In other words, I will not spend much time talking about the content of what should be taught, for example differences in medication inhaler technique, what well controlled asthma actually looks like, but rather I want to talk about what you need to do as a practitioner as an educator to make sure the person with asthma is actually receiving, absorbing, and using the information that you're providing. The content piece of asthma self-management education I think often gets more attention than the process piece so this is my small effort to bring some balance to the discussion.

You can see my little saying there that I like, "good teaching is far more about the process than it is about the content." So, it's always best to start the self-management education process with an assessment. Now, we might feel that we don't have enough time to do an assessment before teaching self-management skills. Or, we might feel that an educational assessment simply isn't necessary. I mean, really, we're just teaching them how to use their inhalers and avoid known triggers, is that really so difficult? And besides, how often have the teachers that we've had in the past assessed us before launching into their presentations? If your teachers were anything like my teachers the answer is not very often. Still it is always best to assess before you intervene, I think we all know that. Even when the intervention is education. I think this is especially true when the education could consist of changing a person's day-to-day behavior.

These are the three aspects of assessments that I want to go over and that I think are important to providing effective self-management education. Building trust and rapport, assessing readiness to learn, and using a comprehensive approach. The first aspect of an assessment during education session is to
build trust and rapport. Building trust and rapport may seem like a no-brainer but it's much easier said than done. Building trust in a therapeutic relationship requires at a minimum that the practitioner have a pretty high emotional intelligence, which consists of both high self-awareness and high social awareness. You can see here on the slide high level of self-awareness is the ability to accurately perceive your own emotions in the moment and understand your tendencies across situations. A high level of social awareness is the ability to accurately pick up on emotions in other people and understand what is really going on with them. Building trust and rapport is something you do really throughout all four steps of self-management education. This means that throughout the education process you accept unconditionally, you use active listening, you should encourage honesty, and you should express sympathy. Now just to be clear, empathy, I think I said sympathy, empathy is not the same as sympathy and here you see empathy is heartbreaking. You experience other people's pain and joy. While sympathy is easier because you just need to feel sorry for someone. Again, it'll take a higher level of emotional intelligence, poor actor practitioner, to actually experience empathy for a person suffering from asthma but I think it is worth the transition because it'll make you a much more effective practitioner. Building trust and rapport also means that you do not ignore feelings and emotions, be judgmental, interrupt too quickly, or use fear to motivate. I think that last tendency, using fear to motivate, is more common than we might want to admit. I mean even we, I think, use that as practitioners.

The second aspect of an assessment of a person with asthma during the education process is assessing the readiness to learn. I think this is a big, big piece of the education so I want to kind of emphasize this. A readiness to learn is another way of saying a motivation to change behavior based on the definition of learning that I gave you. The stages of change model, also called the transtheoretical model, is I think our best understanding to date of motivation, although it does have its fair share of detractors. One of the model's most redeeming qualities is its ease of application, which is why it is often recommended for self-management education. The image that I have on this slide is going to be my representation of the model throughout the rest of the webinar.

The first stage of change is pre-contemplation, and again we're in the assessment mode right now. In this stage, the person with asthma hasn't considered change, or doesn't understand the risk, or, and/or, is unwilling or unable to change. The education strategy at this stage of change might include establishing rapport, just like we said, exploring some of their concerns, checking in about their understanding of the risk that they're at, eliciting information from them, how about just focusing on getting them to come back next time, that's probably one of your major goals if they're at this stage of change.

Now, a major reason that people with asthma find themselves in what we call the pre-contemplative stage of change when it comes to self-management is that they still believe one or more myths about asthma. Several of the myths about asthma are listed right here on this slide like, asthma is a psychological condition, asthma medicine is addictive, the steroids used to treat asthma are the same as
the steroids abused by athletes to get bigger, stronger, I am not using those. I can stop taking my medicine when I feel good and don't have any symptoms. Your job as the practitioner is to help them dispel these myths so that they can move from this stage of change to the next stage.

Now, the second state of change in this model is contemplation. In this stage, the person with asthma understands the risks, is considering the possibility of change but still pretty ambivalent about going through the process of actually changing their health behaviors. The education strategy at this stage of change might include what's called here “normalizing ambivalence” or acknowledging it, maybe not necessarily validating, but just kind of saying yeah, I see where you're at right now and that's okay. You can try to tip the decisional balance where they can see more the pros and the cons, you look at barriers, you'll start to think about self-efficacy, we'll talk about that. You want to enhance their commitment.

A major reason that people with asthma find themselves in the contemplative stage of change, that's the second stage, is that they are experiencing very real barriers to asthma self-management. These barriers include economic support, psychological barriers, your job as a practitioner is to help them overcome these barriers so that they can move to the next stage of change. Some of the economic barriers that a person with asthma might have to overcome include lack of or inadequate health insurance, limited access to subspecialty care, unable to pay for medications, availability of healthcare facilities, inadequate housing, those are just some of them. Some of the support barriers that a person with asthma must overcome including a mom who's working full-time or part-time outside of the home and who has a child with asthma, or lack of family support for someone who has asthma, other sick family members in the home, lack of transportation, all of these would take away from your support. And then finally, the psychological barriers might include multiple stressors in the home, low self-esteem, helplessness or kind of a victim role, depression, anxiety, panic, and poor symptom perception, what we call poor perceivers sometimes.

All those barriers can really keep you from moving up to that next stage, which by the way, the third stage of change is preparation. If we can get past those barriers, if we can help them with that, we can get to this stage. This is the stage when asthma self-management programs tend to be the most effective. In this stage, the person with asthma is committed to change, is considering options, actually making plans, so the education strategy here will be to help them clarify their goals, look at different options, help them reinforce their ability to make a personal choice, that they're in charge, and help them practice their skills.

That will move us up hopefully according to the theory to the fourth stage of change, which is action. This stage is generally considered to occur within about the first six months or so of starting a program. In this stage, the person is actively taking steps, but not yet stable. There's still quite the potential for relapse, so your education strategy might be to reinforce commitment from the success that they've had. Help them with problem solving, again their self-efficacy, support them in that and help them identify resources that can help them stay on track.
So, I've said self-efficacy a couple of times, it's a hugely important concept in self-management of chronic illnesses, including asthma. It is our best understanding of how and why self-management education programs get people to change their health behavior. Something must happen inside them before the behaviors actually change. It represents what we call the theory of change that's inherent in self-management education programs. It's the belief in one's capability to carry out a course of action necessary to achieve a goal, it's usually measured by asking people how confident they are, and my picture there is a confident kid who thinks you can fly, that they can adopt the behavior and/or attitude necessary to achieve a desired goal. It is believed that people are most likely to achieve self-efficacy in this particular stage, the action stage of change, it's an important stage to get to if you're going to be effective.

And then the last stage of change is maintenance. In this stage, the person with asthma has actually accomplished some of the behavior changes, it feels more comfortable to them, but there's still the possibility of relapse, there's always the possibility of relapse, so your education strategy at this stage might include again affirming their commitment and talking about their success and identifying possible temptations that will lead to a relapse, and talking about all the positive benefits that they've incurred already, and that'll keep them more likely to stay in this stage. You can see in this image again to the right that it is during the maintenance stage of change that relapse is most likely to occur and you can see that a relapse could very well bring a person with asthma back to the pre-contemplative stage.

The reality is that transitions between stages are much more complex than this image implies. Always, always be on the lookout for changes in stage, either to a higher stage or to a lower stage, it does happen.

That brings us to the third aspect of assessment. We're still on that first step as you can see there on the logo up there. The third aspect of an assessment during the education process is to develop and use an assessment strategy so that it's comprehensive in nature, all right. Comprehensive. Since effective self-management education means acknowledging the central role that people play in their chronic illness for their own care, it's important that you start each visit by asking the person with asthma or their parents about their concerns and their goals for that particular visit. This is something we all need to understand, the person with asthma must realize and accept that you as a practitioner are working with them as opposed to working on them. In other words, the person with asthma is actually on the health care team and is in fact the key member I think of the health care team. So that's why their concerns and their goals for a particular visit are always paramount and certainly during the assessment that's true.

It's also important to every visit to ask specifically about any concerns they have about medicines. We know that with asthma that's a particularly difficult piece of self-management. To facilitate this part of the assessment it's most helpful if the person with asthma brings their medications with them.
A comprehensive assessment would also include assessing perceptions of how well the asthma is being controlled. It's important, not only for the practitioner to know how well the asthma is being controlled, but for the person with asthma and the family as well. They need to have a good sense of whether their asthma is well controlled not well controlled or very poorly controlled, which can be determined by considering components of lung impairment that you can see here. Symptoms, level a physical activity, and lung function.

So, this slide shows the parameters that are used for determining asthma control for people who are over 12 years or 12 years old and over [chart for determining level of asthma control from the Expert Panel Report-3 Guidelines for asthma treatment]. But, again the point is everybody, including the person with asthma, needs to know exactly what level of control that they're at, otherwise their asthma action plan, which we'll talk about, will not make much sense to them.

Since a lack of social support can be a huge barrier, we talked about that with stages of change, to asthma self-management it is important to assess the participants level of social support and encourage family involvement and this is true even if the person with asthma is an adult. Anyone with a chronic illness, no matter how old or supposedly independent, will require an abundance of social support in order to thrive.

Finally, a comprehensive assessment for self-management education requires that you assess levels of stress, family disruption, anxiety, and depression associated with asthma and asthma management. You know, there are instruments, measurement instruments, that are available that can help you assess participant stress levels and quality of life. Any tool that can help you make a more objective assessment should be used if they're available and it is noteworthy I think that stress is not only an asthma trigger, it's also a hindrance to readiness to learn, so stress is kind of a double whammy for the person with asthma. It makes it hugely important that you include it on your assessment.

And this shows you a cover of the national asthma guidelines, kind of like scripture for asthma educators here. In the guidelines, you'll see a ready-made strategy for assessing a person with asthma, including details on what to do during each visit with a practitioner. So, I just kind of summed them up a little bit here for you.

During the initial visit, the guidelines recommend that you focus on the expectations of the visit, we talked about that, asthma control, patients’ goals for the treatments, medications, and quality of life.

Then, during the first follow-up visit the asthma guidelines recommend that you focus on the same areas plus treatment preferences. Now it's hoped that after the initial visit the person with asthma will be informed enough to kind of realize that they're on the health care team now and that they can choose different preferences for treatments if that's available to them.

During all subsequent visits the asthma guidelines recommend that you continue to focus on these things that we've already said, expectations, visits, asthma control, patient goals, the treatment
medication, quality life. I think the thing to say here or to point out here is that every time they come you're talking about this, you don't assume that they are just going to remember this, it's just not going to happen. Now you can see on this slide that the frequency of visits depends primarily on how well controlled the asthma is. If the asthma is well controlled, regular follow-ups are recommended every one to six months with the most usual frequency being like every six months. Not surprisingly the visits are more frequent if the asthma is either not well controlled or very poorly controlled. Again, this is just taken from the guidelines.

Alright so that brings us up to step number two, this is planning. Now the teaching sessions, when planning teaching sessions for persons with asthma it's best to be guided by evidence-based practice, I'm sure you would agree with that. So that's why we need to stick pretty close to the national asthma guidelines when developing the core lesson plan, the cognitive lesson plan, and the psychomotor lesson plan. As you can see on this slide, we will be discussing recommendations from the NAEPP, which is National Asthma Education and Prevention Program. These are the folks who develop the national asthma guidelines. Now, the NAEPP recommends that a health care team approach be used to provide and support self-management education. On page 124, which for asthma educators is a well-worn page in the guidelines, it says that it gives key educational messages that should be taught and reinforced at every opportunity by every member of the health care team, and these key messages make up then the core lesson plan for asthma self-management education. And, I forgot that I had phased these in here, these are the key educational messages that should be taught and reinforced at every opportunity. They include basic facts about asthma including the role of inflammation and what happens during an asthma attack. Also includes talking about the roles of medication and differentiation, differentiating between the two general kinds of medication, the purpose and proper use of long-term control meds, sometimes called controller meds, and the purpose and use of quick release meds, sometimes called rescue meds.

And then also patient skills need to be covered as part of the core lesson plan. Proper inhaler technique, use of ancillary devices like spacers or holding chambers, identifying and avoiding known triggers, and the purpose and proper use of an asthma action plan, if it's indicated for that person.

And then the cognitive lesson plan kind of teases us out a little bit and lays out the curriculum for increasing asthma management knowledge for the person with asthma. Again, what the guidelines do is, they kind of split it out based on the visits. During the initial visit, the cognitive curriculum should include explaining what asthma is, what does it mean for asthma to be controlled, distinguishing between the two general types of medication, and explaining each of the medications that that particular person has right now, and how to seek medical advice and when to seek medical advice.

And then during the first follow-up visit, the person with asthma will begin learning how to assess for asthma control, and then also repeat some of the lessons about the medication, again stuff that is all part of the core lesson plan as well.
And then with the second follow-up visit now we start talking about triggers. So, you don't talk about triggers and avoidance strategies right at the beginning, there's just so much to remember, and oftentimes you'll walk out of your visit with the GP and just remember, maybe you know, a quarter of what they said, especially if it's all new information. So, the triggers wait for the third visit that you have and then of course all subsequent visits, and that might be expected.

All subsequent visits will include an emphasis on medication and being able to assess for asthma control.

That brings us then to the psychomotor lesson plan, which lays out the curriculum for increasing asthma management skills. So, there's knowledge and there's skills. During the initial visit, the psychomotor curriculum would look something like this on the left. Use of current inhalers and holding chamber, again this is all in the guidelines and recommendations, use of self-monitoring skills to recognize intensity, frequency of symptoms, and use of the written asthma action plan, which comes in pretty early in the first follow-up visit. A peak flow meter will be included if it's indicated, and here this slide talks a little bit about that because not everybody is indicated for a peak flow meter. It is indicated perhaps if a person has moderate or severe persistent asthma, if the person has a poor perception of airflow obstruction and can't really go by symptoms with their asthma action plan, or if there's an unexplained response to a trigger that we don't exactly know what that trigger is, sometimes a peak flow meter will help with that.

During the second follow-up visit, and all subsequent visits, an emphasis is placed on inhaler technique and proper use of the asthma action plan. So, the most important psychomotor skills are those two.

Now, as you saw, the use of a written asthma action plan is part of the psychomotor curriculum and indications for receiving an asthma action plan would include moderate or severe persistent asthma, there it is again, poorly controlled asthma, which you know you could have a mild persistent asthma and be poorly controlled, or a history of severe exacerbation, same thing, it could be a mild persistent and this is still the case. So, if any of those three are present you probably should have an action plan. I think those of you have asthma know that if you do have an action plan, which is sort of like the traffic light setup, where if you're in the green then you don't have any symptoms and you can continue as normal, and then if you go into the yellow zone you're starting to have symptoms and you need to up your meds, and then if you go on to the red zone you really do need to contact somebody to get urgent medical attention. So, I kind of got this laid out, so here on this slide you can see that in the Green Zone it basically tells you, I mean the asthma action plan tells you, what medicine to take every day, what actions to take to control environmental factors, what we call triggers. And then the yellow zone part of the plan tells you what signs and symptoms, or even a peak flow meter measurement, will indicate that your asthma is worsening and then what asthma medications to take in response to that, usually it's the same medications but you bump up the dose. And then in the red zone section of the of the plan it tells you what symptoms or signs indicate the need to actually contact your physician or even go to the emergency department. So that is basically what the asthma action plan is, it's part of the psychomotor plan.
One other thing I want to talk about was alternate sites other than your primary care physician, because the NAEPP really does emphasize this, they recommend that patients be educated at multiple points of care where health professionals and health educators may interact with them and for people who have asthma many alternative sites of care do exist for them and you want to make use of them. I like this visual, educating people at these points of care, other than the general physician, creates opportunities and provides an essential link, that's a link that you're seeing here, between the patient and the primary physician, clinician, forming a network of support for the patient and the clinician outside the clinician's office, and that's the reason why we do push for these alternative sites. That's certainly true here at the CDC, that's a big emphasis for them.

Here are our NAEPP guidelines or recommendations for emergency department and hospital based education. What they recommend that you do when someone is in the ER or hospitalized, you should assess inhaler techniques for all prescribe medication, reinforce correct techniques, you should refer them for follow-up asthma care appointments within one to four weeks after leaving the hospital or the emergency department. If it is an emergency department visit, then offer brief and focused asthma education. If it's hospitalization, then you might have the opportunity to offer more comprehensive asthma self-management education, oftentimes it's a very teachable moment.

And then these are the recommendations from the NAEPP for educational interventions in school settings. The intent is really to provide an asthma friendly learning environment. Opportunities to learn asthma self-management skills at schools could be with other students with asthma, sometimes it's better to learn in a group environment, and sometimes this is the only place where you can access some people who have asthma. Also, school-based asthma education programs should be provided to as many children as possible, again that's a public health recommendation. These programs do vary in comprehensiveness, from a basic cognitive curriculum like we saw to, in a few cases, fully comprehensive asthma self-management education programs.

Then you have home-based interventions, and these are the NAEPP recommendations for home based interventions. Asthma education delivered in the homes of caregivers of young children in underserved areas should be considered multifaceted allergen education and control interventions, they can also be delivered in the home setting, and in fact it's actually better delivered in the home setting, and studies have shown that home based interventions can be effective in reducing exposures to cockroach, rodent, and dust mite allergens and reducing associated asthma morbidity, so we are big believers in home-based intervention.

That brings us to the third step in asthma self-management education and that is actually teaching the sessions, implementing the sessions. Now, even if we've done due diligence by conducting a comprehensive assessment of the person with asthma and adhering to the national asthma guidelines when planning our sessions, our effectiveness will be limited if we do not pay attention to key mediators and moderators of the program during the implementation. So, my motto here is to pay attention during the implementation, because sometimes you'll kind of get on to your little agenda, boom-boom-
boom, here's the stuff you need to know, and then when they leave you think, oh I did a good job, but did you pay attention to some of these things? Here these are what we call mediators and moderators - through the whole process of education. Alright so, we're going to look at cultural competence, health literacy, adherence, and empowerment, all things that we should pay attention to.

First and foremost, when we endeavor to help someone change health behaviors we must pay attention to cultural competence. Everyone has a culture, everyone is different, and without paying attention to these differences we cannot effectively implement self-management education, pure and simple. Now, culture can be defined as the shared experiences of a people including languages, values, customs, beliefs, and other constructs that you can see on this slide. Culturally significant factors include, but are not limited to, race and ethnicity, religion, social class, language, disability, sexual orientation, age, gender, a lot of factors are involved. Cultural competence, this is what we're talking about here, has to be defined in relation to specific context. It is not a state at which one arrives, you don't all of a sudden become culturally competent, but it's a process of learning and relearning. It's a sensibility to differences that's cultivated through a lifetime, your lifetime as a practitioner, it again, here it is again, requires a high level of emotional intelligence, and you need to realize that competence in one context is no assurance of competence in another. This is not an easy thing to get a handle on, yet it is so important. The need for cultural competence will only increase as demographics in our country change.

So, these two figures show actual and projected changes in our population by race and in ethnicity, with adults on the left and children on the right. You can see that in both figures Hispanic, black, and Asian populations are increasing and will continue to increase, while white populations will continue to decline. This is going to make a big difference on how effective we are when it comes to cultural competence, and it's going to make it more imperative that we become more culturally competent. So, in light of these demographic changes and the need to effectively implement self-management education we must always be improving our cultural competence.

First, we must acknowledge the complexity of cultural identity. Here you see that people belong, often belong, to multiple cultural groups which requires reconciling multiple and sometimes clashing norms. So, there's a danger of missing diversity by collapsing identities in the cultural groups, which we call stereotyping.

We also need to recognize the dynamics of power inequities that's inherent between cultural groups. Cultural privilege can create and perpetuate inequities in power which can foster unequal resource distribution and access. You need to be aware of this when you're talking to the person who has asthma, sitting there in front of you. As a practitioner you must understand the experience of being devalued, marginalized, or subordinated due to cultural identity, otherwise how do we even understand where they're at? That's part of the empathy piece that we talked about before.

And we must recognize and eliminate bias in our language. Language is powerful and when it's used respectfully and effectively language can reduce power inequities, at least in our therapeutic
relationships, and it can promote full participation. I left the word out there, full participation between the practitioner and the person with asthma, which is hugely important if you’re going to get them to change their health behaviors.

Finally, we must employ culturally appropriate methods. You need to realize there's no formulaic approach to different cultures and age groups, I wish there was but there isn't. The key to effective learning across cultural differences is mutual understanding, that's what makes it so difficult, you have to keep learning and relearning. Understanding, and the proper use of methods, is possible only by looking for the uniqueness that underlies the differences in people. This is just a frame of mind that we always need as practitioners.

Here’s an example of employing a culturally appropriate method for teaching asthma that might work in some situations, and that would be asking an open-ended question like this: in your community, what does it mean to have asthma? And in asking that you’re trying to elicit informative responses, their understanding, and where you can go with the teaching that you’re going to be doing. Alright so that's cultural competence.

Health literacy is something else that we need to pay attention to while we are teaching these folks who have asthma, they’ve come to see us for training. This is the term right, next slide here, health literacy is defined up on the slide as the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions. It goes beyond simple literacy which is the ability to read and to write. In a study that, on the left side of the slide, in a study by the Department of Health and Human Services it was discovered that 30%, 36 percent, of the U.S. population has only a basic or a below basic level of health literacy. In order for a person with asthma to effectively change their behaviors, it's recommended that practitioners speak to that level of health literacy. One example of doing this is offering healthcare literature that's about at a 5th grade level or lower. That probably will help.

Now, in paying attention to health literacy it is important to dispel fallacies that are commonly held by us, the practitioners, which might include what you see here on the slide. People will tell you if they can't understand, that's not necessarily true, especially in different cultures where you just don't do that sort of thing to a person who's an authority. Most illiterates are poor or immigrants or minorities, again not true! Years of schooling is a good measure of health literacy levels, we're talking health literacy not just simple literacy, so again not true. And those who are illiterate learn slowly if at all, absolutely not true. Alright, so that's health literacy.

Something else to pay attention to is adherence. For our purposes, we're defining adherence like this, the extent to which a person's behavior (taking medication, following a diet, and or executing lifestyle changes) corresponds with agreed recommendations from a health care provider. You notice we've got the word agree, I mean, but the patient was in on this. If people with asthma do not take their medication as directed, especially controller meds, their conditions cannot be effectively treated or
managed. It will lead to poor outcomes, hospitalizations, increased health care costs, we all know that, so we need to be able to recognize non-adherence.

There are different ways that non-adherence might present itself. Not filling a prescription, not using the medication, either intentionally or due to forgetfulness, using the medication too often or too seldom, that's still not adherence. Now according to a case management hearing guide that came out in 2006, medication adherence rates are pretty low, averaging only about 50 to 65 percent and furthermore, like this chart is showing here, the magnitude of the problem varies at different stages of medication adherence. So, you can see of all the drugs that are prescribed, put that at 100%, only 88 percent are filled. And then of those prescribed only 76 are actually taken, and of those prescribed, only 47 percent are going to continue to take them after you run out and need to get a refill. So, you can see that adherence is a real problem, this is overall for all chronic illnesses.

This slide tells us that the notion of a typical non-adherent patient is a myth. The type or severity of disease does not significantly relate to the adherence rate, and there is no clear relationship to socio demographic variables and non-adherence. So, suffice it to say that even if you have a minimum level of cultural competence it should make sense that there is no such thing as a typical non-adherent patient, but still I'm sure that all of us had to help this notion at least once in our professional life. Just remember there is no such thing as a typical non-adherent patient.

It’s important to understand whether non-adherence is intentional or unintentional. If non-adherence is intentional the person with asthma is likely to be at a lower stage of change which means you need to change up how you teach them. Here's some examples of intentional non-adherence: perception that the treatment is not necessary, denial or anger about asthma or its treatment, inappropriate expectations, concerns about side-effects real or perceived, dissatisfaction with the healthcare providers, they just don't like you. And here are examples of unintentional non-adherence: cost of medication, difficulties using inhaler device, like if you have arthritis, a burdensome regimen where you have to take several times a day multiple different inhalers this is especially true for someone who let's say has COPD but also true for someone who has asthma, misunderstanding about instructions, and of course forgetfulness. Again, understanding the nature of the non-adherence will guide our implementation of the teaching session so this is important.

Alright so studies show that adherence increases when a person with asthma realizes that symptoms are sufficiently severe to require adherence and realizes that remedial action effects a rapid and noticeable reduction in symptoms, again seems like a no-brainer. The problem here is that your controller meds often don’t have that rapid and noticeable reduction in symptoms so you don't have quite the motivation there, and like the saying goes when you're pointing at someone there's always three fingers pointing at you right, and so in asthma self-management, as in most of life, it takes two to tango.
So, accordingly, studies also show that adherence increases when providers and practitioners like us give comprehensive information, develop the ability to teach behavioral skills, develop skills in empowerment, so it's not just knowing what you're supposed to tell the person but it's the way tell them, alright? It's a process over content, like I said earlier.

And finally, the healthcare system certainly plays a part in the prevalence of adherence. Studies seem to indicate that adherence increases when health care systems allow for continuity of care, that is care from the same provider over time, so you develop this therapeutic relationship, adequate appointment lengths, and duration of treatment, I think primary care physicians can tell you that often is not the case, adequate resources to decrease demands upon providers, and then adequate fee structures for patient counseling and paying for asthma educators. Of course, we need all those things. And it's certainly intuitive that all that would help with adherence if we could but get to that point.

Now, adherence is influenced not only by self-management education but also by the type of medication being taken by the person with asthma, that's why this image in the slide shows adherence being proximal in between self-management education and medication there on the right. By the way these are the four approaches that are recommended by the NAEPP to provide comprehensive asthma control, but the point here is that adherence really is influenced by not only the education but by the medication. If it was a pill that you could take, especially you could have to take it once a week, we probably would have pretty good adherence, so there is a problem with how complex sometimes the medication is especially if it's an inhaler.

So, I want to show you this, this came a journal called Chronic Respiratory Disease Journal and this was last year, and it's talking about a couple of new drugs that they're trying out that might help with adherence. I have them circled here in blue. The top one is as needed inhaled corticosteroids, fast onset long-acting beta agonists inhaler, so it has a fast onset so we could use it just for PRN in which is unheard of right now but you know that might be a better, that might improve adherence because you know having shortness of breath is a good motivator. And the other one is a very long acting inhaled corticosteroids / LABA and again you just don't have to take it as often, so if we can make some inroads there that will help with adherence, too.

And then there's attention to empowerment, which I wanted to emphasize this especially, we have about 10 minutes so I hope I can get at least through this. Empowerment is centered on the belief that people with asthma should be in control of their own care just like that first quote that I gave you at the beginning of the webinar. Behavioral changes in adherence to therapies cannot be achieved unless the need for self-change is internalized and that's what empowerment is all about.

One possible key to empowerment is the use of a tool called motivational interviewing, and even though it sounds like an assessment tool because it says interviewing it's actually an intervention. Motivational interviewing is a collaborative conversation to strengthen the person's own motivation for and commitment to change. It's a tool for empowering people with asthma to control their own care, to
manage your own health. It recognizes that those who need to make changes in their lives are at
different levels of readiness to change, so you match this with the stages of change model, which is
what I'm going to do. It's nonjudgmental, it's non-confrontational, it's non-adversarial, it engages, it
elicits change talk, it evokes motivation, if it's done correctly, to make positive changes. These are all
things that are necessary for empowerment.

So, there's four stages to this process, to this technique, motivational interviewing. Stage one is, again
here we go, expressing empathy and you remember that this is part of the assessment, we've already
talked about this, which was the first step in asthma self-management education. Expressing empathy
consists of creating a safe environment and letting the patient determine the pace and the direction of
the conversation, use active listening and avoid giving advice or teaching, alright sort of a guide on the
side versus a sage on the stage, I referred to that before.

Then we have stage two, which is developing discrepancies. Here the practitioner helps the person with
asthma focus their attention on how their current behavior differs from what they consider ideal or
desired behaviors. It consists of identifying core values of the patient and then helping them to see how
their current behavior might not quite be consistent with their own deeply held values, and then you
help patients explore the negative outcomes of those inconsistencies. It's a very, very effective
technique that way.

Then we have stage three, which is called rolling with resistance. Resistance, as you can imagine, can
lead to a lack of involvement in the therapeutic process, they just kind of you know hold back. The
practitioner should try to divert or deflect the energy that the person with asthma is investing in that
resistance towards positive change, and what I think about this, it makes me think of, due to both my
kids took judo, so I learned a little bit about it, there's a judo image on the right there, but judo means
gentle way. The basic philosophy of judo is that resisting a more powerful opponent will result in defeat
while rolling with the attack will cause him to lose balance and his power will be reduced and he, in
other words, his resistance will be defeated. I kind of like that as a symbol of rolling with resistance. It
can consist of, you know, making sure you don't coerce or lead but just facilitate, help them foster new
ways to think about the situation. Sometimes we call that reframing and sometimes you agree with the
resistance but then with a little change of direction that propels that discussion forward, so you're not
just stuck. Alright, so it's a little bit sneaky, but it works.

Then stage four in motivational interviewing is supporting self-efficacy, there it is again. Self-efficacy,
remember that's the belief in one's capability to carry out a course of action, is necessary to achieve a
goal, so you need that confidence in your capability, you need to believe that you can fly. So, supporting
self-efficacy is promoting an atmosphere of hope and optimism and the feasibility of accomplishing
change, recognizing strength in bringing these to the forefront whenever possible, and reinforcing
confidence in taking action and making behavioral changes.
Alright so I'm noticing that we have just a few minutes left in the hour and really that was the main piece I wanted to get through. The last part was evaluation of the program, but I wanted to get to these two pieces especially, the motivational interviewing and these stages of change that contribute to the process of education. So, let's I think stop there, ah are you around, and uh how are you doing?

**MACP:** Doing great, thank you so much, great presentation.

**Dr. Fields:** Well thank you, I have to set the end this is my little last thing, there we go, yes, but you can see those are the things that I tried to emphasize and what I didn't get to was the CDC evaluation framework but you know you can invite me back and we can go over that. Something to look forward to!

**MACP:** You got it. I'm going to go ahead and take back control of the screen, I'm going to put that webinar intro slide back up for anyone who is curious about getting their CE requirements and maybe joined us a little bit late. And, a reminder for people to be typing in questions to the chat box if they have questions. We have a question here from Wendy Brown, Jan do you have some specific validated stress assessment tools that you can recommend?

**Dr. Fields:** Well, we used Juniper for the longest time in our program in Michigan and we started, it got validated like in the early 90s, and there was nothing since then, and we're actually addressing that question right now here, or they are addressing it here at the CDC, and I'm kind of helping them I guess the short answer is I can see there's anything out there that's absolutely validated but I don't think that should stop us from using stuff either. I mean if it seems like it's helpful and seems like it's getting us to the point where we need to get to, if it gives any sort of objectivity at all then I think it's okay to try but there's nothing perfect of it that I know of.

**MACP:** Okay that was the only question that I see in our box, so just a little reminder for everybody listening that I will be emailing out a very brief, just five questions, evaluation of the webinar to everybody who signed in today. If you don't receive that from me or if you're in a group of people and only one person signed in with their email address, you'll need to contact me individually and then once you send me back that evaluation then I will send you your CE certificate. These webinars are approved by the Montana Board of Respiratory Care Providers and the Montana Board of Pharmacy for continuing education credit, and actually those comments that Jan made about cultural competency were really appropriate because our May 13th webinar coming up here in the spring is going to be about cultural competency.

**Dr. Fields:** Hey, good lead in!

**MACP:** Yeah! So, I think that that's all that we have, thank you so much again Jan.

**Dr. Fields:** Let me know what you need for me like my slides or anything else.
MACP: Alright, we'll be in touch.