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>> Good afternoon everyone. We have another re-webinar for you. It is entitled Hepatitis C in Indian Country and Associated Indian Health Service Efforts . My name is Joe and with my colleague, we've are presented today, Brigg Reilley, epidemiologist for the Northwest wetland area Indian health board. Let me read a little bit about break. Riley has worked with the Indian health service division of epidemiology for several years. And now, he works with the Northwest Portland area Indian health board to improve prevention, screening, linkage to care and treatment for HIV and HCV. Prior to the Indian health service, he worked with Doctors without Borders for 10 years. He obtained his Master of Public health from Tulane University in 1996. Before we get started, I will walk you through some of our housekeeping reminders. If you have any questions or comments, please feel free to chat them in the chat box located in the bottom right hand corner of your screen. I will keep track of the questions that come in and at the end of the presentation, we will respond to each of them. We are also recording today's session and will email a link to the recording to everyone who registered for this webinar. We will be sending you a present thicket of participation. If anyone needs additional certificates because multiple people watch the webinar with you, please email us and include the title of today's webinar along with the names and email addresses of those needing certificates. If you need to zoom in on the slides being shown bar Brigg, you can click on the full screen button on the bottom left-hand side of your screen, mouse over to the blue bar so it expands and click on the return button to get back to the default view. Finally, at the end of the session, we will share a webinar satisfaction survey with you. We will let you know when the future. We very much appreciate your feedback after the session is finished. Also, please keep in mind to receive your comments about the presentation style and value of the webinar post survey and use a webinar chat box for questions you would like to ask the presenter and to report any technical issues you encounter. With that, I will hand the virtual microphone to Brigg who will take it from here.

>> Good afternoon. So, thank you for the introduction. I work with in PA-I HB. That is a travel health board that works in three states of the northwest representing over 40 tribes in that area on health priorities. I am a travel employee that works hand-in-hand with Indian health services on their natural health programs for HIV and HVC. I do not represent IHS. You rarely see from my comments right apart from the government line and I am a bit more candid as a tribal employee. I will go into this with a brief overview of the hepatitis C virus. A brief excellent nation of Indian country. And, we will get into what we are doing, there are two main responses we are working with. I will do this based on with little familiarity with any country or Hepatitis C.

>> Let's talk about risk factors for hepatitis C this is a CDC slide I believe. I thought somebody she should grayscale out some of those tiles for our DJ rating or something. So if we look across the different transmission, drug use, rates of hepatitis C have increased hand-in-hand with the national opioid epidemic as people have turned to injecting drug use. Is a blood-borne virus so it very much is efficient as a pathogen to transmit with reused needles or injecting equipment of any kind. This has been, this is some of the rationale behind that. It is to prevent the spread of blood-borne pathogens. The best thing is not to take drugs. But, if you must, don't inject. If you can stop injecting right now, we will try to help you. The next practice thing is to inject safely. There are prevention epithet on hepatitis C. HIV is transmitted this way. Hepatitis C and hepatitis B, will not cover that of course. It is much more contagious this route then HIV. The virus persists a lot longer on inert services. If you left a needle around for a while, the dried blood can transmit hepatitis for a lot longer. You also see this in unprofessional tattoo settings if you have institutional tattooing or informal with a needle or something like that, it is not in a licensed tattoo parlor, that is a motor transmission.

>> I move over to blood products. If you look of the bottom right, those needle stick injuries, those green tiles, those of the medical exposures. Especially prior to the early 90s, sometimes if universal precautions were not followed and a healthcare setting, you can transmit hepatitis C person-to-person. Transfusions were still vulnerable to hepatitis C transmission until the test was developed is routinely

screened and HEPA duties are not passed on. A needle stick injury is often an accident in a healthcare setting where somebody who is doing something else with needles, healthcare professionals have an elevated risk for having hepatitis C virus.

>> The sexual routes of transmission are not as common. The first recommendations are, if you live with someone who has hepatitis C, you really don't need to take extra precautions. Not even protected Sacks, do not share razors or toothbrushes. A very small risk but theoretically there.

>> Mother to child transmission. So, the mother can pass the virus to the child. This does not result in any changes right now there is no medical interventions with HIV, you consider giving the mother medication. You consider necessary section, you consider breast-feeding alternative

>> Reporter: That is and apply to hepatitis C. It is generally in the single digits as far as percentages for the risk of transmission to children. The tricky part is because he of the moms antibodies on board with the baby, you really cannot confirm if the child born to a hepatitis C positive mother is also. Our biggest issues injecting drug use. As far as infections go, as far as historical infections go, we'll talk about those. People have had hepatitis C for a long time, some injecting drug use and a lot of medical exposures.

>> So, here's a slide from CDC. This shows the slow creep of hepatitis see gaining on all other reportable infectious diseases. That redline would be debts that are reported from infectious diseases that the CDC tracks. There is a subset that are important enough to require a report to the state health department if you look at hepatitis see slowly climbing and the other diseases slowly dropping, you can see that hepatitis C accounts for more deaths than all of those other conditions combined. So, that is more than tuberculosis, more than HIV, all of those added together, hepatitis C is now more than that.

>> HIV, the drop has come from new medical options. Hepatitis C, we have this huge pool of people who have been infected for decades and those effects are now causing long-term health problems and life-threatening conditions.

>> Very quickly, here is the progression of disease. Let's say you are exposed to hepatitis C. The virus. You have a needle stick or something similar. A certain amount of persons generally, I would say, the worse, we are seeing about 25% of persons will spontaneously clear the virus. What that means is your body will fight it off. And, you will not need any other medical follow-up. You will probably not be where you are exposed or aware you are sick. These hepatitis C viruses do not have any symptoms. You light up positive on an antibody test Burki of those antibodies for the rest of your life but you will be negative on a virus confirmation test. We call them RNA test. Most of the people will pass chronic hepatitis. And that will do long-term damage. For most people it remains asymptomatic. Over time, it does more more damage. Cirrhosis and basically scarring of the liver so liver function is decreased. and basically scarring of the liver so liver function is decreased. This can be accelerated by certain factors such as alcohol intake certain factors such as alcohol intake . Other factors that may put stress on Oliver, HIV infections, there are negative interactions with diabetes. stress on Oliver, HIV infections, there are negative interactions with diabetes. That can accelerate this timeline from 20-25 year estimate to be much shorter . It's and go quicker or longer of those, with cirrhosis, or longer of those, with cirrhosis, more more will get to end-stage liver disease. It end-stage liver disease. It is green in that column, HCC which is cellular cancer. Liver cancer, that is HCC which is cellular cancer. Liver cancer, that is very actionable in its early stages. But, if family, there are very few options. stages. But, if family, there are very few options. Hepatitis C does cumulative damage to your liver over time. You have an increasing risk of hepatitis C related to your liver over time. You have an increasing risk of hepatitis C related death.

>> We do know from national data that American Indian and Alaska natives have doubled the national know from national data that American Indian and Alaska natives have doubled the national rate of hepatitis C related mortality. It is taking a toll not only nationally but also in Indian mortality. It is taking a toll not only nationally but also in Indian country.

>> Here is a survey. I would not get into survey. I would not get into the methods. It is a check on the whole nation. check on the whole nation. It is on a variety of help topics. What they found of help topics. What they found of people with hepatitis C, the best method is about half who have hepatitis C infections, a chronic affection, are the best method is about half who have hepatitis C infections, a chronic affection, are unaware. They just don't know. There has been no reason to test for. They don't know they were exposed. So, people has been no reason to test for. They don't know they were exposed. So, people have forgotten that they had a risky exposure. Perhaps risky exposure. Perhaps they dabbled once with injecting drug use or maybe drug use or maybe they are unaware of their exposure in medical settings. To make a long story short, most people, half-and-half are unaware exposure in medical settings. To make a long story short, most people, half-and-half are unaware of their infection. This makes it tricky to test for people, right? You go to your doctor and they are it tricky to test for people, right? You go to your doctor and they are considering hepatitis C test, have you done any of these things that may put done any of these things that may put you of risk of a blood-borne infection? Most people one's list they know because they don't remember or they don't know. infection? Most people one's list they know because they don't remember or they don't know. Or, they are doing things already used to do things used to do things that they want to disclose to the doctor. Testing has its limits. When he asked about certain risky behaviors, people to the doctor. Testing has its limits. When he asked about certain risky behaviors, people may not be aware or remember that they did them or may may not want to share that. You don't know that they did them or may may not want to share that. You don't know you are infected until you show up, I will go back here, you are at the very up, I will go back here, you are at the very far to the right in the green stage, your medical options are greatly limited you want to treat hepatitis the green stage, your medical options are greatly limited you want to treat hepatitis see as soon as possible for obvious reasons. About half the people are unaware of obvious reasons. About half the people are unaware of their hepatitis C infections.

>> Is it a common disease? It is, for lack of a Is it a common disease? It is, for lack of a better term, it is a mom-and-pop disease. Somebody I know mom-and-pop disease. Somebody I know has it. ISIS say at least one family member or may be more. At least one family member or may be more. At -- it is the leading cause of some of the possibly death causing leading cause of some of the possibly death causing long-term effects I mentioned earlier such as liver cancer, its such as liver cancer, its the leading cause of liver transplants in the U.S. It really affects in the U.S. It really affects the American Indian and Alaska native higher than any other race or ethnicity is the. I don't have an explanation native higher than any other race or ethnicity is the. I don't have an explanation for this. There is nothing inherently more risky in Indian country or -- it is unexplained more risky in Indian country or -- it is unexplained . It could be, it could have a few different explanations including lack of access to care could have a few different explanations including lack of access to care or other issues.

>> We are now seeing, as I said before, are now seeing, as I said before, this virus causes long-term cumulative effects. We are seeing this wave of people who were infected years ago, effects. We are seeing this wave of people who were infected years ago, the front of the wave is starting is starting at hospitals. Hospitalizations for American and Alaska natives have tripled in the last several years because of hepatitis viruses. That and Alaska natives have tripled in the last several years because of hepatitis viruses. That is not unique. We are starting to see hepatitis C really hit in full force among this group that was starting to see hepatitis C really hit in full force among this group that was infected decades ago and they don't know about it.

>> know about it.

>> This may be hard to see. I hope you have a full screen. I will walk us through it see. I hope you have a full screen. I will walk us through it . This is what is called a tsunami slide. If you see below it is different years as we march into a tsunami slide. If you see below it is different years as we march into the future. And, on the vertical scale, is how may times is event vertical scale, is how may times is event is

estimated to happen. This is a Mathematical Model. As you can see, far to the left, the numbers are low and they start to go up. These are not new infections. This is what is expected to happen from existing hepatitis C patients as the liver damage as up and they said to have liver damage as up and they said to have HCC, that's liver cancer. All of these different effects will hit us, we are going up the of these different effects will hit us, we are going up the front of this wave right now. Again, Again, what we want to do is wanted been this wave down as far as we can. We want to make is wanted been this wave down as far as we can. We want to make this a small as possible and go down. So, that's our challenge. If left unchecked, go down. So, that's our challenge. If left unchecked, this is what is model for the impact of hepatitis C virus in the near future.

>> the impact of hepatitis C virus in the near future.  
>> So, what we have here is another spike. This is from the nationwide survey here is another spike. This is from the nationwide survey. Persons born, a birth cohort, born from 1945 to 1965, are much more likely birth cohort, born from 1945 to 1965, are much more likely to have hepatitis C virus. I've heard different explanations for this. There is one study that says is so uniform I've heard different explanations for this. There is one study that says is so uniform in this group, it, medical exposures may have been may have been a bigger deal about it. Its not scandalous. This is from the 1950s and 60s. Its not scandalous. This is from the 1950s and 60s. We still had glass syringes and vaccine tubes. So, maybe that was a driving force behind it. There and vaccine tubes. So, maybe that was a driving force behind it. There was also, I've been told, a lot of drug experimentation, I was a little too young to know about that. a lot of drug experimentation, I was a little too young to know about that. But this age group shows about five times as much hepatitis C virus prevalence five times as much hepatitis C virus prevalence as other age groups. We are seeing that in Indian country as well. That is typical nationwide.

>> are seeing that in Indian country as well. That is typical nationwide.  
>> I will talk about it later, but, this epidemic later, but, this epidemic, instead of being this one peak and one mountain, it is looking like a peak and one mountain, it is looking like a series of peaks. The new peak is younger people who are injecting peak is younger people who are injecting. We are in the middle of creating another peak in our opioid epidemic of creating another peak in our opioid epidemic of newly infected persons. But, as far as health and concerns, this group, because they're infected so long ago is as far as health and concerns, this group, because they're infected so long ago is a primary health concern. They are the most likely to be at near-term risk of life-threatening conditions as a result of the most likely to be at near-term risk of life-threatening conditions as a result of their hepatitis C infections. So, what happens? You look at data like this. The CDC choose it up and spits what happens? You look at data like this. The CDC choose it up and spits out, thank goodness, they keep track of this. Will follow their lead. They put out a recommendation per screen everyone born of this. Will follow their lead. They put out a recommendation per screen everyone born from 1945 to 1965 for hepatitis C virus. I don't care what you have come in for, a Steptoe, anything else. If C virus. I don't care what you have come in for, a Steptoe, anything else. you were born between those goalpost, I should screen you for hepatitis C. Screening is testing everyone in goalpost, I should screen you for hepatitis C. Screening is testing everyone in a demographic. What's another common one? I've seen prenatal testing I don't care much about you, in terms of one? I've seen prenatal testing I don't care much about you, in terms of what else is going on your health, but if you're pregnant, I will give you a battery of tests because your health, but if you're pregnant, I will give you a battery of tests because that is proven to be important and effective in terms of medical intervention. and effective in terms of medical intervention. That is how screening differs from testing. Testing is a targeted test, I have a special testing. Testing is a targeted test, I have a special reason that you might need to get tested. So, CDC has dropped the screening recommendation to get tested. So, CDC has dropped the screening recommendation to screen everybody in the age group to try and catch all of the asymptomatic hepatitis C virus early to age

group to try and catch all of the asymptomatic hepatitis C virus early to treated early and to reduce the projected death

>> Right now, a projected death

>> Right now, a national body called the U.S. preventative service task force is looking at winning those recommendations because new treatments are preventative service task force is looking at winning those recommendations because new treatments are so effective and the tests are so cheap and noninvasive it is proving to have are so cheap and noninvasive it is proving to have public health math to whiteness. That probably will not develop itwhiteness. That probably will not develop it until the next few months. I don't know what they will decide how wide to make those goalpost I don't know what they will decide how wide to make those goalpost sunscreen.

>> So, a big part of a medical test is what are you going to do the results? If part of a medical test is what are you going to do the results? If you're positive, I need to be able to do something and help you out. And, not too long ago, for hepatitis able to do something and help you out. And, not too long ago, for hepatitis C virus, there wasn't really much available, right? You knew your positive and they would track available, right? You knew your positive and they would track your liver functions and then tried to do supportive tried to do supportive care. So, it was really a tough diagnosis and often not tested for, not looked at because the medical follow-up a tough diagnosis and often not tested for, not looked at because the medical follow-up was limited or nonexistent. If you go back probably, don'tyou go back probably, don't hold me to this. Between 10-20 years, we started to get new antiviral drugs. So, this 10-20 years, we started to get new antiviral drugs. So, this change things. The test became a little more interesting. Those treatments, again, those little more interesting. Those treatments, again, those treatments, it was not obvious, the treatments back then was a rotary phone. Happily, we are in the smart phone the treatments back then was a rotary phone. Happily, we are in the smart phone of the age. So, let's discuss what changed.what changed. Back then we had very limited treatment options. Their long-duration. A lot of these were six months long. Yet a limited treatment options. Their long-duration. A lot of these were six months long. Yet a lot of side effects and interactions to worry aboutto worry about it may treatment very challenging and pretty much only in the realm of specialists. He had a high default rate and pretty much only in the realm of specialists. He had a high default rate which meant a lot of people simply felt to build, they couldn't continue with the treatment simply felt to build, they couldn't continue with the treatment so they would have to drop out. On top of that, if that wasn't hard enough, it often didn't work. You out. On top of that, if that wasn't hard enough, it often didn't work. You have clearance rates of about 60% which means a curate,which means a curate, that is one thing that is compiling about hepatitis C virus. You curate, you do not manage it like a is compiling about hepatitis C virus. You curate, you do not manage it like a lifelong condition such as HIV or diabetes. If you take the medication, you are cured. You needdiabetes. If you take the medication, you are cured. You need no further medical follow-up. You can become reinfected but,can become reinfected but, it is only if you are exposed to the virus.

>>are exposed to the virus.

>> So where are we now? We have multiple treatment options, short durations . It is oftenWe have multiple treatment options, short durations . It is often a pill a day for short as eight weeks. It has no side effects. Patients will ask are you sure short as eight weeks. It has no side effects. Patients will ask are you sure this is doing anything? I feel fine. High completion rate, almost no one drops out. There is no reason to. The fine. High completion rate, almost no one drops out. There is no reason to. The only difficulty is anything else you would experience in trying to remember a pillyou would experience in trying to remember a pill regimen for eight weeks. Curates are almost one or percent. So,are almost one or percent. So, this is the most amazing public health development I've seen in public health development I've seen in my career. This disease is almost completely cured. There is a catch. These are new drugs. They are very expensive. almost completely cured. There is a catch. These are new drugs.

They are very expensive. The price has come down a bit but basically the biggest challenge is not so much bit but basically the biggest challenge is not so much political as drug access. And trying to make sure your patient can get those drugs. to make sure your patient can get those drugs.

>> There are two sides to that story. As much as I personally think sides to that story. As much as I personally think these drugs came out almost \$1000 a vial in the beginning. Basically, \$1000 a vial in the beginning. Basically, a vial is worth more than gold dust. A lot of than gold dust. A lot of public and private insurers would then pay for it. So, between the private sectors prices then pay for it. So, between the private sectors prices and the public sectors and the insurance sectors, the reluctance to lose money, patients were caught in the middle. He the insurance sectors, the reluctance to lose money, patients were caught in the middle. He had this wonderful cure but it is under glass and only a small minority could pay it. If you want to is under glass and only a small minority could pay it. If you want to look at this, the state of hepatitis C.org gives you a state-by-state breakdown of hepatitis C.org gives you a state-by-state breakdown of Medicaid policies on access to drugs. There is a huge variation in fact, one question is what is to drugs. There is a huge variation in fact, one question is what is of the state of residence of the patient?

>> Here's what we are trying to prevent, of the patient?

>> Here's what we are trying to prevent, and stage liver disease. This is what happens when hepatitis C is untreated for a is what happens when hepatitis C is untreated for a lot of patients. This is why we are here. We need to stop this. why we are here. We need to stop this. And, this is what treatment does. The graphic is, does. The graphic is, it's a bit of an exaggeration. But SVR-12, the sustained response But SVR-12, the sustained response cures hepatitis C. This is what happens once you get, once you dropped what happens once you get, once you dropped mortality from liver cancer and liver failure. liver failure. This is a huge effect. It is very exciting for millions of people. It is very exciting for millions of people. Here's the problem. Even if we have the drugs, we have the drugs, we don't have enough specialist. We have so many patients, we have millions of patients We have so many patients, we have millions of patients that cannot be bottlenecked through specialist. There is an capacity in the system. So, how do we treat 3.525 million people with 20,000 specialist? It can't be done. In New Mexico, whereas resigning before hand, it can't be done. In New Mexico, whereas resigning before hand, there was a waiting period of 18 months to go see one of the only specialists of 18 months to go see one of the only specialists in Albuquerque. Clearly not a viable alternative.

>> viable alternative.

>> Here is a cascade of care. This means all of the steps you need to, the boxes you need to care. This means all of the steps you need to, the boxes you need to check to be cured. On the far left is everyone, the purple is everyone who has hepatitis see, chronic infection. The far left is everyone, the purple is everyone who has hepatitis see, chronic infection. The estimate is 5 million in this graph. So, as you move over, you see graph. So, as you move over, you see there is a reason that people fall off of this fall off of this cascade before the get cured. They have to get tested. They have to get diagnosed and they have to get sent have to get tested. They have to get diagnosed and they have to get sent to care. Then they have to initiate treatment and they have to complete successful treatment. So, from chronic Hepatitis to initiate treatment and they have to complete successful treatment. So, from chronic Hepatitis C, only 6% achieved a cure at the time of this graph. This is a little older but achieved a cure at the time of this graph. This is a little older but you can see the drop-offs are tremendous. We need to build bridges on diagnosis and getting that person to tremendous. We need to build bridges on diagnosis and getting that person to care and once they are in care to get them effective care to get them effective treatment. All of those things have barriers and patients are lost in the process barriers and patients are lost in the process along the way. We want to get that far right achieved SVR up to to get that far right achieved SVR up to 100%.

>> We will talk about Indian health service. It talk about Indian health service. It is a federal agency. It has federal tribal urban designations for its health facilities. Is very widespread in most states of the union. facilities. Is very widespread in most states of the union. The population serves about 2.2 million. Generally, these are rural clinics for some hospitals. It is a primary healthcare network so we don't have some hospitals. It is a primary healthcare network so we don't have many specialists.

>> You may have heard we are quite under resource as far as budgets. Here is a map of the administrative areas of the Indian health service. I work for the trouble the administrative areas of the Indian health service. I work for the trouble health board in the Northwest Berkeley see those three states. Write down here, I will see those three states. Write down here, I will use arrow. Here and at the inset is Navajo nation there is the inset is Navajo nation there is the Hopi. Down below is the other areas which are comprised of state or multiple states. of state or multiple states. The Nashville region is almost everything east of the Mississippi. everything east of the Mississippi. Due to historical reasons and due to the Indian removal act, due to the Indian removal act, not many tribes remained in the eastern seaboard. Is a very in the eastern seaboard. Is a very large area with smaller tribes where you get to Navajo nation. you get to Navajo nation. Is the size of other states. There are wide variations, these shaded areas are trouble areas served states. There are wide variations, these shaded areas are trouble areas served by Indian health. You can see the ranch system in California, can see the ranch system in California, is a chain of smaller tribes. A very spread out health network tribes. A very spread out health network, we have a ton of hepatitis C. What are we going to do? of hepatitis C. What are we going to do?

>> There to prongs I will talk about. We have a diagnosis. We have to will talk about. We have a diagnosis. We have to screen as per the CDC recommendations. We have to get them diagnosed and then the second thing we need recommendations. We have to get them diagnosed and then the second thing we need to do, not rocket science, we have to treat them and increase how many people are being treated.

>> we have to treat them and increase how many people are being treated.

>> How do we do it? On screening. Here's our first intervention point. This is a reminder to clinicians in your On screening. Here's our first intervention point. This is a reminder to clinicians in your medical charts, when you see a doctor, they're looking at a computer screen with your electronic health record. doctor, they're looking at a computer screen with your electronic health record. This will check for age ranges age ranges, 1945 to 1965, if so, do you have any history do you have any history of hepatitis C tester diagnosis? If not, your providers will get a reminder saying not, your providers will get a reminder saying I think this person should be tested for hepatitis C. be tested for hepatitis C. If you screening guidelines come out such as prenatal patients or or -- we out such as prenatal patients or or -- we can alter that reminder. The goal is to help busy clinicians make the is to help busy clinicians make the right decisions when things are going at full speed. It's at full speed. It's a tap on the shoulder saying by the ways, you should include this in your workup it is trying by the ways, you should include this in your workup it is trying to make the default option the right option. What I mean by that is when you go in the right option. What I mean by that is when you go in these various preventive screenings will happen. It is not like the doctor and nurse have to try and keep track happen. It is not like the doctor and nurse have to try and keep track of this big, all of the scales. They need to see you what you are coming in for an be the scales. They need to see you what you are coming in for an be flagged on whatever preventive measures need to be taken.

>> We have a policy template. One to be taken.

>> We have a policy template. One of our health facilities can look at our standard template and modify that to meet additions at our standard template and modify that to meet additions depending on if is a clinic or hospital, depending if there is a referral hospital nearby. They can alter that clinic or hospital,

depending if there is a referral hospital nearby. They can alter that and decide how they will test, where they see some people who are positive and that sort of thing. That has been helpful as a blueprint for us to systematically screen and diagnose.

>> us to systematically screen and diagnose.

>> So, it's gone really well. If you look at our hepatitis C screening coverage, this is cumulative. We have our picture of a water glass full of everyone from 1945, glass full of everyone from 1945, born between those years. We want to cover everyone in that glass. As we fill it up, we started in 2012 when the skylines came out at 11% of patients. We have now screened over 60%. Users at 11% of patients. We have now screened over 60%. Users are in the hundreds of thousands of test done on unique patients to diagnose new hepatitis C thousands of test done on unique patients to diagnose new hepatitis C patients. It has been very effective. As I said, some sites will be widening that net because of new, effective. As I said, some sites will be widening that net because of new, younger patients entering the hepatitis C epidemic. We make it national guidelines to C epidemic. We make it national guidelines to widen that. Again, people don't know the risk factors or don't disclose them and they do not know the risk factors or don't disclose them and they do not feel sick. It is handy as a public health intervention.

>> as a public health intervention.

>> Okay, that is screening. Treatment? What do we do? We don't have specialist. We have to use remote health. Treatment? What do we do? We don't have specialist. We have to use remote health. We have telehealth here which is a term you may know. which is a term you may know. The difference from telemedicine, it is a one-to-one one-to-one, I will call a specialist and ask about the patient in front of me. Telehealth can have several clinics on and ask about the patient in front of me. Telehealth can have several clinics on at once. We have been doing regional trainings. This is regional trainings. This is a face-to-face training where they get immersed, the clinicians get immersed in hepatitis C, how it is treated. They view the immersed, the clinicians get immersed in hepatitis C, how it is treated. They view the specialists they will be working with. This helps, it gets clinical confidence to treat hepatitis C and get to know the specialists they rely on for treatment guidance and a C and get to know the specialists they rely on for treatment guidance and a small clinic as a dollop through telehealth and connect with the specialist as needed. Additionally, through telehealth and connect with the specialist as needed. Additionally, we do tele-consultations. It's a one-to-one model. I will talk about that. We also collaborate on a one-to-one model. I will talk about that. We also collaborate on drug procurement strategies. As I mentioned, mentioned, the main challenge is not a medical one. It is getting those drugs. medical one. It is getting those drugs. Different states, different clinics, pharmacists, all of these people we will talk about, how did they manage to find drug all of these people we will talk about, how did they manage to find drug coverage for the patients? Is a shame that so much energy has to be spent on this. But, that is real-life. shame that so much energy has to be spent on this. But, that is real-life. That is not unique to Indian country or IHS. country or IHS. Here are some of our partners. We are, the University of New Mexico, Cherokee nation health services, that is a partners. We are, the University of New Mexico, Cherokee nation health services, that is a large area in northeastern Oklahoma. University of California San Francisco University of California San Francisco and in Anchorage-based travel organization. Tribes academic centers of excellence have been key in being the Tribes academic centers of excellence have been key in being the hub of the wheel on this telehealth what does this look like? Here telehealth what does this look like? Here is a, we work the project echo out of University of New Mexico. Here's what it project echo out of University of New Mexico. Here's what it looks like. The big picture is a specialist team you of a doctor, a pharmacist, a behavioral health support person. is a specialist team you of a doctor, a pharmacist, a behavioral health



support person. Different specialties that may come up in some of these patient presentations. That provider will in some of these patient presentations. That provider will leave with an idea. What is interesting is interesting is just by watching these clinics, you learn a lot more as a see more and more patient cases get presented you learn a lot more as a see more and more patient cases get presented and treated. They are often able to treat uncomplicated cases of hepatitis C without a specialist as to treat uncomplicated cases of hepatitis C without a specialist as a participate in more and more these clinics. This telehealth platform has been instrumental more these clinics. This telehealth platform has been instrumental in a scaling up not only going from one to one but 21 to many in getting our knowledge not only going from one to one but 21 to many in getting our knowledge out to our clinics who are able to participate. Again, pharmacist have been a layer of leadership. They've been able to able to participate. Again, pharmacist have been a layer of leadership. They've been able to step up and take a strong role in case management. It has been critical in a health system that I was role in case management. It has been critical in a health system that I was a shorthanded on the number of doctors and practice nurses.

>>doctors and practice nurses.

>> Here is one of the early slides, I would say now we probably have about 12 early slides, I would say now we probably have about 12 facilities participating per clinic. Often, you have a 20 minute lecture on Often, you have a 20 minute lecture on the developments in hepatitis C or one of the programs will share what is working and what's not working to or one of the programs will share what is working and what's not working to help the others learn from it and share ideas. It will have anywhere from 3 and share ideas. It will have anywhere from 3 to up to 12 case presentations where will presentations where will , there is no personal identification data changing hands, you data changing hands, you get a patient idea number that is anonymous. We will walk through the labs and background and get a treatment that is anonymous. We will walk through the labs and background and get a treatment plan to patient.

>> This is an incomplete map This is an incomplete map of people who are participating in our echo clinics. The northwest has its own echo. That is not mapped on in our echo clinics. The northwest has its own echo. That is not mapped on this one. There would be many more dots in the northwestern states. You can see the Great Plains, the Great Lakes more dots in the northwestern states. You can see the Great Plains, the Great Lakes region and the Southwest are really strong in participating in echo. It strong in participating in echo. It helps treat patients in their communities. Some of these patients are 4 to 5 hours from specialist or hospitals. If communities. Some of these patients are 4 to 5 hours from specialist or hospitals. If they are treated in their community, they will not be treated at all. But, now we have, if you look they will not be treated at all. But, now we have, if you look up here, Fort Peck, Montana was one of our earliest ones out there that.. It is really isolated and was one of our earliest ones out there that.. It is really isolated and people getting rolled costs -- rolled class treatment out there -- rolled class treatment out there some of these travel sites can be proud of the outcomes are getting be proud of the outcomes are getting in a very resource limited setting. The patients are grateful and the communities are very grateful as well.

>>setting. The patients are grateful and the communities are very grateful as well.

>> We have more challenges. Hepatitis C elimination. Hepatitis C elimination. This is an infectious disease. If you have enough people the virus would be bouncing around between people If you have enough people the virus would be bouncing around between people even if risky behavior continue. We want to treat everyone, not only to save their life but We want to treat everyone, not only to save their life but to prevent them from transmitting the disease. There is a prevention access to the disease. There is a prevention access to treating patients. Hepatitis C prevention, in addition to treatment, I mentioned earlier about injecting drugs, in addition to treatment, I mentioned earlier about injecting drugs . While we want to reduce drug use and injecting the segment that drug use and injecting the segment that cannot stop or third is not a place to stop, not to ease them off injecting and make sure

not a place to stop, not to ease them off injecting and make sure it reduces their risk of their behavior not infect themselves or others.

>> We also need their behavior not infect themselves or others.

>> We also need to do we are working a lot with medicated assisted therapies. a lot with medicated assisted therapies. Other things that work with opiate addictions, there is a opiate addictions, there is a lot of places were hepatitis C, as far as younger patients, and newer patients and some of our, as far as younger patients, and newer patients and some of our behavioral health sectors will need to overlap.

>> Finally, early detection of liver cancer. So, again, if you find early to overlap.

>> Finally, early detection of liver cancer. So, again, if you find early the cancer, it is very actionable.

With people who have stage four cirrhosis, With people who have stage four cirrhosis, that means they have crossed the threshold of liver scarring, they need an ultrasound every the threshold of liver scarring, they need an ultrasound every six months to see check for nodules. Again, if you catch liver cancer at that stage, nodules. Again, if you catch liver cancer at that stage, you are in much better safe than later down the world. safe than later down the world. The damage wrought from hepatitis C, if you have cirrhosis, you need to go in every six months for liver C, if you have cirrhosis, you need to go in every six months for liver cancer check. This is to be sure nothing is changed. sure nothing is changed.

>> So, as far as a cure, as a cure, I think it is emotional, a lot of our patients, lot of our patients, some had no idea they had this disease. We had one lady who was based in Arizona. She was had this disease. We had one lady who was based in Arizona. She was in her late 60s. She woke up vomiting blood and was airlifted woke up vomiting blood and was airlifted to Albuquerque. It was the closest major hospital available. She barely survived that intervention. closest major hospital available. She barely survived that intervention. She learned in her late 60s she had had hepatitis C for most of her life and 60s she had had hepatitis C for most of her life and did not know it. She had experimented with drugs once in her late teens. The hospital there had experimented with drugs once in her late teens. The hospital there fought together treatment. This was a few years ago and treatment was very hard to come by. She is basically a few years ago and treatment was very hard to come by. She is basically told you so sick she wasn't worth treating by Medicaid. So, the hospital broke its own pharmacy budget to pay for worth treating by Medicaid. So, the hospital broke its own pharmacy budget to pay for it because we heard how expensive drugs are and she recovered. She was able to travel out of state and expensive drugs are and she recovered. She was able to travel out of state and see grandchildren. This is a real life-changing experience for the patients who we are able to cure. More than one real life-changing experience for the patients who we are able to cure. More than one pharmacist has told me what you see here, when you're able you see here, when you're able to that final blood test 12 after treatment, your clear. You are done. after treatment, your clear. You are done. We manage hypertension, we manage these chronic disease conditions, but we can cure hepatitis C. these chronic disease conditions, but we can cure hepatitis C. It gives a lot of people a second chance. Right? They have in many breaks people a second chance. Right? They have in many breaks but finally here is something that we can do and give them a reset both we can do and give them a reset both of their health and what they are able to do as they feel better they are able to do as they feel better we had one infectious disease doctor and he said, boy, I've been treating hepatitis C for about 2 years. And doctor and he said, boy, I've been treating hepatitis C for about 2 years. And I've gotten more hugs from my hepatitis see patients in those 2 years hepatitis see patients in those 2 years then in the last 30 years as a doctor. This is a real, tangible service we are able to do. years as a doctor. This is a real, tangible service we are able to do. We still have bottlenecks. There is still a struggle to get the drugs the drugs are on still a struggle to get the drugs the drugs are on the national form with IHS. They're still expensive it is still difficult for people in They're still expensive it is still difficult for people in Indian Country to access the drugs they need drugs they need when they need it. That will be an ongoing challenge of the system. will be an ongoing challenge of the system.

>> I wanted to leave it there for any questions? There is a lot I there for any questions? There is a lot I didn't cover. So, either on hepatitis C or Indian Country or hepatitis C or Indian Country or a response to this epidemic and how we are facing barriers. and how we are facing barriers.

>> Thank you, Brigg. I learned a lot -- learned a lot -- a lot in this presentation. Are there any questions for Brigg? presentation. Are there any questions for Brigg?

>> I had a question myself. That age group, if I understood you, I am in that age group you myself. That age group, if I understood you, I am in that age group you talked about. Is that something you pick up in an annual physical exam or something? Or should my doctor be you pick up in an annual physical exam or something? Or should my doctor be doing that for me?

>> I can remember.

>> I would say, don't stress. can remember.

>> I would say, don't stress. There is a very low chance you have it. Your doctor should automatically, as part of the preventive care services, chance you have it. Your doctor should automatically, as part of the preventive care services, when he pulls blood, he should check the box that says check for hepatitis C. check the box that says check for hepatitis C.

>> I see that Rick has joined Yes would you like to see anything, Rick?

>> Sure thing. Hey, Rick has joined Yes would you like to see anything, Rick?

>> Sure thing. Hey, Brigg, you did an outstanding job. Just so folks know, job. Just so folks know, Brigg has been in every part of Indian Country perking as a resources, the patients, providers and all part of Indian Country perking as a resources, the patients, providers and all the players. He really is on the ground doing this work. Not just on the ground doing this work. Not just folks who set up in a ivory tower and report on the work that a ivory tower and report on the work that is being done on the ground. He is looked at with a lot of rust He is looked at with a lot of rust packed and on a in Indian Country. I want to say Country. I want to say that as the director of the HIV and hepatitis C program at the the HIV and hepatitis C program at the Indian health service, I look to folks like Brigg to make sure their work is folks like Brigg to make sure their work is done. My job is much more administrative. We want to make sure more administrative. We want to make sure that we are achieving the goals of the viral hepatitis action plans for we are not doing this alone goals of the viral hepatitis action plans for we are not doing this alone or creating our own goals and objectives. There is a plan that all of our HHS partners and objectives. There is a plan that all of our HHS partners are trying to follow. There are four basic goals, prevent infections. Reduced death. Reduce health disparities and coordinated are four basic goals, prevent infections. Reduced death. Reduce health disparities and coordinated, monitor and report on activities run viral hepatitis so, thank you run viral hepatitis so, thank you Brigg for document diagnosis and treatment. The idea that we can do this together treatment. The idea that we can do this together and I think one of the things I wanted to talk about, if anyone has any questions about how we the things I wanted to talk about, if anyone has any questions about how we can go about working concertededly to reduce stigma. There is still a lot of stigma attached reduce stigma. There is still a lot of stigma attached. Maybe some folks have ideas to help us get into the to help us get into the realm of reducing stigma so we make sure people come in and get screened for it and diagnosed we make sure people come in and get screened for it and diagnosed and treated. People are not so embarrassed to talk about it with her providers. So, kudos to so embarrassed to talk about it with her providers. So, kudos to Brigg for the great work you do. Kudos to our providers in you do. Kudos to our providers in Indian Country who are diagnosing and treating our patients and making people healthy and treating our patients and making people healthy, productive and long life.

>> Thank you Rick we do have life.

>> Thank you Rick we do have a question. Is it transmitted sexually?

>>

>> It is a rare, it is not the primary mode. It is a blood-borne disease. So, again, if I take is not the primary mode. It is a blood-borne disease. So, again, if I take the example, if the CDC, if I live with hepatitis C positive partner, there is no if I live with hepatitis C positive partner, there is no real guidance to be sure you wear a condom or if other protection every time like you might with you wear a condom or if other protection every time like you might with it than HIV positive partner and other interventions you would take to prevent transmission from one and other interventions you would take to prevent transmission from one person to the other. But, there is not that recommendation. So, yes, there is not that recommendation. So, yes, but rarely. Is definitely not common. common.

>> Thank you, Brigg. Are there or any more questions for Rick or Brigg? Are there or any more questions for Rick or Brigg? My colleague Ashley just put the satisfaction survey for the webinar in. Please, put the satisfaction survey for the webinar in. Please, give that a look. We have time. This is a great presentation, very educational. Sometimes, I know a lot about have time. This is a great presentation, very educational. Sometimes, I know a lot about the presentation. Boy, I knew very little about this and I learned a lot.

>> Thank you little about this and I learned a lot.

>> Thank you

>> Okay, we still have time for questions. I will go to my wrap-up comments. Wait, we do have time for questions. I will go to my wrap-up comments. Wait, we do have a question. Did the IHS just at the screening in 2012? just at the screening in 2012?

>> Yes and no. We've always been always been testing just like any other matter practice you should test if you have something in your medical presentation or matter practice you should test if you have something in your medical presentation or in your medical history that would indicate your risk for hepatitis C virus. The screening recommendation did not, would indicate your risk for hepatitis C virus. The screening recommendation did not, that is when IHS and other health networks other health networks should have become systematic about it. So, that is when we started putting in reminders and policies so that no it. So, that is when we started putting in reminders and policies so that no matter what you went to the system for, if you fit the criteria for screening, you got the test. The the system for, if you fit the criteria for screening, you got the test. The short answer is yes, 2012 is when it started. It was affected a lot by the fact there there were drugs when it started. It was affected a lot by the fact there there were drugs you could do something about. If you look at HIV, they started you look at HIV, they started doing blood screenings in 1996 but did not start but did not start testing pregnant women until about 5 years later. The reason was if you test a blood donor, years later. The reason was if you test a blood donor, and is positive, you cannot use a transfusion. You can just write and save a life that way. But back use a transfusion. You can just write and save a life that way. But back then, it was a more severe thing. thing. There was no medical options for HIV. 5 years later you drugs for HIV. 5 years later you drugs that, a pregnant woman could take to prevent mother to child transmission. I want to make sure take to prevent mother to child transmission. I want to make sure the hep C recommendations, because it is so widespread, the medical options are getting so good that you really it is so widespread, the medical options are getting so good that you really need, there is very little cost and looking for new infections and there is great benefits in diagnosing cost and looking for new infections and there is great benefits in diagnosing it.

>> Thank you, Brigg. Brigg put in the chat box, Brigg put in the chat box, state of the PC.org if persons want to see Medicaid policies by state. That is a persons want to see Medicaid policies by state. That is a good bit of information. Faye asked the question, is any progress being made asked the question, is any progress being made on reducing the cost of drug treatment?

>> The treatment?

>> The great news is the cause is coming down. is coming down. The bad news is its coming down from six digits to five digits. Is still depending on your coming down from six digits to five digits. Is still

depending on your insurance and the state you are in if you are going to be covered . It is north are in if you are going to be covered . It is north of \$20,000. What this is translating to is all of these restrictions by insurance. They will say well, we will translating to is all of these restrictions by insurance. They will say well, we will only pay for treatment if you're really sick. You have a lot of scarring on your liver which is completely absurd. really sick. You have a lot of scarring on your liver which is completely absurd. If you treat that person early, you are prevented that scarring and prevented the chance to liver cancer.you are prevented that scarring and prevented the chance to liver cancer. This is what they have done on self-defense of their budget saying we can't treat everybody. We can't afford it. done on self-defense of their budget saying we can't treat everybody. We can't afford it. The drugs are too expensive. Will treat the sick Yes so, there is a lot treat the sick Yes so, there is a lot of fault to spread with both the private sector and the insurance and the public sector. So, itthe private sector and the insurance and the public sector. So, it is progressing, but we're still far from oh you are sickstill far from oh you are sick , let's write you a prescription and get you treated, today.  
>>and get you treated, today.

>> A thought came to mind. I know on other diseases people go to other countries where costs are less and I know on other diseases people go to other countries where costs are less and that is controversial I don't know if you had that situation develop with hepatitis C.

>> Yes, there are countries know if you had that situation develop with hepatitis C.

>> Yes, there are countries that do a very brisk medical tourism business for hepatitis C.tourism business for hepatitis C. You can go to Egypt or India or India and get your treatment for about 99% cheaper. There are people who elect99% cheaper. There are people who elect to do that. Is clearly not the strategy that we endorse. I don't know anyone who has done it but not the strategy that we endorse. I don't know anyone who has done it but I do know those programs are thriving.

>> Okay. thriving.

>> Okay. Keep the questions coming in, please. These are great questions. These are great questions. I will continue my wrap-up comments. But like I said, we have timecomments. But like I said, we have time for questions. Please keep them coming in. First off, I would like to thank Brigg and Rick for a coming in. First off, I would like to thank Brigg and Rick for a terrific webinar. It was a great education, its one of the best ones I participated in. Also, I would education, its one of the best ones I participated in. Also, I would like to think my colleague, Ashley for keeping things running smoothly and doingAshley for keeping things running smoothly and doing great work with tech support. Don't forget our upcoming webinars. We haveDon't forget our upcoming webinars. We have two more webinars for March. The next one is this Thursday, March 21 entitledThe next one is this Thursday, March 21 entitled grow old in style, use government resources to add style, grace and eggs that is why Jane, one government resources to add style, grace and eggs that is why Jane, one of our long-term women are presenters, don't forget that. We have webinars coming up presenters, don't forget that. We have webinars coming up in April. Don't forget our virtual spring, 2019 spring, 2019 Library Council virtual meeting Monday-Wednesday, April 15-17, 2019. You will April 15-17, 2019. You will receive notice of our upcoming webinars when they are announced.webinars when they are announced. And from the FDLP Academy webpage which is linkedwebpage which is linked at the bottom of the homepage, you can view a calendar of upcoming webinars and other events,homepage, you can view a calendar of upcoming webinars and other events, access pass webinars from our webinar archive and link to a web form to volunteer, to presentwebinar archive and link to a web form to volunteer, to present on the can me webinar. Anybody in the audience, I'm sureAnybody in the audience, I'm sure there are people who present a great webinar on any topic a great webinar on any topic on an agency issue or maybe how do Ranger very how do Ranger very Ashley is going to put in some information about our archive webinarsome information about our archive webinar , give that a look and also, a good article by my also, a good article by my former colleague, Scott Paul on the FDLP Academy and all the many things we

the FDLP Academy and all the many things we do with webinars and other training events. Let's see if the retraining events. Let's see if there are final questions. It doesn't look like it. doesn't look like it. Fantastic job, Brigg, and Rick also. This is a great webinar. I think I will close things out. This is a great webinar. I think I will close things out.

>> Hey Joe, it's Rick. One comment. I think, I would like to direct Rick. One comment. I think, I would like to direct people to HIV.gov as well as IHS.gov for more information on hepatitis C. There is a lot of good information as IHS.gov for more information on hepatitis C. There is a lot of good information on the sites. If people want to do research want to do research to see what's going on around the country as well as what's happening in with Indian Country, they can go around the country as well as what's happening in with Indian Country, they can go to HIV.gov or IHS.gov. Great did you have any last comments, Brigg? did you have any last comments, Brigg?

>> I would like to thank colleagues out there who helped us with the technical parts of the telehealth parts. That is one part of the fulcrum with people of the expertise and the people we are treating. part of the fulcrum with people of the expertise and the people we are treating. Hopefully, we can be on the curve down on hep C mortality in those graphs. Hopefully they look different in a couple of years. Hopefully they look different in a couple of years.

>> Great. Thank you, both, Brigg and Rick. Thank you audience. Please come back to , both, Brigg and Rick. Thank you audience. Please come back to the at TLC Academy for more webinars and have a great rest of the day. Thank you more webinars and have a great rest of the day. Thank you .

>> [Event Concluded]