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2015 MINORITY AIDS INITIATIVE CONTINUUM OF CARE
(MAI-CoC)

GRANTEE VIRTUAL MEETING

TUESDAY, AUGUST 11

3:00 P.M. ET

BREAKOUT 1: BEST PRACTICES IN HEPATITIS PREVENTION AND CARE

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>> JHILYA MAYAS: Okay. Can everyone hear me clearly?

>> Yes.

>> JHILYA MAYAS: Great. Thank you. Okay. So I will -- if at any point that changes, please let me know.

My name is Jhilya Mayas, and I am a Technical Vice President at the MayaTech Corporation, and today we will be talking a bit about hepatitis prevention and care from current and emerging epidemiology that will be relevant for the work that you all are doing and as well as discuss some practices that are important to getting a handle on viral hepatitis, particularly around some of the populations that you may be serving.

By all means, please jump in with questions. I am happy to take verbal questions, but just speak loudly. Also, there will be two dedicated sessions where hopefully some of you will be able to share some of your experiences related to hepatitis

prevention and management in your practices that we can have a little bit of discussion and share information.

So I am not sure if anybody has the slides yet, but slide 2 just briefly is what we are hoping to cover today in terms of learning objectives, is to make sure that at the end of this, everyone understands the burden of viral hepatitis in the United States, have an understanding of and enable to describe the populations that are particular risk for viral hepatitis, understanding what the current viral hepatitis screening recommendations actually are. There have been some adjustments in the last couple of years for some of those recommendations. Also describe some of the key barriers to identifying individuals who are living with viral hepatitis as well as the challenges of engaging them into care. And then finally, discuss some effective strategies and tools for addressing viral hepatitis within your clients and patient populations. And we will talk a little bit about some of your experiences as well as some of the tools that are available to you, both from federal and nonfederal agencies who are doing viral hepatitis work.

So slide 3 of the presentation, I understand this is a mixed group, so I appreciate anyone who knows a lot about viral hepatitis for having a little patience while we go through some of the basics. I think a background on epidemiology and some of the differences among the viral subtypes will be important to understand the different prevention and treatment strategies that you will be taking on at your different sites.

So viral hepatitis is a term for a silent epidemic. Most people can live with both chronic and acute infections without a lot of symptoms. It's fairly asymptomatic. But it's a rather insidious infection because of the long-term damage that occurs to the liver.

(Audio interference)

If whoever just joined can mute their phone.

Hello. Can everyone hear me again?

>> Yes.

>> JHILYA MAYAS: My goodness. Okay.

So talking about viral hepatitis is the silent epidemic. When we talk it about viral hepatitis, we are talking about five distinct viruses, and you will see in short order there are really two forms we are most concerned about. Transmission of hepatitis A occurs through the fecal-oral route. Many of you have probably heard in the last year there have been some hepatitis A outbreaks, both at restaurants across the country and some that are traced back to the import of different food products from outside the United States. A fecal-oral route type of infection.

Hepatitis B and C, which we will spend most of today's

presentation on, are bloodborne pathogens, so they are transmitted through blood-to-blood contact.

Broadly speaking, over about 5 million individuals in the United States are infected with viral hepatitis, and the overwhelming majority of those are undiagnosed and unaware of their infection. So much of the effort, both at the national and community level in recent years, has been around increasing awareness, promoting education about the disease so that individuals are more likely to be screened and so that providers actually are more aware and can identify patients in need of screening.

As I mentioned, the silent epidemic is in part due to the asymptomatic nature of viral hepatitis in most cases. There's a tremendous amount of stigma associated with hepatitis, particularly hepatitis C, which we'll talk about some more. Until recently, for hepatitis C in particular, there was a relatively low prioritization by clinicians due to lack of effective treatment options. So all of those taken together have really contributed to a scenario in which we have a large population of individuals impacted by viral hepatitis, and we really are still doing a lot of work to increase awareness and actually get this to be part of the clinical care conversation and really get individuals into care.

Moving on to slide 4. So as I mentioned, hepatitis A, B, and C are distinct viruses. I want to go very quickly through the differences because they are relevant for things we are going to talk about later.

So hepatitis A is a relatively speaking not a significant clinical concern relative to hepatitis disease. Less than about 2,000 new cases are diagnosed in the United States annually. There is a recommended vaccine for folks who travel overseas where it is common.

Hepatitis B, in contrast, 1 million chronically infected in the United States, and this results in about 5,000 deaths annually. There is a preventive vaccine that is available, and we will talk about that this afternoon.

Then there's hepatitis C, which currently impacts over 3 million individuals in the United States with a chronic infection. One of the big differences between hepatitis C and hepatitis B -- and I will probably say it ten times today because it's that important -- that hepatitis C can be cured with effective treatment in most patients today, which is not -- was not the case five years ago, certainly. And it has opened up a lot of opportunities for management of hepatitis C. Will thereby curative treatments available, there is no hepatitis C vaccine available. So we don't have the same tools that we have with hepatitis B. Furthermore, once somebody has been cured of

hepatitis C, they can become reinfected. So looking at an overall management perspective, prevention activities certainly need to be persistive among those who maybe are high risk for reinfection after curing. We can talk about that some more.

Moving on to slide 5, I just mentioned it, but I want to reinforce that hepatitis B and C, which we will spend most of this afternoon on, really do have distinct treatment goals. So hepatitis B is more similar to HIV in that the long-term treatment goal is long-term viral suppression. So using pharmacological therapies to reduce viral load and replication to a manageable, kind of desired level. But achieving clearance of that virus is not possible with current therapy. In contrast, hepatitis C you actually can clear the virus from the body. Previously available treatments were between 30% and 50% effective at curing individuals. The numbers were much lower for African Americans for some really interesting but (Inaudible) physiological reasons. But the new treatments are now boasting over 90% to 95% cure rates in all patients, so regardless of liver disease, regardless of ethnicity, regardless of comorbidity. So we really are now in a time where many, many, many more individuals have an opportunity for cure.

But I say this to say that when we are talking about management of hepatitis B and hepatitis C, in both cases we have to look at prevention and treatment, even though the outcomes are different and the tools available are different. There are still preventive and treatment strategies that can be in place.

On to slide 6, I just want to highlight a little bit that while hepatitis B and hepatitis C are distinct in some really important ways, there are some similarities in terms of transmission. So the individuals who are at risk may overlap to some degree.

So the common routes of transmission for hepatitis B are contact with infectious blood, semen, and other bodily fluids, primarily through sexual contact with an infected person, sharing contaminated injection equipment, needle stick injuries for care providers, as well as transmission from an infected mother to an infant during gestation or during birth.

In hepatitis BC, there are a lot of similarities, and certainly sharing contaminated injection drug equipment is a particular one, and particularly now we have drug abuse in certain populations, and we are seeing hepatitis C infections, which we'll talk about in just a moment.

It's important to note that (Inaudible) is not impossible, but the risk of that is quite low, so it's not often discussed in terms of prevention or management strategies. But (Inaudible) is quite infectious through that route.

>> Jhilya, this is Kelley. Let me interrupt you for a

second. It looks like we might be back online.

>> JHILYA MAYAS: Ah, with the slides.

>> Do other people see the slides in the breakout session?

>> Yes.

>> Yes.

>> Thank you.

(Beeping)

>> JHILYA MAYAS: Great. Thank you, Kelly.

>> Jhilya, do you have control of the slides now?

>> JHILYA MAYAS: I do. Thank you. Thank you, everyone, for your patience.

Okay. So not surprisingly, the individuals who are at risk for hepatitis B or hepatitis C are certainly sexual partners of those who are infected; individuals with multiple sexual partners. There is evidence that the presence of other sexually transmitted infections increases the risk for hepatitis B infections. Men who have sex with men are at higher and increased risk for hepatitis B infection, as well as those who use injection drugs. And for hepatitis C, people who use injection drugs either currently or formerly -- that's important. We will talk about it in a second -- as well as those living with HIV are at higher risk.

Additional risk factors for hepatitis C include those who have received blood transfusions and donations before our blood screening, between 1987 and 1992. Individuals who are on long-term hemodialysis; those in kidney failure are at increased risk; in general, individuals who have a known exposure to hepatitis C, which is a little bit vague, but it does capture some additional risk factors that may not be captured elsewhere.

Just a quick note about hepatitis in general and persons with HIV and AIDS. So of those in the United States who are living with HIV and AIDS, about a third are estimated to be coinfecting with hepatitis. Most of those are hepatitis B, with a smaller proportion but not insignificant who are infected with hepatitis C. And those numbers go up dramatically when you talk about individuals with HIV who use injection drugs.

Approximately 80% of those individuals are also coinfecting with hepatitis C, so I know that in the room we have a diverse representation in terms of regions and activities that your organizations are doing, but particularly with the injection drug use population who are infected with HIV, hepatitis C is a significant concern for some reasons that we can get into.

Okay. Any questions so far? Or comments?

Okay. So I want to spend the next few minutes just talking specifically about hepatitis B. Focusing on some of the epidemiology, screening and prevention practices, then at the end of the section, hopefully have some dialogue about the work

that you all have been doing relative to hepatitis B management at your sites.

So just revisiting the epidemiology a little bit so we have a fresh snapshot of how many people we are talking about, but 1.5 million people are living with chronic hepatitis B infection. About 3,000 acute hepatitis cases are reported a year. Most recent date is 2013. It's a good reminder that we are talking about a chronic disease that lasts for many years and decades in some individuals, but we are still having new, acute infections that have to be tracked and paid attention to and considered.

Because a lot of viral hepatitis is largely asymptomatic, it's very difficult to perform accurate surveillance in terms of incidence of new infections and really understanding how long individuals may have been infected. So a lot of these numbers are shifting. The CDC recently released viral hepatitis data for 2013, which are reflected here, but these numbers remain in flux, and a lot of that has to do with challenges in recording and just the long duration of infection that many people are experiencing.

Currently the rates of hepatitis B are highest among males between 25 and 44, and it's really important to note that Asian Americans and Pacific Islanders are disproportionately impacted by chronic hepatitis reinfection, largely due to infections in their country of birth in Asia. And so a lot of the efforts around hepatitis B screening and awareness and prevention that have been conducted by the CDC, as well as some community-based organizations, is really targeting Asian Americans and Pacific Islanders, so they really do represent a significant portion of those impacted by hepatitis B.

So I won't share too many graphs like this, but just wanted to show some of the trends for acute hepatitis B, so looking at new infections by race and ethnicity over time. So in general, from 2000 to 2013, there's been a decline in acute hepatitis B across multiple racial and ethnic groups. Hopefully everybody can see that. There was an increase of about 58% among American Indian and native Alaskans. That's what you can see from the left to the right side of the screen. Another blip was seen among non-Hispanic whites from 2012 to 2013. The end point of these data for 2013, the rates of acute hepatitis B were (Inaudible). I don't want to talk too much about this other than there is some differences in trends and absolute incidence by race and ethnicity observed in the last 13 years or so, but the overall decline that we are seeing across races and ethnicity is a good sign and can be attributed to some degree to vaccination practices implemented in both adults and children.

>> So I see the slides now.

>> Oh, great. Very good.

>> JHILYA MAYAS: This next slide will be my last data-heavy slide for a little bit. And just looking at the acute hepatitis B, in 2013, again, based on CDC data, by risk exposure or behavior. So what's overwhelming about this is that most of these cases of hepatitis B, it's unclear what the actual risk exposure or behavior were because of the yellow bar shows data missing. But you can see that injection drug use is the most common behavior reported relative to those identified in the survey, multiple sex partners is the second, sexual contact, MSM, and this is just to show, one, there are a lot of data missing. This is an incomplete snapshot. Also, there is a variety of behavior that leads to current infections of hepatitis B. So how to prevent new infections of adults. None of these are capturing maternal fetal transmission. These are the areas that are really coming up most commonly, and it's the multiple sex partners and injection drug use that are really standing out in terms of a strong predictive risk factor.

So just a little bit about the impact of hepatitis B infection. Something that has always struck me as fascinating and really important to communicate is that the infectivity or the infectious nature of hepatitis B is significantly higher than hepatitis C. We think about years ago when there was conversations about syringes washing up on beaches, but the real concern is hepatitis, hepatitis B in particular because it's that infectious.

So in thinking about it from a public health standpoint, minimizing transmission, having that point of contact can be very helpful.

We talked about the numbers of acute hep B infections decreasing significantly, so about 52% from 2000 to 2013, the last data were collected by the CDC. And it's important to note that up to a quarter of people who develop chronic hepatitis B infection, they do develop serious liver problems. That includes kind of run-of-the-mill liver damage, cirrhosis, very severe liver scarring, liver failure, and even cellular carcinoma, a specific type of liver cancer usually attributed to viral hepatitis.

So a bit of a conundrum for viral hepatitis, HBV, the same for hepatitis C, you have a chronic disease that can last for many years largely asymptotically; however, the liver damage that can be occurring underneath the surface can be quite significant. It does actually lead to death in some patients. This is not just a chronic disease without mortality outcomes. It's important to remember that.

Okay. So moving through some of the screening recommendations for hepatitis B. So we've talked about

individuals who are at risk and some of the transmission modes, so it's not surprising that the screening recommendations really do align to that information. The screening recommendations I think capture most of the things we talked about, so screen is important for individuals who use injection drugs to understand that they have an existing hepatitis B infection that can be managed. MSM, individuals who are sharing needles or sexual experiences with a known infected individual; certainly, individuals who are living with HIV and AIDS are recommended for screening.

One area that is a little bit more subtle but worth mentioning is that second-to-last bullet, which are screening of individuals who are born in regions with high rates of chronic hepatitis B infection. The U.S. preventative task force recommendations identify high rates of hepatitis B infection as a greater than 2% incidence of the hepatitis B antigen. So if you are interacting with a particular client who is from a country that has a high rates of hepatitis B, they are recommended for screening. So we talked a little bit about Asian Americans and Pacific Islanders. It turns out with the geographic region who fall into that category of greater than 2%, it's actually quite extensive. It's all countries in Africa, all countries in Asia, a good portion of the South Pacific, most of the Middle East, all of Eastern Europe with the exception of one country, a large percentage of western Europe, and several countries throughout Central America and South America. And so you know, understanding that hepatitis B is quite prevalent in other countries, and so having an eye toward individuals who are born (Inaudible) have a longstanding infection that they acquired prior to coming to the United States is important and something to factor into the screening practices.

And finally, all pregnant women are recommended for screening, in large part because while a chronically infected mother can't be cured of her infections, she can be treated for sure, but her infant can be managed in a way to prevent transmission from mother to the child, and so screening of pregnant women and entering them into care if they test positive is an important aspect.

This slide I will just go very quickly because the vaccination recommendations are quite similar to the screening recommendations. I will say generally speaking, if there is someone who is at risk to the degree that they should be screened, they are found to be negative for hepatitis B, it is likely they will also be recommended be given a vaccine. Certainly, all infants at birth are recommended for vaccination. As well as individuals with other risk factors that we've

already discussed.

So I just wanted to say very, very briefly on this slide that again, hepatitis B is not a terrible infection. Elimination of or really getting a handle on this infection will require aggressive and sustained prevention strategies. And it's actually an attainable goal to say that as a community, as a site, as a region, that the elimination of mother-to-child transmission of hepatitis B is possible. A new infection in an infant is almost certainly going to be a chronic infection, so identifying pregnant women who are infected with hepatitis B, getting them into care, ensuring that their infants are getting an active burst of vaccine and treatment of the mother, all of those things do add up to achieving the goal of elimination of mother-to-child transmission.

I would be interested to know what your experiences have been in that space. I know with the recent World Hepatitis Day observance, there are a lot of organizations talking about this very effort and how in their communities or within their health systems, through screening practices and vaccinations and education and awareness, they really have been able to either get very close to or actually achieve an elimination of mother-to-child transmission of hepatitis B. So it is a goal that is attainable, and it can be very dramatic and have longstanding benefits for community health. I just wanted to call that out because I don't think we often get a lot of opportunities to talk about elimination of particular conditions or certain circumstances, and hepatitis B from mother to child is certainly one of those.

Okay. So as in any screening or vaccination, kind of management approach, there are some barriers related to screening and vaccination for hepatitis. There are some awareness issues. Providers understanding who they need to screen and how to screen. Hepatitis B screening is a little challenging. It's a panel comprised of three tests, interpreting those tests, and really understanding how to deliver client or patient medication can be a challenge. Because as I mentioned, there are individuals in the United States who were not born here and comprise a variety of racial and ethnic and cultural and linguistic nuances, there can be challenges in really identifying and reaching the populations who are at risk and in need of training and/or vaccination.

The silent aspect of this epidemic really does pose a problem. We hear a lot from grantees that patients or individuals will know that they are infected with hepatitis, but they feel fine, and so engaging individuals in care, really prioritizing reducing (Inaudible) can be difficult for a largely asymptomatic disease, typically if there are systematic

comorbidities that take a greater priority.

And finally, the hepatitis B vaccine series requires two to four doses. So we know with any kind of multistep prevention approach, like vaccination, there's significant drop-off after the initial dosing, and so really, employing strategies to continue engagement with individuals, make sure that they're aware of the need to complete a vaccination series, make sure that there are the tools and resources so those vaccinations can actually take place, these are all things that really do create some barriers to prevention related to hepatitis B.

And I just wanted to say very quickly, talk a little bit about hepatitis B and the impact on the liver and health in general, but I think that will be relevant for many, if not all of you. There are some specific health consequences of hepatitis B coinfection with HIV, which are shown here. So in general, a coinfecting individual will have a higher load for hepatitis B. They tend to progress more rapidly with their liver disease. Generally are less successful -- not unsuccessful, but treatment can be a little bit more challenging. There's increase of liver-related consequences and mortality in those individuals. Hepatotoxicity tends to go up following ART initiation. But unfortunately, this doesn't seem to be a great effect on HIV disease progression. So in this case, most of the impact seems to occur on the hepatitis B side of things. But there are some specific consequences to coinfection and things to be aware of when managing or consider with a coinfecting individual.

So I am going to stop talking for a minute or two and open the floor first to questions if anybody has any.

Can or comments.

No? Okay. So I just wanted to pose a few questions to the audience and hopefully get a brief discussion going about how your sites have been integrating hepatitis B practices. So specifically any efforts around increasing provider and client awareness of hepatitis B screening. I know we talked a bit about some of the barriers related to hepatitis B screening and vaccination. So if anybody has some case studies or examples of how those challenges have come up in your practices and what you have done to get around them, I think this would be a good time to share a few of those if anybody has some. The floor is open.

And if anyone is speaking on mute, we can't hear you.

>> Well, I guess I'm from -- my name is (Inaudible) from New York, Brooklyn, Community Counseling and Mediation, and the work that we've been doing around hepatitis is screening individuals who were providing case management and mental health services for. And what was really remarkable, what was really enlightening for us was that we found that people, our clients

who tested positive for hepatitis, didn't have a real understanding about how the infection -- you know, how they got the infection and the quote that we most often heard was "but I keep myself clean," and so to explain the infection to the client was actually quite a difficult process for us because it was a difficult process for them to understand. And also, in terms of getting client -- explaining that treatment can be quick and effective was -- it didn't -- it wasn't something that they necessarily always understood because they didn't see it as something that can be treated effectively.

>> JHILYA MAYAS: Okay. Thank you for that. I am curious. How did you either address your provider training or, you know, expand your resources in order to have those conversations with your client who didn't understand how they could have been infected or kind of associated stigma to it. What did you do to kind of get past some of those challenges?

>> We actually worked very closely with ART. We are an integrated site, so subcontractor downstate, and we actually have a really great working relationship. So when we test, our doctor from SUNY downstate is on-site and a nurse. So we actually start having the doctor do little information sessions around explanation of the transmission of the disease and how quickly it can be treated if we can get them into care and having one-to-one counseling sessions, and that was really -- that was really useful. And the fact that the doctor from SUNY downstate was willing to do that for the clients was really useful.

>> JHILYA MAYAS: Great. Thank you very much for sharing that.

>> You're welcome.

>> JHILYA MAYAS: Did that resonate with anyone else, or did anyone else want to jump in about some experiences you've had about -- relative to anything, how you are managing or introducing hepatitis B-specific practices?

Is everyone conducting screening at this stage for hepatitis B?

>> Yes. Can you hear me?

>> JHILYA MAYAS: Yes.

>> Hi. Yeah, my name is Rose. I am calling in from the University of Maryland. And with our project, we do have screening for hepatitis B, C, and HIV. And one of the things that we do, we have models of livers, we do personalized risk reduction like the other lady suggested. We also do a lot with summary sheets because it's very complicated, especially hepatitis B, to get someone to understand what that is and what the results mean. So we have lab summary sheets that we give them. We have, you know, a variety of resources. But still, it

is a barrier, and people do not understand it. It is very difficult to get people to understand how they catch it and, you know, understanding how they can lower their risk.

>> JHILYA MAYAS: Right. That makes a lot of sense. I am wondering, is moving individuals from a positive test into care, them understanding, you know, the source of their infection, is that really a requirement to get them into care, or is that a -- we've heard from some sites that sometimes that has to be a really robust conversation and people have to kind of destigmatize before they are able to move on to care, and then other instances we've heard that people don't actually care that much because no matter what you say, there are effective treatment options. Let's move you to there. Some of those details become a little less important. I am just wondering what your experience has been around that.

>> With getting people into care?

>> JHILYA MAYAS: Uh-huh, and how much information is required, you know, so there's reporting test results and explaining all of that information, but then kind of the next step of getting them into care and getting them motivated for treatment if that's an option, what the information needs are there.

>> Well, what we do, when we refer, we definitely -- you know, after they get results and find they are positive -- some of them come into our program and know they are positive and come to the specific reason to get referred somewhere to treatment. So that's a good thing. But the others who don't, we just provide a lot of support. They understand that they have a disease, not really understanding everything about it, but the fact that they can take treatment, especially for hepatitis C, is hope for them. You know, you give people hope. You don't want to give them false hope, but you let them know that yeah, there is a cure for it, and over 90% of people can get that. And you know, you deserve that too. So we do talk to them about that. And that does encourage them. We'll walk them to appointments.

We'll make the appointment for them. You know, with hepatology. Usually we go through primary care to get the whole team involved, their primary care person, because this is a mental health clinic. Basically providing support.

>> Hi. (Music in the background)

I am calling from the East Bay Community Project in Oakland. We do have a Tuesday -- every week we have a clinic with our nurse practitioner, and in our intake process into our program, we also do testing as well and also refer the client once they come into the program to meet with the nurse practitioner so that she can really discuss the -- you know, the

parameters of a hepatitis. Because many individuals may not be ready for treatment, but you know, baseline to see where they are and to see the opportunities that are available. They also may not be a candidate if there's a high incidence of alcohol or substance abuse, and so that's pointed out to the client as well. So lifestyle has a lot to do with whether or not they are going to receive treatment and whether that's going to be effective.

That's something we do in our integrated program where we really refer all clients on intake first of all to have our HHT test and then to discuss the results with a nurse practitioner whether or not they are ready for treatment so they have an idea of where they are now and what they can do not only with treatment but their healthy lifestyle.

>> JHILYA MAYAS: Thank you very much.

Okay. I think we will move on to the next section of the presentation, unless anybody has a burning piece of feedback to share.

Great. Before we jump into hepatitis C, I just want to highlight that on this slide there are a multitude of resources available related to hepatitis B screening and vaccination. A very small subset is shown here. But the Hepatitis B Foundation does a tremendous amount of advocacy and education work with materials located on their website, and the CDC has, you know, a host of resources as well as specifically some campaign materials around increasing both provider and general public awareness about hepatitis B.

Many of the Know Hepatitis B campaign materials are multilingual, so depending on the population you are serving, there may be some really specific targeted resources for you. So we recommend you take a look at these and if there's more information or more issues you think you might need, feel free to reach out to us and we can help put you in touch with what you need.

Okay. So I am going to slide over into hepatitis C infection. I am glad it was just mentioned on the call so I don't have to say it first, but the underlying theme of a lot of hepatitis C conversations I think needs to be that hepatitis C can be cured. It's a message that we're still finding among a lot of primary care providers are not aware that hepatitis C can be cured. Just the physiology of the virus makes it curable, and therapies that are now available makes cure available to almost all individuals who are infected. So really hammering home that hepatitis C is curable is an important message that I wanted to lead with.

So the impact of hepatitis C infection is certainly more prevalent in the United States than hepatitis B. Over 3 million

individuals chronically infected.

I want to say a quick note and state that a lot of the estimates that are discussed around hepatitis C infections don't fully take into account homeless and incarcerated populations. So those are populations who are certainly disproportionately impacted who have higher rates of infection than even some of the other high-risk populations we see. Keep in mind those populations. (Inaudible) something to keep in mind. Similar to hepatitis B, there are a lot of individuals who are unaware of their infections, depending on the research or the study, anywhere from a half to almost four-fifths are unaware that they are infected. And there's been a very dramatic increase in acute hepatitis C infections in the years between 2010 and 2015, which we'll go into in just a second.

Distinct from hepatitis B, if you are infected as an adult, most of the time you will clear that infection with hepatitis B. The opposite is true with hepatitis C. Most people, 75% to 85% of adults infected with hepatitis C will develop a lifelong, if not cured, chronic infection. Most of those will develop a chronic liver-specific infection. So now having an infection that is chronically damaging the liver, cause cirrhosis. Up to 20% will develop cirrhosis, and up to 5% will die from their disease either resulting from liver cancer or cirrhosis.

Hepatitis C is a nasty bug, one of the leading causes of liver transplantation and liver cancer in the United States. Again, the conundrum of this largely silently disease that is progressing and destroying the liver comes into play with hepatitis C.

I am not sure if this is showing up. It's animating. Just to underscore the impact of hepatitis C. I think we all fully understand the consequence of tobacco smoke on life expectancy and the estimates that smoking leads to a 14% reduction. Chronic hepatitis C infection is right behind. It's not just causing liver-related consequences. It really does have an impact on individuals and their overall life expectancy.

In the interest of time, I will go very quickly over the next two data slides, but similar to what we looked at for hepatitis B, acute hepatitis C infections by race and ethnicity actually have a bit of a different trend than what we saw in hepatitis B. You'll see towards the end of the graph, starting in about 2010, there's a marked increase among American Indian natives as well as white non-Hispanics. If you zoom in closer, there are some small bumps. What we are not seeing is what we see with hepatitis B, a 13-year gradual decline. We are actually seeing an uptick in recent years, which we will talk about in just a second.

Again, the risk factors for hepatitis C, when they are

identified, are injection drug use, multiple sex partners, MSM are at high risk. Hepatitis C is associated with a great deal of stigma, and so several studies have shown that upwards of 50% of individuals who are diagnosed with hepatitis C actually can't name any of the standard risk factors for hepatitis C infection. The thinking is whatever the risk factor actually is took place so many years ago or decades ago that the individual, you know, doesn't remember or perhaps there's a history of injection drug use and the stigmatization of that is not something that comes up in a provider conversation. Something we hear sometimes, some of the more effective practices are when a provider can say really, it just takes one use, one injection to really be at risk for hepatitis C. So contextualizing it in that way has some impact. But I think there are identified risk factors, and also in a lot of individuals, they will not align to a particular risk factor. So understanding screening approaches beyond risk is actually really important.

And that has fact toward into recommendations that came out of the CDC and others a couple of years ago, which focus on (Inaudible) cohort for screening. So when the epidemiological data started to show an increase in hepatitis C infections, further analysis revealed that the majority of those infections were individuals who were represented by the so-called medium-risk cohort, born between 1945 and 1965. These are not people getting infected now. These are people likely infected five, ten, twenty years ago but now starting to show signs of long-term liver damage, late-stage fibrosis and cirrhosis, and (Inaudible). The CDC has recommended a one-time screening for all individuals in that cohort, regardless of risk factor, because this now takes all of the kind of stigmatized risk factors off the table if you were born between 1945 and 1965, you get a one-time screen for hepatitis C, and that's the intention of those recommendations is to really capture people who have been missed by the screening or who really just aren't on the radar of providers to begin with.

So the (Inaudible) those recommended for screening include, of course, present or past injection drug use. Some other factors that we've talked about, the receipt of blood or organs prior to 1992, blood products that were generated prior to 1987. Individuals who have ever been on long-term hemodialysis. Infants born to hepatitis C infected mothers. Again, the risk of transmission is fairly low, but it's not nonexistent. Those who report intranasal drug use, tattoos from unregulated or unsanitary parlors, and also those who have a history of incarceration because the rates of hepatitis C infection among incarcerated prisoners is very high, and the combination of a lot of factors leads to greater levels of exposure for

individuals who are infected.

There are some medical recommendations for hepatitis C screening. Those who are infected for HIV are recommended for annual testing, and as well as if you have some signals of liver damage, those can be recommended as well.

So last year there was a publication that was looking at the hepatitis C care continuum, which I think will probably be very familiar to many of us relative to the HIV care continuum. And in short, we are not doing very well both at the, you know, getting individuals to be diagnosed and aware of infection. It looks like only half of those infected in the United States with hepatitis C are diagnosed and aware. You can see the continuum continues down to getting individuals access to care. Hepatitis C, as I think most of you know, requires an initial antibody test followed by a confirmatory secondary test. So you'll see the bar in the middle, only about 27% of individuals actually have their hepatitis C RNA confirmed. That's following up on the first test. And then moving all the way to the right, where we are not doing such a great job. We have about 10% of individuals who have actually achieved a cure. So there are multiple opportunities for us to do better, to do better, to increase that 50% up to much higher. We certainly have done that in the past few decades with HIV. Making sure that individuals are engaged and return for confirmatory testing, and then getting them linked into care and successfully treated are all, you know, areas of significant need for hepatitis C.

Looking at hepatitis C treatment, again, because hepatitis C can be cured with new treatments, more than 95% of individuals can be treated, and it really has been a paradigm shift for hepatitis. We've heard from some grantees that you are serving clients who may be very well aware that they have hepatitis C. They could have been diagnosed five, ten, fifteen years ago. But the available treatments were pretty horrible. They were a year long. They involved injections. They involved interferon, which essentially you feel like you have the flu for a year. A lot of side effects. And so a lot of individuals, you know, know that they have hepatitis C are not interested in care because what they know is that the previous treatments were horrible, and either they were on them and didn't achieve a cure or have heard what that experience is like. So it really has been a revolution in the treatment space because the new drugs are much better tolerated, they are much safer, particularly for individuals who might have hepatitis -- I am sorry -- HIV coinfection or other serious comorbidities. Treatment durations for some people can be as short as two months, which is really impressive and has significant implications for adherence and ultimately achieving cure.

The big, you know, con to that is that the treatments are very expensive. They are cost-effective, that has been demonstrated in a variety of studies, but they are expensive, and so for payers and states who understand and negotiate how to regulate and provide access to patients, really, that remains as a final hurdle in terms of access to care. So we've got treatments that are working well. They are much safer and better tolerated. But currently, treatment rates are actually quite low, and if you look specifically at individuals who inject drugs who have chronic HCV infection, the treatment rates are actually quite low.

In the population, like people who -- persons who inject drugs, HCV treatment really, you know, can be followed up with preventive strategy. You can reduce the viral load in the injection community, if you will, by reducing the number of infected carriers, which will then, you know, indirectly increase the efficiency and effectiveness of programs. So really addressing treatment, even among a population that is heavily stigmatized at high risk for reinfection, there certainly are benefits for kind of larger prevention efforts. But keeping in mind, particularly within the population, treatment alone is not going to be sufficient, so we also need to keep an eye to prevention strategies, expanding those where needed and coupling them with treatment approaches.

I just want to speak quickly about some of the barriers. They are quite similar to some of the barriers for hepatitis B. Certainly, awareness among populations at risk. The CDC and others have done a tremendous amount of work to increase awareness among the baby boomer cohort, which will identify a large number of those infected with hepatitis C, but they are not the only ones. There are other populations that are at increased risk -- African Americans, people who inject drugs -- there are a lot of groups that are not captured by those activities. So increased awareness remains a need. And again, ensuring that providers are aware of what the new strategies and approaches are and that hepatitis C can be cured is something that still needs some work overall. Identifying who the target for screening activities can be a barrier, and again, if you have people with a chronic disease that's largely asymptomatic and possibly comorbid, someone with substance abuse or HIV infection, prioritizing hepatitis C may be very difficult to do but can be very necessary.

Concomitant risk behaviors. There's been a lot of discussion in the policy space in the last couple of years around providing hepatitis C treatment to those people who are currently abusing substances or currently drinking, and understanding how (Inaudible) understanding when abstinence is

or is not required can be a difficult challenge but a necessary one to undertake when trying to screen people and ultimately link those who are infected into care.

Again, the need for confirmatory testing has its own challenges. In some instances it requires two visits for two different samples to be taken. There are quite a few sites I know that are implementing reflection testing, so it doesn't require a second sample to be taken. So there are some opportunities to really make that a more efficient process, but it does remain a barrier.

As I mentioned, perceptions of hepatitis C treatment, many of which are carryover of previously available treatments, but do have a significant impact on those, particularly for individuals who have already undergone treatment and did not get cured the first time or the second time, quite frankly.

And then the access to treatment, which will, I think, continue to be a challenge over the coming months and years as the different states work through their Medicaid expansions and getting drugs onto the formulary and understanding from a clinical perspective what the requirements are for treatment and merging those with the kind of policy and cost-effectiveness information.

I will say that it's important to note, if you look at the hepatitis B management guidelines, with the exception of individuals who have a very short life expectancy -- I believe it's one year or less -- no one -- everyone with hepatitis C is eligible for treatment. And so as different policies come into play and restrictions and, you know, thoughts about individuals need to abstain from alcohol or, you know, those different types of things that I think you all are probably experiencing and hearing about, from an evidence-based guidelines perspective, those do not hold much weight. And so this access to treatment is going to be a big and important one for us to get over collectively so that we are not just screening a lot of people but then leaving them hung out to dry because we can't get them the treatment that they need.

Just briefly, I just wanted to talk about the more recent epidemic of hepatitis C among young persons who inject drugs. I think we've probably all heard a little bit about the uptick of hepatitis C and HIV among mostly young nonurban white individuals, and you can see that there's a marked increase from 2006 to 2012 in hepatitis C infections, and urban is the dark blue, so there is an increase as well, but the more significant increase is happening in these nonurban populations. So from a management perspective and from an epidemiological perspective, you know, there are some specific nuances and contexts within these populations that need to be considered. We are talking

about adjusting where these epidemics are emerging right now.

Just quickly, before we go to group discussion, I just wanted to highlight again that for individuals who are coinfecting with HIV and hepatitis C, and recall that individuals who inject drugs, about 80% of those infected with HIV are also infected with hepatitis C, so this could be a significant portion of some populations.

HCV coinfection is a leading cause of morbidity and mortality. And these individuals, they tend to see an increase hepatitis C viral load as well as a more rapid progression of their liver disease. They have a threefold increase in risk of developing liver disease, liver failure, or liver-related death and increase chance of sexually transmitting hepatitis C. And the other piece that's not on here but is important to note is that a lot of the older ages for hepatitis C have had significant interactions with antiretroviral therapy agents, and that is less the case for some of the newer agents. So again, a common barrier that was not well supported by the evidence but that we certainly heard about is that treatment would be withheld because it would interact negatively with HIV treatment. So we are at a stage now where those interactions have been minimized to some degree and then treatment of HIV-positive individuals for hepatitis C is really not contra indicated in as many cases as it used to be.

I want to be mindful. We got a little bit of a late start, and we have about ten minutes left in this breakout session. Again, I would like to open the floor for questions first, if anybody had a comment or needed clarification.

So I just wanted to ask few questions as we wrap up, and I think it would be interesting to hear some of the work and efforts you all have been doing particularly around hepatitis C.

One of the things we hear a lot about is the stigmatization of hepatitis C, both among center staff and the need for training on that, but also around your clients. So we are curious to know if any of you are addressing stigma specifically and how those efforts have unfolded, if they've been successful, if you have any unique strategies that you'd like to share with the group.

Nothing around stigma? Okay.

Another question -- and I guess I should ask is anyone on the line currently providing hepatitis C treatment, or are you referring individuals out for care?

>> This is Leora, East Bay Community Recovery Project. As I mentioned before, we refer our clients on intake once they have been tested to the nurse practitioner, and then she will do the care for them. In other words, she does all the lab work and starts the care with the client as well. So it really makes

it for integrative care because everything is under one roof. They have their counselor, mental health services, they see the nurse practitioner. She does the confirmatory, which has been a challenge for me to get clients to come in to the confirmatory, but when I make an appointment with them to see the nurse practitioner, she does that, that's the first thing that she does, so that makes it seamless, and it's a really easy way to get it done.

Then she will continue the care based on what she feels they need after running their viral load and looking at progression of the disease.

>> JHILYA MAYAS: Okay. Great. Thank you.

Is anybody else providing hepatitis C care on-site?

>> Yes, this is Jonathan from PRCC. We have a similar model where we identify clients who are positive. We refer them to Norwegian American Hospital, our partner org, where we have a physician who does all the benchmark and will move forward from there.

>> JHILYA MAYAS: Okay. Thank you.

So I'd like to go back quickly, because I think the confirmatory testing comes up quite often as a challenge. Has anyone developed or implemented any strategies to increase the rate of reflex testing among those who have tested positive for hepatitis C antibodies? Or are you using reflex testing to overcome that? I am curious to know what you have been doing.

>> Sorry. Can you restate the question?

>> JHILYA MAYAS: Sure. I was just asking about any strategies used to increase the rate of confirmatory testing.

>> You know, I have found that the difficult piece, especially if the client does not -- they want to stay with their own medical care and they don't want to be entered with our nurse practitioner. So one of the things we have done is we've found a way to speak to their primary to see if they can do the confirmatory. Because many of the clients want to retain their own primary healthcare. So that has been one way to get around it. But the confirmatory has been a tough one. Many of the testers that we have doing it in outreach, many of the people they test are homeless, and it's been a real challenge for them to get the clients to come in for a confirmatory.

>> JHILYA MAYAS: Sure. That makes sense.

>> This is Jonathan again.

You know, we have been pretty fortunate with the clients we've had that have expressed a lot of interest to come in to do the confirmatory with us. We have run into some issues with insurance similar to the last speak, just understanding how -- or how someone's going to get billed, possibly having to have them switch providers, I mean, the primary care provider. We

are working with one client right now, getting him switched over to our system so we can go ahead and have him under our program.

>> JHILYA MAYAS: Okay.

>> I just had a question. When we do the RHHT form, we are to continue that process and then actually send in the response and the confirmatory and also if they're tested for hep B. I am just wondering if others are running into a challenge with completing that process because of that.

>> JHILYA MAYAS: Sounds like maybe not.

>> Okay.

>> JHILYA MAYAS: Does anybody else have --

>> Was that question directed to me?

>> No, the question was the completion of the RHHT form for your clients. Continuing the process once you've done the initial testing and they've tested positive, we are to continue to submit that particular form as we link them to care, and I am just wondering if anyone else is having challenge in that process.

>> I haven't had any issues with that.

>> I think in continuing (Inaudible) the only case where I think we did have a problem in keeping the client engaged was really to get the client to go into -- go in for treatment, but it was more because he's homeless, and you know, in and out of a shelter. So those were the barriers in him getting no care. It wasn't -- you know, it wasn't any personal stigma around hepatitis or not wanting to get treatment. It was the fact that he didn't have -- he didn't have individual stability.

>> Thank you.

>> JHILYA MAYAS: Thank you. Okay. So just in the last minute or two, I just want to -- everyone received the slides, which is good. There are quite a few tools in the back of the presentation that were developed. Some of them is HHS agencies, others are from different organizations that have designed viral hepatitis strategies. Very quickly through, the Office of HIV/AIDS and Infectious Disease Policy has released a Viral Hepatitis Action Plan that was updated in 2014, shown here on the slide and available online. There are resources and strategies included to help inform viral hepatitis efforts.

There's a Stakeholder Workbook associated with that plan that specifically is designed to support activities by a lot of different partners related to viral hepatitis. I encourage you to look at those as well.

Again, there's some links for additional resources, fact sheets, resources to use with your clients, different guideline recommendations, some of which are state specific, but certainly may have applicability in terms of process.

And then some national organizations that have ongoing

advocacy information and resources that are available, as well as some events that might be available to you. So with that, I want to thank everybody for your attention as well as your patience as we had some technical hiccups at the beginning of the section. I encourage everyone to rejoin the session tomorrow. It starts again at 1:00 Eastern, 10:00 Pacific, 10:00 a.m. Pacific, and unless there are any final questions, I hope everybody has a wonderful afternoon.

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