

## **WEBINAR VIDEO TRANSCRIPT**

Partnership for Care HIV TAC

### **Routine HIV Testing Community of Practice, Session #2**

10 March 2016

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STEVE LUCKABAUGH: Good afternoon. My name is Steve Luckabaugh and I'd like to welcome you to the "Routine HIV Testing Community of Practice, Session Number 2" webinar. This webinar is brought you by the Partnerships for Care, HIV Training, Technical Assistance, and Collaboration Center, or HIV TAC. The Partnerships for Care project is a three-year multi-agency project funded by the Secretary's Minority AIDS Initiative Fund and the Affordable Care Act.

The goals of the project are to one, expand provision of HIV testing, prevention, care, and treatment in health centers serving communities highly impacted by HIV; two, to build sustainable partnerships between health centers and their State health department; and three, improve health outcomes among people living with HIV, especially among racial and ethnic minorities. The project is supported by the HIV Training, Technical Systems, and Collaboration Center, or HIV TAC.

At this point, I will turn things over to Victor Ramirez at MayaTech. Victor.

VICTOR RAMIREZ: Thank you very much, Steve. I'd like to welcome everybody to our community of practice in routine HIV testing today. Thank you again to the Denver Prevention Training Center for being the lead faculty. Just a reminder, this community of practice encompasses four sessions. The first one occurred last month in February 11, the one today, and then two upcoming sessions on April 14 and May 5. Now, all these communities of practice are being recorded and they can be accessed at the P4C website.

I'd also like to use this opportunity to invite everybody to our new community of practice that will be beginning on March 22 on the electronic medical records. This information has been transmitted through the P4C Listserv so you should have received some information about it. And again, just to invite you to come and attend or to forward the information to staff in your health center who might be interested in this topic.

And before I turn everything over to Dr. Karen Wendel from the Denver Prevention Training Center, I would like to add that the Denver Prevention Training Center would appreciate 1 to 2 minutes of your time to complete a registration form for this series that they are leading as leading faculty. So please, whenever you get a chance, either after this webinar, please go and visit this website and complete the registration. Again, this is a very short form. The information

will be very useful for Denver Prevention Training Center to be able to develop content for the third and fourth sessions of this series.

All right. So without further delay, I'd like to pass it back to Steve.

STEVE LUCKABAUGH: OK. Thank you, Victor. Our first speaker today is Dr. Karen Wendel. Dr. Wendel is the director of HIV STD Prevention and Control at Denver Public Health and assistant professor of medicine at the University of Colorado Health Science Center Division of Infectious Diseases. She received her medical degree at Johns Hopkins School of Medicine and completed internal medicine training and infectious disease fellowship at Johns Hopkins Hospital in Baltimore. She has been involved in HIV and STD clinical care and research while at faculty at Johns Hopkins School of Medicine, Oklahoma Health Science Center, and the University of Colorado Health Science Center.

While in Baltimore, she served as the director of early intervention initiative for HIV care in the Baltimore City Health Department STD clinics and while in Oklahoma, served as the medical director for the Oklahoma City-County Health Department STD clinic. In addition to her academic and public health experience, Dr. Wendel has worked for several years in private practice in the area of infectious diseases. Please join me in welcoming Dr. Wendel.

DR. KAREN WENDEL: Thank you, Steve. So this is Karen Wendel from the Denver Prevention Training Center. The Denver Prevention Training Center has been funded for over three decades to provide training, technical assistance, and consultation to clinical providers nationally at no cost on HIV and STI prevention and care. You can visit us at the [denverptc.org](http://denverptc.org).

We're very excited to be here today in partnership with MayaTech to discuss HIV testing technology. Our objectives today are to describe the evolution of HIV testing from first generation to our current antigen and antibody tests, to review the time from HIV infection to positive testing by methods that we use, and review the CDC HIV testing algorithm and the rationale for it. We'll discuss limitations of the fourth generation point of Care HIV testing that is available currently and if we have time, we'll discuss two cases.

The evolution of HIV testing began with first generation tests that were done with whole viral lysate detecting IgG antibodies in the patient. Second generation testing used synthetic peptides and sort of very minimally narrowed the window of detection of HIV infection, again, only detecting IgG antibodies. As clinicians, I think we're all aware that IgM antibody is the first to become detectable and then it's followed by the development of IgG and therefore third generation tests really took advantage of that using synthetic peptides, detecting IgM and IgG and closing down the window fairly significantly.

And finally the current state of art is the use of not only IgM and IgG detection, but the use of detection of p24 antigen of HIV 1, which allows for very early detection and detection in the acute infection window. This slide just gives you an idea of the FDA approved tests that have been available in the United States to detect HIV and progressing through first generation,

second generation, third generation, fourth. Many are wanting to move away from the generation designation because it can be somewhat confusing and there can be some overlap. And currently what we really are focusing on is naming the test more by what it is looking at. So what we're calling fourth-generation tests are really tests that are looking at that p24 antigen and also able to detect HIV IgM and IgG responses in the clients.

You can see that many of the third-generation manufacturers like Bio-Rad, Siemens, and Centaur also have fourth-generation products and likely will phase out these third generation tests. I want to draw your attention to that salmon-colored row and these are really tests that are point of care, CLIA waived tests and you can see there's a fair array of these, but only one in the fourth generation column, which is the Alere Determined Combo antigen antibody test. In addition, we have two tests that sort of cross between a descriptions of second and third generation. These are the NC HIV 1 and 2 and the UniGold. So it is marketed currently as a third-generation test. It is felt to function primarily more on a second generation time to detection standard.

Finally, when we're talking about HIV infection and especially acute infection, we may have to use nucleic acid amplification tests to really determine if a patient is infected and these tests come both as qualitative and quantitative tests. The use of these tests for HIV diagnosis is off label, but as I stated, they are used in an acute infection window that has now been considerably resolved by the presence of the p24 antigen.

This diagram shows you what I'm talking about here. I want to draw your attention to this and go through each of the elements of the diagram. First of all, just to go over the x-axis, the point 0 is the time of infection in the patient and all the time points along that x-axis are days from that initial infection. You can see that the first thing to be detectable is HIV RNA and that has a very dramatic rise and then comes down to what we refer to as the set point and this set point is where patients can live sort of in the absence of therapy for many years before they progress on into AIDS and more complicated HIV disease.

The next biomarker to rise is the HIV p24 antigen, which has a fairly short window. You can see that it's starting to shoot up around day 17, but has come down to near 0 by day 45. And then finally, you can see antibody responses. So that first till that you see in that antibody response is primarily that IgM response and then you see the slow and steady increased response in IgG.

So on the bottom part of this slide, you can see where the first generation test is able to detect and it's notable that it is only around day 55 that it's able to pick up signals for IgG. Second generation tests, when they incorporate synthetic peptides, narrows that window slightly to around 45 days. And then the third generation tests, when we incorporate that IgM detection, we're coming down to about a three-week window, the fourth generation test going down to about a 17-day window in general and the nucleic acid amplification test is and remains the most sensitive for picking up infection in the acute window and is able to pick up virus starting around 10 days after infection. That period between 0 to 10 days is known as the eclipse period

where we have no diagnostics that could determine if the patient has sustained an HIV infection.

This is the CDC algorithm for HIV testing and you can see that the CDC has incorporated the fourth generation testing meaning the antigen antibody combination immunoassay and the first recommended test. And when we look at this diagram, it's important to note this is a lab based antigen antibody combinations immunoassay. If that test is negative, you're done. Your patient does not have HIV by this diagnostic. If it's positive, these lab-based tests pick up p24 IgM and IgG but do not differentiate between those. So moving on to the HIV 1, HIV 2 antibody differentiation immunoassay, lets us know do we have HIV 1, HIV 2 or do we have an indeterminate are negative test.

If the test-- and you can see this on the right-hand side of your slide-- is indeterminate or negative, then you question whether this is a positive p24 case. In which case to confirm this diagnosis, you would need the use of the nucleic acid amplification test. And so you can see that the branch here goes to a positive nucleic acid amplification test which showed acute HIV infection or a negative test suggesting there is no presence of HIV 1.

But why has the CDC moved to the fourth generation? Certainly the graph was very impressive, but we have multiple studies that have demonstrated the potential power of these fourth generation tests, here has only shown us one significant study done by Pandori et al in Journal of Clinical Microbiology in 2009. They looked at 64 well-characterized specimens from recently infected individuals. Of these, 35 samples were from patients who had HIV RNA positive, but on third generation testing were negative, so representing a very acute infection population.

They took these samples and ran it against the architect antigen antibody combo tests, the fourth generation test and what they found is that the architect was able to pick up 25 of 35 of these acute infections, so 80% with this new testing modality, so certainly very encouraging. When they looked at all of the samples, all 64, and they were all from early infections, so the first six months, they compared different assays for us. And you can see that the percent detection of those early samples really ranged quite widely. So with the Western blot, only 12% identified. With the multi spot, which is our current HIV 1, HIV 2 differentiation assay, 28% that were identified, with the UniGoal 34% and with third generation immunoassay, 42% and then you can see how well this fourth generation test did at 89% detection of all of these early infections.

Well, why do we care so much? I think as clinicians, we all want to make the right diagnosis. We want to give our patients the right information. We don't want to tell them their HIV negative when they really truly have HIV infection, but more than that, we also want to protect those around them. And so when we inform a patient and their HIV status, certainly there's a potential to reduce risk behaviors and also to link them to care, which would entail the initiation of antiretroviral therapy, which we know can lower their HIV viral load.

What we know from data that's been presented is that 10% to 15% of all new HIV transmissions can be attributed to acute infections, especially in patients with multiple sex partners. So why is this the case? When we look at that natural curve, this is without treatment, what is the natural [? history ?] of the viral load in HIV infected patient. That's represented by that yellow line there and you can see that there's a very high, first peak in that HIV viral load, and as we discussed previously, then it comes down to a much lower set point.

So when you look at that, several studies have sort of looked at this and sort of come up with a potential risk of HIV transmission per coital act. So in acute HIV infection, the risk can be anywhere from 1 to 50 to 1 out of 250. But when it comes down to their set point, the rate can decrease significantly to per coital act down to 1 to 1,000, to up to 1 to 10,000. So much reduced risk with each sexual act of transmission of the HIV virus.

So I think I probably convinced you that this fourth generation test is important to institute, but what happened to our Western blot? Well, I think what's important to note here is that we've moved to the HIV 1, HIV 2 differentiation assay because it's faster than performing a Western blot. It's more reliable, the differentiating between HIV 1 and HIV 2, and it detects disease earlier in infection, therefore, sort of limiting that indeterminate type of result. Currently we're using the multi spot. Around December of 2016 it will, in most labs, switch to the Genius test.

I'd like to move on to fourth generation point-of-care testing because this can be somewhat confusing. As I stated there's only one test that's on the market currently and that's the Determine HIV 1 and 2 Antigen/Antibody Combo test. And unlike the lab-based test for fourth generation, it does separate out the p24 antigen from the antibody responses.

What you see over there is a cartoon of the test strip. The blood is placed on the left-hand side and through capillary flows are drawn up through that test strip. If the antibody is positive, it creates that first thin red line. If the antigen, p24, is positive, it creates the second thin line. And then all of the test strips you want to see the internal control line, the third thin red line become positive. And this test is resulted within 15 minutes and is very convenient, but how does it perform? Let's look at the next slide.

The package insert says it has a sensitivity of 99.9% on serum plasma and whole blood with the specificity of 99% percent to 100% with serum plasma and whole blood. In CDC studies on plasma collected during seroconversions, so again, these are acute infection patients. The Determine Combo detect an infection one to two weeks before other rapid tests and one to three days before a third generation laboratory test, so three to four days after the fourth generation laboratory test.

The key issue though is that there is very limited data on sensitivity of the rapid HIV test when used on whole blood specimens, which is the standard. Recently a systematic review is published by Lewis and colleagues in AIDS. This study looked at the news of the determination of HIV 1 and 2 Antigen/Antibody Test across four different studies looking at over 17,000 participants.

The study sites were in Australia, Swaziland, United Kingdom, and Malawi. They did a focus on looking at the p24 component in determining how it performs across the four studies. And across the studies, they had a total of 26 acute infections and all of them were missed by the [? lear ?] determinant. In addition, there were 35 positive results, they were all false positives. So the positive predictive value of the p24 component used on whole blood was 0%.

In addition, they looked at the antibody component. As we've stated, the fourth generation test not only have the benefit of 24 antigen, but they do have the IgM antibody component. So in one study, 0 out of 3 cases of acute HIV infection were detected by the antibody component of the test and in one study, 2 out of 8 cases of acute HIV infection were detected by that combined IgM, IgG antibody component, so 25%.

I think with these results, we can see why the use of these point-of-care tests have not been incorporated into the algorithm at present. And therefore, if you have a positive point-of-care test, the next step is the standard flow to the algorithm with the fourth generation lab-based test. The data are just insufficient to recommend the tests at this time as the initial assay in the laboratory algorithm.

So I'd like to go through some cases if we have time. They'll be fairly quick, but they're real cases and they sort of point out, I believe why these algorithms are important and why clinicians need to have them in mind. So here at Denver Health, we had presentation of a 35-year-old man with a positive point-of-care test in an outside site. This test was to determine a [? lear ?] combo test. From there the patient had been seen by their primary care provider who went straight from the Combo test to an HIV viral load and CD4 count.

The result of this test showed a viral load that was undetectable and CD4 count that was 350. The primary provider was then confused by the results and referred the patient to infectious disease for a consultation. So these are not polling questions, but I'd like you to think about these and then I'm going to tell you about what happened.

What do you tell this patient? It looks like you don't have HIV. The point-of-care test was wrong or B, we need to do more HIV testing to clarify your HIV status. C, I believe you have HIV based on your point-of-care HIV test and CD4 count. Let's repeat your viral load.

What do you order next? A repeat HIV viral load, a lab-based fourth generation HIV test, an HIV genotype, or a repeat HIV point-of-care test? Now, if you've been paying attention, you know the right answer. And the right answer is to get that fourth generation HIV test, follow the algorithm.

Why does the patient have such confusing results? Well, I'll give you a little more history. This patient is from West Africa and indeed with further testing it was determined that the patient had HIV 2. HIV 2 will not be picked up by the HIV 1 nucleic acid amplification test and therefore, only the algorithm will help you determine this and will diminish the erase of sort of confusing results that delay care and cause more concern and fear in the patient.

Case number 2. The result of patient testing showed an HIV 1/2 Antigen/Antibody Combo test that was positive. HIV 1, HIV 2 Antibody differentiation, immunoassay was negative. Therefore, following the algorithm, an HIV viral loads performed and showed a viral load of 345,000.

What's the diagnosis here? A false negative antibody differentiation immunoassay, acute HIV infection, or chronic HIV infection? Again, I think we went through this in the algorithm. This is the standard process for determining a patient who has acute HIV infection. And as we've seen, the antibody differentiation immunoassay, which is the second generation test will have a delay in its positivity and will be seen to be positive on repeat testing.

That's all I've got. And I'd like to open it up for any questions before we move on.

STEVE LUCKABAUGH: I'm not seeing any questions right now. Should we go ahead and move on? OK. Our second speaker today is Miss Andrea Brooks. Miss Brooks is currently the performance improvement manager at Broward Community and Family Health Centers Inc. in Hollywood, Florida and serves as the project lead for their P4C project.

She has over 15 years of experience in program development and administration, monitoring and evaluation, and grant management and previously worked as an HIV program manager with health care for the homeless, FHQC, in Miami, Florida for over four years. She is also a fellow of the CDC's Institute for HIV Prevention Leadership and NCQA patient-centered medical home certified content expert and has extensive experience as a health educator and capacity-building trainer. Please join me in welcoming Miss Brooks.

ANDREA BROOKS: Hi. Good afternoon. I'm definitely excited to be a part of this presentation and Dr. Wendel definitely opened up one of the questions that we at Broward Community Family Health Center had to have. So this afternoon we're just going to go ahead and talk to you guys a little bit about how we went ahead and decided to implement routine HIV testing at our site.

So some of the key topics that I would like to discuss will just give you an overview of our community health center and talk about how we went about integrating with HIV testing at our site. But most importantly, we want to spend most of my talking about how we went about selecting our testing technology from the list that Dr. Wendel provided as well and then give you a couple of next steps as to where we are with the regards to sustaining our program here.

So Broward Community Family Health Center, we were established in 1998 in Broward County, Florida. Our mission is to provide acceptable, comprehensive, high-quality primary health care services to people with a level of dignity and respect. We basically operate four primary care centers. We're getting ready to open a dental center in May, so we're excited about that. We have about 88 employees and this seem to continue to grow and our 47% federally funded.

So our patient population in 2015, we served approximately 8,416 patients. We serve the variety of patients. They're distributed-- race, primarily black, African American. With regard to

ethnicity, we have a large Hispanic population here in South Florida and the patients that we serve represent that as well. Amongst our patients that we serve, we had a total of 327 HIV positive individuals that we served during the last year.

So for us integrating routine HIV testing. So one of things with our community health center, again, we've been around for quite a while. We've always provided services for the HIV population. We're Ryan White funded, but we have not done repeat HIV testing. Up until this point with the implementation of the P4C project, we had been doing risk-based testing, so patients either that are provider identified had been engaging in some type of avarice behavior or people who came in and just requested a test because they knew that we were a registered testing site.

And so for that, when we decided we wanted to join the Partnership for Care's project, we knew that we needed to look at routine testing. We knew it was something that we wanted to do and how would we do it. So basically our first step was to identify who would we test and who would we look to to provide routine testing and we basically went off at the CDC recommendation. So all of our new health [? inter-patients ?] that fell within the age range would be test. Anyone who didn't have any documented HIV test.

So when we look in their history, see whether or not they had been tested, if they hadn't and we'd go ahead and offer them a test. Again, we're also not just looking at the age, those who had increased risk for HIV, we would definitely go ahead and test it at least once. If they had risk, we want to test them over. We definitely recommend that. And of course, all pregnant women with unknown HIV status, we would test them both during their first trimesters. If they entered care later than that, then would again test them as soon as they entered care and of course, they could test again during the third trimester.

So this diagram, pretty busy, but I just wanted to give you an idea of what that workflow looks for us so when we have patients who-- we are going to introduce routine testing to, how does it happen. So basically what this outlines is, we identify the patients that we're going to test, that risk information, it's still collected. And so we know that although we're not testing them just based off of risk, we still want to make sure that we're collecting this information so we know if they need to have or be referred to any other HIV prevention, high-impact prevention modalities.

So then the provider is the one who provides an education about HIV. The medical assistant that's in, they may offer them some education or may not, but we definitely want to make sure that that conversation is happening with the providers because we think the patient will respond a little bit differently when the providers are having the discussion. And then we decide when we're going to do routine testing. We're going to do a blood-based test and we would have that blood-based test happen along with any another labs that the patients were asked to complete.



So our lab-based test, we were trying to decide for routine testing whether or not we wanted to do a lab-based test or rapid test. So I already alluded to the fact that we chose to go with lab based, but these were some of the things we had to pay attention to. We weight the pros and the cons. So for lab-based testing, again, we felt that the patients were more acceptable to a lab-based test if it was introduced by their provider. Would you want me to take another test? Why?

The providers can have a different answer to that conversation and so that seems to work for us. We, again, felt it was easier to include with other labs. We knew this was the recommendation of CDC. We looked at the different generations of tests. We decided to go with the fourth generation tests that Dr. Wendel referenced and we knew that there would necessarily be an additional test that was needed before we could link the patients to care versus with the Rapid test, that will be something we knew we would have to do confirmatory test with.

Some of the cons of the lab based test, we were concerned about the fact that we might potentially lose some of our patients to care, that they just wouldn't return for that lab visit. So for most of you, if you worked in a clinic, you know, at least in our clinic, one of the things that we do, some of the labs that they do have to be fasting labs depending on the time that they have to do that lab, the time of their visit. They may have to come back to the lab. The lab may not be done on the same day, but one of the things that we were thinking about when we made this decision was, do we do that blood-based test the same day or would we offer it when they came back for the regular labs.

Again, we were also concerned about late entry at the care for patients who are HIV positive. One, with the lab-based test, we that, again, we were waiting for the patients to come back for another appointment. At that next appointment is when we would get them their results as well as link them to care.

We were concerned about the increased lab cost for our uninsured patients and we were, of course, doing more lab-based testing also as additional organization of cost with regard to the processing, the supplies, x, y, and z, so some things to take into consideration. When we looked at the rapid testing, Broward Community Center is a State-funded testing site and so we actually get our test kits free of charge from the Department of Health.

We knew patients were still coming in. There were some people who come in just generally off the street and want to take an HIV test and they prefer to have a rapid test. They're not there as a patient. They're not there to initiate services. They just want to find out what the HIV status is for whatever their reason.

So we knew that that was a pro of their offering the rapid test and we can give them the same-day results. So again, for the most part, knowing that we'd have to do confirmatory tests, but they'd still be able to walk out there with some type of results the same day that they walked in. Some of the cons that we have to consider when rapid testing are the fact that we would

have to do additional documentation. Again, because we're a testing site, we have to do additional documentation to provide that to our local health department.

If we increase the number of tests that we did, that just means a whole lot more paperwork, something that our staff weren't most excited about especially since we transitioned to an electronic health record system. We also knew that there would have to be additional training that was required for our testers. Part of that is because they have to be trained through our local department of health. Those trainings have to happen before they can even begin initiating testing services and so we were little concerned about the delay in our ability to do that.

So in the end, we decided to go ahead with lab-based testing. So for us, we decided to, for our routine testing, it would be based off of a lab, a blood-based test. Again, the test would be conducted by the MA along with other labs. We were happy to know that the lab costs for most of our insured patients, we were able to bill it through their insurance. We had a couple of insurances that we had to negotiate that, have that conversation to make sure that that would be a covered test.

Also for the most part, it was already covered so that it didn't require too much negotiation. And we were able to negotiate with regards to our P4C grants, so then it would cover the cost of labs for any of our uninsured or self-paid patients. But we decided we didn't want to let go of Rapid testing totally, so we were also continuing to do Rapid testing for community members or non-patients, basically those people who are coming in, they may have been identified or identify us as a testing site through an outreach event, through a recommendation from somebody else, someone who previously came there.

Let them know, hey, you can come and you can get the test done at no cost you. You don't have to become a patient at that center, but this is a way that you can definitely become aware of your status. And again, because the testing kits are provided by our State Department of Health, that definitely gave us even some more incentive to continue offering that service and program.

So with us implementing routine testing, we knew that additional training would be needed, both for the introduction of labs or blood-based tests as well as for the continuation of our routine testing. So one of the things that we needed to do, we had to provide additional education. Just around HIV education to our general staff, we have some staff here who were previously certified to do the HIV education. But now because more people will be involved in the process, we wanted to make sure that everyone had a basic [? novice ?] set and could provide and answer to some of the questions that might come to patients they didn't want to ask in front of their providers.

We also did some additional training around just the routine testing workflow. What would it look like, what should you do if a patient comes in here. They need to be tested. If one of our

patient care coordinators identify that the patient has not been tested, then what should the next steps look like. How do we follow that process? What does it look like?

So our rapid testing staff, we identify which staff amongst our organizations, do we want to make sure could continue to provide rapid testing. So again, we have four sites. The majority of staff that were certified to do testing were located at one of our sites and that's would provide the majority of HIV care, coincidentally. But we decided that we wanted to make sure we staff at each of our sites who could still offer rapid testing.

So we decided that all of our outreach staff would get the testing to become a certified counselor, all of our medical assistants, and all of our staff nurses. So those three groups of people, we would have at least three people at each site who could offer and conduct rapid testing as needed. As part of their training, they have to do a local training, basic education, and counseling and education training with our local health department. They have to do the CLEAR Complete Training. Again, all of these trainings are offered through our local health department and that's an annual updating. We want to make sure that as things change, as testing technologies change, as medication for those who are positive change, that those staff who are educating our patients about it are also educated, and also knew of the greatest breakthroughs.

The rest of the side is that we wanted to make sure that our PCPs, our public care providers, they needed to have some additional basic HIV care training. We've had a little provider pushback or hesitation and so had to get some guidance from them but once we started doing the education, giving them access to additional trainings, definitely all the P4C webinars, all the trainings that were offered by the TAC, our primary care providers were encouraged to attend, participate in, and ask questions. We definitely started to get the feedback that we needed and so those training opportunities definitely seemed to be beneficial for us.

So what was the addition support that we needed? In order for us to successfully implement routine testing, we had to expand our EHR system in order for it to allow us to really document everything that we needed. We know we wanted to not just track. I can track the patients who are tested according just to the testing technology, the same with our regular labs, we can track it. It shows up in the electronic health record. But we also wanted to make sure we were tracking those patients who were declining.

So at some point in time, at least it's my goal somewhere before the end of that project, to really be able to do some type of focus group with those, decliners, potentially, and try to get somebody as to why they declined the test. Was there hesitation? Did they not know enough? And what might be a reason or something that we could do, say, provide that would help increase their compliance with routine testing.

We also have to update our system in order to reflect the different testing technologies. So Dr. Wendel referenced there has been multiple different generations of tests. Our electronic health record system still reference Western blot because when we first started it and that was [? accepting ?] the lab that was used and it referenced [INAUDIBLE]. So that text sort of automatic

popped up when you clicked on the link and we needed to make sure that we updated it once so that it reflected our most recent testing types and to make sure that if we needed to select something different, then we have the ability to do it versus that text being automated text.

So also, again, like we said, we had to update our workflow process. What does it look like? How do our patients get routed through. They're [INAUDIBLE] differently now that we're introducing something that requires more education, a little bit more time during the visit, how to make sure that the workflow is conducive to that, and we made sure that we established standing orders for our HIV positive patients.

So again, because HIV services had primarily been happening at one site, the testing had primarily been happening on one site, those staff seem to know what needed to happen next when we had HIV positive patients. But now that we're extending routine testing to all over our sites, he wanted to make sure that we have standing orders so no matter a patient was seen, whether they were one of our HIV-specific providers or another provider, everyone knew what that set of labs needed to be for any of our patients who were being introduced into care.

The other thing that we needed to do was to revise our data collection forms. So basically, again, we wanted to make sure that we were still collecting the risk information, with rapid testing, that information was collected on a paper form and transitioned to routine testing. All of that documented in our EHR system, but it didn't necessarily allow us to collect the risk information in the way that we wanted to see it. So that was something that we had to change, the forms, the way that the patients fill out when they first register and then make sure that there was a way in the system for that also to be tracked.

So what has happened since we've implemented routine testing. We've done a little over 2,000 routine tests during the last year, average about 170 tests per month. So you see if you look at the graph that March was the greatest. We had the highest number testing at any particular month and that was right after we did a organization-wide training, one of our all-staff meetings in February. Talked about it, asked a lot of questions, our information session, probably lasted the longest out of all of the previously events that happened that day. Well, that was great for me because what that meant was that there were other people in the organization who were interested, who wanted to have a conversation, who wanted to know what they needed to do, and the next month's testing showed it.

Now, we're working. Of course, we've had some dips, priorities switching, different things happening, but one of the things that we do, we meet on a monthly basis and then we provide an update to the staff overall every three months to make sure that we're continuing to remember that this is one of our processes. It's a routine process, so let's not forget it.

From the 35% of the patients who should have a test were actually tested. Unfortunately, that means 65% didn't, but that was definitely of growth and increase from where we were before we started routing testing. We feel like we came far during our first year, but we definitely have a distance to go.

But just a quick tidbit, one of the things that routine testing, when we looked at the definition of routine testing, it was really that the test is happening on the same day as the medical visit. But again, our center as we talked about, we wanted to do the test as a part of their labs because we have patients who had to do other labs, fasting labs and had to come back for a separate lab-only visit. We felt that that was still a part of routine testing and wanted to include it.

And that's another reason why I showed the two separate because we found that of those two were tested, about half of those who were tested, the test actually happened the same day of the visit. So that means they were supposed to have their visit, labs done same day, no problem. But the other half of them, they had to come back for lab-only visits and have that done. But the fact that the conversation around the routine tests, the order for the tests happened during the medical visit, we were still able to include that as part of our routine testing process and talk about those numbers as part of what we've done and the [INAUDIBLE] routine testing.

So where are we going? Again, we've come far, but we've still got a long journey to go and of course, I'm reaching for the stars. So one of the things that we are working to do is really to increase compliance with the testing workflow across our sites. So I found that we have, actually, there were two of our sites that are working very well. When we go to the sites, they go to the site meetings, they give excellent feedback around process, We've actually got a lot of input back on our patient satisfaction surveys just around the fact that we're offering the testing. Patients seem to be happy about it. But we know we have some more work to do.

What's happening in that workflow process? They would wind up missing these patients that should be tested and they're not even declining it or if they are declining it, the decline is not showing up in the system, so it still looks as if we've missed them. So that's something that we're working to increase compliance with.

Also definitely sustainability planning specific to the lab costs for our uninsured patients. A huge portion of our population is self-pay or uninsured. Right now the cost rate is covered by our grant. So when this grant funding ends, as all of us know, what we do?

We know that it's valuable service. That's why we've invested as much time as we have. That's why we've invested even organization of funds that aren't necessarily grant funds in order to make this program what it is, but we know we need to make sure that we are building the foundation. We're looking ahead. We have a little bit more than 18 months left of the P4C funding. We want to make sure that we've done what we need to do in order to make sure that we've introduce something great and we don't have to stop it because of a lack of funding.

And last but not least, we definitely want to not forget our high-risk negatives. We know we continue to have individuals, especially in HIV care, here in the HIV world period. Patients are going to continue to engage in high-risk behaviors. So when we come across those patients, just

because we've tested them, we know what their status is right now, it's negative, what do we do to make sure that they continued to remain negative?

What other high-impact prevention, modalities, evidence-based intervention can we do at our center in order to increase that, increase those services, link them to other services throughout our community. What's that going to look like? So those are the discussions that we're having and looking forward to continuing to have.

So basically that's it. That's what we do in Broward. South Florida has been great to us. We've got a lot of support from just the overall P4C project. Our project officer has been great answering a lot of our questions, giving us direction in the areas that we needed and I'm excited to be a part of the program.

STEVE LUCKABAUGH: OK. Thank you. We have a few moments here. We could take some questions. If you have any questions, please enter them into the Questions pane on the Go To Webinar toolbar. We did have a couple that came in.

How much time do your providers spend with scheduled patients?

ANDREA BROOKS: Is this question specific to our HIV test patients?

STEVE LUCKABAUGH: Yes, I'm assuming that. Yes.

ANDREA BROOKS: Sure. So if we look at it on our schedule, typically, our established patients, we have established different codes for our patients who are coming in that are HIV positive. And typically, those established patients' [? box ?] are 15 minutes. They have a flexibility to stretch them as needed. The providers usually spend at least that amount of time with them. We have patients who need to be tested, so our new patients' class is 30 minutes if we patients who need to be tested, the requirement for more education happens. They have the flexibility to extend that visit as needed, but we typically have a the slots allocated for either 15 to 30 minutes and they have the ability to extend it as needed.

STEVE LUCKABAUGH: Are you providing once-in-a-lifetime testing or annual routine testing?

ANDREA BROOKS: So as of right now, we are doing once-in-a-lifetime testing. We want to make sure that everyone was tested at least once. However, if they identify any risk, then we recommend either retesting in three to six months or annual testing, depending on what the risk is.

STEVE LUCKABAUGH: And are you targeting specific visit types like physicals or are you testing during any visit type?

ANDREA BROOKS: We are testing during any visit type. So we don't code separately. We don't have a separate visit type, specifically for physical issues. We have Established or New. I think

we have Pre-op. We have specific ones that they're coming. If there are established spaces that are coming for follow-up visit, either OB or AW care team. But for the majority, any patient who's coming in, if they don't have a documented test in the system, then those are the patients we're targeting for tests.

STEVE LUCKABAUGH: And now someone asked, what's the process for giving results.

ANDREA BROOKS: So our providers are the ones who give back the test results for our blood-based tests. Typically, we get the results back within a couple of days. I don't think it's ever been more than five days when we've had a positive. There have been more than five days and the providers get the labs electronically. Once they see the labs, they have to review it. If it's positive, they automatically test. We have a patient care coordinator who's a part of the AW care team and she's the one who works to coordinate HIV care for all of our positives.

So he'll typically task her, again, all of this is electronic, asking her to have the patient recalled, pulled back in for an earlier appointment. But typically, if they've had any lab visits, their lab visit is scheduled and they're automatically scheduled for a follow-up visit within two weeks of that lab. If it's a positive test result, the provider [INAUDIBLE] request that they come in sooner than the two weeks, as soon as we can get the patients in.

Again, for the negative test results, it's just getting back at the next visit and typically, those visits are two weeks after the lab has been completed.

STEVE LUCKABAUGH: Another person asked, will the slides be available and you can download those right now in the Handout section on your Go To Webinar toolbar. There's a couple of handouts and the slides as well in PDF format.

Someone said congratulations. Great work. What percentage of your high-risk negatives follow up with the risk reduction counseling or interventions once referred?

ANDREA BROOKS: We have not been able to capture that. So that's one of the things that I'm working on with my EHR team and that was also part of our next step is to make sure one, we found maybe about six months into it. I just felt that people are coming in, they're not having a high risk, what's going on.

As we started digging more and more into our system, we realized that that's [? more ?] improperly documenting risk or they would enter risk as pre-test where when I run the report, it doesn't show up or it doesn't trigger anything. And so when the provider so it, they didn't see-- we basically had set the system up so that it's sort of send up alert there on the visit, indicated that this is a patient that might need to be referred. But because they weren't doing the documentation properly, they were capturing it, but weren't documenting it systematically.

So our EHR system, couldn't do the alerts that we needed. We weren't getting any referrals to risk-reduction intervention, so that's why our PI team sat down with our HIV care team and decided that we needed to be able to track it differently and update it at our EHR. So I wish I could answer that differently.

STEVE LUCKABAUGH: Another question is, do your patients have access to a patient web portal for their medical records and if so, are negative results populated on this portal?

ANDREA BROOKS: Yes. They have access to the portal. During this past year, that's another one of the part that this needs work on. We have about-- I'm trying to think. I know I just rendered a report last month. Up until that point, we had close to 1,800 of our patients, this was a little bit less than 20% of our patients are actually registered on the portal.

Negative results automatically go in there, positive results do not. That was one of the things that we set up in the system to make sure the positive results were not automatically showing up in the portal. We wanted to give the providers the opportunity to do really, the post [? health ?] counseling and make it to care and not be something that getting the result without all of the information. We wanted to make sure that we interceded that.

STEVE LUCKABAUGH: If anyone else has any questions, please enter them now.

ANDREA BROOKS: If I can just add one other thing, just I was thinking back to the high-impact prevention and the referral. So one of the things we have found that worked really great for us, we have a self-preservation program. I'm trying to think of one other good session, but I just can't remember off the top of my head. But one of the things we found is that we have HIV care team and they're about nine staff members that are a part of it, medical case managers, case managers, our care coordinators. We have [INAUDIBLE] at each site that are considered part of our HIV care team. One thing we have them do is to really talk about other services that are available.

And so what we found is that when other people to introduced the potential for, hey, did you know we have this; oh, you have some questions; have you ever thought about this; and the doing with a warm hand off has definitely helped with the referrals. So for instance, I know I'm thinking specifically of at least two patients that we had where the provider was seen what they sent. The patient expressed a lot of concern, things that were going on and the provider called one of the medical case managers to come in and did a real live hand off, of course followed up by the documentation.

But that warm hand off was one of the things we found, that patient has come back and although it had [? reintroduction ?] of counseling, not necessarily in a formal [? reintroduction ?] intervention when we've had some conversation-- I've had some conversation with her specifically and her-- I'm sorry. We're having a birthday celebration next door. When I spoke with her specifically, she said one of the best things was the fact that the provider brought the medical case manager in there with her at the same time. And so it made it easier for them to



answer the questions, for her to trust this new person versus someone just saying, hey, you were referred to me. I'm calling to follow up.

So that was definitely one of the recommendations for anyone who is looking to do, but I would definitely say to make sure that the team works with the team and there were warm hand offs whenever the referrals were being made.

STEVE LUCKABAUGH: Any comments about the partnership notification process in your State?

ANDREA BROOKS: Oh. Well, we have a pretty good, I would say, a very good relationship with our DIS specialist. He is on site. He comes every Wednesday [INAUDIBLE], works with our care coordination, helps with regard to patients who have [? lost ?] the care, with our new positives, with doing [? partner ?] notifications. So in all of the meeting that we've been having and then we have a monthly meeting with our department of health as well.

We have a case conference. It's never come up with an issue with [? regressive ?] partner notification. We really sort of leave that to the department [INAUDIBLE]. And again, one of the things that we work to do or care coordinating work to do is to make that warm hand off to DIS. even if we are letting patients know this is part of the process in the State of Florida. Someone is going to be contacting you. I could tell you who it is. If you want, we can even make the arrangement for that conversation of things to happen at our site.

I've been working very closely with our DIS specialist and we have one in Florida that's assigned specifically to our project, to our organization and he's been great and that's helped us not have any kickbacks, I guess.

STEVE LUCKABAUGH: Can you describe what testing during a non-medical encounter is?

ANDREA BROOKS: Basically, just means that's the date of their test. The date of the HIV tests conducted was not the same day as their medical visits. So let's say I had a medical visit today with my provider, but the other labs he wanted me to required me to be fasting, so I can't do all of the labs today.

And so this happened to patient with their labs. We could do some of them today, some of them the next time. We typically try to have our patients do all of them at the same day, so they schedule them to come back in two days or next week for lab-only visits. So if the HIV test was done during that lab-only visit where they're not having to interact with a PCP, then they would be considered a non-medical visit or non-medical encounter.

STEVE LUCKABAUGH: Does anyone have any more questions? I'd like to thank everyone for all the awesome questions. I'm not seeing any more come in. Victor?

VICTOR RAMIREZ: Just that's the window. If you're there, if you any final comments?

DR. KAREN WENDEL: I guess I'd be interested if there any participants who'd like to tell us if they know if their lab uses the CDC algorithm or not, but otherwise, I really appreciate this discussion. I think it was very valuable today.

VICTOR RAMIREZ: All right. Thank you and just a reminder to everybody attending today that you can go ahead and register for the third session beginning today. We will be sending out registration information via the Listserv on the upcoming date. And just a reminder, I mean, first of all, I'd like to thank Miss Andrea Brooks from Broward Community Family Health Centers for participating today as our health center, [? corporate ?] center.

For those of you who also participated in the first session where we had the Whittier Street Health Center, we're looking for any health centers to participate at [? press ?] centers in our community of practice and some of our other collaborative trainings. So we'll be sending out more information on the Listserv, but please feel free to email me if you're interested and participating in our collaboratives trainings or in our communities of practice. We have this one on routine HIV testing and we have another one starting up on electronic health records.

So please don't be shy. We're looking health centers to participate as well. We believe that all of the health centers can learn a lot from each other and I think today's questions is a true testament to that. And again, thank you to Miss Brooks and to the Broward Community Family Health Center for participating today.

STEVE LUCKABAUGH: OK. Thank you for participating in today's webinar. Take care everybody and we'll see you next time.