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TRANSCRIPT - GR 06 11 21 Ending the HIV Epidemic U U PrEP and the Policies Necessary to Make It All Work Kate McManus

00:10:11.730 --> 00:10:24.870
RAIJ: In one yeah have an ott okay Okay, thank you for that wonderful introduction and I have to say it's great to be here with some of you in person and some of you over zoom.

17
00:10:25.290 --> 00:10:35.820
RAIJ: I have to say, when I was a resident I was sitting in your seats wondering what could I ever give a grand rounds about and talk about for an hour now I could probably talk about HIV and health policy for four hours.

18
00:10:36.150 --> 00:10:49.020
RAIJ: But I have whittled it down to one hour, so we will only be here for one hour and i've been very fortunate to be here at the University of Virginia, where this sort of interest of plenary and translational research has been supported.

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00:10:50.280 --> 00:10:52.200
RAIJ: I have see.

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00:10:54.960 --> 00:10:56.580
RAIJ: My disclosures are here.

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00:10:58.020 --> 00:11:03.060
RAIJ: And I would like to acknowledge the village that it takes to do this sort of research.

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00:11:04.800 --> 00:11:13.110
RAIJ: Truly, it takes a huge team want to especially acknowledge my mentor Dr Rebecca dillingham and the entire uva research team.

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00:11:13.500 --> 00:11:28.920
RAIJ: The University of Virginia division of infectious disease and international health, a lot of my colleagues do very different work than me but still asked really excellent questions that helped me move my research forward, as well as thrive and giddy as well, and the rest of our partners.

24
00:11:30.390 --> 00:11:38.850
RAIJ: So we're just going to go over a brief overview of HIV in the United States, well then talk about you equals you or undetectable equals untranslatable.

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00:11:39.330 --> 00:11:47.190
RAIJ: i'll then talk about some of the uva based research, where we are looking at how you can help achieve viral suppression for people with low out low incomes.

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00:11:47.700 --> 00:12:00.330
RAIJ: And then we'll talk a little bit about HIV pre exposure prophylaxis and then some of our uva research looking at disparities and prep access both geographic some related to insurance and then some related to utilization management.

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00:12:03.630 --> 00:12:15.270
RAIJ: So it's kind of fitting to be giving this talk Aaron early June we just passed the 40th anniversary of the FM w are reporting on new assistant ammonia and five previously healthy young men and Los Angeles.

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00:12:15.900 --> 00:12:22.200
RAIJ: They were the first five people to be recognized as having a clinical syndrome that them was later found to be HIV and AIDS.

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00:12:22.890 --> 00:12:26.040
RAIJ: So fitting to be doing this around the 40th anniversary.

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00:12:26.820 --> 00:12:37.620
RAIJ: However, if we look at kind of what's happened with the US estimated HIV incidents, you can see that things have come down there's kind of three different lines or ways that this is marked on the graph.

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00:12:38.190 --> 00:12:42.450
RAIJ: But really this just represents the different ways that the CDC measures this incidence.

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00:12:42.840 --> 00:12:49.590
RAIJ: You can see more recently that we've been kind of stuck around this 40,000 new cases every single year in the United States.

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00:12:50.010 --> 00:12:59.040
RAIJ: So, despite the fact that we've had antiretroviral therapy since 1996 and despite the fact that we've had prep for HIV pre exposure prophylaxis since 2012.

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00:12:59.520 --> 00:13:09.270

RAIJ: We really haven't seen the kind of decline, that we would hope to see, and maybe that some other countries such as Australia or UK have seen with these interventions.

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00:13:10.770 --> 00:13:16.470
RAIJ: The other thing that I want to point out is that when we look at us estimated HIV incidents by race, ethnicity.

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00:13:17.220 --> 00:13:28.080
RAIJ: There was a lot of talk in the beginning of HIV, that this was a disease of gay white men, but really quite early in the epidemic we actually saw quite quite high increases in.

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00:13:29.190 --> 00:13:38.190
RAIJ: black people and Hispanic people that was really not talked about, and that probably led to communities that thought they weren't at risk, as well as affected stigma.

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00:13:39.180 --> 00:13:48.090
RAIJ: And we also do now see that, when we look in kind of the more recent years we do see a decline for white people that's the darker blue line.

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00:13:48.480 --> 00:13:54.450
RAIJ: And we don't see the same sort of decline for black people or actually for Hispanic people where the line is actually going up.

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00:13:55.080 --> 00:14:04.620
RAIJ: So it's definitely something that we need to be paying attention to, and while the majority of my talk will focus on domestic HIV, I do just want to acknowledge that HIV is a global pandemic.

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00:14:04.980 --> 00:14:11.460
RAIJ: And the majority of people living with HIV actually live in sub Saharan Africa, but will most will talk about the US for this talk.

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00:14:12.810 --> 00:14:23.160
RAIJ: So the US kind of has recognized that we need to do something different so during President trump's administration, they actually came out with this very ambitious goal to end the HIV epidemic.

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00:14:23.790 --> 00:14:37.590
RAIJ: So their idea was the 75% reduction in new HIV infections and five years, and at least a 90% reduction in 10 years and they've actually put hundreds of millions of dollars into this plan, already in that money is put in each year.

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00:14:38.550 --> 00:14:48.930
RAIJ: In this talk we're going to focus on viral suppression, so it kind of ties in with this pillar, which is treat people with HIV rapidly and effectively to reach sustained viral suppression.

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00:14:49.500 --> 00:14:57.600
RAIJ: And we're also going to talk about prevention, so preventing new HIV transmissions by using proven interventions, including pre exposure prophylaxis which we'll talk about.

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00:14:58.590 --> 00:15:05.520
RAIJ: So this money unfortunately doesn't go to every place in the United States they've actually selected 48 counties.

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00:15:06.210 --> 00:15:19.230
RAIJ: And seven states with a substantial rural burden they looked at what were the counties in the States that had the most new HIV diagnoses in 2016 to 2017 and that's kind of how they selected these locations to focus in on.

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00:15:20.310 --> 00:15:27.450
RAIJ: I think we definitely do need to focus our efforts, but i'm a little bit worried that we're using the 2016 2017 data, because we know that you know.

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00:15:28.140 --> 00:15:37.200
RAIJ: Just like coven 19 it will go wherever it wants HIV will go wherever it wants it's not going to stay in those areas so we're trying to lobby to have.

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00:15:37.950 --> 00:15:45.420
RAIJ: The government think more proactively, for example, we know right now that there's an HIV related outbreak related to injection drug use in West Virginia.

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00:15:45.690 --> 00:15:55.020
RAIJ: and technically based on the way that this law was written they can't use any of these ending HIV epidemic funds for West Virginia because it's not a high priority jurisdiction.

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00:15:57.870 --> 00:16:06.270
RAIJ: So I think that you know, we have the tools we've had lab based research that's led to clinical trials that that's led to wonderful antiretroviral therapy.

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00:16:06.720 --> 00:16:15.390
RAIJ: But really The big question is how do we get the antiretroviral therapy to people, and we know that you know people are affected by all sorts of issues social determinants of health.

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00:16:15.870 --> 00:16:21.960
RAIJ: Things that are impacting whether they can get those medications, how is the US doing and getting the medications to people.

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00:16:22.320 --> 00:16:32.580
RAIJ: So unfortunately we're not doing that well we're represented in the orange bar all the way on the right hand side here in terms of viral suppression and this is putting us in comparison to our high income peers.

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00:16:33.120 --> 00:16:37.140
RAIJ: So we're down at 54% viral suppression for people living with HIV.

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00:16:37.830 --> 00:16:44.370
RAIJ: up in the 80% range over 80% range are some of our peers, such as the United Kingdom, Switzerland, Sweden.

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00:16:44.700 --> 00:16:50.430
RAIJ: So it's definitely something that's achievable it's something we can do well, we just have not been able to get there yet.

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00:16:50.880 --> 00:16:58.800
RAIJ: One of the big differences between us in these high income countries is that we're the only country on this list that doesn't have some form of universal health care.

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00:16:59.190 --> 00:17:09.510
RAIJ: So we have kind of a patchwork quilt of how people can get care and how people can get medications but clearly it's not meeting people's needs and we're not achieving the kinds of outcomes that we could be.

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00:17:11.100 --> 00:17:14.190
RAIJ: One thing that i'll reference sometimes is that there is kind of this.

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00:17:14.940 --> 00:17:23.130
RAIJ: Worldwide goal that we get 90% of people diagnosed 90% of people diagnosed on treatment and then 90% of those people virally suppressed.

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00:17:23.400 --> 00:17:36.600
RAIJ: So when we talk about viral suppression you'll see that I use 90% as our goal due to this metric and people thinking that if we could actually achieve this, we would get to very low levels of people living with HIV and we would effectively end the HIV epidemic.

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00:17:38.040 --> 00:17:45.900
RAIJ: So in clinics, like the uva Ryan white clinic where we're able to address kind of all these different social determinants of health it's not all doom and gloom.

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00:17:46.260 --> 00:17:55.650
RAIJ: Once patients come to our clinic we have wonderful resources and we're actually able to achieve a viral suppression rate of 91% that has taken, maybe a slight hit during.

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00:17:56.490 --> 00:17:59.910
RAIJ: Where maybe we're just under 90% for the first time in quite a while.

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00:18:00.510 --> 00:18:10.740
RAIJ: But I will say that you know it takes a massive team to do this, the medical team psychology psychiatry peer coaches Community health workers case management.

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00:18:11.130 --> 00:18:17.490
RAIJ: We have an Ob gyn team, we have people will help us, you know, make sure, make sure that people maintain their eligibility documents.

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00:18:17.880 --> 00:18:26.550
RAIJ: We have people who train our patients to get jobs, and it really is a full service clinic probably the way I think everybody should be able to practice medicine.

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00:18:26.850 --> 00:18:34.260
RAIJ: So, once we can get people diagnosed get them in the door, get them linked to care, we can do pretty well how are we doing kind of across the US.

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00:18:34.890 --> 00:18:42.750
RAIJ: Well, I think it's important for us in Virginia to know that really the majority of HIV diagnoses are made in the south, we would count as the south so.

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00:18:43.170 --> 00:18:50.880

RAIJ: In the south, we represent about 38% of the US population but we represent 50% of new HIV diagnoses every year.

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00:18:51.210 --> 00:19:01.080
RAIJ: So we're definitely disproportionately represented in a statistic, we probably don't want to be represented in, and you can tell from this map, because the darker colors are kind of clustered in the south.

74
00:19:02.610 --> 00:19:09.360
RAIJ: This has been recognized the CDC has been publishing about this, since at least 2016 probably even before that.

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00:19:10.260 --> 00:19:21.960
RAIJ: You know, we experienced a greatest burden of HIV infection illness deaths of any US region and we are behind most other regions in terms of US care and prevention or HIV care and prevention, unfortunately.

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00:19:22.950 --> 00:19:29.160
RAIJ: they've also taken this a step further, the CDC has actually looked at what's The lifetime risk of people, based on where they live.

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00:19:29.700 --> 00:19:34.140
RAIJ: So here in Virginia, the lifetime risk of acquiring HIV is one in 115.

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00:19:34.890 --> 00:19:43.290
RAIJ: Which surprised me the first time I heard it's definitely more common than I would think we're not in the top quarter, but we are in the top half of the states in the United States.

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00:19:43.950 --> 00:19:51.270
RAIJ: If you drive just two and a half hours north to our neighbor district of Columbia, the lifetime risk, there is only is one in 13.

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00:19:51.780 --> 00:20:02.610
RAIJ: So it's pretty dramatic and probably as we're seeing patients from northern Virginia or from DC it's something that we should be thinking about you know who is this patient do they have risk for HIV and have they had an HIV test.

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00:20:04.500 --> 00:20:15.570

RAIJ: We know that actually not only geography but race, ethnicity, we can look at you know what are the lifetime risk of HIV diagnosis by race and ethnicity so for for African American men it's one in 20.

82
00:20:16.020 --> 00:20:22.830
RAIJ: For African American women one in 48 Hispanic men one and 48 Hispanic women one into 27.

83
00:20:23.220 --> 00:20:32.340
RAIJ: white men, one on 132 and white one and 198 hundred and 80, and these are very dramatic and shocking numbers and we should think about this as we're seeing people and trying to think about.

84
00:20:32.730 --> 00:20:41.160
RAIJ: Pre test probability for HIV, but we know that this is not due to biologic differences, this is due to the impact of social determinants of health structural racism.

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00:20:41.550 --> 00:20:49.950
RAIJ: Other things that are impacting people's risk factors for getting HIV and we'll touch on an example of structural racism and the talk later, when we talk about prep.

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00:20:51.180 --> 00:20:58.230
RAIJ: We can also then look at what's The lifetime risk of HIV diagnosis by transmission group so for men who have sex with men it's actually one in six.

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00:20:58.650 --> 00:21:07.530
RAIJ: For women who inject drugs one in 23 men who inject drugs one and 36 heterosexual women one and 241 heterosexual men one and 473.

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00:21:07.950 --> 00:21:20.340
RAIJ: So again, something you can think about as you're seeing people in clinic or in the hospital, you know what you know what is this one's this person's sexual behavior and you know or other behavior in terms of injection drugs and have they had an HIV test.

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00:21:21.780 --> 00:21:26.100
RAIJ: When we look at the Cross section of men have sex with them by race, ethnicity, the numbers become.

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00:21:27.450 --> 00:21:33.300
RAIJ: Pretty upsetting for African American men who have sex with men their lifetime risk of acquiring HIV is one and two.

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00:21:33.660 --> 00:21:44.010
RAIJ: Hispanic men who have sex with men one and four and white men who have sex with men one and 11 and so really for all these patients, we should be thinking about HIV testing, as well as HIV pre exposure prophylaxis.

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00:21:45.930 --> 00:21:52.200
RAIJ: I also just want to mention that recently the CDC has come out with some work on the HIV risk and transgender women.

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00:21:52.800 --> 00:21:59.370
RAIJ: They looked in seven different cities and actually 42% of transgender women had HIV, there were racial and ethnic disparities.

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00:21:59.640 --> 00:22:08.100
RAIJ: Were 62% of the black or African American transgender women had HIV, while only 11 or seven sorry 17% of white transgender women had HIV.

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00:22:08.850 --> 00:22:17.790
RAIJ: And we do have uva is partnering with Virginia Department of Health Dr Rebecca dillingham and Dr Karen ingersoll leading this project called this great new Community survey.

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00:22:18.060 --> 00:22:30.660
RAIJ: survey to explore the health wellness and experience of virginians who are transgender and gender non conforming or nine there are nine binary person, so this is another topic that uva is is looking at and helping dth to study.

97
00:22:31.860 --> 00:22:41.160
RAIJ: what's the group least likely to know their HIV status youth paid people 13 to 24 and only about 50% of young people living with HIV have been diagnosed.

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00:22:41.580 --> 00:22:47.250
RAIJ: there's also a grain pattern of HIV epidemic so more than 50% of our patients are actually over 50.

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00:22:47.760 --> 00:22:58.650
RAIJ: And one in six new HIV diagnoses are among people ages 50 and older so sex doesn't stop at age 50 HIV doesn't stop at age 50, we need to still be thinking about people could be a risk over that age.

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00:22:59.550 --> 00:23:01.740

RAIJ: What are the goals of HIV care so.

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00:23:02.310 --> 00:23:13.020
RAIJ: We want to link people to care as soon after their diagnosis as possible, we want to gauge people engage people in their HIV care so that means having patient centered care differentiated care it's not one size fits all.

102
00:23:13.590 --> 00:23:21.870
RAIJ: Dr van arson and I saw a patient on Wednesday, who didn't want any chit chat just wanted the medical stuff taking care of one to get in and out as quickly as possible.

103
00:23:22.140 --> 00:23:33.150
RAIJ: that's what we were able to deliver for him and he was very happy that's not going to be for everybody, but you've kind of learned the patient and see what they want, I think we took a note to do the same thing, next time, so he'll be happy again.

104
00:23:34.260 --> 00:23:40.290
RAIJ: We also want to help our patients achieve an undetectable viral load, which is little to no HIV circulating in the bloodstream.

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00:23:40.980 --> 00:23:48.390
RAIJ: This is really important for individual it helps them with longevity so we actually now can say that HIV treatment can normalize survival.

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00:23:48.660 --> 00:23:56.190
RAIJ: So if a young person with HIV is diagnosed, we can tell them if you take your medication every single day, you will live, just as long as anybody else.

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00:23:57.300 --> 00:24:05.940
RAIJ: The other thing that an undetectable viral load is associated with for public health is less transmission of HIV and, specifically, no sexual transmission of HIV.

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00:24:06.660 --> 00:24:14.040
RAIJ: So that's often kind of shocking if you've never heard it so that's this is this idea of you equals you which we'll talk about so what is you equals you.

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00:24:14.790 --> 00:24:23.700
RAIJ: So you equals you is undetectable equals on transmittable there's no evidence based confirmation that people with HIV, who take effective antiretroviral therapy.

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00:24:23.970 --> 00:24:32.370
RAIJ: and whose viruses suppressed undetectable levels will not transmit HIV sexually and you equals you applies in an HIV viral load of less than 200 copies.

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00:24:32.670 --> 00:24:44.520
RAIJ: Here at uva we measure viral loads down to under 40 copies so we're getting even more sensitive than this, but that 200 threshold is very important because around the globe, a lot of countries do just use a 200 threshold.

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00:24:45.720 --> 00:24:56.040
RAIJ: So the science is clear will go through HP 1005 to the partner trial partner to and opposites attract but, basically, this was combined data from 2008 to 2016.

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00:24:56.400 --> 00:25:03.660
RAIJ: That sure that there were zero linked HIV transmissions after more than 100,000 condom sex acts within both heterosexual and.

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00:25:04.140 --> 00:25:19.860
RAIJ: MSM couples, where one person had HIV and one person did not and the partner with HIV had a suppressed viral load, so I actually looked last night I thought, how many it says more than 100,000 how many was more than 140,000 condom a sex sex so quite a lot of data.

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00:25:21.060 --> 00:25:33.930
RAIJ: This applies to sexual activity, but it doesn't imply that kind of sex is safe they're still sexually transmitted infections so pregnancy, and this also does not apply to breastfeeding sharing needles or blood transfusions that's important to note.

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00:25:35.100 --> 00:25:42.480
RAIJ: Before the world had Tony foushee he was kind of the King of HIV and infectious diseases, for us, so here is.

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00:25:44.070 --> 00:25:53.760
RAIJ: that the concept of you equals you is the foundation of being able to end the HIV epidemic, and this is an infographic from the NIH so it's actually started more as like a grassroots.

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00:25:55.080 --> 00:26:00.870
RAIJ: You equals use program but actually now countries and institutions in groups have signed on and agreed.

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00:26:02.280 --> 00:26:04.770
RAIJ: So let's go through some of the data, so this HP.

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00:26:05.940 --> 00:26:15.510
RAIJ: This was a randomized trial, this was actually they looked at early or delayed a RT and they enrolled just over 1700 zero different couples.

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00:26:16.110 --> 00:26:20.760
RAIJ: Half were randomized early ar T half a randomized to delayed and delayed a RT.

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00:26:21.150 --> 00:26:30.810
RAIJ: They followed people for about 1.7 years, at which point there was an interim analysis and the data safety monitoring board actually said, we need to stop this study, because you found such a significant difference.

123
00:26:31.260 --> 00:26:46.080
RAIJ: So actually found that there was a 97 and 96% reduction in HIV incidence among partners who are with people who started a RT early, so there was only one link transmission in early therapy, there were 27 inch deferred therapy.

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00:26:46.920 --> 00:26:54.540
RAIJ: This gave us this idea about treatment as prevention, where you if you treat the partner with HIV, you can actually present prevent their partners from getting HIV.

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00:26:54.870 --> 00:27:05.730
RAIJ: This study was actually continue, then for an additional five years where they gave everybody a party and they continue to see a benefit of a party for the partner who do not have HIV.

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00:27:07.380 --> 00:27:15.090
RAIJ: Then we have the partner study, so this is a perspective observational study, where people living with HIV run a party they enrolled.

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00:27:15.690 --> 00:27:20.730
RAIJ: Just under 1200 zero different couples, where one person had HIV and one person did not.

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00:27:21.360 --> 00:27:28.950

RAIJ: They followed people for a median of 1.3 years and there were 62% male female couples and the rest were male male couples.

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00:27:29.430 --> 00:27:35.730
RAIJ: So here they found actually the all the point estimates of the rate of within couple transmission per 100 couple years of follow up.

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00:27:36.030 --> 00:27:46.890
RAIJ: All the point transmissions were zero However, if you look at the confidence intervals, they certainly receptive anal sex with ejaculate did have kind of a higher up or 95% confidence interval.

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00:27:47.340 --> 00:27:50.760
RAIJ: And you could say, well, the point estimate was zero what does that really mean.

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00:27:51.480 --> 00:28:02.640
RAIJ: will translate in you know that upper 95% confidence interval of 2.23 if we translate that into a risk for an individual person actually 20% risk over 10 years so it's not zero.

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00:28:03.360 --> 00:28:16.710
RAIJ: So what they decided to do was actually take this trial and extend it and continue to enroll male male couples to try to understand this better and get a better idea of whether they truly could say it was zero or whether we need to revisit this.

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00:28:18.090 --> 00:28:26.670
RAIJ: So they did the the partner to study, which was a perspective observational study again the partner, the person with HIV was on a RT.

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00:28:27.240 --> 00:28:32.760
RAIJ: They had 972 zero different male male couples and they follow people for a median of two years.

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00:28:33.180 --> 00:28:39.450
RAIJ: And so, with this, they were actually able to you can see, the data at the bottom for gay couples was from partner, one where you can see that.

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00:28:39.750 --> 00:28:43.560
RAIJ: very wide confidence interval going all the way out to the lime green.

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00:28:43.950 --> 00:28:49.140

RAIJ: And when they did partner one and partner to data together they could actually see that that comes in our shrunk.

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00:28:49.410 --> 00:28:57.960
RAIJ: And it was actually even less uncertain, then for heterosexual couples, they could truly say yes, we can say that this you equals you in this zero transmissions.

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00:28:58.470 --> 00:29:08.370
RAIJ: You know, applies to both heterosexual couples, as well as gay couples was actually very fortunate to be at the conference, where this data was presented, and it was very.

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00:29:09.360 --> 00:29:16.980
RAIJ: amazing to see this data presented in person and actually the researcher cried on stage as she was presenting it just because of what it meant and what.

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00:29:17.430 --> 00:29:20.490
RAIJ: What it what should you bring to the world with that was pretty cool.

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00:29:21.390 --> 00:29:37.380
RAIJ: there's also another study called opposites attract and they had 358 zero different male male couples, it was also to help kind of get at this issue about confidence intervals and risk, and so they actually found similar data to the partner to studies like also supported that.

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00:29:38.550 --> 00:29:44.760
RAIJ: there's also been some recent data presented at conferences about what are the health benefits of discussing you equals you.

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00:29:45.030 --> 00:29:50.610
RAIJ: So, compared with people with HIV, who had not heard about you equals you people who hear about it from a health care provider.

146
00:29:50.850 --> 00:30:03.450
RAIJ: Report, a lot of positive things such as awareness that antiretroviral therapy can prevent transmission treatment satisfaction better adherence better overall health better mental health and better sexual health all things that we want for our patients.

147
00:30:05.100 --> 00:30:11.820
RAIJ: So we bring you back to this and we think about this red arrow talk to you a little bit about some of the research that we've done so.

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00:30:12.840 --> 00:30:20.910
RAIJ: we'd like to think about you know how did these health policy laws, how does the Ryan white HIV, AIDS program how to medicaid medicare and insurance, how does this impact.

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00:30:21.210 --> 00:30:31.440
RAIJ: This red arrow you how do these different factors affect what our patients can get and so i'll go through an example, focusing on the ACTA instruct assistance programs and insurance.

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00:30:32.400 --> 00:30:43.980
RAIJ: So it stroke assistance programs are key part of the US healthcare delivery safety net there federally mandated as part of the Ryan white care act they're implemented at the State level, though, so there's about 50 plus different individual aid Apps.

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00:30:44.310 --> 00:30:56.010
RAIJ: To each make all their own decisions they all do provide free medications notably a RT and after the ACI they were actually able to pay insurance premiums and or office offer insurance cost sharing support.

152
00:30:57.510 --> 00:31:06.870
RAIJ: How do you get eligible for an extra assistance programs, so you have to be below about 400 to 500% of the federal poverty level and i've put what those numbers are here, so you can get a sense for context.

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00:31:07.230 --> 00:31:13.560
RAIJ: But actually more than half of a top clients actually have incomes lower than the federal poverty level so it's a very vulnerable population.

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00:31:14.610 --> 00:31:24.480
RAIJ: And, especially when we think about for HIV, if you were to try to purchase antiretroviral therapy at a pocket without insurance, it can be 30,000 $40,000 a year so it's quite expensive.

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00:31:25.950 --> 00:31:36.420
RAIJ: These aids drug assistance programs we call them a safety net, they actually support about a quarter of people living with HIV in the United States and it's a massive program they have an operating budget about 2.9 billion.

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00:31:38.220 --> 00:31:51.750

RAIJ: It surprisingly they're very understudied or one of the only groups looking into them and trying to understand how they work and how can they work better and we've already discussed kind of the importance of getting viral suppression, both for the individual, as well as for public health.

157
00:31:53.070 --> 00:32:02.520
RAIJ: We also think that you know, in addition to doing what's right for people helping people get virally suppressed that actually eight Apps can can actually help them reduce health care costs.

158
00:32:02.820 --> 00:32:08.970
RAIJ: So each prevented HIV infection saves about over $400,000 and lifetime medical costs.

159
00:32:09.420 --> 00:32:18.360
RAIJ: And while every state every state has an aide at the outcomes vary widely and probably due to the patchwork nature of state level resources and decisions.

160
00:32:19.110 --> 00:32:24.180
RAIJ: So you know if we look at you know we have that 90% target for viral suppression.

161
00:32:24.720 --> 00:32:33.240
RAIJ: All people living in the United States, the viral suppression rate has been going up so say 58% in 2014 and up to 65% in 2018.

162
00:32:33.840 --> 00:32:43.650
RAIJ: What do we know about eight Apps so we know that aid Apps are actually delivering better than average outcomes for this vulnerable population with the most recent viral suppression data showing 80%.

163
00:32:44.130 --> 00:32:52.920
RAIJ: When we try to look at it by state, though, you can see there's a lot of variation there is some missing data in here, so you can't take too much from from some of it, but basically.

164
00:32:53.250 --> 00:33:04.230
RAIJ: it's a federally mandated safety net program but it's implemented at the state level they're overachieving on viral suppression, but if you look state by state, the rate can be anywhere from 53 290 3%.

165
00:33:04.680 --> 00:33:10.830
RAIJ: So huge variation So if you live, just over a state border, you might be in a system that maybe is not doing as well.

166
00:33:12.630 --> 00:33:23.550
RAIJ: So in 2013 before the affordable care act all the aid Apps provided medications directly to people, so you if you were eligible for a nap you would get your HIV medication directly.

167
00:33:24.240 --> 00:33:32.970
RAIJ: In 2014 many of these aids for assistance programs decided that they would start to buy a car plans or qualified health plans.

168
00:33:33.510 --> 00:33:39.750
RAIJ: And so we actually studied here in Virginia kind of what happened in the 2013 to 2014 transition.

169
00:33:40.200 --> 00:33:46.500
RAIJ: What happened when people shifted to these qualified health plans or what happened when they stayed on direct aid and what happened to viral suppression.

170
00:33:47.130 --> 00:33:55.050
RAIJ: So we actually found that for people who stayed on direct data kept kept getting their medications from the state viral suppression was about 79%.

171
00:33:55.440 --> 00:34:07.530
RAIJ: For those who shifted to eight up on the Q HP it was 85% this was in over 2000 patients and when we did a multi variable model at the having the insurance was associated with improved outcome.

172
00:34:08.310 --> 00:34:14.280
RAIJ: This work did have real world policy implications so because we're able to show better outcomes with virginia's model.

173
00:34:14.580 --> 00:34:22.500
RAIJ: Actually, in North Carolina the Duke legal clinics their health justice clinic took this on and advocated for North Carolina to change their laws.

174
00:34:22.920 --> 00:34:27.180
RAIJ: And they did subsequently change their laws to mirror Virginia, so that was pretty exciting.

175
00:34:27.840 --> 00:34:37.710
RAIJ: back to our finding we were wondering Okay, that was the first year great is it sustained Is this something we're really going to see year over year was there something about that year.

176
00:34:38.160 --> 00:34:51.150
RAIJ: So we studied it in the second year of the ACI here in Virginia and we still found a significant difference 79% for people on direct data 83% for people who got the eight APP funded qualified health plans and had insurance.

177
00:34:52.230 --> 00:34:58.230
RAIJ: I often get the question of okay you got better outcomes, but what did it cost so actually Virginia was.

178
00:34:59.070 --> 00:35:03.360
RAIJ: Virginia Department of Health is very innovative shared with us the financial data.

179
00:35:03.720 --> 00:35:12.030
RAIJ: And so we actually actually told us that for people who have direct aid APP it costs 10,000 just over $10,000 per patient per year to buy their medications.

180
00:35:12.480 --> 00:35:26.160
RAIJ: and on average to buy people health insurance costs just under 50 $400 so not only were we achieving better viral suppression, but it was costing Virginia federal people state tax dollars less less money so that's good for us.

181
00:35:27.300 --> 00:35:37.890
RAIJ: We then thought Okay, we found this in Virginia and some colleague said, found it in in nebraska for the first year of the ACI but, but why don't we try to combine three different states and try to see if we still see this.

182
00:35:38.310 --> 00:35:50.250
RAIJ: So we did this for the second year of the ICA so we looked from 2014 to 2015 so we studied kind of what happened, what was someone's exposure in 2015 and did they get virally suppressed.

183
00:35:50.790 --> 00:35:57.960
RAIJ: So for this study we had just under 8000 participants, most of them were from Virginia, two thirds were black race or ethnicity.

184
00:35:58.200 --> 00:36:10.530
RAIJ: 75% were under 138% of the federal poverty level I point that out, because if these three states had expanded medicaid at that time 75% of this cohort would have actually had medicaid and not would not have needed.

185
00:36:11.040 --> 00:36:15.420
RAIJ: A drug assistance program and a quarter of people had a detectable viral load.

186
00:36:16.590 --> 00:36:25.500
RAIJ: So when we looked at this, we found similar results to what we had found in our Virginia population, so we found that for direct aid APP the viral suppression rate was at point 2%.

187
00:36:25.830 --> 00:36:39.300
RAIJ: And for a definite Q HP it was 86%, and this was in just over 4500 patients, so we found that you know what we had previously found held up and we did a log by binomial model and found again that.

188
00:36:39.690 --> 00:36:46.830
RAIJ: Being on the Ad funded Q HP was associated with improve viral suppression when controlling for many other covariance.

189
00:36:48.210 --> 00:36:52.410
RAIJ: We then took this a step further and calculated a number needed to treat or enroll.

190
00:36:52.860 --> 00:37:04.440
RAIJ: So this was the number of people needed to treat or enroll in a definite qh piece for an additional person to achieve viral suppression, we found that that number was only 20 so it was pretty exciting to find such a low value.

191
00:37:05.970 --> 00:37:20.040
RAIJ: And we believe this might be the first time that that number needed to treat or enroll has been applied to kind of a health policy application, there was no significant difference in the effect among the three states, so we could say that that number actually applied to all three states.

192
00:37:21.720 --> 00:37:32.700
RAIJ: So they'd have funded qh peas were associated with improve viral suppression viral suppression didn't vary based on any covariance, and this is reassuring in terms of decreasing disparities and viral suppression.

193
00:37:33.270 --> 00:37:42.060
RAIJ: Especially because when we do look at viral suppression and a gap by race and ethnicity, we do see that black people living with HIV on a deaf are lagging behind in terms of viral suppression.

194

00:37:42.450 --> 00:37:53.100
RAIJ: However, we do think that it's possible that the AIDS drug assistance programs buying people insurance may actually help reduce this disparity and we'll be looking at that in depth in a in our next grant.

195
00:37:54.840 --> 00:38:04.020
RAIJ: Going back to the number needed to treat or enroll so basically a 50 people decided to shift from direct eight up to eight up on a huge piece during ACTA open enrollment.

196
00:38:04.290 --> 00:38:12.030
RAIJ: We would think that one additional person would achieve or maintain viral suppression and this could really have huge benefits to the individuals as well as public health.

197
00:38:13.350 --> 00:38:17.730
RAIJ: When we extrapolate the cost data from Virginia eight APP having 20 people on the.

198
00:38:18.990 --> 00:38:30.210
RAIJ: would be just over $100,000 and having 20 people on direct data is just over $200,000, so it is also less expensive for people to be on that eight have been in queue HP.

199
00:38:32.370 --> 00:38:37.320
RAIJ: We also did a calculation if all the people who are getting direct aid APP shifted over to these.

200
00:38:38.610 --> 00:38:47.220
RAIJ: We actually would see an additional 2.4% of beta clients achieve viral suppression and so that would be good for the people, the individuals as well as it would help public health.

201
00:38:48.180 --> 00:38:57.540
RAIJ: So we often get the question why do we think that these ACTA plans result in higher viral suppression, we did a mixed methods study, where we talked to a DEP clients have three different Virginia clinics.

202
00:38:57.930 --> 00:39:07.410
RAIJ: And this is what we hypothesize based on talking to them that it's either due to one or a combination of the following either perceived or actual improved medication coverage.

203
00:39:07.740 --> 00:39:12.300
RAIJ: Improved method of obtaining medication for people who preferred receiving their medications by mail.

204
00:39:12.630 --> 00:39:19.200
RAIJ: When you're on direct data, you had to go in person each month to the health department and pick up your meds whereas when you had an AC a plan.

205
00:39:19.710 --> 00:39:31.920
RAIJ: You actually often we get your medications mailed to your House, we also The other thing that patients told us was that they felt that there was increased access to overall health care, leading to improved engagement healthcare, including HIV care.

206
00:39:33.300 --> 00:39:41.430
RAIJ: So obviously limitations as a retrospective cohort study we limited the viral suppression outcomes to people who were engaged in care so we were comparing.

207
00:39:42.270 --> 00:39:49.740
RAIJ: Apples to apples, instead of apples to oranges and there could be unmeasured differences between those who enroll in qualified health plans and those who stay on direct data.

208
00:39:51.330 --> 00:40:03.450
RAIJ: But overall, you know the Association of coverage through a definite qh piece of viral suppression was not different based on demographic factors, so it shows that the structural system level intervention benefit of people with HIV across demographic groups.

209
00:40:03.750 --> 00:40:19.050
RAIJ: and did not contribute to disparities, we think that state aid Apps especially without medicaid expansion should consider this method to get people health insurance and get people virally suppressed, and this intervention could be a part of us as planned and HIV epidemic.

210
00:40:20.280 --> 00:40:24.600
RAIJ: So just to recap, we just went over example where his drug assistance programs.

211
00:40:24.960 --> 00:40:34.110
RAIJ: Used aspects of the affordable care act to purchase insurance for people and that we saw that it did impact the way that people were able to get medications and get viral suppression.

212
00:40:34.770 --> 00:40:42.690
RAIJ: Some of the specific policy changes that could help ending the HIV epidemic so eight Apps could actually expand eligibility, so that the programs can enroll more people.

213
00:40:42.930 --> 00:40:50.250
RAIJ: Because they're already you know delivering great outcomes so maybe we could expand eligibility to 600% of the federal poverty level.

214
00:40:51.180 --> 00:40:56.700
RAIJ: Currently, eight Apps are allowed to purchase insurance if it's less expensive than purchasing medications.

215
00:40:56.970 --> 00:41:07.380
RAIJ: But the federal government could encourage it more they could regulate it and make it more of a standard of care and then they could also help to address some of the barriers such as political resources or technical know how.

216
00:41:09.540 --> 00:41:23.910
RAIJ: Now we're going to switch gears and move into HIV pre exposure prophylaxis so when we think about HIV prevention there's biomedical interventions behavioral interventions and structural interventions will be focusing on biomedical interventions.

217
00:41:25.020 --> 00:41:34.890
RAIJ: So you know, everybody should know about prep it has the US preventive services Task Force great of a, which means that they recommend that clinicians offer prep.

218
00:41:35.790 --> 00:41:42.090
RAIJ: You know, to people who are at high risk of HIV infection so it's something we really all should be thinking about this.

219
00:41:43.050 --> 00:41:55.860
RAIJ: This recommendation also is important, because actually affects the cost sharing that insurance plans can do, and so, because of this most insurance plans have to cover it with no cost no cost sharing to the patient, so it should be for each for the patient.

220
00:41:56.970 --> 00:42:09.150
RAIJ: What is prepped so prep is a daily pill, with a fixed dose combination of two antiretroviral therapy drugs that are both reverse transcriptase inhibitors so either tgf or tf with FTC.

221
00:42:09.510 --> 00:42:19.140
RAIJ: And will refer to them by their abbreviations, and how does prep work so it's new take prep every single day and as someone gets exposed to HIV.

222
00:42:19.980 --> 00:42:31.770
RAIJ: That turned off of here in the intro say to me and get two levels within the cells that are at the the general mucosal surface and can help protect someone from HIV actually getting into those cells and and causing an infection.

223
00:42:33.120 --> 00:42:39.870
RAIJ: Who should we be giving prep to or who should we consider prep for so consider prep for people with the following sexual behaviors or risk factors.

224
00:42:40.230 --> 00:42:46.170
RAIJ: If someone has a sexual partner with HIV, it should be considered if someone has a bacterial STI in the past six months.

225
00:42:46.740 --> 00:42:53.880
RAIJ: Unfortunately, the guidelines, say, a high number of sex partners, but they don't give us a discrete number but that's kind of what the guidelines tell us.

226
00:42:54.330 --> 00:43:01.230
RAIJ: If someone is reporting inconsistent or no condom use if someone reports sex work or training sex for housing or drugs.

227
00:43:01.590 --> 00:43:10.530
RAIJ: Or if someone isn't a high prevalence area or networks such as just living in DC where your lifetime risk is one in 13 probably should at least consider this if you're sexually active.

228
00:43:11.910 --> 00:43:21.930
RAIJ: In addition, for people who inject drugs, we should be thinking about this for people who say that they inject with a partner with HIV or a partner of unknown HIV status.

229
00:43:22.650 --> 00:43:29.640
RAIJ: For people who report any shared injection equipment and it's not just the needles it's kind of all the other paraphernalia that get used as well.

230
00:43:30.120 --> 00:43:36.900
RAIJ: And anyone who's been in drug treatment for injection drug use in the past six months, it should be considered and now we'll go into some of the data.

231
00:43:37.440 --> 00:43:44.730

RAIJ: For prep data we think about the data in terms of different risk groups in terms of where people might be exposed to HIV because.

232
00:43:45.270 --> 00:43:54.930
RAIJ: prep gets to therapeutic levels in different types of tissue at different amounts of time and that's why we kind of separate people out based on where they might be a risk for HIV.

233
00:43:55.530 --> 00:44:07.470
RAIJ: So the first group that will talk about our men and transgender women who have sex with men, the first study was this I prep study it was a phase three randomized double blind placebo controlled trial they enrolled just under.

234
00:44:07.890 --> 00:44:20.010
RAIJ: 2500 men and transgender women, although of note only 1% were actually transgender women and they had a median follow up of 1.2 years and they saw a reduction in the incidence of HIV of 44%.

235
00:44:20.820 --> 00:44:28.740
RAIJ: They then additionally kind of looked at, well, we only saw a reduction of 44% What if we kind of separate people based on.

236
00:44:29.220 --> 00:44:41.730
RAIJ: Whether they had detectable low detectable plasma levels of these medications and they did find that actually once you restricted to that that you could actually find that it had more of an impact among people who were adherent to the medication.

237
00:44:42.390 --> 00:44:45.450
RAIJ: And that's a common theme and prep studies that we'll talk about.

238
00:44:46.620 --> 00:44:57.270
RAIJ: There then was another study the ether gay study, this is a phase three randomized double blind placebo controlled trial this actually looked at PDF FTC taken before and after sexual activity.

239
00:44:57.660 --> 00:45:08.910
RAIJ: As below there were 400 men and transgender women, they said that you had to have condom is no intercourse with men and they found actually a relative risk reduction in HIV infection of 86%.

240
00:45:09.510 --> 00:45:15.240
RAIJ: This dosing schedule is not approved by the FDA here so here in the United States, we still recommend daily prep.

241
00:45:15.720 --> 00:45:27.630
RAIJ: But this is something that people are very interested in this idea of kind of on demand prep taking it only when you need it and we do anticipate at some point that that the guidelines and the FDA will approve this.

242
00:45:29.040 --> 00:45:39.090
RAIJ: There then was the proud study, so this was a randomized open label study had about 544 MSM with economists anal intercourse in the past 90 days.

243
00:45:39.690 --> 00:45:42.780
RAIJ: The relative risk reduction in HIV was 86%.

244
00:45:43.290 --> 00:45:52.560
RAIJ: So this was pretty dramatic this was actually higher protection, then was eaten placebo controlled trials and refuted some of the concerns that effectiveness would be less than real world settings.

245
00:45:52.950 --> 00:46:01.980
RAIJ: And the other thing that was interesting about this study of this real world study was that they found no evidence of an increase in other St eyes, which is something that some studies have sometimes shown.

246
00:46:02.550 --> 00:46:11.820
RAIJ: Yes, okay there's less less HIV, but there might be more syphilis or more gonorrhea chlamydia this study real world setting did not show any increase in St eyes.

247
00:46:14.460 --> 00:46:26.100
RAIJ: We then have in this group in men and transgender women who have sex with men, we have the discover trial, this is very recent, this is a phase three randomized double blind trial it compared tgf FTC and taff FTC.

248
00:46:26.760 --> 00:46:34.020
RAIJ: had just under 5400 men and transgender women, although of note, again, there were only 1% transgender women so a small number.

249
00:46:34.530 --> 00:46:41.370
RAIJ: This study showed that taff FTC was not inferior to tf FTC in terms of reducing HIV incidents.

250

00:46:42.000 --> 00:46:53.460
RAIJ: taff FTC had more favorable effects on bone mineral density taff FTC had more favorable biomarkers of renal safety but tough FTC was also associated with a weekend compared to tf FTC.

251
00:46:54.180 --> 00:47:03.720
RAIJ: Based on this study actually tap FTC was approved for men and transgender women by the FDA and October 2019 but it's important to note that this is not approved for women.

252
00:47:05.910 --> 00:47:15.090
RAIJ: One we're switching kind of switching gears to heterosexual men and women so there's a partners prep studies we talked about partner one partner to now we have partners prep.

253
00:47:15.720 --> 00:47:24.330
RAIJ: This is a phase three randomized double blind placebo placebo controlled study they had just over 4700 m zero negative heterosexual couples.

254
00:47:24.870 --> 00:47:29.670
RAIJ: Of note at this time, you know one one partner had HIV one partner did not have HIV.

255
00:47:29.940 --> 00:47:38.520
RAIJ: And this was done quite a while ago, and so the partner with HIV was actually not prescribed ar T because they were not eligible for local guidelines at the time that the study was conducted.

256
00:47:39.330 --> 00:47:49.770
RAIJ: So they studied, you know what if we, the partner with HIV is not on Prem is not on treatment, what if the partner without HIV gets PDF FTC PDF or placebo.

257
00:47:50.340 --> 00:48:04.260
RAIJ: It was stopped in an interim analysis in mid 2011 because PDF showed a 67% reduction in HIV acquisition and PDF FTC show to 75% reduction in acquisition, so it was stopped because it showed such a good benefit.

258
00:48:05.730 --> 00:48:17.070
RAIJ: We then have a Botswana tgf to trial, this was a phase three randomized double blind placebo controlled study, they did PDF FTC versus placebo about 1200 heterosexual men and women.

259
00:48:17.850 --> 00:48:30.600

RAIJ: In their intention to treat they found a 62% reduction in HIV acquisition and in there as treated so looking at people who actually took the medication and ahead detectable drug levels, it was a 78% reduction in HIV acquisition.

260
00:48:32.700 --> 00:48:40.590
RAIJ: So the data is building and building for prep, we can see that there is a lot of data, unfortunately, the studies and women have not been as as helpful so.

261
00:48:41.070 --> 00:48:50.340
RAIJ: will be switched to the group of women, looking at femme prep this was a phase three randomized double blind placebo controlled trials, they looked at tf FTC versus placebo.

262
00:48:50.760 --> 00:48:56.370
RAIJ: This was stopped in 2011 when an interim analysis showed that the trial would be unlikely to detect a significant difference.

263
00:48:56.760 --> 00:49:07.440
RAIJ: And when they actually looked at it here it's less than 50% of women on TV FF BC had a detectable drug level, and so we think a lot of the futility of this study was actually probably the low adherence.

264
00:49:08.070 --> 00:49:12.930
RAIJ: We then had the voice trial, this was a phase two double blind placebo controlled trial study.

265
00:49:13.500 --> 00:49:23.100
RAIJ: They looked at oral PDF versus oral PDF FTC versus national PDF versus placebos the oral PDF and vegetables PDF arms were stopped for futility.

266
00:49:23.370 --> 00:49:33.120
RAIJ: The PDF FTC arm show no reduction HIV acquisition, but there was a very low adherence less than 40% of people in every group had detectable drug levels.

267
00:49:33.840 --> 00:49:45.630
RAIJ: So, unfortunately, the prep studies and women have really been thwarted by this issue of low adherence, but we do still think that tgf FTC when when taken appropriately can reduce HIV and women.

268
00:49:46.890 --> 00:49:53.190
RAIJ: And then, in terms of data for people who inject drugs, we have our bank auction off your study this was.

269
00:49:53.700 --> 00:50:01.770
RAIJ: Supported by the CDC it was a phase two three randomized double blind placebo controlled study and there were 2400 participants.

270
00:50:02.220 --> 00:50:09.930
RAIJ: People also received access to addiction support services methadone programs bleach for cleaning needles condoms and primary care medical services.

271
00:50:10.320 --> 00:50:21.960
RAIJ: And there was a relative risk reduction of 49% when you looked just that people who had detectable tgf levels, the relative risk reduction was 70% and that's often the number that cited, when we talk about how.

272
00:50:22.320 --> 00:50:25.830
RAIJ: prep can reduce the incidence of HIV among people who inject drugs.

273
00:50:26.370 --> 00:50:31.350
RAIJ: I think this is important, especially for Jen MED, that we should consider prep for people who inject drugs.

274
00:50:31.650 --> 00:50:37.830
RAIJ: Think, often on Jen mad when we're meeting people with substance use related infections they'll tell us i'm never going to inject again.

275
00:50:38.610 --> 00:50:45.720
RAIJ: We you know, unfortunately, a lot of them do come back to the hospital with infections, and so we know that's not true, so I think if we can maintain.

276
00:50:46.170 --> 00:50:52.680
RAIJ: Just open lines of communication about what prep is and maybe set people up to see a PCP who would be willing to prescribe prep.

277
00:50:53.010 --> 00:51:03.150
RAIJ: It might be something that's hard to prescribe an Inpatient setting, but we should at least probably start the conversation and do a warm handoff to a PCP you can continue the conversation.

278
00:51:04.980 --> 00:51:07.110

RAIJ: So we can help prevent HIV in this area.

279
00:51:08.760 --> 00:51:15.420
RAIJ: A lot of times, people are very worried about how will my patient pay for prep So there are a lot of programs that help people pay for prep so.

280
00:51:16.080 --> 00:51:31.980
RAIJ: there's this in within the ending HIV epidemic there's this ready set prep program there's also a lot of pharmaceutical assistance programs so actually paying for prep itself usually is not a barrier for our patients once someone knows about it and wants to take it.

281
00:51:33.420 --> 00:51:38.940
RAIJ: So when we think about this model that i've shown you before about some of our other research, when we talk about prep.

282
00:51:39.330 --> 00:51:47.490
RAIJ: We don't have the Ryan white HIV, AIDS program because that's for people who have HIV, but we do have this ending the HIV epidemic initiative already set prep.

283
00:51:47.880 --> 00:51:57.600
RAIJ: And so, a lot of the ways that we investigate, you know how do people living with HIV get their medication and get good care we can think about that for people who are at risk for HIV so.

284
00:51:59.220 --> 00:52:07.140
RAIJ: This really prep was not on my radar or something that I studied until about two years ago, when a partner at a nonprofit who was very interested in prep.

285
00:52:07.590 --> 00:52:15.060
RAIJ: said, well, I know you have all that health insurance data why don't we look at like what's going on with prep and how our insurance companies, covering it.

286
00:52:15.600 --> 00:52:28.740
RAIJ: So we looked at almost 17,000 as a qualified health plans, these were all the qualified health plans that were on the market in 2019 across the entire United States and we looked at prior authorization for PDF FTC by region.

287
00:52:30.330 --> 00:52:31.680
RAIJ: I still remember when the student.

288
00:52:32.160 --> 00:52:40.410
RAIJ: Doing this code came to my office and knocked on the door, because they thought that they must have done something wrong in the coding, but unfortunately they did the coding correct, and this is the correct data.

289
00:52:40.830 --> 00:52:52.230
RAIJ: That only 2% of qh peas in the northeast require prior authorization 6% in the West 13% in the Midwest but 37% in the south, so we found a 16 time.

290
00:52:52.890 --> 00:53:03.090
RAIJ: You know 16 times as many qh PS would have these this prior authorization for TD FTC in the south and why does that matter you guys have filled out prior authorizations are huge pain in the butt.

291
00:53:03.390 --> 00:53:12.420
RAIJ: oftentimes we don't even know that we need to do it until the patient goes to the goes to the pharmacy tries to pick up the medication and gets turned away there, so it causes a it's a huge barrier.

292
00:53:13.620 --> 00:53:18.660
RAIJ: And we don't know kind of how often does this affect people actually picking up prep and things like that, but.

293
00:53:19.170 --> 00:53:25.440
RAIJ: kind of any of these sorts of barriers that we want to get rid of, and whenever there's a disparity in a barrier barrier, we always want to ask why.

294
00:53:26.130 --> 00:53:34.890
RAIJ: So we tried to see are there other plan characteristics that like explain this so we looked at whether like it was a national issue or versus a regional issue issue.

295
00:53:35.130 --> 00:53:44.460
RAIJ: Whether it was associated with high deductible or cost sharing structure or the specialty drug tier status or the plan level or their ministry or the competition.

296
00:53:44.940 --> 00:53:52.170
RAIJ: And we actually we didn't find anything that truly explained it nothing, nothing explained why we had this more in the south.

297
00:53:52.500 --> 00:53:59.790

RAIJ: But we did find that national issuers were actually more likely to require prior authorization for qh peas in the south, compared with their qh fees and other regions.

298
00:54:00.030 --> 00:54:09.120
RAIJ: So if i'm company a and I have a plan in the northeast and I have a plan in a South i'm proactively on purpose deciding to do something different, in the south, so there's something going on.

299
00:54:10.860 --> 00:54:14.940
RAIJ: You know this PDF FTC prior authorization is an example of structural racism.

300
00:54:15.330 --> 00:54:26.730
RAIJ: More than half of black Americans live in the south, so they're more likely to face this barrier there already disparities in HIV acquisition and policies, the impact access to prep will perpetuate or even worse than the racial disparities.

301
00:54:27.270 --> 00:54:34.830
RAIJ: And as we talked about earlier, the CDC has said that lifetime risk of acquiring HIV for black men is one in 20 and for black women is one in 48.

302
00:54:35.130 --> 00:54:42.780
RAIJ: And while this issue with prior authorization you can't be blamed for all of that, it certainly is not helping us as we're trying to turn the tide against HIV.

303
00:54:44.250 --> 00:54:53.520
RAIJ: We also then wanted to look down by like rating area and try to understand your rating areas, the area you're in when you buy health insurance, and so we wanted to understand.

304
00:54:53.850 --> 00:55:00.300
RAIJ: Okay, it seems to be worse in the south, but then you know what happens when we look state by state, and we did find that there are.

305
00:55:01.020 --> 00:55:06.750
RAIJ: You know, states that stand out as maybe having this as more of an issue, one of the issues is that.

306
00:55:07.380 --> 00:55:12.870
RAIJ: As part of the affordable care act, there are checks done on discriminatory benefit design.

307
00:55:13.140 --> 00:55:22.230

RAIJ: But they're all done within a state so you're never comparing state a State be and you're never comparing like a state in a south to stay in the northeast or.

308
00:55:22.470 --> 00:55:28.710
RAIJ: A state in the South to what's the national picture, and I think that that's probably you know, we think the affordable care act is protecting us.

309
00:55:29.340 --> 00:55:35.700
RAIJ: But really they're probably needs to be more teeth and some of the regulation to actually get it some of this discriminatory benefits design and.

310
00:55:36.060 --> 00:55:45.720
RAIJ: and get it where it's affecting people, you know, this is just for prep i'm sure if you looked at this for insulin or hypertension medications you probably would see similar issues.

311
00:55:46.740 --> 00:55:56.430
RAIJ: So what kinds of policy changes could help ending the HIV epidemic in this state in this sort of issue, so the Federal Government or the state government could categorize prep as an urgent medication.

312
00:55:56.640 --> 00:56:07.680
RAIJ: So that insurance companies have to respond to the prior authorization request in a certain amount of time, so right now there are some states that have regulation around this where you certain drugs, you have to respond within 48 hours.

313
00:56:08.490 --> 00:56:13.980
RAIJ: The other thing that the Federal Government could do is institute regulations that look for regional or state outliers among.

314
00:56:14.550 --> 00:56:21.210
RAIJ: among their region and then we've also advocated that state insurance regulators, or the Department of Health and human services office of.

315
00:56:21.510 --> 00:56:31.920
RAIJ: Civil Rights should actually examine why the national issuers are putting additional barriers in place for prep in the south and whether this constitutes discriminatory plan design this work has gotten a lot of.

316
00:56:33.450 --> 00:56:39.960

RAIJ: attention from aid service organizations and advocates who use this to kind of, say, we need to make some changes.

317
00:56:41.340 --> 00:56:48.360
RAIJ: We then also decided to look at you know, we had seen that variation by State in terms of qualified health plans requiring prior authorization.

318
00:56:48.660 --> 00:56:59.550
RAIJ: And we wanted to do a calculation of like what is the state level prep uptake, so this is who gets a prep prescription of people that the CDC things are at risk for HIV, and this is from 2014 to 2018.

319
00:57:00.000 --> 00:57:09.210
RAIJ: The top 10 states are colored in green the bottom 10 states are colored in red and kind of the rest of the other states are in black and this is separated by region.

320
00:57:10.470 --> 00:57:18.540
RAIJ: You know, we actually found that, on average, for every 5% of baseline prep usage, you were likely to have another increase in the following year, so.

321
00:57:19.020 --> 00:57:31.950
RAIJ: that's not what you want to see that basically means that disparities, you know state started close together and they're getting further apart the the quick adopting States just continue to have high at high end high uptake and the low states are not catching up.

322
00:57:33.000 --> 00:57:36.720
RAIJ: You know the disparities between the high uptake in the low uptake states is increasing.

323
00:57:38.250 --> 00:57:41.070
RAIJ: You know this was a brief, this is a brief report that's impressed.

324
00:57:41.430 --> 00:57:50.520
RAIJ: And we've tried to think about what could be some of the differences in uptake so some of the states that have this like exponential growth, we think that social networks and pure effects are doing that.

325
00:57:51.000 --> 00:57:57.480
RAIJ: We think there is geographic variability in the veil and the availability of prep clinics or clinicians will prescribe prep.

326
00:57:57.810 --> 00:58:05.730
RAIJ: We know that medicaid expansion has been found to be associated with higher prep uptake we do think that our previous work on prior authorizations maybe playing a role.

327
00:58:06.180 --> 00:58:13.320
RAIJ: there's also some exciting Tele prep programs going on, especially in like iowa, which is a Midwest state that actually kind of.

328
00:58:13.860 --> 00:58:22.380
RAIJ: At the top of their group, and then there are people come up with these prep drug assistance programs, which are similar to the AIDS drug assistance programs, and here you can see a map.

329
00:58:22.830 --> 00:58:27.990
RAIJ: shading some of the colors that do have either partial prep assistance programs or full prep assistance programs.

330
00:58:28.470 --> 00:58:39.210
RAIJ: And a lot of this work has been done by two now graduated masters students Sam powers and Christmas era camps so i'd like to give them a shout out for all their work on this.

331
00:58:41.040 --> 00:58:49.260
RAIJ: And then you know, so we think you know some States are doing well with prep and maybe some States are lagging behind, but we know that now coven 19.

332
00:58:49.950 --> 00:58:57.600
RAIJ: has had an impact on prep uptake so unfortunately we we've seen declines in the number of prep prescriptions, as well as the new prep users.

333
00:58:58.020 --> 00:59:10.440
RAIJ: So it will be something we'll have to keep an eye on this was just presented at virtual Of course this spring we'll have to see what happens with this and whether this impacts new HIV cases or not.

334
00:59:11.670 --> 00:59:15.990
RAIJ: So we're coming to the end, there are basically three take home points i'd like you.

335
00:59:16.980 --> 00:59:25.200
RAIJ: To leave with today, so you equals you when a person with HIV has sustained viral suppression, they cannot transmit HIV sexually spread the word.

336
00:59:25.860 --> 00:59:33.690
RAIJ: prep there is a pill that can prevent HIV and clinicians in the south, need to be thinking about prescribing prep, especially for black and Hispanic men who have sex with men.

337
00:59:34.200 --> 00:59:41.130
RAIJ: And lastly, there's a specific there are specific policy actions that federal government or state government could take to help and the HIV epidemic.

338
00:59:41.550 --> 00:59:53.670
RAIJ: I think just by throwing money at it, it might not be enough, we need to be thinking about you know aligning our policies to also get the outcomes that we want and with that Thank you and i'll take any questions.

339
01:00:03.060 --> 01:00:04.740
RAIJ: it's going to unmute themselves.

340
01:00:07.800 --> 01:00:10.350
RAIJ: Any questions in the room, Dr mcmanus.

341
01:00:21.330 --> 01:00:22.440
RAIJ: I think that the.

342
01:00:23.700 --> 01:00:35.610
RAIJ: The ending of HIV epidemic initiative, which was introduced under President trump has been pretty bipartisan, I think, maybe we'll see some bolstering of some of it, and maybe like some revamping of aspects of it.

343
01:00:36.900 --> 01:00:45.690
RAIJ: But it actually is a pretty exciting program, so I hope it continues and maybe maybe take some of our suggestions and and get some of the health policies in line.

344
01:00:57.690 --> 01:00:58.200
RAIJ: yeah.

345
01:00:59.430 --> 01:01:08.250
RAIJ: Oh that's very nice um I would say yeah I think that, just like reading more about health policy, I think, is really important, and.

346
01:01:08.910 --> 01:01:16.440
RAIJ: Really, the way I stumbled into this was reading about I was in carolyn engelhard health policy class during my masters in clinical research and.

347
01:01:16.800 --> 01:01:24.600
RAIJ: read about these as drug assistance programs in White Papers like just like blogs and reports that people put out but they weren't in the literature.

348
01:01:24.930 --> 01:01:36.000
RAIJ: I was wondering why this massive $3 billion programmers be ignored, and so realize that the fact that it wasn't being studied was actually an opportunity to kind of dive into that so.

349
01:01:36.330 --> 01:01:44.370
RAIJ: I think like following your curiosities and if you are interested in something like continue to to follow it, and ask patients about their experiences.

350
01:01:45.300 --> 01:01:54.510
RAIJ: In clinic I hear things every week that relate to the to the research we're doing and get ideas or hypotheses about what we can do to make things better.

351
01:01:56.730 --> 01:01:56.940
RAIJ: yeah.

352
01:02:17.910 --> 01:02:18.240
RAIJ: yeah.

353
01:02:20.760 --> 01:02:28.440
RAIJ: that's a good question I don't think it was an abstract so we can't dive into it as much with like hopefully when they published the paper we'll see, but that would be a great.

354
01:02:28.680 --> 01:02:40.830
RAIJ: suggestion that they compare it to other medications because, like you said everything's going to be down, although I think the one thing with HIV is that if you don't take your blood pressure medication it's going to impact you, but if you don't.

355
01:02:41.970 --> 01:02:47.040
RAIJ: You don't take crap and you get HIV and you can do to have sex has public health implications so.

356
01:02:50.190 --> 01:02:50.790
RAIJ: yeah.

357
01:02:51.900 --> 01:02:52.530
RAIJ: yeah.

358
01:02:57.720 --> 01:02:59.220
RAIJ: provider relationship.

359
01:03:00.720 --> 01:03:05.550
RAIJ: yeah I think the other thing with prep is like it's possible that people were just not having sex and so they didn't need prep.

360
01:03:05.970 --> 01:03:15.240
RAIJ: So that's The other thing I think will be interesting to see like Okay, we see this reduction, but do we see increases in HIV cases or people knew they weren't at risk they didn't need to take the medicine.

361
01:03:17.310 --> 01:03:20.010
RAIJ: there's one question in the chat okay mm hmm.

362
01:03:22.020 --> 01:03:24.750
RAIJ: Which new policy change do I think will have the most benefit.

363
01:03:26.910 --> 01:03:33.750
RAIJ: I think that if we could get the answer assistance programs to actually kind of all moving the same direction.

364
01:03:34.260 --> 01:03:43.140
RAIJ: That would be very powerful you know we've seen and now in three different states that the power of these aids drug assistance programs buying insurance for people.

365
01:03:43.470 --> 01:03:46.410
RAIJ: I mean you can imagine, if you have HIV and you don't have insurance.

366
01:03:46.830 --> 01:03:53.640

RAIJ: You can't get a colonoscopy you can't you can't go see that cardiologist you can get your HIV care because you can come to our Ryan white clinic.

367
01:03:53.940 --> 01:04:09.450
RAIJ: But you can't get comprehensive care, and I think that that probably impacts just the way people are able to engage in their health care, so I think if we could get the AIDS drug assistance programs to take care of more people by expanding their eligibility and.

368
01:04:10.500 --> 01:04:18.540
RAIJ: get more people virally suppressed by getting people health insurance that would go a long way and we've also been told by the CDC that actually.

369
01:04:19.230 --> 01:04:27.540
RAIJ: As we're working to end HIV epidemic that actually getting people with HIV virally suppressed is actually the most cost effective way to end HIV epidemic.

370
01:04:27.840 --> 01:04:37.590
RAIJ: So it's kind of interesting that they're putting so much money into prep when actually maybe some of that money should be shifted into care of people living with HIV, so we can help people get virally suppressed.

371
01:04:43.290 --> 01:04:51.690
RAIJ: Okay, a long question towards the beginning of your presentation, you spoke about the effect of higher rates of patients who have had undetectable viral load in 2014.

372
01:04:52.020 --> 01:05:03.570
RAIJ: And 2015 after our switchover was the year over year rate of HIV in the State of Virginia during this time I looked at, I asked this because there could be a fall off, that is, you could be looking at new population of patients.

373
01:05:03.960 --> 01:05:08.940
RAIJ: were some of the sicker ones were lost to follow up and skewed the data, so we.

374
01:05:11.040 --> 01:05:17.550
RAIJ: You have people could have fallen, we could have had people kind of since we're looking at the AIDS drug assistance Program.

375
01:05:18.390 --> 01:05:26.730

RAIJ: There are people do have to do certifications and people do have to stay eligible for the program, so it is possible that we were looking at.

376
01:05:27.720 --> 01:05:37.770
RAIJ: Different people in our year one versus our Year to study, but then in we at least kept the number of people constant for two years.

377
01:05:38.460 --> 01:05:51.150
RAIJ: So, if someone was on a drug assistance program for those two years they were accounted for, so there is some turn in the program, but we do try to at least say you have to be in the program for two years.

378
01:05:52.230 --> 01:05:59.700
RAIJ: But I think if we're looking at things over a longer period of time and we allow people to move in and out of the cohort that probably would be have a bigger effect.

379
01:06:07.890 --> 01:06:09.240
RAIJ: Thanks everybody for attending.

380
01:06:14.070 --> 01:06:14.310
Thanks.